



# Media Literacy *and* Academic Research

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## About the Journal

Media Literacy and Academic Research is a scientific journal focused on the academic reflection of media and information literacy issues, media education, critical thinking, digital media and new trends in related areas of media and communication studies. The journal is devoted to addressing contemporary issues and future developments related to the interdisciplinary academic discussion, the results of empirical research and the mutual interaction of expertise in media and information studies, media education as well as their sociological, psychological, political, linguistic and technological aspects.

Media Literacy and Academic Research is a double-blind peer-reviewed journal published twice a year. The journal is international and interdisciplinary, inviting contributions from across the globe and from various academic disciplines of social sciences. It focuses on theoretical and empirical studies, research results, as well as papers related to the new trends, practices and other academic research areas. Also encouraged are literature reviews, innovative initiatives, best practices in online teaching, institutional policies, standards and assessment. The Journal welcomes the submission of manuscripts that meet the general criteria of significance and scientific excellence.

The members of the journal's Editorial Board are members of the European Communication Research and Education Association (ECREA), UNESCO-UNAOC UNITWIN Network for Media and Information Literacy, European Association for Viewers Interests (EAVI), The Slovak EU Kids Online Team, Media Literacy Expert Group and International Association for Media Education.

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David Brooks, a political and cultural commentator who writes for The New York Times, was the first to use the term "Data-ism" in February 2013. In his article, he described the rising tendency of technology corporations to gather and monetise vast amounts of data. At the same time, he drew attention to the efforts of technology companies to reduce our patterns of behaviour, emotions and cognitive biases into a quantifiable form. In 2015, these ideas were further elaborated by his colleague Steve Lohr in the book "Data-ism", where he claims that the revolution of Big data *"can reshape how we see the world and make a decision*

*about it.*" A year later, Yuval Noah Harari, a professor at the Hebrew University of Jerusalem, contributed to this mosaic. In his book *Homo Deus: A Brief History of Tomorrow*, he argues that the biggest problem in our current global civilisation is whether people can realise that they can be manipulated by the ecosystem of digital platforms and its consequences for individuals and society.

The principal capital of technology companies is profile information about users. Our society is framed by a business model that maximises big data profits through algorithmic control of people's preferences. Data-ism is based on scientific knowledge about human behaviour; it is in a new, maximally sophisticated form. These trends create a whole new, virtual dimension to our daily lives and at the same time force individuals to adapt to conditions, opportunities and life challenges that are significantly different from those in which previous generations grew up.

The biggest challenge for media education is to systematically develop a coherent understanding of the current media ecosystem based on highly sophisticated technologies and strategies to gain and retain audience attention. These phenomena significantly affect the ways of socialisation, political culture, democratic principles and the concept of one's own identity. The problem, however, is that we cannot only meet these challenges with media education strategies that we know from the past. It is essential to develop comprehensive solutions based on the latest academic knowledge in behavioural psychology, media studies, critical thinking, and other academic disciplines, to which we provide space in the newest issue of our journal.

Pleasant reading,

**Norbert Vrabec**  
Editor-In-Chief

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*Priscila Berger*

# ICT Use For Teaching Media Literacy: A Closer Look At The Relationships Between Teaching With And Teaching About Media

## **ABSTRACT**

Information and communication technologies (ICTs) are often considered crucial for teaching media and information literacy (MIL). However, there is a wide variety in educational media, and there are different competence areas in MIL. Thus, the idea that using any ICT can facilitate the fostering of different MIL areas equally seems oversimplified. This study investigates associations between three types of ICT use and four MIL competence areas. It analyzes data of 315 secondary teachers in Germany employing exploratory structural equation modeling. After controlling for teacher and school traits, the findings show that teachers who use the computer lab in their schools and basic computer applications tend to foster their students' critical, safety, information, and operational competencies more often. Conversely, using ICTs that mainly serve presentation and visualization purposes has a negative or no association with fostering the four MIL areas. Finally, using mobile devices and online resources is positively associated with fostering students' information competence. The analysis contributes to a more specific understanding of teachers' practices with digital media. Possible implications are discussed for teachers' practice and training as well as for research and policy.

## **KEY WORDS**

Competence areas. Educational media. ICT use. Media and information literacy. Media education. Secondary schools. Teaching practice.

# 1. Introduction

Investments in information and communication technologies (ICTs) tend to be the primary actions of policies for media education. In a comparative study of the media education policies adopted in 28 European countries, Frau-Meigs et al. found out that most of the funding in media education is destined for equipment rather than human resources.<sup>1</sup> In Germany, a recent federal policy called School Digital Pact [*Digitalpakt Schule*] designated funds for schools to invest in digital infrastructure. Through a higher integration of technology, the policy aims to enable schools to prepare youth adequately with the necessary competencies for a skillful, responsible, and critical use of media in a world whose systems and environments become increasingly digital.<sup>2</sup>

Studies have shown positive associations between ICT use for instruction and the fostering of media and digital competencies.<sup>3</sup> However, most studies refer to ICT in general. Thus, the peculiarities of the different technologies and their employment in class are not taken into account. It must be considered that both practices – teaching with and teaching about media – happen in a variety of formats. The range of ICT that can be adopted in education is vast, from computers connected to data projectors to individual tablets and offline and online software, which permit different levels of teacher and student involvement with the technologies. Similarly, the set of competencies that should be taught in the realm of media and information literacy (MIL) is also broad. Nevertheless, so far, little has been discussed about teachers' use of what types of technology are linked to fostering particular competencies.

This study aims to contribute to the discussion about teachers' practice involving media by addressing differences in ICT use in class and the variety of MIL competence areas. Therefore, it analyzes survey data collected from 315 teachers in the federal state of Thuringia, Germany, to investigate the associations between the use of different media for instruction and the fostering of different areas of MIL.

## 2. Digital Media in Teaching Practice

Anderson elucidates that, in principle, ICT includes all technologies for information process and communication. In the educational context, ICT can also be referred to as technology, new media, or digital media, corresponding to “*computer technology, multimedia, and networking, especially the internet.*”<sup>4</sup> Thus, the range of media that can be employed for teaching is vast.

From a medium theory perspective, the particular characteristics of a medium may generate specific impacts when that medium is selected over another. However, the impacts due to the particular characteristics “are susceptible to human intervention”.<sup>5</sup> Based on this, it is possible

<sup>1</sup> FRAU-MEIGS, D., VELEZ, I., MICHEL, J. F.: *Public Policies in Media and Information Literacy in Europe: Cross-Country Comparisons*. London : Routledge, 2017, p. 47.

<sup>2</sup> *Verwaltungsvereinbarung Digitalpakt Schule 2019 bis 2024*. [online]. [2021-07-13]. Available at: <[https://www.digitalpaktsschule.de/files/VV\\_DigitalPaktSchule\\_Web.pdf](https://www.digitalpaktsschule.de/files/VV_DigitalPaktSchule_Web.pdf)>.

<sup>3</sup> See e.g.: HATLEVIK, I. K. R., HATLEVIK, O. E.: Students' Evaluation of Digital Information: The Role Teachers Play and Factors That Influence Variability in Teacher Behaviour. In *Computers in Human Behavior*, 2018, Vol. 83, p. 56-63. [online]. [2021-07-14]. Available at: <<https://oda.oslomet.no/oda-xmlui/handle/10642/7132>>; LORENZ, R., ENDBERG, M., BOS, W.: Predictors of Fostering Students' Computer and Information Literacy – Analysis on a Representative Sample of Secondary School Teachers in Germany. In *Education and Information Technologies*, 2019, Vol. 24, No. 1, p. 911-928. [online]. [2021-07-14]. Available at: <<https://rdcu.be/bKOJH>>; SIDDIQ, F., SCHERER, R., TONDEUR, J.: Teachers' Emphasis on Developing Students' Digital Information and Communication Skills (TEDDICS): A New Construct in 21st Century Education. In *Computers & Education*, 2016, Vol. 92-93, (Supplement C), p. 1-14.

<sup>4</sup> ANDERSON, R. E.: Implications of the Information and Knowledge Society for Education. In VOOGT, J., KNEZEK, G. (eds.): *International Handbook of Information Technology in Primary and Secondary Education*. Berlin, Heidelberg : Springer Science & Business Media, 2008, p. 8.

<sup>5</sup> MEYROWITZ, J.: Medium Theory. In HOBBS, R., MIHAILIDIS, P. (eds.): *The International Encyclopedia of Media Literacy*. Hoboken : Wiley Blackwell, 2019, p. 1117.

to differentiate educational technologies in at least two main aspects: on the one hand, the characteristics of the ICT and the functions it offers, and on the other hand, the purposes for which the ICT is employed in teaching practice, usually determined by the teacher's intervention. For example, interactive or digital whiteboards are tools that offer multimedia and interactive features. Therefore, they differ in their characteristics and functions from normal blackboards and data projectors. However, studies reported that teachers use interactive whiteboards in various ways, including for mere visualization of contents as data projectors.<sup>6</sup>

Considering the first aspect, the characteristics of educational ICT, Wimmer identifies two broad classes of digital media for education in his literature review: educational hardware and concrete services or applications.<sup>7</sup> Karaseva et al. classify the use of hardware in educational settings as input and output technologies. Examples of the former are tablets and desktop computers, and of the latter, projectors and interactive whiteboards.<sup>8</sup> Similarly, Livingstone observes that some technologies can be used exclusively by the teacher to project and transmit content, which she calls one-to-many technologies.<sup>9</sup> In contrast, other resources can facilitate the active use of ICT by students, which Livingstone names peer-to-peer and networked technologies. Concerning software, Papanastasiou and Angeli identify two modalities of computer applications used in teaching practice. The first is denominated common-use software applications and corresponds to spreadsheets, word processing, the internet, e-mail, and presentation software. The second is called specialized software and refers to modelling, concept mapping, authoring, and database software.<sup>10</sup>

Regarding the second aspect, the purposes of using ICT in class, Tondeur et al. differentiate between the development of ICT-related competencies, when computers are the subject of the instruction, and the assimilation of contents of traditional school subjects, when computers are used as an educational tool.<sup>11</sup> Similar dimensions are proposed by Comi et al., who point out the following purposes of teachers' practice with ICT: aiding the presentation of contents in class for knowledge transmission, involving students for them to reach a goal under the supervision of the teacher, and media education for fostering students' media-related skills.<sup>12</sup>

Therefore, the first observation that can be raised is that fostering students' MIL can be one of the several purposes for which teachers employ ICT in class. That is, integrating technology in teaching (i.e., teaching with media) and fostering media-related competence (i.e., teaching about media) might be connected. Nevertheless, the association between these two practices cannot be over-simplified and taken for granted.

<sup>6</sup> See: SLAY, H., SIEBÖRGER, I., HODGKINSON-WILLIAMS, C.: Interactive Whiteboards: Real Beauty or Just "Lipstick"? In *Computers & Education*, 2008, Vol. 5, No. 3, p. 1321-1341.; NORTHCOTE, M. et al.: Interactive Whiteboards: Interactive Or Just Whiteboards? In *Australasian Journal of Educational Technology*, 2010, Vol. 26, No. 4, p. 494-510.

<sup>7</sup> See: WIMMER, J.: Potential digitaler Bildungsmedien: Ein Überblick über Forschung, Lernformen und Trends. In *TeleviZion*, 2017, Vol. 30, No. 1, p. 9-15.

<sup>8</sup> KARASEVA, A., SIIBAK, A., PRUULMANN-VENGERFELDT, P.: Relationships Between Teachers' Pedagogical Beliefs, Subject Cultures, and Mediation Practices of Students' Use of Digital Technology. In *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 2015, Vol. 9, No. 1. No pagination. [online]. [2021-07-14]. Available at: <<https://cyberpsychology.eu/article/view/4331/3394>>.

<sup>9</sup> See: LIVINGSTONE, S.: Critical Reflections on the Benefits of ICT in Education. In *Oxford Review of Education*, 2012, Vol. 38, No. 1, p. 9-24. [online]. [2021-07-14]. Available at: <[https://www.researchgate.net/publication/232939736\\_Critical\\_Reflections\\_on\\_the\\_Benefits\\_of\\_ICT\\_in\\_Education](https://www.researchgate.net/publication/232939736_Critical_Reflections_on_the_Benefits_of_ICT_in_Education)>.

<sup>10</sup> See: PAPANASTASIOU, E. C., ANGELI, C.: Evaluating the Use of ICT in Education: Psychometric Properties of the Survey of Factors Affecting Teachers Teaching with Technology (SFA-T3). In *Journal of Educational Technology & Society*, 2008, Vol. 11, No. 1, p. 69-86.

<sup>11</sup> See: TONDEUR, J., VAN BRAAK, J., VALCKE, M.: Towards a Typology of Computer Use in Primary Education. In *Journal of Computer Assisted Learning*, 2007, Vol. 23, No. 3, p. 197-206. [online]. [2021-07-14]. Available at: <[https://www.researchgate.net/publication/227733657\\_Towards\\_a\\_typology\\_of\\_computer\\_use\\_in\\_primary\\_education](https://www.researchgate.net/publication/227733657_Towards_a_typology_of_computer_use_in_primary_education)>.

<sup>12</sup> See: COMI, S. L. et al.: Is It the Way They Use It? Teachers, ICT and Student Achievement. In *Economics of Education Review*, 2017, Vol. 56, p. 24-39.

Moreover, as much as there are several types of educational media, various competencies are classified in different areas of MIL that can be involved in school media education curricula. Frau-Meigs et al. observe that in Europe, most media-related policies have a composite definition, referring to information literacy, computer literacy, and digital literacy.<sup>13</sup> These different concepts of media-related literacies tend to emphasize specific competencies. For instance, media literacy frequently accentuates critical thinking about media content; information literacy prioritizes searching and processing information, while digital, ICT, and computer literacies tend to focus on the operation of technologies.<sup>14</sup>

With the access and distribution of information and media content occurring currently via various digital tools, it becomes increasingly more challenging to separate the domains of media, ICT, and information. Therefore, UNESCO pleads for a comprehensive understanding of media and related literacies under the concept of MIL.<sup>15</sup> The “Paris Declaration on MIL in the Digital Era” highlights three broad MIL competence areas: critical thinking and reflecting media and information systems, using information, media and digital technology for individual and societal purposes, and handling of media, the latter referring to operational and production skills.<sup>16</sup> Buckingham highlights similar competence areas that can be identified in most media-related literacies frameworks.<sup>17</sup> He defines critical competencies as evaluating the contents, underlying formats, interests, and effects of media products, and operational competencies as performing particular tasks with technologies. However, different from the Paris Declaration, instead of referring to usage competencies, Buckingham is more specific and points out the competence areas of safety and information. The first refers to capabilities of protecting oneself against content and practices that can be harmful, and the second corresponds to abilities in searching for information, identifying relevant content, and assessing its attributes.

Hence, the second observation about teaching practices with media is that there is diversity in the ICT used for instruction and in the media-related competencies that can be fostered. Livingstone points out the problem that much literature about technology in teaching practice summarizes its diversity simply under “ICT,” which makes it “*difficult to distinguish which aspects of technologically-mediated learning, if any, are effective in any particular situation.*”<sup>18</sup> Consequently, it is rarely discussed what technologies are meaningful for specific MIL competencies. Anderson makes a few suggestions in this direction, stating that search engines can promote skills in accessing, assembling and reorganizing information, groupware can develop collaboration and teamwork skills, and presentation programs can be employed for fostering communication and presentation skills.<sup>19</sup> Nonetheless, Pötzsch argues that ICT does not necessarily need to be used in class for conducting activities with students that aim

<sup>13</sup> FRAU-MEIGS, D., VELEZ, I., MICHEL, J. F.: *Public Policies in Media and Information Literacy in Europe: Cross-country Comparisons*. London : Routledge, 2017, p. 30.

<sup>14</sup> HOBBS, R.: *Digital and Media Literacy: A Plan of Action*. [online]. [2021-07-14]. Available at: <<http://mediaeducationlab.com/digital-and-media-literacy-plan-action>>; *Global Media and Information Literacy Assessment Framework: Country Readiness and Competencies*. Paris : UNESCO, 2013. [online]. [2021-07-14]. Available at: <[https://unesdoc.unesco.org/ark:/48223/pf0000224655\\_eng](https://unesdoc.unesco.org/ark:/48223/pf0000224655_eng)>.

<sup>15</sup> *Global Media and Information Literacy Assessment Framework: Country Readiness and Competencies*. Paris : UNESCO, 2013. [online]. [2021-07-14]. Available at: <[https://unesdoc.unesco.org/ark:/48223/pf0000224655\\_eng](https://unesdoc.unesco.org/ark:/48223/pf0000224655_eng)>.

<sup>16</sup> *Paris Declaration on Media and Information Literacy in the Digital Era*. [online]. [2021-07-14]. Available at: <[www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/In\\_Focus/paris\\_mil\\_declaration\\_final.pdf](http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/In_Focus/paris_mil_declaration_final.pdf)>.

<sup>17</sup> See: BUCKINGHAM, D.: Defining Digital Literacy – What Do Young People Need to Know About Digital Media? In *Nordic Journal of Digital Literacy*, 2006, Vol. 1, No. 4, p. 263-277.

<sup>18</sup> LIVINGSTONE, S.: Critical Reflections on the Benefits of ICT in Education. In *Oxford Review of Education*, 2012, Vol. 38, No. 1, p. 6.

<sup>19</sup> See: ANDERSON, R. E.: Implications of the Information and Knowledge Society for Education. In VOOGT, J., KNEZEK, G. (eds.): *International Handbook of Information Technology in Primary and Secondary Education*, Berlin, Heidelberg: Springer Science & Business Media, 2008, p. 5-22.

to develop reflective and critical attitudes to media and technologies.<sup>20</sup> Pötzsch points out that traditional humanities subjects can well accommodate activities that encourage reflection and promote discussions about power, political use, data activism and surveillance, among other topics. Thus, looking at the use of specific ICT and differentiating between MIL competence areas can offer further insights on whether and how the characteristics of particular ICT can contribute to the fostering of specific skills.

### 3. Associations Between Teaching with and Teaching about Media

Frequently, the association between teaching with and about media appears in arguments that teaching with ICT is necessary for promoting students' media and technology-related skills for life and work in the 21<sup>st</sup>-century.<sup>21</sup> However, in research, this relationship has not been widely investigated. The International Computer and Information Literacy Study (ICILS) is probably the most comprehensive study that collects international data about school ICT use and types of media-related literacy, namely computer and information literacy (CIL). Gerick et al. analyzed ICILS 2013 data from Australia, the Czech Republic, Germany, and Norway. They found that only for Germany did a small positive association between ICT use for teaching and students' CIL level exist. For the other three countries, no associations were found.<sup>22</sup> The ICILS 2018 reports positive associations between student use of ICT during class and CIL levels in five out of 10 countries.<sup>23</sup>

Focusing on teachers' practices, the ICILS 2018 estimated a regression model to predict teacher emphasis on developing students' CIL, finding out teachers' experience with using ICT in class, perception of positive outcomes of using ICT in class, ICT self-efficacy, and collaboration between teachers as significant positive predictors in all participant countries.<sup>24</sup> In addition, a few studies worked with more complex models that tested the relationships between ICT use and teaching MIL and included predictors of both practices. Examples of such studies are the analyses of ICILS 2013 data of Norwegian teachers conducted by Hatlevik and Hatlevik<sup>25</sup> and Siddiq et al.<sup>26</sup> and a representative study with secondary teachers in Germany by Lorenz

<sup>20</sup> See: PÖTZSCH, H.: Critical Digital Literacy: Technology in Education beyond Issues of User Competence and Labour-market Qualifications. In *TripleC Journal for a Global Sustainable Information Society*, 2019, Vol. 17, No. 2, p. 221-240. [online]. [2021-07-14]. Available at: <<https://www.triple-c.at/index.php/tripleC/article/view/1093/1296>>.

<sup>21</sup> See: CHARALAMBIDIS, D.: ICT in the Future Classrooms and Teaching: Preparing the Knowledge Workers of the 21st Century. In ILIADIS, L. et al. (eds.): *Artificial Intelligence Applications and Innovations*. Berlin, Heidelberg : Springer, 2014, p. 56-62.; LEWIN, C., MCNICOL, S.: Supporting the Development of 21st Century Skills through ICT. In BRINDA, T. et al. (eds.): *KEYCIT 2014 – Key Competencies in Informatics and ICT*. Potsdam : Universitätsverlag Potsdam, 2015, p. 181-198. [online]. [2021-07-14]. Available at: <[https://publishup.uni-potsdam.de/opus4-ubp/frontdoor/deliver/index/docId/8267/file/cid07\\_S181-198.pdf](https://publishup.uni-potsdam.de/opus4-ubp/frontdoor/deliver/index/docId/8267/file/cid07_S181-198.pdf)>.

<sup>22</sup> GERICK, J., EICKELMANN, B., BOS, W.: School-level Predictors for the Use of ICT in Schools and Students' CIL in International Comparison. In *Large-Scale Assessments in Education*, 2017, Vol. 5, No. 1, Article 5. [online]. [2021-07-14]. Available at: <<https://largescaleassessmentsineducation.springeropen.com/articles/10.1186/s40536-017-0037-7>>.

<sup>23</sup> See: FRAILLON, J. et al.: *Preparing for Life in a Digital World: IEA International Computer and Information Literacy Study 2018 International Report*. Berlin, Heidelberg : Springer, 2020, 297 p. [online]. [2021-07-14]. Available at: <<https://link.springer.com/book/10.1007%2F978-3-030-38781-5>>.

<sup>24</sup> Ibidem.

<sup>25</sup> See: HATLEVIK, I. K. R., HATLEVIK, O. E.: Students' Evaluation of Digital Information: The Role Teachers Play and Factors that Influence Variability in Teacher Behaviour. In *Computers in Human Behavior*, 2018, Vol. 83, p. 56-63. [online]. [2021-07-14]. Available at: <<https://oda.oslomet.no/oda-xmlui/handle/10642/7132>>.

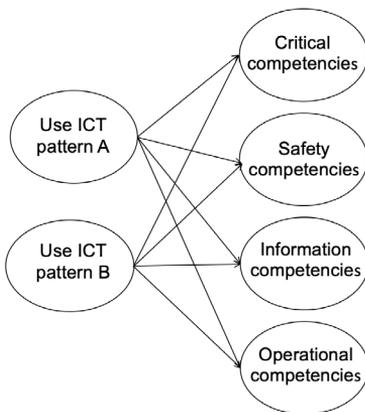
<sup>26</sup> See: SIDDIQ, F., SCHERER, R., TONDEUR, J.: Teachers' Emphasis on Developing Students' Digital Information and Communication Skills (TEDDICS): A New Construct in 21st Century Education. In *Computers & Education*, 2016, Vol. 92-93, (Supplement C), p. 1-14.

et al.<sup>27</sup> The three studies found a positive association between teachers' use of technology in class and their efforts to develop students' digital skills. In addition, feeling prepared to use ICT,<sup>28</sup> satisfaction with school ICT equipment, and ICT-related collaboration among teachers<sup>29</sup> were found to positively predict both using ICT for instruction and fostering students' digital information competencies.

As the studies refer to ICT use in general and focus on single areas of competence, identifying different ICTs and competence areas can expand the understanding of the relationships between teachers' practices with media even though it makes the model more complex. The goal is to explore to what extent the use of particular technologies is associated with fostering different competence areas. Thus, the study considers the plurality of ICT that teachers use in their practice and different competence areas covered in MIL frameworks. The first research question is specified as:

*RQ1: To what extent does the use of particular types of ICT for instruction associate with the practice of fostering different areas of media-related competencies?*

Therefore, this study verifies the different patterns of ICT use in the sample and tests their associations with the teachers' engagement in fostering four MIL competence areas: critical competencies, safety competencies, information competencies, and operational competencies.



**PICTURE 1:** Research mode question 1

Source: Author's model, own processing, 2021

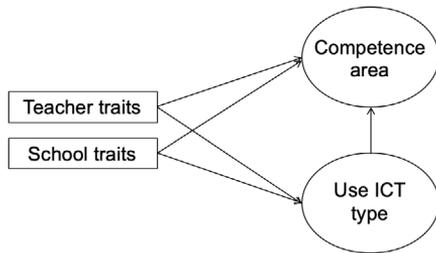
Besides considering the relationships between different types of ICT use and different media competence areas, the model accounts for school and teacher traits that might influence both practices. Thus, the second research question is:

<sup>27</sup> See: LORENZ, R., ENDBERG, M., BOS, W.: Predictors of Fostering Students' Computer and Information Literacy – Analysis Based on a Representative Sample of Secondary School Teachers in Germany. In *Education and Information Technologies*, 2019, Vol. 24, No. 1, p. 911-928. [online]. [2021-07-14]. Available at: <<https://rdcu.be/bKOJH>>.

<sup>28</sup> See: HATLEVIK, I. K. R., HATLEVIK, O. E.: Students' Evaluation of Digital Information: The Role Teachers Play and Factors that Influence Variability in Teacher Behaviour. *Computers in Human Behavior*, 2018, Vol. 83, p. 56-63. [online]. [2021-07-14]. Available at: <<https://oda.oslomet.no/oda-xmlui/handle/10642/7132>>; SIDDIQ, F., SCHERER, R., TONDEUR, J.: Teachers' Emphasis on Developing Students' Digital Information and Communication Skills (TEDDICS): A New Construct in 21st Century Education. In *Computers & Education*, 2016, Vol. 92-93, (Supplement C), p. 1-14.

<sup>29</sup> See: LORENZ, R., ENDBERG, M., BOS, W.: Predictors of Fostering Students' Computer and Information Literacy – Analysis Based on a Representative Sample of Secondary School Teachers in Germany. In *Education and Information Technologies*, 2019, Vol. 24, No. 1, p. 911-928. [online]. [2021-07-14]. Available at: <<https://rdcu.be/bKOJH>>.

RQ2: How conditioned are the associations between teacher use of ICTs for instruction and their efforts in teaching MIL to school and teacher traits?



PICTURE 2: Research mode question 2

Source: Author's model, own processing, 2021

## 4. Methods

The proposed model is tested with data collected in a survey with secondary school teachers conducted in Thuringia, Germany, in the summer of 2017. Of 448 secondary schools, 88 (corresponding to circa 2,700 teachers) were randomly selected to participate in the study. The school principals of the selected schools were contacted and asked to distribute the questionnaire among the teachers. Teachers could answer the survey either online or on paper, as printed copies of the questionnaire were sent to the schools together with a pre-stamped return envelope. The final sample consists of 315 teachers who completed the survey (60% on paper), corresponding to a response rate of 12%. The majority of participants are female (72%). The age groups between 45 and 54 years and 55 years or older are the most represented in the sample (37% each). These characteristics were similar to the teacher population in Thuringia for the school year 2017/2018.<sup>30</sup>

### 4.1 Measures

ICT use was measured with a question about how often teachers use a set of 12 ICTs for instruction in their classes on a scale from 1 = never to 5 = several times a week. From the 12 ICTs, four correspond to hardware (computer lab, students' mobile devices, data projector, and interactive whiteboard). The remaining eight consist of software and applications. The items are displayed in Table 1.

Fostering students' MIL was measured by asking survey participants how often they conducted activities in class that aimed to foster several competencies listed in the media literacy plan for secondary schools of Thuringia.<sup>31</sup> The answer options were displayed on a 5-point scale ranging from 1 = never to 5 = very often. Table 2 displays the items that correspond to each of the four competence areas: critical, safety, information, and operational.

As for teacher traits, participants were asked whether they received in- or pre-service training regarding using ICT for instruction, teaching students to use ICT, and teaching students to reflect critically about media use. The value 1 indicates that the teacher received formal training in at least one of the topics, and 0 that the teacher has not received formal training in any of the

<sup>30</sup> *Statistisches Informationssystem Bildung: Personal nach Alter und Durchschnittsalter.* [online]. [2021-07-14]. Available at: <<http://www.schulstatistik-thueringen.de/?link=Allgemeines~Neue%20Berichte%20und%20Daten>>.

<sup>31</sup> *Durchführung des Kurses Medienkunde an den Thüringer allgemeinbildenden weiterführenden und berufsbildenden Schulen.* [online]. [2021-07-14]. Available at: <[https://www.schulportal-thueringen.de/tip/resources/medien/9213?dateiname=+Medienkunde2010\\_komplett.pdf](https://www.schulportal-thueringen.de/tip/resources/medien/9213?dateiname=+Medienkunde2010_komplett.pdf)>.

issues (53% received formal training). Moreover, teachers were asked whether they learned through collaboration with other teachers about using ICT for instruction, teaching students to use ICT, and teaching students to reflect critically about media use. Response options were 1 = yes or 0 = no, where 1 indicates that the teacher collaborated with colleagues in relation to at least one of the topics and 0 that the teacher has not engaged in collaboration in any of the issues (55% engaged in collaboration). Finally, a binary variable differentiates the participants who teach Natural Sciences, Physics, Mathematics, Chemistry, Informatics, or Biology (value = 1) from the teachers who do not teach any of these subjects (47% teach STEM subjects).

Item	Description/ Examples	Mean (SD)
Data projector	The technology is usually paired with a desktop computer, laptop, or tablet used by the teacher to present content.	3.56 (1.38)
Computer laboratory	A room in the school that is equipped with stationary computers for students' use. Depending on the number of students, computers might be used either by one or several students at a time.	2.96 (1.28)
Mobile devices	Laptops, tablets, or smartphones for individual student use.	2.71 (1.41)
Interactive whiteboard	The technology is usually paired with a desktop computer, laptop, or tablet used by the teacher.	2.55 (1.57)
Search engines	e.g., Google, Ecosia, Bing	3.44 (1.23)
Presentation program	e.g., Microsoft PowerPoint, Prezi	3.07 (1.21)
Websites	Diverse webpages accessed for class activities	2.96 (1.25)
Text editing program	e.g., Microsoft Word, Google Docs	2.94 (1.30)
Online videos	e.g., YouTube, Vimeo	2.77 (1.10)
Learning program	e.g., Programs or applications that aid the teaching and learning of specific school subjects	2.41 (1.13)
Spreadsheet program	e.g., Microsoft Excel, Google Sheets	2.19 (1.28)
Online communication applications	e.g., E-mail service, WhatsApp, Facebook	2.12 (1.33)

**TABLE 1:** Measure items of ICT use

Source: own processing, 2021<sup>32</sup>

Regarding the school's traits, respondents were asked how they evaluated the ICT equipment available in their schools, on a scale from 1 = not available to 6 = very good. The items evaluated were the quantity of hardware available, quality of hardware available, quality of software available, access to the internet in the dependencies of school, speed, and quality of the connection. The items were averaged to build a composite scale of satisfaction with ICT equipment available in the school ( $\alpha = 0.88$ ,  $M = 2.81$ ,  $SD = 0.89$ ). Additionally, the type of school is identified in a binary variable indicating 1 = teachers who work in a Gymnasium and 0 = teachers who work in other kinds of schools (36% work in a Gymnasium).

<sup>32</sup> Note: Besides the twelve items above, teachers could inform about whether they use other media regularly in their classes. From the entries of this open question, 22 teachers reported using offline media (CDs, DVDs, books, newspapers, magazines). In addition, a few teachers reported using other digital tools, for example online learning platforms such as Google Classroom (four teachers) and specialized applications for programming and simulations (two teachers). This very low frequency of use of advanced digital tools (e.g., simulations software, online collaboration tools, learning management systems) is consistent with findings of the ICILS 2018 for German teachers.; See: DROSSEL, K.: Nutzung digitaler Medien und Prädiktoren aus der Perspektive der Lehrerinnen und Lehrer im internationalen Vergleich. In EICKELMANN, B. et al. (eds.): *ICILS 2018 #Deutschland – Computer- und informationsbezogene Kompetenzen von Schülerinnen und Schülern im zweiten internationalen Vergleich und Kompetenzen im Bereich Computational Thinking*. Münster: Waxmann, 2019, p. 205-240.; FRAILLON, J. et al.: *Preparing for Life in a Digital World: IEA International Computer and Information Literacy Study 2018 International Report*. Berlin, Heidelberg: Springer, 2020, 297 p. [online]. [2021-07-14]. Available at: <<https://link.springer.com/book/10.1007/2F978-3-030-38781-5>>.

Area	Competency	Mean (SD)
Critical	Understanding the influence of media on society.	3.41 (0.91)
Critical	Understanding why different media actors present facts in different ways.	3.07 (1.03)
Critical	Differentiating between advertising and journalistic content.	3.06 (0.97)
Safety	Surfing safely on the internet.	3.36 (1.11)
Safety	Protecting own data and private sphere effectively.	3.30 (1.11)
Safety	Understanding how personal data is gathered and used further when using online media.	3.01 (1.12)
Information	Searching for information effectively.	3.72 (0.94)
Information	Filtering and interpreting information from different sources.	3.42 (0.93)
Information	Judging the credibility of different information sources.	3.24 (0.88)
Operational	Using technical terms correctly.	2.88 (1.11)
Operational	Differentiating between different data formats and using them with the right programs.	2.43 (1.08)
Operational	Presenting data in graphics and tables.	2.35 (1.24)

**TABLE 2:** Measure items of fostering MIL in four competence areas

Source: own processing, 2021

## 4.2 Analysis

Structural equation modelling (SEM) allows the test of models that hypothesize complex relationships among variables, which is the case of this study. The dependent variables ICT use and fostering MIL are latent variables, and the predictor variables referring to school and teacher traits are manifest variables. First, the latent variables were modelled. The latent variables corresponding to the fostering of students' competence in four areas result from a confirmatory factor analysis (CFA) with the competence items presented in Table 2. The item loadings are presented as findings in Table 3.

Unlike the competence items, the types of ICT use were not pre-established since there is no strong hypothesis concerning which ICT factors can be found in the data. Therefore, exploratory factor analysis was conducted with the measures of teacher's use of different ICTs (Table 1) to generate the latent variables of ICT use. Items loadings are displayed in the findings (Table 4).

In a second step, the latent variables of fostering MIL were also regressed on the variables corresponding to teacher and school traits, controlling their associations with ICT use. As the analysis includes exploratory factor analysis and SEM features, it consists of exploratory structural equation modelling (ESEM). In ESEM, some parts of the measurement model are unrestricted, i.e., indicators are allowed to load on every factor, different from CFA, in which it is restricted.<sup>33</sup>

Preliminary analyses of skewness, kurtosis, and distribution of residuals did not raise any issues. However, the data show a few missing values, i.e., less than 3.5% in single variables. These missing values are considered missing at random since they cannot be attributed to the research design. Therefore, Full Information Maximum Likelihood was adopted to handle the missing cases. The ESEM was conducted with Robust Maximum Likelihood as the estimation method in *MPlus* Version 8.4.

<sup>33</sup> KLINE, R. B.: *Principles and Practice of Structural Equation Modeling*. New York : Guilford Publications, 2011, p. 121.

## 5 Results

Table 3 displays the item loadings of the CFA that generated the latent variables corresponding to the fostering of four media-related competence areas: critical competence, safety competence, information competence and operational competence. Most fit indices indicate a good model fit ( $\chi^2 = 118.05(48)$ ,  $p < .001$ ; RMSEA = .07 [.05, .08]; CFI = .96; TLI = .95; SRMR = .04).

	Critical	Safety	Information	Operational
Understanding the influence of media on society.	.74			
Understanding why different media actors present facts in different ways.	.78			
Differentiating between advertising and journalistic content.	.82			
Surfing safely on the internet.		.80		
Protecting own data and private sphere effectively.		.90		
Understanding how personal data is gathered and used further when using online media.		.88		
Searching for information effectively.			.82	
Filtering and interpreting information from different sources.			.77	
Judging the credibility of different information sources.			.78	
Using technical terms correctly.				.85
Differentiating between different data formats and using them with the right programs.				.65
Presenting data in graphics and tables.				.92

**TABLE 3:** Loadings of the competence items in CFA

Source: own processing, 2021<sup>34</sup>

Exploratory analysis was conducted to generate the latent variables that correspond to ICT use. Parallel analysis with scree plotting suggested extracting three factors from the twelve indicators of ICT use. Based on how the items loaded in each of the three factors (Table 4), it was possible to interpret that the first factor is strongly characterized by the use of stationary computers for students' active use, which correspond to input technologies in the classification by Karaseva et al.<sup>35</sup> and to networked technologies by Livingstone.<sup>36</sup> In terms of software, the first factor includes the use of common-use software applications,<sup>37</sup> mainly word processor and spreadsheets, and to a lesser extent, online tools. Therefore, the latent variable originated by this factor is labelled desktop-basics. The second factor has highly significant loadings for data projector and interactive board as hardware, denominated output technologies by Karaseva

<sup>34</sup> Note: All loadings are significant at the .001 level.

<sup>35</sup> KARASEVA, A., SIIBAK, A., PRUULMANN-VENGERFELDT, P.: Relationships between Teachers' Pedagogical Beliefs, Subject Cultures, and Mediation Practices of Students' Use of Digital Technology. In *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 2015, Vol. 9, No. 1. No pagination. [online]. [2021-07-14]. Available at: <<https://cyberpsychology.eu/article/view/4331/3394>>.

<sup>36</sup> See: LIVINGSTONE, S.: Critical Reflections on the Benefits of ICT in Education. In *Oxford Review of Education*, 2012, Vol. 38, No. 1, p. 9-24. [online]. [2021-07-14]. Available at: <[https://www.researchgate.net/publication/232939736\\_Critical\\_Reflections\\_on\\_the\\_Benefits\\_of\\_ICT\\_in\\_Education](https://www.researchgate.net/publication/232939736_Critical_Reflections_on_the_Benefits_of_ICT_in_Education)>.

<sup>37</sup> See: PAPANASTASIOU, E. C, ANGELI, C.: Evaluating the Use of ICT in Education: Psychometric Properties of the Survey of Factors Affecting Teachers Teaching with Technology (SFA-T3). In *Journal of Educational Technology & Society*, 2008, Vol. 11, No. 1, p. 69-86.

et al.<sup>38</sup> and one-to-many technologies by Livingstone.<sup>39</sup> The tools presentation programs and videos also load strongly in this factor, suggesting that it corresponds predominantly to the use of presentation and visualization ICTs. Finally, in the third factor, the significant loadings also correspond to input or networked technologies. However, it differs from the first factor: instead of stationary computers, mobile devices are the hardware for students' active use. Moreover, a range of online tools characterizes this factor. Therefore, it is named mobile-online.

ESEM ICT use	Desktop-basics	Presentation-visualization	Mobile-online
Computer lab	<b>.92</b>	-.18 <sup>ns</sup>	.01 <sup>ns</sup>
Mobile devices	.03 <sup>ns</sup>	.39 <sup>b</sup>	<b>.30</b>
Interactive board	.08 <sup>ns</sup>	<b>.49</b>	-.01 <sup>ns</sup>
Data projectors	.01 <sup>ns</sup>	<b>.72</b>	-.02 <sup>ns</sup>
Presentation programs	.34 <sup>b</sup>	<b>.57</b>	.01 <sup>ns</sup>
Word processor	<b>.85</b>	.12 <sup>ns</sup>	-.04 <sup>ns</sup>
Spreadsheets	<b>.81</b>	.01 <sup>ns</sup>	-.10 <sup>ns</sup>
Websites	<b>.52</b>	-.01 <sup>ns</sup>	<b>.52</b>
Communication tools	.08 <sup>ns</sup>	.38 <sup>b</sup>	<b>.41</b>
Search engines	<b>.59</b>	.00 <sup>ns</sup>	<b>.50</b>
Videos	-.03 <sup>ns</sup>	<b>.52</b>	<b>.51</b>
Learning platforms	<b>.44</b>	.05 <sup>ns</sup>	.29

**TABLE 4:** Loadings of exploratory structure equation modeling for ICT use items

Source: own processing, 2021<sup>40</sup>

Once the latent variables were modelled, the first model investigated the associations of the three types of ICT use with the fostering of the four competence areas. Evaluating the model fit, some indices indicate a good fit: Root Mean Square Error of Approximation (RMSEA) [90% confidence interval] = .05 [.05, .06], Comparative Fit Index (CFI) = .95, and Standardized Root Mean Square Residual (SRMR) = .04. Besides, the Tucker-Lewis Index (TLI) is .93, for which values higher than .90 tend to be considered acceptable or at least defensible.<sup>41</sup> However, the chi-square is very large (416.41 for 213 degrees of freedom) and significant. Schermelleh-Engel et al. recommend not emphasizing the chi-square statistic alone and considering the ratio between the chi-square value and the degrees of freedom.<sup>42</sup> This ratio should be as small as possible, with a value of 2 indicating a good model fit. The ratio of the model below is 1.95, meeting this criterion.

<sup>38</sup> KARASEVA, A., SIIBAK, A., PRUULMANN-VENGERFELDT, P.: Relationships between Teachers' Pedagogical Beliefs, Subject Cultures, and Mediation Practices of Students' Use of Digital Technology. In *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 2015, Vol. 9, No. 1. No pagination. [online]. [2021-07-14]. Available at: <<https://cyberpsychology.eu/article/view/4331/3394>>.

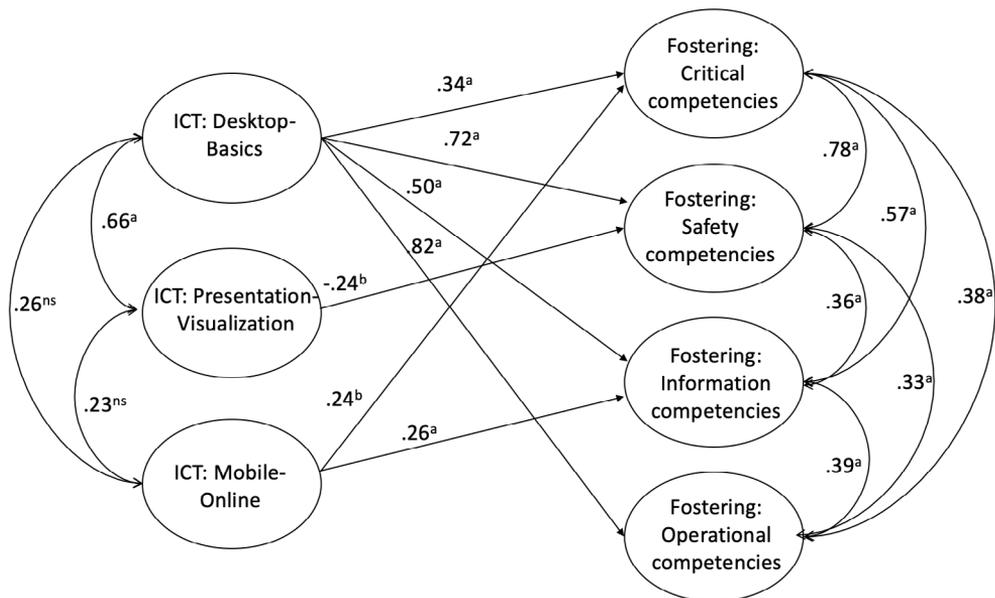
<sup>39</sup> See: LIVINGSTONE, S.: Critical Reflections on the Benefits of ICT in Education. In *Oxford Review of Education*, 2012, Vol. 38, No. 1, p. 9-24. [online]. [2021-07-14]. Available at: <[https://www.researchgate.net/publication/232939736\\_Critical\\_Reflections\\_on\\_the\\_Benefits\\_of\\_ICT\\_in\\_Education](https://www.researchgate.net/publication/232939736_Critical_Reflections_on_the_Benefits_of_ICT_in_Education)>.

<sup>40</sup> Note: Bold =  $p < .001$ ; b =  $p < .01$ ; ns = nonsignificant.  $\chi^2 = 87.45(33)$ ,  $p < .001$ ; RMSEA = .07 [.05, .09]; CFI = .97; TLI = .93; SRMR = .03.

<sup>41</sup> See: HOX, J. J., BECHGER, T. M.: An Introduction to Structural Equation Modeling. In *Family Science Review*, 1998, Vol. 11, No. 4, p. 354-373.

<sup>42</sup> See: SCHERMELLEH-ENGEL, K., MOOSBRUGGER, H., MÜLLER, H.: Evaluating the Fit of Structural Equation Models: Tests of Significance and Descriptive Goodness-of-Fit Measures. In *Methods of Psychological Research*, 2003, Vol. 8, No. 2, p. 23-74.

Picture 3 presents the correlations between the factors resulting from both the exploratory and the confirmatory factor analysis (curved arrows) and the paths representing the associations between ICT use and fostering MIL (straight arrows). The correlations between the factors indicate discriminant validity; that is, the correlations between the factors are not excessively high ( $< .90^{43}$ ). As for the paths, the use of ICTs of desktop-basics kind associates positively and significantly with fostering all four competence areas, especially strongly with fostering operational competencies. The use of ICTs of mobile-online type is positively and significantly associated with fostering critical competencies and fostering information competencies. However, these coefficients are substantially weaker than in the associations with desktop-basics ICT use. The use of presentation-visualization ICTs is significantly associated only with fostering safety competence, and this association is negative. The model with the four types of ICT use as predictors accounts for 19% of explained variance of fostering critical competence, 37% of safety competence, 36% of information competence, and 57% of operational competence.



**PICTURE 3:** Associations between three patterns of ICT use and fostering of four MIL areas

Source: MPlus output, own processing, 2021<sup>44</sup>

In a subsequent step, school and teacher traits were included in the model. Although the model becomes more complex, the overall model fit is still acceptable ( $\chi^2 = 548.88(298)$ ,  $p < .001$ , ratio  $\chi^2/df = 1.84$ ,  $RMSEA[CI\ 90\%] = .05[.04; .06]$ ,  $CFI = .94$ ,  $TLI = .92$ ,  $SRMR = .04$ ). The associations between the three types of ICT use and fostering the four competence areas remain pretty much the same as the first model, except for the association between mobile-online ICTs and fostering critical competence (Table 5). This association is reduced and becomes nonsignificant. In addition, the findings show that teachers who have received ICT-related training tend to conduct activities to foster students' information competence a little more often. However, it does not seem to influence the fostering of other competence areas. Training also correlates positively but weakly with the use of more conventional technologies (desktop-basis

<sup>43</sup> KLINE, R. B.: *Principles and Practice of Structural Equation Modeling*. New York : Guilford Publications, 2011, p. 116.

<sup>44</sup> Note: Standardized coefficients. Straight arrows represent beta coefficients and curved arrows represent correlations; a =  $p < .001$ ; b =  $p < .01$ ; ns = not significant.

and presentation-visualization). Collaboration with colleagues in ICT-related issues associates significantly and positively only with the area of safety competence. The analysis also shows that MIL has less room in STEM subjects. In these subjects, teachers work less frequently with aspects of critical, safety, and information competence. Moreover, the use of mobile devices and online resources occurs less frequently in STEM classes. In contrast, the use of computer rooms and common-use applications occurs more frequently in these subjects.

Having satisfactory ICT equipment at school does not favour the fostering of MIL. The factor is negatively associated with fostering information competence and no significant associations are found with teaching the remaining three competence areas. However, evaluating the school's ICT equipment as satisfactory correlates positively with using desktop-basics and presentation-visualization ICTs. Regarding the type of school, no significant relationships are found with the fostering of MIL, but minor differences appear in ICT types. In Gymnasium schools, a type of secondary school in Germany that is more academically oriented, the use of output or one-to-many technologies is more frequent, and the use of technologies for students' active use occurs less frequently.

<b>Paths</b>				
	<b>Critical competence</b>	<b>Safety competence</b>	<b>Operational competence</b>	<b>Information competence</b>
Desktop-basics	<b>.50<sup>a</sup></b>	<b>.83<sup>a</sup></b>	<b>.92<sup>a</sup></b>	<b>.64<sup>a</sup></b>
Presentation-visualization	-.11	<b>-.27<sup>b</sup></b>	-.20	-.10
Mobile-online	.14	-.02	.03	<b>.18<sup>c</sup></b>
Equipment	.01	-.01	-.04	<b>-.11<sup>c</sup></b>
Training	-.01	-.02	-.01	<b>.15<sup>b</sup></b>
Collaboration	.11	<b>.13<sup>c</sup></b>	.04	.09
STEM	<b>-.30<sup>a</sup></b>	<b>-.18<sup>b</sup></b>	-.01	<b>-.28<sup>a</sup></b>
Gymnasium	.06	-.01	.08	.07
R <sup>2</sup>	.28	.42	.58	.49
<b>Correlations</b>				
	<b>Desktop-basics</b>	<b>Presentation-Visualization</b>	<b>Mobile-Online</b>	
Equipment	<b>.24<sup>b</sup></b>	<b>.18<sup>c</sup></b>	.08	
Training	<b>.14<sup>a</sup></b>	<b>.09<sup>b</sup></b>	.05	
Collaboration	.00	-.02	.04	
STEM	<b>.14<sup>a</sup></b>	.06	<b>-.10<sup>c</sup></b>	
Gymnasium	<b>-.09<sup>b</sup></b>	<b>.08<sup>c</sup></b>	-.07 <sup>c</sup>	

**TABLE 5:** Paths coefficients and correlations of the model with predictors

Source: own processing, 2021<sup>45</sup>

## 6. Discussion

This study followed the argument that in their practice with digital media, teachers can use various ICTs and foster different MIL areas. Thus, instead of treating the use of general ICT as a predictor of teaching MIL, this study sought to verify the associations between teaching with and teaching about media when different types of ICT and MIL areas are considered.

<sup>45</sup> Note: Standardized coefficients. Significant coefficients are in bold; a =  $p < .001$ ; b =  $p < .01$ ; c =  $p < .05$ .

In the first step, the analysis identified three different patterns of ICT use in the sample. The first is characterized by using stationary computers in a specific school room and basic computer applications and software (“desktop-basics”). The second type relates to using equipment and tools for presentation and visualization (“presentation-visualization”). Finally, the third corresponds to the use of mobile devices and online-based applications and resources (“mobile-online”). The ESEM analysis points out a strong association between the first type, “desktop-basics,” and the fostering of all four areas of MIL. Thus, it seems that, at least by the time of the data collection, teaching MIL in schools in Thuringia was taking place mainly in computer labs.

By the time of the data collection, in many schools, taking students to the computer room was the only possibility for students to use ICTs actively. According to a study by Initiative D21 with 1.425 teachers and 1.116 students in Germany, in 2016, around 70% of students reported that they had access to desktop computers, while only 10% affirmed having access to tablets in their schools. From the available ICTs, teachers reported that 76% of the desktop computers and even 18% of the tablets were stationary, often centralized in a computer lab.<sup>46</sup> Also, the ICILS 2018 data for Germany depicts a similar situation: 98% of the German participant students attended schools where devices were available in computer laboratories. On the other hand, only 15% reported that students brought portable devices to class in their schools.<sup>47</sup> The findings of the present study suggest that teachers consider it necessary that students use ICTs actively for developing MIL in different areas. This is mainly manifested in the strong associations with the fostering of competencies to operate technologies.

Also, the competence areas of safety and information are strongly associated with the use of desktop-basics ICT type, suggesting that teachers prefer to approach safety and information-related issues with students actively using ICTs. On the other hand, the association with fostering critical competence is weaker than the associations with the other areas, which is reasonable since critical thinking about media and technologies does not necessarily demand interaction with ICTs.<sup>48</sup> Nevertheless, since the effect observed is still quite strong, it seems that teachers use the situations when students are working directly with the technologies in computer rooms to approach the critical aspects of MIL. However, it is not clear if teachers take students to the computer lab purposively to teach MIL or find more opportunities to approach MIL-related topics during activities in the computer lab.

However, it is pertinent to consider that the data used in this analysis were collected in 2017. As the study by Initiative D21 pointed out, fewer schools had the opportunity to implement mobile devices for students’ active use.<sup>49</sup> Possibly, the prevalence of the use of computer rooms for teaching MIL may reduce as the use of mobile devices and online resources increases in schools. Moreover, the closure of schools during the corona pandemic highlighted the relevance

<sup>46</sup> *Sonderstudie Schule Digital – Lehrwelt, Lernwelt, Lebenswelt: Digitale Bildung im Dreieck SchülerInnen-Eltern-Lehrkräfte*. [online]. [2021-07-14]. Available at: <<https://initiated21.de/publikationen/sonderstudie-schule-digital/>>.

<sup>47</sup> FRAILLON, J. et al.: *Preparing for Life in a Digital World: IEA International Computer and Information Literacy Study 2018 International Report*. Berlin, Heidelberg : Springer, 2020, 297 p. [online]. [2021-07-14]. Available at: <<https://link.springer.com/book/10.1007%2F978-3-030-38781-5>>.

<sup>48</sup> See: PÖTZSCH, H.: Critical Digital Literacy: Technology in Education beyond Issues of User Competence and Labour-market Qualifications. In *TripleC Journal for a Global Sustainable Information Society*, 2019, Vol. 17, No. 2, p. 221-240. [online]. [2021-07-14]. Available at: <<https://www.triple-c.at/index.php/tripleC/article/view/1093/1296>>.

<sup>49</sup> *Sonderstudie Schule Digital – Lehrwelt, Lernwelt, Lebenswelt: Digitale Bildung im Dreieck SchülerInnen-Eltern-Lehrkräfte*. [online]. [2021-07-14]. Available at: <<https://initiated21.de/publikationen/sonderstudie-schule-digital/>>.

of digital and online technologies for education.<sup>50</sup> Likely, the adaptations that many schools implemented due to the COVID-19 pandemic will reflect on media use in class afterward. Thus, the new tools and resources that teachers and students explored during the pandemic have the chance to become a regular part of the pedagogical processes.

In the analysis, the use of mobile devices and online resources associated significantly only with fostering of information competence when controlling for schools and teacher traits. These findings indicate that in schools where mobile devices are used, a stronger emphasis on dealing with information is put. When working with individual devices connected to the internet, students may be more frequently stimulated to search for and select information to conduct their independent work with these technologies. As mobile resources and online tools become more integrated into classes, they also may become more strongly associated with teaching other areas of MIL.

Using visualization and presentation tools has no relationship with fostering critical, operational, or information competence. In the case of safety competence, using this type of ICTs is associated with less frequent teaching about online safety. These findings consolidate that teachers favour ICTs that can be used actively by students for fostering students' MIL competence. Consequently, assuming that ICT use, in general, is associated with fostering MIL is deceiving.

Furthermore, the findings show that except for using the desktop-basics ICT type, which was a common predictor of the four MIL areas, the competence areas are predicted by different factors. That is, under certain conditions, teachers may favour the fostering of specific competencies over others. Therefore, when discussing teachers' role in fostering youngsters' MIL, it is pertinent to consider the diversity of competencies. As MIL frameworks are usually comprehensive, it is unrealistic to expect teachers to cover all competence areas when fostering students' MIL, especially when MIL is not a singular topic in school curricula. In schools, planning and distributing the responsibility to cover specific media-related topics among teachers might support the fostering of MIL in its comprehensiveness.

Considering the strong effects of the types of ICT use, school and teacher traits are weaker predictors in the models. How teachers evaluate the ICT equipment available at their schools is significantly associated only with fostering information competence. Interestingly, the association is negative, i.e., teachers who evaluate their school's equipment better tend to engage less frequently in activities that foster students' information competence, or vice-versa. It is possible that the teachers who emphasize the teaching of information competence are more demanding in their evaluation of their schools' available ICT and that they would like to have more advanced tools or conditions, such as better internet connection. Conversely, the model shows that teachers who use desktop-basics and presentation-visualization ICTs more frequently tend to evaluate the ICT available at school positively. However, the evaluation of ICT available at school is subjective. Consequently, its relations with ICT use do not solely concern what is available at school. It also depends on the teacher's ambitions regarding technologies.

<sup>50</sup> See: DREER, B., KRACKE, B.: *Befragung von Thüringer Lehrer\*innen während der durch die Corona-Krise bedingten Schulschließungen 2020 – Bericht erster Ergebnisse*. [online]. [2021-07-14]. Available at: <[https://www.uni-jena.de/unijenamedia/Thueringer\\_Studie\\_zum\\_Unterricht\\_in\\_der\\_Coronakrise.pdf](https://www.uni-jena.de/unijenamedia/Thueringer_Studie_zum_Unterricht_in_der_Coronakrise.pdf)>; FORSA POLITIK – UND SOZIALFORSCHUNG: *Das Deutsche Schulbarometer Spezial Corona-Krise: Ergebnisse einer Befragung von Lehrerinnen und Lehrern an allgemeinbildenden Schulen im Auftrag der Robert Bosch Stiftung in Kooperation mit der ZEIT*. [online]. [2021-07-14]. Available at: <<https://deutsches-schulportal.de/unterricht/lehrer-umfrage-deutsches-schulbarometer-spezial-corona-krise-folgebefragung/>>; HUBER, S. G., HELM, C.: COVID-19 and Schooling: Evaluation, Assessment and Accountability in Times of Crises – Reacting Quickly to Explore Key Issues for Policy, Practice and Research with the School Barometer. In *Educational Assessment, Evaluation and Accountability*, 2020, Vol. 32, No. 2, p. 237-270. [online]. [2021-07-14]. Available at: <<https://link.springer.com/article/10.1007%2Fs11092-020-09322-y>>.

Teachers' media-related professional development is often considered an influential factor in their practices of teaching with and about media.<sup>51</sup> While teachers can develop their competence in different ways, formal training and exchanges with colleagues are known ways to equip teachers with skills related to media and technology. In the analysis, media-related training and collaboration with colleagues are associated only with a single competence area each. Therefore, it is worth examining what media and technology-related topics teacher pre-and in-service training emphasize.<sup>52</sup> It can be interpreted that teachers have received training in more conventional technologies and topics related to the area of information competence. Collaboration with colleagues might be a way of supplying a demand that perhaps formal training does not sufficiently provide. Also, the absence of associations with the other competence areas does not mean that teachers are not competent, as they might have earned the qualification by other means, including autonomously.

As this study found that the associations between uses of different types of ICT and fostering of different MIL competence areas vary, it is sensible to be precise when referring to teacher practices with digital media. Furthermore, to the extent that technologies become more diverse in schools, with the integration of wearables, virtual reality, and artificial intelligence systems, to name a few, it is opportune to look at what types of competence they can potentially help foster.

## 7. Limitations

The data measured the fostering of different competence areas, which rarely happens in research. By doing so, fostering different MIL areas could be analyzed concerning the use of different ICT, resulting in a complex model that would rigorously demand a larger data set. Therefore, the results were handled and reported with caution. No claims were made that using certain ICTs leads to specific types of competence. Instead, the present study contributed to understanding teachers' use of ICT to foster specific MIL competencies. Future studies with larger samples of teachers should consider different MIL areas and the diversity of ICT types. Also, in the measure of ICT use, there are many other tools not included in this study, such as specialized software.<sup>53</sup> As previously mentioned, the data of this study are from 2017. Teachers' use of ICT has likely suffered transformations due to investments in digital technologies in schools and the COVID pandemic experience, which might also affect the fostering of students' MIL. Since teachers' practices with digital media are susceptible to suffering transformation, studies on teaching with and teaching about media should happen continuously.

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<sup>51</sup> GERICK, J., EICKELMANN, B., BOS, W.: School-level Predictors for the Use of ICT in Schools and Students' CIL in International Comparison. In *Large-Scale Assessments in Education*, 2017, Vol. 5, No. 1, Article 5. [online]. [2021-07-14]. Available at: <<https://largescaleassessmentsineducation.springeropen.com/articles/10.1186/s40536-017-0037-7>>; GIL-FLORES, J., RODRÍGUEZ-SANTERO, J., TORRES-GORDILLO, J. J.: Factors that Explain the Use of ICT in Secondary-education Classrooms: The Role of Teacher Characteristics and School Infrastructure. In *Computers in Human Behavior*, 2017, Vol. 68, p. 441-449. [online]. [2021-07-14]. Available at: <<https://idus.us.es/bitstream/handle/11441/87990/1-s2.0-S0747563216308068-main.pdf?sequence=1&isAllowed=y>>; TONDEUR, J. et al.: Teacher educators as gatekeepers: Preparing the next generation of teachers for technology integration in education. In *British Journal of Educational Technology*, 2019, Vol. 50, No. 3, p. 1189-1209.

<sup>52</sup> For example: TIEDE, J., GRAFE, S.: Media Pedagogy in German and U.S. Teacher Education. In *Comunicar*, 2016, Vol. 24, No. 49, p. 19-28. [online]. [2021-07-14]. Available at: <<https://www.revistacomunicar.com/index.php?contenido=detalles&numero=49&articulo=49-2016-02>>.

<sup>53</sup> See: PAPANASTASIOU, E. C., ANGELI, C.: Evaluating the Use of ICT in Education: Psychometric Properties of the Survey of Factors Affecting Teachers Teaching with Technology (SFA-T3). In *Journal of Educational Technology & Society*, 2008, Vol. 11, No. 1, p. 69-86.

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## Reading Behaviour In The Digital Age: Impact Of Covid-19 On Consumer Behaviour

### **ABSTRACT**

People's lives have been significantly affected by the Covid-19 pandemic, including their shopping behaviour. The authors of the article characterized the individual generations, their shopping behaviour and their relationship to reading and buying books with a focus on e-books. Due to the significant change to the online environment, there may be a presumption that the current situation has an impact on the reading of e-books across all generations. The aim of the research was to find out what effect the pandemic has on the reading and purchasing of e-books and how consumers behave, what their consumer habits are and what influences their shopping behaviour. The paper publishes the results of research conducted by electronic surveying on a sample of 658 respondents. The results showed that the generation influences the purchase of e-books during the Covid-19 pandemic, while respondents prefer to shop in domestic e-shops. The results of the research will be offered to publishers to be able to adapt their marketing strategy and respond to the changes that the current Covid era brings. The research was carried out in Slovakia, in the following period the authors will focus their attention on the countries of Central Europe.

### **KEY WORDS**

E-books. Consumer behaviour during Covid-19. Generations. Digital reading. Digital media. Marketing communication.

# 1. Introduction

The SARS-CoV-2 coronavirus pandemic in Slovakia is part of a worldwide pandemic of the infectious disease Covid-19. The first case was confirmed in Slovakia on the 6th of March 2020. It involved a 52-year-old man from the Bratislava region who had not been travelling recently, however his son was in Venice in mid-February. The first measures (actions) against the epidemic were taken on the 6th of March, and a state of emergency was declared on the 12th of March. Schools were closed on the 16th of March and the state of emergency lasted until the 14th of June. On the 1st of October, a second state of emergency was declared, lasting 45 days, but extended by the government to 90 days. School teaching during the school year 2020/2021 was interrupted again from the 12th of October 2020.

The first victim of Covid-19 in Slovakia was a 60-year-old man who died on the 30th of March, a few hours after being released from hospital. Strict rules and measures (actions) taken at the beginning of the pandemic kept the number of infected people under control from spring to summer. The consequences of the pandemic manifested themselves in several areas. Social isolation and reduction of social contact due to preventive measures have had a negative impact, especially on young adults under 30 years of age.<sup>1</sup> Research from other countries also shows that the younger people are, the worse they handle a pandemic. We recorded a similar phenomenon in Slovakia. The basic manifestations of social isolation included nervousness, anger, loneliness and depression. Increasingly, as a result of the interruption of the teaching and educational processes and their replacement by distance forms of learning, there is talk of the lost generation of Covid-19 young people. Jobs for young people are at greater risk and only six Member States have been able to provide digital education for at least 80 % of students.<sup>2</sup>

However besides reading a variety of content, people have many other activities to do which include: cooking, watching movies/TV shows, playing mobile games, playing mobile group games with friends/family remotely, cleaning at home to maintain health and hygiene, playing indoor games with family, learning a new skill, learning a MOOC course, developing a new hobby, spend time on social media and many more. During the Covid-19 pandemic, fraudulent campaigns spread mainly through social networks were problematic. It is media literacy in the field of health that should be constantly strengthened and promoted.<sup>3</sup>

Covid-19 has also significantly contributed to the change in consumer behaviour in Slovakia. Slovak consumers, as well as consumers in the surrounding countries, initially started buying in bulk due to concerns about a reduction in the intensity of distribution and the shortage of some foods. This is also confirmed by the data of a retail audit by the company Nielsen, which shows that Slovaks started to buy more than they really needed. Compared to 2019, purchases of fast-moving goods at the beginning of the pandemic in February 2020 increased by 20%. Under the influence of media reports from around the world, a shopping spree started, shopping centres and grocery stores, and drugstores were filled. Shops recorded shortages of disinfectants, soaps, wet wipes, rice, flour, yeast, and other durable foods.<sup>4</sup> (Nielsen study). A slight decline was followed by a resumption of consumer shopping behaviour in week 11 (i. e. from the 9th to the 15th of March 2020). For retailers, this was the second most successful week of the year, just behind the week before Christmas, the third week of December. Even sales during the pre-Easter weeks in 2019 or 2018, which are without exception the second

<sup>1</sup> *Ako sa máte Slovensko?* [online]. [2021-06-21]. Available at: <[https://www.sav.sk/index.php?lang=sk&doc=services-news&source\\_no=20&news\\_no=8935](https://www.sav.sk/index.php?lang=sk&doc=services-news&source_no=20&news_no=8935)>.

<sup>2</sup> *Regionálny a miestny barometer EÚ varuje: až 10% pokles príjmov v regiónoch a mestách ohrozuje verejné služby.* [online]. [2021-07-20]. Available at: <<https://cor.europa.eu/sk/news/Pages/eu-regional-and-local-barometer.aspx>>.

<sup>3</sup> JORMAND, H. et al.: Qualitative Study on People's Experiences of Covid-19 Media Literacy. In *Media Literacy and Academic Research*, 2021, Vol. 4, No. 1, p. 48.

<sup>4</sup> *Covid 19 mení nákupné správanie slovenských spotrebiteľov.* [online]. [2021-06-21]. Available at: <<https://www.nielsen.com/sk/sk/>>.

strongest period, did not reach their turnover levels during the 11th week of this year. The market of Slovak hypermarkets and supermarkets recorded a 28% increase in turnover during this period.

People also felt a significant reduction in social contact (28%). They limited themselves to visiting their extended family, grandparents, meeting friends, or for example attending cultural events. They also reported spontaneously reducing the amount of time spent outdoors (20%) and paying more attention to childcare (17%). From the above, it is possible to assume more time was spent on leisure activities such as e.g. watching movie series and reading books. The authors of the study found how the habits of Slovaks changed during the epidemiological situation of Covid-19 with a focus on reading books and e-books.

According to the authors, the Covid-19 pandemic affects many situations more than ever before, which we will try to prove in the survey conducted on reading e-books by selected generations. Research results in this area are not publicly available in Slovakia. For an introduction to the issue, we can rely on the research of Hrdináková, Kopáčiková and Rankov from 2017 entitled *Text and Reading, Youth and Libraries*. As many as 70% of respondents (of generation Z (1653 total of respondents) answered that they do not read e-books, although they are interested in paper books.<sup>5</sup> Although, after being confronted by other issues, they found that not reading e-books does not stem from a relationship with new media but from a relationship with reading as such. They also found that there was a link between their parents' education and the school they attend. The higher the level of education of the parents and the more demands are placed on the respondent of generation Z, the greater the presumption that they read e-books.

This fact also inspired the authors to carry out this survey and to find out the current situation of reading e-books during the Covid-19 pandemic. As a sample, we addressed respondents who read books regularly and have a positive attitude towards new media. Therefore, we searched for respondents in the social media environment.

The results will form a picture of the current situation of e-book reading during the Covid-19 pandemic by generations X, Y and Z, but they can also help in the further strategic planning of promotional campaigns for companies in the Slovak book market.

In the following part of the study, the authors will analyse the basic theoretical background of the researched issues, focusing on the characteristics and classification of e-books and the characteristics of individual generations. These will serve as basic starting points for the empirical part. In the article, the authors define the basic research methods, characterize the target group and determine the basic research hypotheses that examine whether there is a statistical dependence between individual generations and their shopping behaviour with a focus on reading and buying e-books. The study presents the results of a survey that aims to determine the impact of the current Covid-19 situation on reading and consumer behaviour in individual generations (generations Y, X, Z). In conclusion, the authors present possible recommendations for publishers that would help them to seize the opportunities presented by the changing environment and use them to their advantage.

## 2. Literature Review

We began to encounter the term electronic book in the 1970s, mainly due to the development of computer technology and related new information and communication technologies. Mattison defined an e-book: *“as a monograph akin to a printed book that is made available in a digital format to be read online or downloaded to a handheld device.”*<sup>6</sup>

<sup>5</sup> HRDINÁKOVÁ, L., KOPÁČIKOVÁ, J., RANKOV, P.: *Text a čítanie, mládež a knižnice*. [online]. [2021-04-26]. Available at: <[http://sakba.sk/wp-content/uploads/publikacie/Citanie\\_mladeze\\_2017-1.pdf](http://sakba.sk/wp-content/uploads/publikacie/Citanie_mladeze_2017-1.pdf)>.

<sup>6</sup> MATISSON, D.: *Alice in a Book Land: A Primer for Librarians*. In *Computers in Libraries*, 2002, Vol. 22, No. 9, p. 14.

According to Suryani,<sup>7</sup> the e-book comprises the general components of printed books such as text, pictures, or graphs. These components are equipped with audio, animation, video, and hyperlinks so that the information conveyed in digital books is richer than using printed books. Abbott and Kelly explained that “while an e-book can be as simple as a scanned version of a printed publication, inherent in e-books is the ability to make available a number of features to the reader which include multimedia, hyperlinks, and other interactive components, search features, and customizability to change text size or convert text to audio so as to meet the needs of special readers. As a result, they explained that print on demand books should not be considered e-books, as once printed, many of the qualities inherent in the electronic format cease to be available.”<sup>8</sup> M. Kovač defined the attributes that e-books have versus printed books as “a minimum length, emphasis on textual content, boundaries to its form, book information architecture.”<sup>9</sup> buy-in formats – MOBI, EPUB, and PDF. Electronic books can be classified in terms of the type of document, according to the method of their origin and property rights. Carolyn Morris and Lisa Sibert<sup>10</sup> divide electronic documents by type into e-references (manual-type books, eg dictionaries, and encyclopedias), e-textbooks (textbooks), e-literature (various types of genres), e-monographs in series (monographs and proceedings). According to their origin, they can be divided into digitized (initially there is an analogue version, which is then digitized), born-digital (the document was created as electronic, there is no paper version). Depending on the duration of property rights, they can be freely available (property rights no longer exist) or charged (during the duration of property rights).<sup>11</sup>

Wilson reported<sup>12</sup> that while proponents believe that e-books will come to change the way we understand reading and represent the future of reading in this digital age, critics explain<sup>13</sup> that reading on a screen is an unpleasant experience that has, and will continue to, stymie the growth of e-books.

The new opportunities brought by communication technologies are able to make digital reading more attractive. Not all texts that are read on screens are considered digital. These texts must meet at least two characteristics: integration of different reading modalities patterns – oral, written, visual, gesture, touch screen and spatial – and with different connection forms between the texts, such as, hyperlinks.<sup>14</sup> Mobile devices (for example) offer augmented mobility – a mobility that is connected, networked and collaborative.<sup>15</sup> Based on these definitions, it can be assumed that there is a need to have certain digital skills when reading e-books. These multiple, multimodal, and multifaceted texts on the screen require different skills and strategies than static texts. According to research conducted in the UK (using the EBONI method) on five different portable media, half of the respondents would continue to reuse and read e-books,

<sup>7</sup> SURYANI, N.: Utilization of Digital Media to Improve the Quality and Attractiveness of the Teaching of History. In *Proceeding The 2nd International Conference On Teacher Training and Education Sebelas Maret University*, 2016, Vol. 2 No. 1, p. 136.

<sup>8</sup> ABBOTT, W. A., KELLY, A. K.: *Sooner or Later! Have E-books Turned the Page?* [online]. [2021-06-21]. Available at: <<http://www.vala.org.au/vala2004/2004pdfs/46AbbKel.pdf>>.

<sup>9</sup> KOVAČ, M. et al.: What is a Book? In *Publishing Research Quarterly*, 2019, Vol. 35, No. 3, p. 313-326.

<sup>10</sup> MORRIS, C., SIBERT, L.: *Acquiring E-books*. In POLANKA, S. (ed.): *No Shelf Required*, Chicago : American Library Association, 2011, p. 96.

<sup>11</sup> KRAVIAROVÁ, M.: E-kniha v digitálnej ére. In BOČÁK, M., REGRUTOVÁ, L., RUSNÁK, J. (eds.): *MÉDIÁ A TEXT 5*. Prešov : Filozofická fakulta PU v Prešove, 2015, p. 175.

<sup>12</sup> WILSON, R.: *Ebook Readers in Higher Education*. In *Journal of Educational Technology Society*, 2003, Vol. 6, No. 4, p. 9.

<sup>13</sup> *Ibidem*, p. 8-17.

<sup>14</sup> AMIAMA-ESPAILLAT, C., MAYOR-RUIZ, C.: Digital Reading and Reading Competence: The Influence in the Z Generation from the Dominican Republic. In *Comunicar: Media Education Research Journal*, 2017, Vol. 25, No. 52, p. 105-113.

<sup>15</sup> ČABYOVÁ L., KRAJČOVIČ, P., PAVELEKOVÁ, J.: Digital Literacy and Readership of E-Books in Slovakia. In *International Journal of Media and Information Literacy*, 2020, Vol. 5, No. 1, p. 4.

the other half gave a negative assessment. The basic reasons for the re-use of e-book reading devices were the portability of the device, clarity, and hypertextuality. Negative reviews were influenced by the price of the e-book, the weight of the device, the benefits of the print version, and the lack of functionality. Further findings<sup>16</sup> identify other significant problems associated with the use of e-books. and e.g. battery problems and poor screen quality. However, e-books are easily accessible, you can have them with you anytime and anywhere and they will not take up much space. You have no problem with storage. You can share the content of an e-book with many readers at once (unless it is protected or protected only by social DRM), the printed version of the book can only be read by one user. Research suggests the interactive and collaborative features of digital textbooks may increase student engagement in learning.<sup>17</sup> Kraviarová<sup>18</sup> considers their price among the main advantages of e-books (compared to printed books they are 30% cheaper, some are free), they can be bought quickly, their purchase is not tied to time and space, after payment they are immediately available to the reader, there are no additional costs in the form of postage with the delivery, they are more storable and they take up less space. In this paper, the authors focused on defining the differences between individual generations – Generation Z and Generation Y in reading books, respectively. e-books. The issue of generations is relatively new, but it is addressed by many authors, e.g. R. Hill, E. Williams, D. V. Bergh or M. Behrer, K. M. Wallace, who did not begin publishing their research until the beginning of this millennium. The specificity of the elaboration of the theoretical basis of the issue of generations is that each author states a different time frame for individual generations and it is not always possible to grasp the agreement in their psychological profile. Nevertheless, the idea of dividing the population into individual generations has been adopted and this typology is currently recognized and often cited. According to the age of birth, generations can be divided into the following groups – generation Z, generation, Y, generation X and Baby boomers. Generation members are similar in certain traits, values, lifestyles, or interests, so it is possible to define their common generational identity, which remains the basis for decision-making management processes.<sup>19</sup>

A characteristic feature of Generation Z is their connection to digital technologies and the virtual environment. In connection with this basic feature, millennials born at the turn of the millennium have been referred to as the virtual generation since 1996. However, in the literature, we find other designations, the common feature of which is their digital skill and the digital competences of Generation Z (Facebook Generation, App Generation, iGens, @generation, Selfie Generation, Rainbow Generation, Post-Millennials, Internet Generation, Google Generation, Net Generation).

It is digital media that allows users not only to consume content,<sup>20</sup> but also to create content that allows this generation to integrate into the virtual environment even more than generations before it. Due to their behavior, they are increasingly revealing their adolescence on the Internet, because it is already the Internet generation.<sup>21</sup>

<sup>16</sup> WILSON, R.: Ebook Readers in Higher Education. In *Journal of Educational Technology Society*, 2003, Vol. 6, No. 4, p. 8.

<sup>17</sup> ABACI, S.: *Student Engagement With E-Texts: What the Data Tell Us*. [online]. [2021-04-28]. Available at: <<https://er.educause.edu/articles/2017/10/student-engagement-with-etexts-what-the-data-tell-us>>.

<sup>18</sup> See also: KRAVIAROVÁ, M.: E-kniha v digitálnej ére. In BOČÁK, M., REGRUTOVÁ, L., RUSNÁK, J. (eds.): *MÉDIÁ A TEXT 5*. Prešov : Filozofická fakulta PU v Prešove, 2015, p. 174-186.

<sup>19</sup> See: GREŠKOVÁ, P.: Špecifická generácie Y z pohľadu súčasnej spoločnosti, hodnôt a marketingovej komunikácie. In *Fórum manažéra*. [online]. [2021-04-21]. Available at: <[https://forummanazera.sk/cms/art\\_db/2017-2-4.pdf](https://forummanazera.sk/cms/art_db/2017-2-4.pdf)>; See also: FAŠIANG, T., KOLLÁROVÁ, D., KUSÁ, A.: *Retail Marketing Communication and the Consumer Behaviour of Selected Generations*, 2021.

<sup>20</sup> RADOŠINSKÁ, J., KVETANOVÁ, Z., VIŠŇOVSKÝ, J.: To Thrive Means to Entertain: The Nature of Today's Media Industries. In *Communication Today*, 2020, Vol. 11, No. 1, p. 18.

<sup>21</sup> TRNINIC, D., KUPRESANIN VUKELIC, A.: Privacy on the Internet Concerning Generation Z in Bosnia and Herzegovina. In *Media Literacy and Academic Research*, 2021, Vol. 4, No. 1, p. 181.

An important feature that distinguishes these digital natives from previous generations, including their parents and teachers, is that they were born into the digital world, do not know a world without the Internet, and are extremely skilled at handling modern technologies, we can even say that they operate them intuitively. According to Kowalczyk,<sup>22</sup> they prefer print books over digital ones, read literature for entertainment, and prefer reading instead of watching news.

Gibson<sup>23</sup> argues that the constant contact of children and adolescents with screens since early childhood causes a change in their neural circuits, which significantly affects the functioning of their minds, their relationships, learning style, mental health, and self-perception. These changes lead to students inability to pay attention, to underdeveloped social skills, new cognitive abilities have emerged<sup>24</sup> and students' learning styles have changed.<sup>25</sup> Another term used for Millennials is Echo Boomers as their large size, education and technical skills may echo the effect of the Baby Boomers on society and businesses.<sup>26</sup> As the children of these idealistic Baby Boomer parents, Millennials have been called entitled and empowered due, in part, to their inclusion in decision making since childhood.<sup>27</sup>

Members of Generation Y (1978-1995) are less interested in traditional careers than Generation X. They prefer work that they can reconcile with their personal lives and in which they have a stimulating work environment.<sup>28</sup> The use of modern means of communication is a daily occurrence for this generation, therefore every day and internet communication has become a natural part of life for them. The rise of modern technologies, which are related to smartphones and the advent of social networks, has taken the opportunities for online communication to a higher level.<sup>29</sup>

Generation X (1965-1977) is called the "lost generation". It was given some freedom, but it was unable to handle it. Generation "X" is the first technological generation. Technologies began to emerge during their lifetime, which gained importance especially from the point of view of marketing. This manifested itself in openness to traditional as well as modern means of communication.<sup>30</sup> This generation currently uses social media, spends more time online than their parents, travels a lot and likes to travel, considers itself more realistic, experiences more stress than the generation before it, and believes it spends more time at work than ever before.<sup>31</sup> They are more likely to read on a tablet than the other generations. When shopping, members of this generation follow their own reasoning and attach great importance to experiences

<sup>22</sup> KOWALCZYK, O.: *Comparing the Reading Habits of 5 Generations*. [online]. [2021-04-21]. Available at: <<https://ebookfriendly.com/comparing-reading-habits-five-generations-infographic/>>.

<sup>23</sup> GIBSON, C.: Who Are These Kids? Inside the Race to Decipher Today's Teens, Who Will Transform Society as We Know it. In *Washington Post*. [online]. [2021-04-21]. Available at: <<https://www.washingtonpost.com/sf/style/2016/05/25/inside-the-race-to-decipher-todays-teens-who-will-transform-society-as-we-know-it/>>.

<sup>24</sup> PRENSKY, M.: Digital Natives, Digital Immigrants: Do They Really Think Differently? In *On the Horizon*, 2001, Vol. 9, No. 6. No pagination. [online]. [2021-04-21]. Available at: <<https://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part2.pdf>>.

<sup>25</sup> Compare to: BRNÍK, A.: *Násilie na televíznych obrazovkách v kontexte jednotného systému označovania*. Trnava : FMK UCM, 2020, p. 27.

<sup>26</sup> ALLEN, P.: Welcoming Y. In *Benefits Canada*, 2004, Vol. 28, No. 9, No. 28, p. 51-53.

<sup>27</sup> See: COOMES, D., M., DEBARD, R.: Understanding the Historical and Cultural Influences that Shape Generations. In COOMES, M., DEBARD, M. (eds.): *New Directions for Student Services: Serving the Millennial Generation*. San Francisco, CA : Jossey-Bass, 2004, Vol. 106, p. 28. p. 17-31.

<sup>28</sup> ŠVORCOVÁ, P.: Kto je generácia Y: Rozprávka o tom, ako budúci lídri zachránia svet. [online]. [2021-04-13]. Available at: <<http://zmensivivot.sk/kto-je-generacia-y-rozpravka-o-tom-ako-buduci-lidri-zachrania-svet/>>.

<sup>29</sup> BERGH, J., BEHRER, M.: *How Cool Brands Stay Hot. Branding to Generation Y*. London : Kogan Page, 2011, p. 21.

<sup>30</sup> HILL, R. P.: Managing Across Generations in the 21st Century. In *Journal of Management Inquiry*, 2002, Vol. 11, No. 1, p. 62.

<sup>31</sup> GREŠKOVÁ, P.: Špecifická generácie Y z pohľadu súčasnej spoločnosti, hodnôt a marketingovej komunikácie. In *Fórum manažéru*, 2017, Vol. 13, No. 2, p. 24. [online]. [2021-04-21]. Available at: <[https://forummanazera.sk/cms/art\\_db/2017-2-4.pdf](https://forummanazera.sk/cms/art_db/2017-2-4.pdf)>.

and references from acquaintances or friends.<sup>32</sup> They are characterized by high loyalty and willingness to pay more for their favorite brand. Generation “X” can be considered the ideal target group from which to gain lifelong customers. However, this only applies if the company offers high-quality products and services that customers require from it. Compared to the younger generation, their willingness to try new brands is lower. The characteristics of this generation also include openness and influence. It is a generation that has adult children and usually also grandchildren, and it is when using or buying technology that you can advise them, so when addressing this generation, it is necessary to consider this factor as well.

Baby boomers are people born in the time of American and Western European economic prosperity after World War II. During their lifetime, many important social changes took place (the first landing of man on the moon, great steps towards racial equality and equality between men and women). This generation has undergone rapid and large social and technological changes and is the first generation to understand the importance of technology. These changes also contributed to their optimism because they believed that they could do anything if they wanted to. Although their generation is known for the rise of individualism, they are also a team-oriented generation – they have founded many associations. Baby Boomers grew up in difficult times, which resulted in economic prosperity. Older Baby Boomers are therefore different from younger who have already grown up in better conditions. Light<sup>33</sup> marked with tradition, currently approaching the younger generations, interested in an active lifestyle, travel, shopping, and general youth.<sup>34</sup> They are the least likely to read a book in digital format (19% versus 24-35% in other generations). They get their news from printed newspapers – 39% compared to 22% of Gen Z and 26% of Millennials.<sup>35</sup>

From the previous characteristics of generations, it can be assumed that their relationship to reading books will also be different. As a result of the Covid-19 crisis, changes in the traditional behaviour of generations can be observed, and the habits and reading of books have changed. From results realized in the USA during the first wave of the Covid-19 pandemic (March 2020) it can be stated that Millennials were the most likely to read more books to keep themselves entertained whilst self-isolating, with 40 percent saying that they were more inclined to read books, seven percent higher than all adults in total.

There are several definitions of the division of generations by year of birth. The authors of the article follow the following division.

	More	No change	Less	Do not know
Total	33%	54%	6%	8%
Gen Z	34%	49%	8%	9%
Millennials	40%	46%	6%	7%
Gen X	31%	53%	6%	10%
Baby Boomers	28%	61%	6%	6%

**TABLE 1:** Share of adults reading books more frequently due to the coronavirus outbreak in the United States as of March 2020, by generation

Source: Statista, 2020

<sup>32</sup> WALLACE, J. E.: Work Commitment in the Legal Profession: A Study of Baby Boomers and Generation Xers. In *International Journal of the Legal Profession*, 2006, Vol. 13, No. 2, p. 137-151.

<sup>33</sup> LIGHT, P. CH.: *Baby Boomers*. New York : W. W. Norton and Company, 1990, p. 228.

<sup>34</sup> GREŠKOVÁ, P.: Špecifická generácie Y z pohľadu súčasnej spoločnosti, hodnôt a marketingovej komunikácie. In *Fórum manažéra*, 2017, Vol. 13, No. 2, p. 23-24. [online]. [2021-04-21]. Available at: <[https://forummanazera.sk/cms/art\\_db/2017-2-4.pdf](https://forummanazera.sk/cms/art_db/2017-2-4.pdf)>.

<sup>35</sup> KOWALCZIK, O.: *Comparing the Reading Habits of 5 Generations*. [online]. [2021-04-21]. Available at: <<https://ebookfriendly.com/comparing-reading-habits-five-generations-infographic/>>.

Research can characterize the basic changes in the behavior of individual generations. Gen Z has increased their reading more than any other generation since the start of coronavirus. Millennials read the most books. Physical books are preferable over digital books for every generation. Baby Boomers and the Silent Generation find their book ideas on bestseller lists, while Gen Z looks to social media. The surprise generation that uses libraries the most is Millennials. Gen X are pure “news junkies” – every day they read more online news than anyone else. Every Generation has a preference for physical books over digital ones.

The authors Čábyová, Krajčovič, Paveleková conducted a survey in 2020 on a sample of 465 respondents aged 15-55, which showed that e-books are regularly read by a quarter of respondents and e-books have been read at least once by more than a third of respondents. Readership was higher in women. Respondents most often read e-books on an e-book reader, followed by a smartphone, tablet, and laptop. However, 40% of respondents have not yet read any e-books at all. Almost 86% of respondents read classic books, while only 1% of respondents regularly buy newspapers or magazines.<sup>36</sup> It is online media that are the most widespread on the Slovak market. According to Panasenka, Krajčovič and Stashko online media make up 80% of the total number of monitored media.<sup>37</sup>

### 3. Materials and Methods

In the article, we focused on the consumer behaviour of individual generations in relation to books, respectively, e-books. We investigated how the pandemic affects e-book reading and shopping, and how consumers behave, what their consumer habits are, and what influences their shopping behaviour. The survey was conducted through electronic inquiries, in which we addressed respondents who have a positive attitude towards books, i.e. books are read regularly. The authors deliberately formulated a narrower sample of respondents focused on generations X, Y and Z, so that the results of the survey as well as the suggestions could be better applied in practice.

The time span of the survey was during the period 17th November to 30th November 2020. The first step of our research was to decide on the target population, i.e. the type of respondents who are the basic set of our research. We selected respondents who have a positive attitude to reading, i.e. books are read regularly. We contacted respondents through FB groups and blogs that are focused on reading. We then calculated the sample size according to the formula (scheme):

$$n = \frac{z_{1-\frac{\alpha}{2}}^2 \cdot \pi \cdot (1 - \pi)}{E^2}$$

However, it is not possible to determine the exact size of the base file. Since we do not know the proportion of occurrence of the examined feature in the basic set, we chose the value 0.5 (recommended for unknown values), we set the maximum allowable margin of error (allowed margin of error) at 5% (in routine marketing research it is set from 2% to 10% variables in the formula, we find that the minimum size of our sample should be 385. The actual size of the respondents who participated in the survey was 658.

<sup>36</sup> ČÁBYOVÁ, Ľ., KRAJČOVIČ, P., PAVELEKOVÁ, J.: Digital Literacy and Readership of E-books in Slovakia. In *International Journal of Media and Information Literacy*, 2020, Vol. 5, No. 1, p. 4.

<sup>37</sup> See: PANASENKA, N., KRAJČOVIČ, P., STASHKO, H.: Hard News Revisited: A Case Study of Various Approaches to an Incident at a Primary School as Reflected in the Media. In *Communication Today*, 2021, Vol. 12, No. 1, p. 112-128.

We processed the obtained data using MS Excel. Individual values of the quantitative traits were arranged by number and by simple sorting written in tables, where the symbol  $f_i$  indicates the frequency of occurrence of the value  $x_i$  ( $i = 1, 2, \dots, k$ ). The relation  $f_1 + f_2 + \dots + f_k = n$  holds.

We examined the dependence between selected qualitative features, which acquire more levels, through their analysis, while on the elements of the sample we always observed two qualitative features A, B, which acquire more levels (A1, A2, ...  $f_l$ ; B1, B2, ...  $B_k$ ). The condition was the validity of the relationship  $k > 2$  or  $m > 2$ .

We recorded the results of the observation in a contingency table. As a test criterion we used the statistics  $\chi^2$ , which is given by:

$$\chi^2 = \sum_{i=1}^k \sum_{j=1}^m \frac{(f_{ij} - o_{ij})^2}{o_{ij}}$$

The degree of dependence between the individual variables is assessed using the contingency coefficient, which is defined by the following relationship:

$$C = \sqrt{\frac{\chi^2}{n + \chi^2}}, \quad \text{kde } \chi^2 = \sum_{i=1}^k \sum_{j=1}^m \frac{\left( f_{ij} - \frac{f_i^A f_j^B}{n} \right)^2}{\frac{f_i^A f_j^B}{n}}$$

We set a null and an alternative hypothesis for each area examined.

H0 – Characters A and B are independent. There is no dependence between the observed characters in the given files. Generation and e-book shopping are independent variables.

H1 – There is a statistical dependence between characters A and B. There is a statistical relationship between generation and e-book shopping.

We tested the statistical dependence between the individual generations and their change in behaviour in relation to shopping behaviour during the Covid-19 crisis, how much money is spent on e-books, and how they buy them. We also found out how the respondents relate to books by Slovak authors.

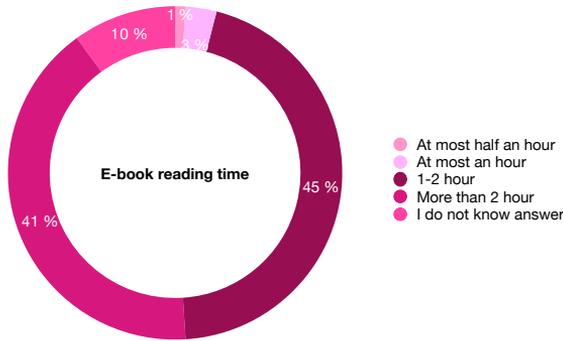
## 4. Results and Discussion

658 respondents from Slovakia, who read e-books, took part in the questionnaire survey. Of these, 89% were women and 11% were men. According to Eurostat, more readers are women than men, but men read a book on average longer than women.<sup>38</sup> We also checked the respondents' highest level of education: primary (4%), secondary (50%), higher vocational (2%), and university (44%). We also found from our respondents to which generation they belong according to the year of birth: generation Z (35%), generation Y (38%), generation X (26%). Other generations are not statistically significant for us.

From the results of the survey and the performed analyzes, we found that 74% of respondents read e-books and 26% of respondents read e-books occasionally. We were also interested in the reading of e-books. Only 1% of respondents read e-books for a maximum of half an hour. 10% of respondents read e-books at most. Most respondents spend 1-2 hours reading (45%). 41% of respondents read e-books for more than 2 hours at a time. The question could not be answered exactly by 3% of respondents. The data are shown in Figure 4.

<sup>38</sup> *Final Consumption Expenditure of Households by Consumption Purpose*. [online]. [2021-04-21]. Available at: <<https://ec.europa.eu/eurostat/web/products-datasets/-/tec00134>>.

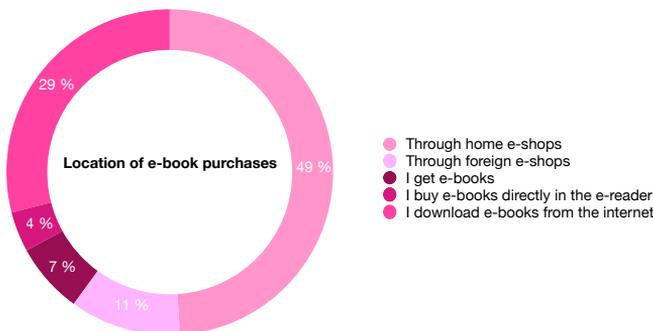
The following survey may supplement our results: In 2008-2015, the EU conducted a survey of readers aged 20-74 in 15 countries, where they surveyed the average reading time of books but did not specify the type of book. In France, on average, readers read 2 minutes a day, in Italy 5 minutes, in Austria and Romania up to 10 minutes, in Hungary 10 minutes, in Finland and Poland 12 minutes, in Estonia 13 minutes. Slovakia was not included in the survey, but based on our results, we can assume that it would be placed at least on the average of the countries surveyed.



**FIGURE 1:** *E-book reading time*

Source: own processing, 2021

Respondents buy e-books mostly through domestic e-shops (49%). We found from the questionnaires that there is also a strong rate of illegal e-book downloads (29%). Krajčovič and Paveleková addressed the illegal download of e-books by Slovak readers in their as yet unpublished survey Reading of electronic books and illegal downloading. People download e-books quite often. They search for e-books from online free repositories the most. They cited the unavailability of titles or personal financial reasons as the reasons for their actions. Illegal e-book downloads threaten all markets, not just Slovak ones. Therefore, it may be a challenge to address this issue in more depth in the future. 11% of respondents shop in foreign e-shops. 7% of respondents receive e-books and 4% buy e-books directly from the e-reader. The data are shown in Figure 2.

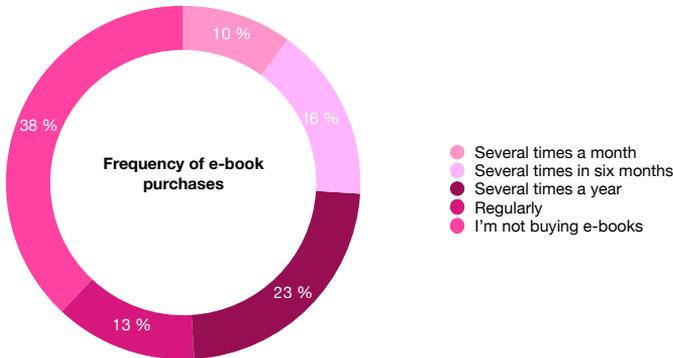


**FIGURE 2:** *Location of e-book purchases*

Source: own processing, 2021

Only 13% of respondents regularly buy e-books. As many as 38% of respondents do not buy e-books. They will either receive e-books as gifts or illegally download them from the store. More detailed results are shown in Figure 5. The interest of Slovak readers may to some extent influence publisher's plans to purchase a license to publish an e-book. In 2019, the least

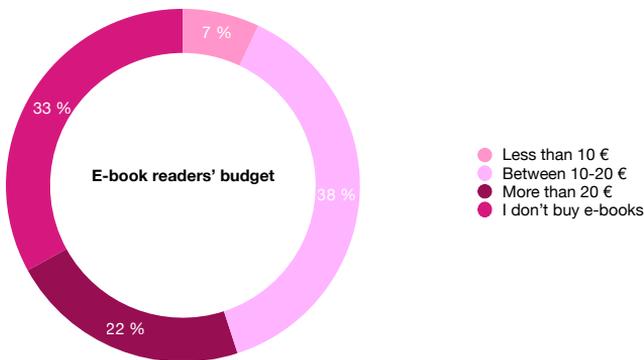
original prints were published in Slovakia compared to previous years (1.890 prints). Publishers are not motivated to publish formats other than paper books due to lost profits, which are also caused by illegal e-book downloads.



**FIGURE 3:** Frequency of e-book purchases

Source: own processing, 2021

For e-books, readers spend different amounts on their purchases – less than € 10 (7%), between € 10-20 (38%), more than € 20 (22%). Again, 38% of respondents do not buy e-books, similarly to Figure 3. The amount that readers are willing to pay for e-books may depend on their own household income and expenses. This year, however, the situation in connection with the pandemic may also affect everything. Preventive measures have affected several areas in Slovakia and unemployment has risen. Figure 4 shows budget data for eBooks.



**FIGURE 4:** E-book readers' budget

Source: own processing, 2021

In the research, we also focused on the preferences of e-books by Slovak authors. As many as 64% of respondents stated that they read e-books by Slovak authors, but only 38% of them prefer to read e-books over paper prints. Others, if they have a choice, will choose a classic book. The most popular Slovak authors of e-books were: Dominik Dán, Baja Dolce, Michaela Zamari, Emily D. Beňová, Lina Elys and Jozef Karika. Although domestic works are popular, translated fiction still has a strong presence in Slovakia.

In examining the hypotheses, we investigated whether there was a statistically significant relationship between generations X and Z and a change in the frequency of e-book purchases during the Covid-19 pandemic.

The hypothesis of independence between generation and e-book shopping has not been confirmed. The test showed that there is a relationship between these features. The results are shown in Table 2.

Generation / Purchase of e-books	Less often	The same	More often	Not buying	Together
<b>1965-1979</b>	0 (10,83)	84 (61,41)	63 (39,74)	21 (56,00)	168
<b>1980-1995</b>	28 (16,25)	98 (92,12)	56 (59,61)	70 (84,00)	252
<b>1996-2009</b>	14 (14,90)	56 (84,45)	35 (54,64)	126 (77,00)	231
<b>Together</b>	42	238	154	217	651

**TABLE 2:** Real and expected numbers (generation affiliation and e-book shopping)

Source: own processing, 2021

We reject the tested hypothesis at the level of significance  $\alpha$  if the value of the test criterion exceeds the critical value. The test showed that generation affects the frequency of book purchases. The value of the test criterion is 12.592. The degree of statistical dependence was calculated using the contingency coefficient ( $C = 0.3859121134914971$ ). The calculated value of the contingency coefficient shows that there is a slight degree of connection between the characters.

The research was limited to the Slovak book market and Slovak readers. From the point of view of scientific and practical contribution, it would be interesting to carry out this research abroad as well, especially in markets similar to the Slovak one. The results could be compared with each other and bring a new perspective needed to improve the shortcomings at work.

We focused on a narrow sample of respondents so that we could generalize the results more effectively. We also did not limit ourselves to a certain genre and did not separate the respondents accordingly. The preferred genre was not decisive, which limited us in the results section, respectively, in the possibility of more efficient use of results. For us, one idea for the future could be an extension of this survey, where we would focus not only on generations but also on the preferred genre or language of the e-book. More specific results would reflect the current situation in more depth and could also be applicable to specific companies in the Slovak book market. Another limitation of the survey is the current situation and the development of the Covid-19 pandemic, which affects other measures of the government in Slovakia in order to prevent the transmission of the virus among the population as much as possible.

The results of other research on the Slovak book market have so far not reflected the interest of generations X, Y and Z in reading e-books. Either the authors did not focus on a deeper knowledge of the specific generations or the sample did not show the interest of respondents in reading e-books, similarly to that found in the research of Hrdináková, Kopáčiková and Rankov.<sup>39</sup> Their sample of respondents from generation Z read books, but new media did not expose them sufficiently to tend to read e-books. In our sample of generations X, Y and Z, not only do respondents read e-books, but the Covid-19 pandemic has affected their shopping behaviour and they buy more e-books. This is a clear signal to companies in the book market about which products their potential customers are also interested.

Since we did not identify specific book titles, genres, or authors, it is difficult to plan a communication strategy without any other information. Only the information that potential customers want to read e-books and also to buy them to an increased extent is weak, but it can be the initial idea in a company's marketing decisions. From the final report of the Association of Publishers and Booksellers in the Slovak Republic, we can conclude, however, that publishers and bookstores should focus most on fiction when planning their promotional campaigns, as this has also been the best-selling e-book genre in recent years.<sup>40</sup> This figure, combined with the results of our survey, can greatly help businesses to conduct promotional activities during the pandemic.

<sup>39</sup> HRDINÁKOVÁ, L., KOPÁČIKOVÁ, J., RANKOV, P.: *Text a čítanie, mládež a knižnice*. [online]. [2021-04-20]. Available at: <[http://sakba.sk/wp-content/uploads/publikacie/Citanie\\_mladeze\\_2017-1.pdf](http://sakba.sk/wp-content/uploads/publikacie/Citanie_mladeze_2017-1.pdf)>.

<sup>40</sup> *Správa o knižnom trhu*. [online]. [2021-04-20]. Available at: <[https://zvks.sk/wp-content/uploads/2020/11/Knizny-trh\\_2019.pdf](https://zvks.sk/wp-content/uploads/2020/11/Knizny-trh_2019.pdf)>.

The results are applicable in practice and can help publishers to make decisions in several directions. In the first place, there is a demonstrated interest in ebooks. Generation X, Y and Z read e-books, want to read them and the Covid-19 pandemic affects their shopping behaviour. We have shown that generation has an influence on the purchase of e-books during a pandemic. Therefore, they should consider publishing more titles in this format as well. Research has shown the phenomenon of illegal e-book downloads. Although e-books are protected by legislation and e-book protection (e.g. social DRM), this protection appears to be insufficient. Therefore, the results of the research may tell publishers how else they can protect e-books or how to persuade the reader to buy an e-book rather than download it from the Internet. Last but not least, the results regarding the reading of Slovak authors could help Slovak publishers. Many publishers focus on the translation of foreign fiction and Slovak authors are just a supplement in their portfolio. Readers also want to read e-books from local personalities. The results included not only Slovak regulars in the book market, but also newcomers. Therefore, we recommend that publishers focus not only on publishing Slovak authors but also on their more concentrated marketing promotion.

The Covid-19 pandemic brings companies new opportunities to communicate with their customers, so we recommend publishing book titles not only in electronic format but also focus on online marketing promotion, which is still not a matter of course. The research approach of Slovak publishers to e-books during the Covid-19 pandemic shows that publishing houses in Slovakia do not pay more attention to the promotion of e-books. Rather, they rely on the fact that if the reader sees the campaign for a book title in paper form, he will look for his electronic form himself and buy it. However, the profit for e-books compared to paper titles does not support their opinion.

## 5. Conclusion

E-books already have an irreplaceable place in society today. They offer many benefits to users – they are more portable, do not require much storage space, save the environment and also the finances of the reader themselves because in most cases they are also cheaper than their paper versions. They also offer benefits for publishers and self-publishers themselves – in particular, they save the budget for printing and distribution, so the budget can be planned differently than for other titles.

E-books at the time of the Covid-19 pandemic are more available. In some cases, brick-and-mortar bookstore stores are closed during government orders. Readers can either order the paper book at home or at Post office. However, this distribution of the product can take several days, so the reader does not have his book immediately available. It's different from the electronic version. The reader can download the e-book to their device immediately after making the payment and can also choose the file format. Some can buy e-books directly on their in-app reader (for example, on Kindle readers, where readers can buy books directly through Amazon). The purchase of new stories during a pandemic thus takes on a different dimension, as the reader does not have to endanger their health due to the purchase and can also choose from a wide portfolio of products in Slovak and foreign languages.

In this paper, we focused on the generations that are influenced by technological developments. Technical skills are required to read e-books, and the reader must have a reading device – e.g. an e-book reader, a smartphone, a tablet or, in some cases, a laptop, which can be very inconvenient. Generations X, Y, Z are used to using modern devices in everyday life and being online. Therefore, we examined the consumer behaviour of generations in relation to e-books during the Covid-19 pandemic. The impetus was that the pandemic affected and influenced the shopping behaviour of consumers in various segments around the world. We were also interested in the interest of Slovak authors as well as the budget for e-books. The results can help publishers and publishers respond more effectively to customer needs when purchasing e-books during a pandemic.

Our research showed that the most numerous group of e-book readers are women. The results showed that the generation influences the purchase of e-books during the Covid-19 pandemic, while respondents prefer to shop in domestic e-shops such as Martinus.sk, Pantarhei.sk or Ibox.sk. They spend 1-2 hours reading e-books at once. There is also still interest in e-books by Slovak authors. However, there is still a trend of illegal e-book downloads, for which the book market is losing profits. However, the exact number is unknown. We can assume that weak protection of e-books, readers' preferences, but also the space for illegal distribution of e-books in the online space influences the decision-making of publishers when purchasing a license for electronic formats.

During the implementation of the research, we most often encountered a barrier in addressing different types of generations. To some extent, we assume that this is due to measures being taken preventively against a pandemic. It was easier to address in the sample of generation Z, which has been taught for several months in a distance online form, than generation X, whose life has not changed significantly and does not spend more time with a PC than before. This caused a more difficult penetration of this generation, but with the right specific communication channels on Facebook, we finally managed to reach the respondents of this generation.

The longer the pandemic lasts, the more the shopping behaviour of selected generations when buying e-books can be influenced in either a negative or positive direction. In the case of a declining family budget, it is rather assumed that the illegal downloading and sending of e-books will become even more widespread unless the publishers themselves respond to it. Readers want to read e-books and prefer this reading format during a pandemic.

The challenge for the authors of the article will be to find out how the pandemic will affect shopping behaviour and what the e-book market will look like after the pandemic.

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Lori Bindig Yousman

“Usually People Just Accept Media  
And Don’t Talk About It”

## The Perceived Value And Enjoyment Of Critical Media Literacy In Eating Disorder Treatment

### ABSTRACT

Despite the growing success of media literacy in eating disorder prevention programs there is a lack of research on the role of media literacy in eating disorder treatment. This pilot study extends previous research through the creation and implementation of the ERA (education-recognition-activism) curriculum, which was comprised of four-weekly, 50-minute group sessions where participants in treatment for eating disorders explored the tenets of critical media literacy, reflected on their emotional responses to media, considered how dominant media messages and social forces conflicted with personal goals for a healthy life, and engaged in activism by writing letters to organizations that contributed to or challenged toxic media culture. More specifically, this study explores the perceived value and enjoyment of the ERA curriculum in eating disorder treatment. Participant perception of media literacy as valuable and enjoyable is significant because it has the potential to combat the ambivalence and resistance that is common among individuals in eating disorder treatment and hinders recovery. Overall, the findings suggest that moving beyond prevention initiatives and incorporating critical media literacy into eating disorder treatment may be beneficial to the recovery process.

### KEY WORDS

Media literacy. Eating disorders. Women. Empowerment.

# 1. Introduction

Studies show that media play a key role in self-definition, preoccupation with weight and shape, anxiety over fat and weight gain, prejudice and stigma around overweight individuals, the glorification of the thin-ideal, and the internalization of unrealistic beauty ideals.<sup>1</sup> In response, media literacy scholars have developed prevention interventions that have resulted in improved body image,<sup>2</sup> body acceptance and satisfaction,<sup>3</sup> and eating attitudes<sup>4</sup> as well as decreased internalization of the thin-ideal<sup>5</sup> and concern with weight.<sup>6</sup> Despite the growing success of media literacy in eating disorder prevention programs,<sup>7</sup> there is a lack of research on the role of media literacy in eating disorder treatment. Thus, incorporating media literacy into eating disorder treatment programs may be a way to mitigate the potential negative impact of the media. This pilot study extends previous research through the creation and implementation of a media literacy curriculum with individuals in treatment for eating disorders. That said, not all approaches to media literacy are the same and some approaches, such as critical media literacy, may be better suited for working with individuals with eating disorders.

## What is Critical Media Literacy?

Typically considered an extension of traditional literacy, media literacy, in its broadest sense, is “the ability to access, analyze, evaluate, and create media in a variety of forms”.<sup>8</sup> However, this definition of media literacy leaves a great deal of room for interpretation regarding “media’s power and consequent effects, the perceived agency of viewers, and the motivation behind developing the viewers’ critical thinking skills”.<sup>9</sup> In response, critical media literacy (CML) emerged as a way to address “issues of power, domination, and control that might be overlooked by more limited approaches to media education”.<sup>10</sup> In other words, critical media literacy goes beyond the ability to interpret the veracity, realism, or harmfulness of media messages<sup>11</sup> and instead views media as a social force that impacts our perceptions of ourselves and the world around us.

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<sup>9</sup> BINDIG, L., CASTONGUAY, J.: Should I Really Kill My Television? Negotiating Common Ground Among Media Literacy Scholars, Educators, and Activists. In DE ABREU, B., MIHAILIDIS, P. (eds.): *Media Literacy Education in Action*, New York : Routledge, 2014, p. 139.

<sup>10</sup> YOUSMAN, B., BINDIG YOUSMAN, L.: *Critical Media Literacy and Cultural Autonomy in a Mediated World*, 2020, p. 6. [online]. [2021-08-10]. Available at: <[https://www.culturereframed.org/wp-content/uploads/2020/02/CR\\_Critical\\_Media\\_Literacy\\_Report\\_2020.pdf](https://www.culturereframed.org/wp-content/uploads/2020/02/CR_Critical_Media_Literacy_Report_2020.pdf)>.

<sup>11</sup> MCLEAN, S. A. et al.: The Measurement of Media Literacy in Eating Disorder Risk Factor Research: Psychometric Properties of Six Measures. In *Journal of Eating Disorders*, 2016, Vol. 4, No. 30, p. 2.

CML begins with understanding that media are constructions that shape our reality and have commercial, ideological, and political implications as well as unique forms and content that viewers negotiate to make meaning.<sup>12</sup> However, rather than simply focusing on the experiences of isolated individuals, CML acknowledges the role of structural forces on both the individual and society, questions inequality, and advocates for social change.<sup>13</sup> As Yousman (2016) explains: “From this perspective, in addition to being able to skillfully deconstruct media texts, the person who is truly media literate is also knowledgeable of the political economy of the media, the consequences of media consumption, and the activist and alternative media movements that seek to challenge mainstream media norms and create a more democratic system.”<sup>14</sup>

Furthermore, through the intersectional interrogation of hierarchical power relations, CML reveals the intertwined (and overdetermined) inequalities and social forces that uphold the status quo as well as offers possibilities for challenging them.<sup>15</sup> By helping individuals become “subjects in the process of deconstructing injustices, expressing their own voices, and struggling to create a better society,”<sup>16</sup> CML cultivates critical consciousness and a sense of empowerment.

In particular, CML is well-suited for addressing eating disorders since it is aligned with what eating disorders scholars have referred to as the “5 As” of successful prevention programs: **awareness** and **analysis** of messages about gender, beauty, and body ideals; **activism** and **advocacy** that challenges negative messages and celebrates positive messages; and **access** to media as a vehicle for participatory citizenship.<sup>17</sup> In addition to the “5 As,” successful eating disorder prevention programs are rooted in “critical analysis, systemic changes, and participatory processes.”<sup>18</sup> As noted above, critical analysis, systemic changes, and participatory processes are hallmarks of CML, which lend further support for adopting this particular media literacy approach when focusing on eating disorder treatment. Moreover, because “powerlessness is a significant health risk factor,” the sense of empowerment fostered through CML, may help curb body image and eating disturbances as well as aid eating disorder recovery.<sup>19</sup>

Despite the alignment of CML with successful eating disorder prevention programs, it is necessary to remember that individuals seeking treatment for eating disorders are far more entrenched in their disordered attitudes and behaviors than the general population who typically participates in prevention programs. Thus, individuals with eating disorders may be more resistant to treatment (regardless of whether it incorporates CML or not) because of their lack of readiness or willingness to change. In other words, afflicted individuals are often resistant to treatment because they perceive it as trying to “take away” their eating disorder, which that has become part of their identity and a source of maintaining

<sup>12</sup> AUFDERHEIDE, P.: Media Literacy: From a Report on the National Leadership Conference on Media Literacy. In KUBEY, R. W. (ed.): *Media Literacy in the Information Age: Current Perspectives*. New Brunswick, NJ : Transaction Publishers, 2001, p. 80.

<sup>13</sup> See: FUNK, S. et al.: Critical Media Literacy as Transformative Pedagogy. In YILDIZ, M. N., KEENGWE, J. (eds.): *Handbook of Research on Media Literacy in the Digital Age*. Hershey, PA : Information Science Reference, 2016, p. 1-30.

<sup>14</sup> YOUSMAN, B.: Who’s Afraid of Critical Media Literacy? In HUFF, M., ROTH, A. (eds.): *Project Censored 2017*. New York : Seven Stories Press, 2016, p. 385-386.

<sup>15</sup> YOUSMAN, B., BINDIG YOUSMAN, L.: *Critical Media Literacy and Cultural Autonomy in a Mediated World*, 2020, p. 23. [online]. [2021-08-10]. Available at: <[https://www.culturereframed.org/wp-content/uploads/2020/02/CR\\_Critical\\_Media\\_Literacy\\_Report\\_2020.pdf](https://www.culturereframed.org/wp-content/uploads/2020/02/CR_Critical_Media_Literacy_Report_2020.pdf)>.

<sup>16</sup> KELLNER, D., SHARE, J.: Toward Critical Media Literacy: Core Concepts, Debates, Organizations, and Policy. In *Discourse: Studies in the Cultural Politics of Education*, 2005, Vol. 26, No. 3, p. 382.

<sup>17</sup> LEVINE, M. P.: *Media literacy as an Effective and Promising Form of Eating Disorders Prevention*. [online] [2021-10-12]. Available at: <<https://www.edcatalogue.com/media-literacy-as-an-effective-and-promising-form-of-eating-disorders-prevention/>>.

<sup>18</sup> PIRAN, N.: A Feminist Perspective on Risk Factor Research and on the Prevention of Eating Disorders. In *Eating Disorders: The Journal of Treatment & Prevention*, 2010, Vol. 18, p.195.

<sup>19</sup> BERGSMAN, L. J.: Empowerment Education: The Link Between Media Literacy and Health Promotion. In *The American Behavioral Scientist*, 2004, Vol. 48, p. 152.

control.<sup>20</sup> However, based on the findings of Wade, Davidson, and O’Dea<sup>21</sup> participants may be less resistant to programs that adopt a media literacy approach. For instance, Wade and colleagues found that participants in a media literacy curriculum expressed greater body acceptance and satisfaction than participants in a non-media literacy self-esteem program. In addition to addressing body image issues, participants in the media literacy curriculum were also able to garner messages of self-acceptance and self-enhancement. Furthermore, the media literacy curriculum was rated as more valuable and more enjoyable than the self-esteem curriculum. Participant perception of media literacy as valuable and enjoyable is particularly relevant because it has the potential to combat the ambivalence and resistance that is common among individuals in eating disorder treatment and hinders recovery.<sup>22</sup> Thus, inspired by the findings of Wade, Davidson, and O’Dea, this study moves beyond prevention initiatives to explore the perceived value and enjoyment of CML in eating disorder treatment and how it may be beneficial to the recovery process.

## 2. Method

To address the lack of research regarding media literacy in eating disorder treatment, a CML curriculum was developed for use with young women in a partial-hospitalization and intensive outpatient (PHIOP) treatment program in New England. Similar to the Media Smart prevention program,<sup>23</sup> the ERA (Education-Recognition-Activism) program was grounded in media literacy, empowerment, and activism. More specifically, the goal of the ERA program was to: Increase participants’ understanding of the tenets of media literacy, increase participants’ sense of empowerment, and decrease participants’ the drive for thinness. The ERA program consisted of four-weekly, 50-minute group sessions where participants: 1. explored the foundations of critical media literacy by applying them to popular media culture, 2. reflected on their emotional responses to media, 3. considered how dominant media messages and social forces conflicted with personal goals for a healthy life, and 4. engaged in activism by writing letters to organizations that contributed to or challenged toxic media culture. IRB approval and informed consent of participants was obtained prior to the start of the study.

In order to determine the effectiveness of the ERA program, participants were asked to complete pre- and post-test surveys. Building on the work of Wade, Davidson, and O’Dea, the post-test survey included five open-ended questions regarding the participants’ perceived value and enjoyment of the ERA program, in addition to the 33 closed-ended questions that appeared on the pre-test. In general, open-ended questions are useful because they provide an opportunity to obtain more nuanced data about participant engagement with the curriculum; however, the perceived value and enjoyment of the ERA program may also have implications regarding participant receptivity to treatment. The open-ended survey questions included: “*What was the most valuable aspect of the curriculum?*,” “*What was the least valuable aspect of the curriculum?*,” “*What did you enjoy the most in the curriculum?*,” “*What did you enjoy least in the curriculum?*” and “*What suggestions do you have for the curriculum?*” For the purposes of this study, “*value*” was defined as the perceived usefulness of the sessions, not just in everyday life, but specifically for the participants’ recovery process. Likewise, “*enjoyment*” was understood

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<sup>20</sup> ABBATE-DAGA, G. et al.: Resistance to Treatment in Eating Disorders: A Critical Challenge. In *BMC Psychiatry*, 2013, Vol. 13, p. 282.

<sup>21</sup> WADE, T. D. et al.: Enjoyment and Perceived Value of Two School-Based Interventions Designed to Reduce Risk Factors for Eating Disorders in Adolescents. In *Australian e-Journal for the Advancement of Mental Health*, 2002, Vol. 1, No. 2, p. 5.

<sup>22</sup> GREGERTSEN, E. et al.: The Egocentric Nature of Anorexia: An Impediment to Recovery in Anorexia Nervosa Treatment. In *Frontiers in Psychology*, 2017, Vol. 8, No. 2273, p. 2. [online]. [2017-12-22]. Available at: <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5743910/>>.

<sup>23</sup> PIRAN, N.: New Possibilities in the Prevention of Eating Disorders: The Introduction of Positive Body Image Measures. In *Body Image*, 2015, Vol. 14, p. 154-155.

as the pleasure (or lack thereof) gained from participating in the ERA curriculum. Although 73 individuals participated in the ERA program, only 50 consented to completing pre- and post-test surveys. Due to attrition, only 33 individuals, all identifying as white females between the ages of 12 and 43,<sup>24</sup> provided both pre- and post-test surveys for analysis. Open-ended survey questions were subject to thematic analysis using the grounded theory approach.<sup>25</sup>

### 3. Results

Quantitative analysis revealed a statistically significant increase in understanding the tenets of media literacy upon the completion of the ERA curriculum, but only slight increases for empowerment and decreases in drive for thinness.<sup>26</sup> However, thematic analysis of the open-ended survey questions suggested that the women in treatment for eating disorders both valued and enjoyed components from each stage (Education, Recognition, and Activism) of the CML curriculum. More specifically, they valued and enjoyed the opportunity for: critical viewing, discussions about media's social impact, personal reflection on the connection between media and eating disorders, and making a difference by engaging in activism. Though not an explicit goal of the ERA curriculum, the participants also valued and enjoyed the sense of community that was developed through the CML conversations. Though not the primary focus of this article, responses to the open-ended survey questions did show evidence of the ERA curriculum achieving its goals of fostering media literacy and empowerment as well as helping participants question eating disorder attitudes.

Theme	Most Valuable	Most Enjoyable
Critical Viewing Skills	<b>15</b>	10
Media's Social Impact	12	8
Personal Reflection	12	4
Making a Difference	4	9
Community through Conversation	13	<b>23</b>

**TABLE 1:** *Most valuable and most enjoyable aspects of the ERA curriculum*

Source: own processing, 2021

While the greatest number of responses to the questions regarding the aspects of the curriculum that were “*least valuable*” or “*least enjoyable*” was “*nothing*,” other participant responses included media selection, triggering, repetition, and pessimism.

Theme	Least Valuable	Least Enjoyable
Nothing	<b>10</b>	<b>12</b>
Media Selection	8	6
Triggering	3	<b>7</b>
Repetition	-	5
Pessimism	4	3

**TABLE 2:** *Least valuable and least enjoyable aspects of the ERA curriculum*

Source: own processing, 2021

<sup>24</sup> The average age of ERA participants was 20 years old.

<sup>25</sup> See: HENWOOD, K., PIDGEON, N.: Grounded Theory in Psychological Research. In CAMIC, P. M., RHODES, J. E., YARDLEY, L. (eds.): *Qualitative Research in Psychology*. Washington, D. C. : American Psychological Association, 2003.

<sup>26</sup> BINDIG, L.: Media Literacy in Eating Disorder Treatment. In LIND, R. A. (ed.): *Race/Gender/Media: Considering Diversity Across Audiences, Content and Producers, 3<sup>rd</sup> Edition*. New York : AB-Longman, 2013, p. 35.

In addition, participants had the opportunity to provide suggestions for the curriculum. Although the greatest number of responses was “nothing,” participants did include suggestions regarding content, participation, activism activities, and recognition strategies.

Theme	Responses
Nothing	8
Content	7
Participation	6
Activism	4
Recognition	3

**TABLE 3:** Suggestions for the ERA curriculum

Source: own processing, 2021

## 4. Discussion

The following discussion of the most valuable and enjoyable aspects of the ERA curriculum as well as its least valuable and enjoyable aspects and suggestions include representative survey responses. The names attributed to the responses have been changed to protect the privacy of the participants.

### 4.1 Most Valuable and Enjoyable

#### Critical Viewing Skills

Cited by fifteen participants, critical viewing skills emerged as the most valuable aspect of the ERA and the second most enjoyable aspect of the curriculum as indicated by ten participants. In terms of the value and enjoyment of critical viewing skills, participant responses focused on the opportunity to deconstruct and question media messages as well as talk about them. For instance, Kathy (age 22) noted, “Usually people just accept media and don’t talk about it.” Likewise, Eliza (age 24), valued that the curriculum because it “Makes me more aware of things to watch for.” Both Kathy and Eliza’s responses suggest that the ERA curriculum created a new space where participants could interrogate media messages. While Kathy valued the ability to question media in general, Eliza’s response reflects a newfound awareness of underlying media ideologies and techniques. Thus, participants seemed to appreciate the CML tools that enabled them to view media in a new way.

More specifically, some participants reported valuing and enjoying critical viewing skills because it helped them evaluate the realism or truthfulness of media messages. For instance, Ellie (age 14) said, “I think the most valuable aspect of the curriculum is that it teaches you to look at media objectively...it shows you how to identify what might not be true...” and Kelly (age 22) noted that the most valuable aspect of the curriculum was “Realizing/affirming the negative, insanely unrealistic sides of media.” For Ellie and Kelly, critical viewing skills helped them recognize that media messages are not always accurate or realistic. Furthermore, CML helped them establish a critical distance from media and provided ways to evaluate media messages. This participant feedback is noteworthy since being able to question the veracity and realism of media can help mitigate the harmful effects of media induced body dissatisfaction as noted by previous research.<sup>27</sup>

27 MCLEAN, S. A. et al.: The Measurement of Media Literacy in Eating Disorder Risk Factor Research: Psychometric Properties of Six Measures. In *Journal of Eating Disorders*, 2016, Vol. 4, No. 30, p. 2.

### Media's Social Impact

Twelve participants noted that learning how media can affect individuals was the most valuable aspect of the ERA curriculum and eight participants found it the most enjoyable. This was exemplified by Sabrina (age 16) who noted *"I think it was interesting and important to see how media distorts things and how they are targeting younger girls which is leading to lower self-esteem"* and *"how the media plays with people's minds."* While Sabrina's comments acknowledge that media do have an impact, she focuses on how media impact others, not herself. In contrast, Sydney (age 18) acknowledges the personal impact of media when she says that most valuable aspect of the curriculum was *"watching shows and seeing how it correlates to us."* Likewise, Delia (age 21) enjoyed learning *"how much media really does affect our self-perception."* While it is unclear if Sydney's use of the word "us" and Delia's use of "our" meant society as whole, individuals with eating disorders, or the participants in the study, both young women clearly include themselves as people who are impacted by media. Past research on the *"third-person effect"* has shown that individuals tend to inaccurately view media as having a greater (and more harmful) impact on others than themselves.<sup>28</sup> Therefore, the ERA curriculum not only helped participants recognize media's broader social influence, but also acknowledge how it directly impacts their own sense of self and well-being.

### Personal Reflection

Like media's social impact, twelve participants found the recognition stage, where they made connections between media and their eating disorders, valuable. Additionally, four participants cited personal reflection on the connection between media and their eating disorders as the most enjoyable aspect of the curriculum. For instance, Marissa (age 17) reported that the ERA curriculum was valuable and *"eye-opening"* because it *"brought my attention to media messages – made me realize how important [it] is to recognize my reaction to media messages."* In other words, for Marissa the ERA curriculum provided an opportunity to reflect on the way media can trigger an eating disorder mindset or behavior. When Mona (age 18) states she valued the curriculum for *"focusing on stopping [the] voices in [our] head[s] that tell us to agree with media,"* she suggests that not only does the ERA curriculum help participants recognize media triggers, but CML also provides tools to combat them.

For Delia (age 21), the personal reflection encouraged in the recognition stage was valuable for *"challenging us to think about what we want in [the] long run and how an ideal body won't necessarily lead to happiness."* Delia (age 21) also noted that she enjoyed the reflection portion of the recognition stage because it made her ask herself questions such as *"Why should I let a hashtag have an impact on whether I feel good [about myself]?"* Delia's responses suggest that CML is not only useful for critiquing media, but also can be an effective tool in helping individuals in treatment reflect on media triggers, question their responses to media triggers, and start developing new ways of thinking about themselves and their future. Delia's personal reflection seems to indicate a newfound sense of self-worth suggesting that CML can positively impact self-esteem and self-efficacy – two key factors of empowerment<sup>29</sup> – which are key to overcoming eating disorders.

Similarly, Lisa (age 21) noted that she enjoyed personal reflection because it served as a catalyst for *"getting angry."* Although anger may seem like a counter-productive emotion for individuals in treatment for eating disorders, the ability to tap into and recognize emotions is essential for recovery. In fact, studies have shown that anger can be a *"motivating force"* and a sign of empowerment if it leads to social or individual change.<sup>30</sup> Since Lisa reported her anger as enjoyable, she seems to suggest that the ERA curriculum may not only be empowering, but also a pleasurable way to deal with a difficult part of the recovery process.

<sup>28</sup> TIEDGE, J. T. et al.: Discrepancy Between Perceived First-Person and Perceived Third-Person Mass Media Effects. In *Journalism Quarterly*, 1991, Vol. 68, No. 1/2, p. 142.

<sup>29</sup> ROGERS, E. S. et al.: A Consumer-Constructed Scale to Measure Empowerment Among Users of Mental Health Services. In *Psychiatric Services*, 1997, Vol. 48, No. 8, p. 1044.

<sup>30</sup> Ibidem, p. 1046.

### Making a Difference through Activism

Interestingly, while nine participants indicated that the activism was enjoyable, only four mentioned that it was valuable. Several participants suggested that they valued and enjoyed the activism session because the letter-writing activity provided a concrete way to intervene and be a catalyst for positive social change. For instance, Sally (age 13) stated that she enjoyed *“the feeling that it [letter writing] could possibly made a difference.”* Likewise, Bailey (age 20) valued *“knowing we can change the future”* and Lisa (age 21) enjoyed the way the activism activity fostered *“a renewed desire to make a difference [emphasis original].”* Like reflection, the letter writing activity seems to foster optimism about the ability to effect change, which is a central component of empowerment.<sup>31</sup>

Other participants enjoyed the activism stage because in addition to making a difference, it also was an opportunity to make their voices (and feelings) heard. For example, Ellie (age 14) noted, *“I really enjoyed writing letters—[it] made me feel like I had a voice and was helping to make a difference.”* Ellie’s comment is significant given that individuals with eating disorders often struggle with feelings of voicelessness.<sup>32</sup> While not as explicit as Ellie, Kathy (age 22) enjoyed the *“opportunity to criticize media rather than just accepting [it].”* For both Ellie and Kathy, the ability to speak out and challenge toxic media messages rather than being a passive consumer was key to their enjoyment. Thus, the activism stage of the ERA curriculum provided an opportunity for participants to *„build capacities to act on their own behalf,”* which is another essential component of empowerment.<sup>33</sup>

Although some participant responses about activism merely allude to empowerment, Delia (age 21) explicitly notes that she both valued and enjoyed writing letters because she found it *“very empowering.”* While participating in activism reflects the engaged citizenship that is essential to a healthy democracy, the empowerment fostered by letter writing is necessary for a healthy individual. As past research suggests empowerment can be predictive of body image and eating disturbances<sup>34</sup> and is *“an important construct for successful risk factor reduction.”*<sup>35</sup> Thus, like past prevention initiatives,<sup>36</sup> the ERA curriculum shows that CML can positively impact empowerment and be beneficial in eating disorder treatment.

While additional research is needed, perhaps the reason why more participants enjoyed activism than valued it was because they did not fully understand how writing letters was connected to CML and/or eating disorder recovery. If this is the case, future implementations of the ERA curriculum (as well as other CML initiatives) must make a concerted effort to stress the relationship between the different stages as well as better explain how activism and advocacy are connected to recovery. Regardless of whether the participants found letter writing valuable, their comments suggest that the activism activity positively impacted their sense of self-efficacy, optimism and empowerment, which can only aid the treatment process.

<sup>31</sup> ROGERS, E. S. et al.: A Consumer-Constructed Scale to Measure Empowerment Among Users of Mental Health Services. In *Psychiatric Services*, 1997, Vol. 48, No. 8, p. 1046.

<sup>32</sup> FOYE, U. et al.: “The Body is a Battleground for Unwanted and Unexpressed Emotions”: Exploring Eating Disorders and the Role of Emotional Intelligence. In *Eating Disorders*, 2019, Vol. 27, No. 3, p. 332.

<sup>33</sup> STAPLES, L.: *Consumer empowerment in the Massachusetts Mental Health System: A Comparison of Attitudes, Perceptions and Opinions Within and Between Provider Groups*. [Doctoral Dissertation]. Boston: Boston University, 1993, p. 22.

<sup>34</sup> PETERSON, R. D. et al.: Empowerment and Powerlessness: A Closer Look at the Relationship Between Feminism, Body Image and Eating Disturbance. In *Sex Roles*, 2008, Vol. 58, p. 644.

<sup>35</sup> EICKMAN, L. et al: Randomized Controlled Trial of REbeL: A Peer Education Program to Promote Positive Body Image, Healthy Eating Behavior, and Empowerment in Teens. In *Eating Disorders*, 2018, Vol. 26, No. 2, p. 139.

<sup>36</sup> WADE, T. D. et al.: Enjoyment and Perceived Value of Two School-Based Interventions Designed to Reduce Risk factors for Eating Disorders in Adolescents. In *Australian e-Journal for the Advancement of Mental Health*, 2002, Vol. 1, No. 2, p. 5.

### Community Through Conversation

Though not a primary goal, the sense of community that was established through CML conversations was cited by twenty-three participants making it by far the top ranked most enjoyable aspect of the ERA curriculum. However, only thirteen participants reported that community was the most valuable aspect of the curriculum. For the participants this sense of community emerged out of the CML conversations related to critical viewing and media impact that took place during the Education stage of the curriculum. Some of these responses were quite broad and simply referred to the conversations as exemplified by Marissa (age 16) commenting that she “*enjoyed discussing [the] impact of media*” and Kayla (age 36) noting that she enjoyed the “*open discussions about media and the impact it can have on ED [eating disorders]*.” Other participants made an explicit connection between CML conversations and the sense of community. For example, Peyton (age 18) noted that during critical analysis discussions, she most enjoyed “*knowing that others recognize what media is doing or not doing, I’m not alone in feeling that the media is unrealistic and corruptive.*” Similarly, Beth (age 20) stated that she valued “*hearing how other girls are affected the same way by the media and that I am not alone in that struggle.*” These participant responses suggest that the ERA curriculum creates a space not just to educate young women about the power of the media, but it also fosters a sense of community and companionship through discussion where they organically connect CML to their personal struggles.<sup>37</sup>

## 4.2 Least Valuable and Enjoyable

While the greatest number of responses to the questions regarding the aspects of the curriculum that were “*least valuable*” or “*least enjoyable*” was “*nothing*,” participants also mentioned media selection, triggering, repetition, and pessimism as aspects of the ERA curriculum that may not have aided the recovery process.

### Media Selection and Topics

Of all the comments regarding the least valuable aspect of the curriculum perhaps the most constructive were the ten responses about the topics discussed and the clips used in the Education stage. These comments ranged from lack of familiarity with the clips to wanting more autonomy over the topics. For instance, Nora (age 18) noted, “*I thought the clips were a little strange – I had never seen the show so I had nothing to base my observations on*” while Kathy (age 22) did not enjoy “*having the topic handed to us.*” Nora’s comment reveals that despite every effort to pick a common text, there will always be individuals who are not familiar with a particular piece of media. Because the ability to replicate each lesson was necessary for research purposes, clips were chosen based on shows mentioned by the first round of participants. However, in a non-experimental setting unfamiliarity with clips could easily be remedied by asking group participants to bring in clips from their favorite television programs (the same could be done with social media, advertisements, magazines, films, etc.). Likewise, participants could be granted more control over discussions in a non-experimental setting although certain topics (such as tenets of critical media literacy or statistics about media influence) would still need to be present in order to implement the ERA curriculum and foster CML.

### Triggering

Although seven participants noted that triggering curriculum content was the least enjoyable aspect of the curriculum, only three indicated that it was the least valuable. More specifically, these individuals reported that discussions about models, clothing sizes, and potential media

<sup>37</sup> BINDIG YOUSMAN, L.: “I am not alone”: The Additional Benefits of Critical Media Literacy. In *The International Journal of Critical Media Literacy*, 2019, Vol. 1, No. 1, p. 47.

effects could be triggering at times. For example, Beth (age 20) stated, “*Talking about some of the really thin models – it was a little triggering if anything*” while Molly (age 17) said that media content was “*almost hypnotizing.*” Certainly, triggering and the glamorization of eating disorders have long been a concern when designing and implementing media literacy curricula.<sup>38</sup> These responses indicate that even though all discussion topics and media used in the ERA curriculum were chosen carefully and with approval of the PHPIOP psychiatrist, it is impossible to fully anticipate the responses elicited from the curriculum materials. Fortunately, because the ERA curriculum was implemented in PHPIOP setting, participants were closely monitored to ensure that any inadvertent triggering did not become problematic. Furthermore, claims of triggering, though valid, often operate as a way to shut down any critique of media or cultural values as well as any individual growth. If treatment avoids all potentially triggering discussions or images, participants never have the opportunity to challenge themselves or their eating disorder. Therefore, Beth and Molly’s comments should be approached not as a failure of CML or the ERA curriculum, but as a starting point for addressing media triggers in a productive manner.

While it is important to be sensitive to the needs of individuals in treatment for eating disorders, it is also equally important to be realistic about the larger culture in which these individuals exist. Although language and images that glamorize and reinforce eating disorders can undermine treatment, it is necessary to remember that our current cultural environment promotes a “*cult of thinness.*”<sup>39</sup> Thus, CML programs like the ERA curriculum must incorporate potential triggers in order to deconstruct them and help the participants develop healthier responses to everyday experiences. Interestingly, three of the seven individuals who noted their lack of enjoyment of triggering content were able to acknowledge how it could be beneficial, as exemplified by Marissa’s (age 17) comment, “*Some of the topics are difficult to talk about but it’s important they are brought up and discussed.*” Marissa’s response demonstrates that incorporating and addressing triggering content, though at times unpleasant and uncomfortable, is necessary and valuable for the recovery process. Comments like Marissa’s suggest CML provides a way to address media triggers safely and productively.

### **Repetition**

Five participants mentioned “*repetition*” as the least enjoyable aspect of the curriculum. Three of these individuals mentioned not enjoying the repetition of the pre and post-test questionnaires – or “*filling out forms*” as Nora (age 18) referred to it – while Delia (age 21) simply stated “*repetition*” and Sally (age 13) specifically referred to the activism project. Although there was some repetition in the content (particularly in the form of previewing and reviewing each media literacy session), the majority of the repetition noted here could be ameliorated by eliminating the experimental nature of the curriculum. To be clear, if CML was integrated into eating disorder treatment programs there would be no need for stringently uniform lesson plans or repeated questionnaires. Nevertheless, future researchers should be aware of the lack of enjoyment participants experienced in completing questionnaires and should keep this in mind when developing their research design and assessment instruments.

### **Pessimism**

The perceived pessimism of other participants was reported to be the least valuable aspect of the curriculum by four participants and least enjoyable aspect by three participants. For example, Kay (age 43) did not enjoy “*others’ negative thoughts*” and Molly (age 17) expressed displeasure with “*seeing other people struggle or unable to make progress.*” The pessimism or uncertainty

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<sup>38</sup> NEUMARK, D. et al.: Primary prevention of Disordered Eating Among Preadolescent Girls: Feasibility and Short-term Effect of a Community Based Intervention. In *Journal of the American Dietetic Association*, 2000, Vol. 100, No. 12, p. 1471.

<sup>39</sup> HESSE-BIBER, S. N.: *The Cult of Thinness*. New York : Oxford University Press, 2007, p. 15.

about positive change was also reflected in comments like “*Not knowing if people get it or changed their thinking*” (Sally, age 13) and “*Although people tell themselves that shows are fake [they] still do not internally embrace that*” (Janet, age 19). Although these comments appear to focus on other individuals, it is possible that the participants were referring to themselves. Regardless of whether the participants truly are concerned about others or are unsure about their own ability to change, pessimism and negativity can create a challenging environment for recovery. Two possible responses to pessimism and negativity are reminding participants to focus on their own progress and turning the pessimism around on participants and put the onus back on them. In other words, when pessimistic statements are made the facilitator could guide a discussion about how to combat or work through pessimism. This would allow all of the participants (not just the „*pessimistic*” ones) to engage with the issue at hand as well as provide another opportunity to connect with each other, an aspect the participants found overwhelmingly valuable and enjoyable. Emphasizing that growth is not immediate; rather, change – social or individual – occurs slowly over time, could also be helpful. Furthermore, it is essential to keep in mind that pessimism and negativity are not unique to CML or the ERA curriculum but are common responses to eating disorder treatment and recovery in general.<sup>40</sup> In this case, Sally and Janet’s comments are evidence that at least some participants did embrace (or “*get*”) the critical viewing skills the ERA curriculum hoped to foster in spite of negativity or pessimism. However, researchers should consider ways to prevent or reduce pessimism and negativity in future CML initiatives.

### 4.3 Suggestions

After completing the questions regarding the value and enjoyment of the ERA curriculum, participants had the opportunity to offer suggestions for improvement. The feedback provided by the participants focused on participation, media content, recognition activities, and activism initiatives.

#### Participation

Six individuals offered suggestions regarding participation. These comments varied from suggestions for more structure (i.e. “*raising hands*” or “*going around in a circle*”) to less structure (“*more open forum*”). Two participants, Mona (age 18) and Kelly (age 22), requested that the discussions from the ERA curriculum to go further in depth or be carried over into other groups in the PHPIOP treatment program. While the suggestions of either more or less structure can be moderated session to session, Mona and Kelly’s suggestions imply a desire for CML to be more fully integrated into eating disorder treatment. Although this would require the practitioners at the PHPIOP to work together to ensure that CML content is integrated into other groups, it is not an impossible task. Natural connections exist with body image groups or art therapy. CML could also be incorporated into nutrition groups by exploring the implication of popular diet programs or food and weight loss advertisements.

#### Content

Seven individuals provided suggestions for curriculum content. For instance, four individuals specifically wanted to have a different selection of media texts for viewing and discussion. As mentioned in the discussion of value and enjoyment of curriculum content above, an ideal CML curriculum would encourage participants to bring in relevant media texts of their own choosing. Three other individuals suggested journaling assignments, assigned readings, and

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<sup>40</sup> NOORDENBOS, G. et al.: Chronic Eating Disorders: The Patients’ View of their Treatment History. In *Eating Disorders: The Journal of Treatment & Prevention*, 1998, Vol. 6, No. 3, p. 221.

more activities. All three of these suggestions were elements that were initially included in the ERA curriculum. However, these activities were eliminated due to time constraints for the pilot study. While these suggestions were not necessarily possible due to the experimental nature of this study, all of them could easily be incorporated into other implementations of the ERA curriculum or other CML initiatives.

### **Recognition**

Three individuals provided suggestions regarding the recognition component of the ERA curriculum. These comments revolved around internal issues of “*coping with media and addressing feelings*” (Ellie, age 14), “*separating myself from the media*” (Marissa, age 17), and “*combat tactics*” (Donna, age 16). In other words, these participants seemed to be requesting more strategies for dealing with the emotions triggered by media texts. These suggestions are not surprising because dealing with internal issues require a great deal of time and energy and can be a difficult obstacle for individuals in recovery. Based on these suggestions, it may be useful work closely with the program psychiatrist in order to further develop activities and strategies discussed during the recognition stage. However, taking the challenges of internal growth into account, the relatively few suggestions for the recognition stage suggests that the participants were relatively satisfied with this component the ERA curriculum. That said, it is not impossible to incorporate more internal strategies into the curriculum, since previous studies have utilized an entirely internally oriented intervention.<sup>41</sup>

### **Activism**

Four participants provided suggestions for the activism projects. Sally (age 13) suggested writing a group letter as well as individual letters. This was another activity that was originally included in the ERA curriculum but eliminated due to time constraints. Based on participant feedback, including a group letter as part of the activism component may remedy the issues some individuals had with brainstorming and the actual writing process. Furthermore, Kathy’s (age 22) suggestion to base a letter on an advertisement that each individual brings to the activism session may also improve the letter writing process. Incorporating the same advertisement into each stage of the ERA curriculum could enhance the continuity and cohesiveness of the curriculum. In other words, the advertisement could be a touchstone in all three stages: a text the participants deconstruct during the education stage, a trigger to confront and compare with personal goals during the recognition stage, and the basis for a group letter writing campaign during the activism stage.

In addition to considering how activism is related to corporate media, Marissa (age 17) suggested that activism also means providing “*ways to help others*” particularly with eating disorder prevention. Although the primary goal of the ERA curriculum is to help those in treatment for eating disorders, the activism component of the curriculum can be used as an opportunity introduce CML to others. For instance, participants could create social media campaigns, websites, or public service announcements about CML in order to help others. The participants could also work together to create a list of questions or responses when viewing media with friends, children, spouses, or siblings.

### **Nothing**

Despite the suggestions regarding participation, content, recognition, and activism, eight participants felt that there was no need to alter the ERA curriculum. These participants reported overall satisfaction with topics and discussion. Support for the current ERA curriculum was exemplified by comments such as “*Really none. I enjoyed the group greatly. I thought we r*

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<sup>41</sup> IRVING, L. M., BEREL, S. R.: Comparison of Media-literacy Programs to Strengthen College Women’s Resistance to Media Images. In *Psychology of Women Quarterly*, 2001, Vol. 25, No. 2, p. 104.

each different topics than we typically talk about, which was refreshing and helpful” (Heather, age 14), “I don’t really have any suggestions. I felt that it was helpful to look at the media in a more critical way...” (Sabrina, age 16), and “Really none. I think it is well done every time. Very structured and comfortable at the same time.” (Sydney, age 18). These comments suggest that for at least these eight participants, the ERA curriculum was valuable, enjoyable, and did not need to be revised.

## 5. Conclusion

The qualitative survey results suggest that participants both valued and enjoyed the ERA curriculum. In particular, participants cited valuing and enjoying developing critical viewing skills, understanding of media’s social impact, and engaging in personal reflection and activism. While participants did mention aspects of the curriculum that they did not value or enjoy and offered suggestions, the positive responses to the curriculum outnumbered the negative. Furthermore, the critical responses and suggestions should not be seen as a failure of incorporating CML into eating disorder treatment, but rather interpreted as ways to improve the implementation of the ERA curriculum in the future. Though not the primary focus of this article, the survey responses do demonstrate an increased understanding of CML and a sense of empowerment, which suggests, that at least for some participants, the ERA curriculum was successful in achieving two of its three goals. Perhaps most significantly, this study shows that it is possible to go beyond prevention efforts and successfully implement CML into eating disorder treatment. This exploratory study suggests the perceived value and enjoyment of CML may support the recovery process since the CML skillsets and sense of empowerment fostered by the ERA curriculum may not only aid immediate recovery efforts but also gives participants tools to use once they are no longer in treatment. Though longitudinal research is needed, the ability to tap into CML skills and foster a sense of empowerment may help prevent relapse, which is common with this population.

That said, both institutional and experimental factors were potential limitations of this research. The structure of the PHPIOP (and eating disorder treatment programs in general) limited the study in terms of self-selection, small sample size, lack of participant diversity in terms gender and race, and amount of time allotted for the ERA curriculum. Future studies should seek out larger and more diverse samples as well as longer (or more) CML sessions. In terms of experimental factors, as noted previously, the repetitive nature of the questionnaires was not enjoyable for some participants and may have impacted responses. Certainly, researchers should consider ways to avoid or at the very least minimize repetitive questionnaires in future studies. Likewise, social desirability may have played a role with participants attempting to “please” the researcher or give the “right” response. In an effort to combat social desirability participants were regularly encouraged to be honest and reminded that there were no “right” or “wrong” answers. Participants did submit their questionnaires without their names (they used numbers or symbols for tracking purposes) in an attempt to further curb social desirability. Most importantly, future endeavors should incorporate and address the feedback provided by the participants in this study – not only in an effort to advance knowledge but to improve the lived experiences of those in treatment for eating disorders. To paraphrase Kathy (age 22), by focusing on media and talking about it, the ERA curriculum shows how CML can move beyond prevention efforts and be successfully integrated into eating disorder treatment – not only opening up new possibilities for treatment models but also positively impacting the lives of those who perceive it as valuable and enjoyable.

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## Fake News Going Viral: The Mediating Effect Of Negative Emotions

### ABSTRACT

In recent years, “fake news” has become a buzzword used to describe a variety of disinformation practices identifiable both in the traditional media, and in the digital environment. The goal of our paper is to investigate fake news, aiming at both clarifying the concept and discussing the possible integration of ideologically driven information under this large umbrella, as well as investigating conditions under which various types of fake news have the potential to go viral. In this study we consider ideologically driven news as a form of disinformation, by the mere reason that there is a clear intention to deceive behind this type of news. At the same time, we argue that, compared to no more than one-two decades ago, ideologically driven information is potentially much more harmful, by virtue of the potential of being shared, easily further disseminated within echo-chambers and with the help of filter bubbles. In line with recent studies, we contend that, at its core, the fake news problem concerns the economics of emotion, specifically how emotions are used and often abused to foster audience’s attention, engagement, and willingness to share content. In this context, and under the recent political circumstances in Romania (marked by anti-government protests and public opposition to the ruling political party), our aim is to better understand how people’s susceptibility to disseminate deceitful information is enhanced by various forms and valences of politically biased fake news, and what is the role of specific emotions in explaining this process. Building on Tandoc et al.’s classification of fake news, we propose a 2x2x2 experimental design, in which we manipulated intention to deceive, level of facticity and valence. The survey experiment (N=813) tests two positive (enthusiasm and contentment) and two negative (anger and fear) discrete emotions as mediators of the main effect of potential of viralisation effects (i.e. how likely users are to share fake news on a social network). Results show that negatively biased fake news enhances people’s willingness to share the news story, while positively biased fake news has no significant effect on the viralisation potential. Moreover, the potential for viralisation is mediated by negative emotions, but not by positive ones.

### KEY WORDS

Discrete emotions. Experimental design. Fake news. Viralisation effects.

# 1. Introduction

In recent years, “fake news” has become a buzzword used to describe a variety of disinformation practices identifiable both in the traditional media, and in the digital environment. The concept and the practice of deceiving the public through falsified information are not new. However, the content and scope of the term changed dramatically in the new media ecosystem.

In present times, “fake news” gained the attention of the general public starting with the 2016 US electoral campaign, a context in which the term became highly weaponized in the political battle, and in the wake of the Cambridge Analytica scandal. As a consequence, worldwide searches for “fake news” exploded in November 2016, at the end of the US presidential campaign, and have continued to increase ever since (according to Google Trends Timeline).<sup>1</sup> The preoccupation with the consequences of fake news reached its peak during the COVID-19 pandemic, the first global event to be accompanied by an infodemic – the overabundance of true and false information on the coronavirus topic – and is widely spread in social media.<sup>2</sup> Academic research on fake news targets five main areas: conceptualization of the term,<sup>3</sup> creation of deceptive media content,<sup>4</sup> dissemination of and exposure to fake news,<sup>5</sup> identification of effects,<sup>6</sup> and identifying counter-measures to mitigate

<sup>1</sup> Google Trends. [online]. [2021-10-21]. Available at: <<https://trends.google.com/trends/explore?q=fake%20news>>.

<sup>2</sup> Novel Coronavirus (2019-nCoV) Situation Report-13. [online]. [2021-10-21]. Available at: <<https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200202-sitrep-13-ncov-v3.pdf>>.

<sup>3</sup> See: TANDOC Jr., E. C., LIM, Z. W., LING, R.: Defining “Fake News”. A Typology of Scholarly Definitions. In *Digital Journalism*, 2018, Vol. 6, No. 2, p. 137-153.; WARDLE, C., DERAKHSHAN, H.: *Information Disorder: Toward an Interdisciplinary Framework for Research and Policymaking*. Strasbourg : Council of Europe Report, DGI(2017)09. [online]. [2017-09-01]. Available at: <<http://tverezo.info/wp-content/uploads/2017/11/PREMS-162317-GBR-2018-Report-desinformation-A4-BAT.pdf>>; EGELHOFER, J. L., LECHERER, S.: Fake News as a Two-dimensional Phenomenon: A Framework and Research Agenda. In *Annals of the International Communication Association*, 2019, Vol. 43, No. 2, p. 97-116.; MOLINA, M. D. et al.: “Fake news” Is Not Simply False Information: A Concept Explication and Taxonomy of Online Content. In *American Behavioral Scientist*, 2021, Vol. 65, No. 2, p. 180-212.

<sup>4</sup> See: BAKIR, V., MCSTAY, A.: Fake News and the Economy of Emotions: Problems, Causes, Solutions. In *Digital Journalism*, 2018, Vol. 6, No. 2, p. 154-175.; NAEEM, S. B., BHATTI, R., KHAN, A.: An Exploration of How Fake News Is Taking Over Social Media and Putting Public Health at Risk. In *Health Information & Libraries Journal*, 2021, Vol. 38, No. 2, p. 143-149.

<sup>5</sup> See also: ALLCOTT, H., GENTZKOW, M.: Social Media and Fake News in the 2016 Election. In *Journal of Economic Perspectives*, 2017, Vol. 31, No. 2, p. 211-236.; GUESS, A., NYHAN, B., REIFLER, J.: *Selective Exposure to Misinformation: Evidence from the Consumption of Fake News during the 2016 US Presidential Campaign*. Technical report. [online]. [2018-01-09]. Available at: <<http://www.ask-force.org/web/Fundamentalists/Guess-Selective-Exposure-to-Misinformation-Evidence-Presidential-Campaign-2018.pdf>>; VOSOUGHI, S., MOHSENVAND, M. N., ROY, D.: Rumor Gauge: Predicting the Veracity of Rumors on Twitter. In *ACM Transactions on Knowledge Discovery from Data (TKDD)*, 2017, Vol. 11, No. 4, p. 1-36.; ZHAO, Z. et al.: Fake News Propagates Differently From Real News Even at Early Stages of Spreading. In *EPJ Data Science*, 2020, Vol. 9, No. 1, p. 1-14. [online]. [2021-10-21]. Available at: <<https://doi.org/10.1140/epjds/s13688-020-00224-z>>; APUKE, O. D., OMAR, B.: Fake News and COVID-19: Modelling the Predictors of Fake News Sharing Among Social Media Users. In *Telematics and Informatics*, 2021, Vol. 56, No. 101475, p. 1-16.

<sup>6</sup> See: BREWER, P. R., YOUNG, D. G., MORREALE, M.: The Impact of Real News About “Fake News”: Intertextual Processes and Political Satire. In *International Journal of Public Opinion Research*, 2013, Vol. 25, No. 3, p. 323-343.; BROWNING, N., SWEETSER, K. D.: The Let Down Effect: Satisfaction, Motivation, and Credibility Assessments of Political Infotainment. In *American Behavioral Scientist*, 2014, Vol. 58, No. 6, p. 810-826.; HAMELEERS, M., VAN DER MEER, T. G.: Misinformation and Polarization in a High-Choice Media Environment: How Effective Are Political Fact-Checkers? In *Communication Research*, 2020, Vol. 47, No. 2, p. 227-250.; JANG, S. M., KIM, J. K.: Third Person Effects of Fake News: Fake News Regulation and Media Literacy Interventions. In *Computers in Human Behavior*, 2018, Vol. 80, p. 195-302.; TSFATI, Y. et al.: Causes and Consequences of Mainstream Media Dissemination of Fake News: Literature Review and Synthesis. In *Annals of the International Communication Association*, 2020, Vol. 44, No. 2, p. 157-173.

the phenomenon.<sup>7</sup> What the vast majority of studies have in common is acknowledging the role of the new communication strategies in amplifying the effects of fake news in all stages of the process, from the creation of content, to its distribution to a wider, more targeted audience, and to maximizing their peer-to-peer viralisation potential. The unprecedented contribution of digital, algorithmic and data-driven mass communication innovations and the prevalence of digital platforms in the lives of citizens dramatically reshaped the fairly traditional practices of disinformation.

In this context, it is the goal of our paper to investigate fake news, aiming at both clarifying the concept and discussing the possible integration of ideologically driven information under this large umbrella, as well as investigating conditions under which various types of fake news have the potential to go viral. We rely on an experimental design to study the potential for the viralisation effects of fake news, the effects of fake news on emotions, and the mediating effect of emotions on the susceptibility to share fake news.

We believe this study needs to first clarify some conceptual approaches about what fake news is (and is not), as well as providing empirical arguments about the role of emotions in the viralisation of various species of fake news. We are particularly interested in how political content could be manipulated and even falsified, in order to elicit emotional responses and by consequence be subject to viralisation effects. We argue that under the umbrella of fake news there are many species (and genres) of content, because fake news is a phenomenon that ranges on a continuum of two key dimensions, facticity and intention to deceive, to which valence can be added as a way of framing news in an ideologically driven manner.

## 2. Fake News: Typology and Effects

The term “fake news” has entered the public discourse to the extent to which it became “a much-used and much-hyped term in the so-called <<post-truth>> era that we now live in.”<sup>8</sup> As is frequently the case with many buzz-words, the term suffers from a lack of conceptual clarity and definitional rigour. As Nelson and Taneja<sup>9</sup> note, traditionally, fake news was frequently used by scholars to refer to a specific television genre, namely infotainment: late night television shows that blurred the line between news and comedy (e.g. “The Daily Show” and “The Colbert Report”). Gradually, the term broadened its scope to refer to “false or misleading information made to look like a fact based news story.”<sup>10</sup> The shift was prompted by recent-years events, such as the Cambridge Analytica scandal, the alleged Russian propaganda influence during the 2016 US presidential campaign, and the tendency of political elites to use the term to discredit journalists, media outlets and hostile rumours.

As the majority of definitions suggest, the term is in fact used to define numerous forms of disinformation. In other words, fake news could be information that has been fabricated and disseminated with the intention to deceive the audience and to influence its opinions, attitudes

<sup>7</sup> See: BAKIR, V., MCSTAY, A.: Fake News and the Economy of Emotions: Problems, Causes, Solutions. In *Digital Journalism*, 2018, Vol. 6, No. 2, p. 154-175; A *Multi-dimensional Approach to Disinformation: Report of the Independent High Level Group on Fake News and Online Disinformation*. [online]. [2018-04-27]. Available at: <<https://ec.europa.eu/digital-single-market/en/news/final-report-high-level-expert-group-fake-news-and-online-disinformation>>; YADAV, K. et al.: Countries Have More than 100 Laws on the Books to Combat Misinformation. How Well Do They Work? In *Bulletin of the Atomic Scientists*, 2021, Vol. 77, No. 3, p. 124-128.

<sup>8</sup> MCGONAGLE, T.: “Fake news” False Fears or Real Concerns? In *Netherlands Quarterly of Human Rights*, 2017, Vol. 35, No. 4, p. 203.

<sup>9</sup> See: NELSON, J. L., TANEJA, H.: The Small, Disloyal Fake News Audience: The Role of Audience Availability in Fake News Consumption. In *New Media & Society*, 2018, Vol. 20, No. 10, p. 3721.

<sup>10</sup> NELSON, J. L., TANEJA, H.: The Small, Disloyal Fake News Audience: The Role of Audience Availability in Fake News Consumption. In *New Media & Society*, 2018, Vol. 20, No. 10, p. 2.

and behaviours<sup>11</sup> or a new form of political misinformation featured prominently in journalistic accounts of the 2016 U.S. presidential election.<sup>12</sup> As Vargo et al. note,<sup>13</sup> other narrower definitions of the term describe completely false information that was created for financial gain. The main distinctive feature is, in this case, the fact that credible journalism is mimicked to attract a larger following/attention.

The concept of fake news became subject of multiple criticism, being considered rather inadequate to describe the complex phenomena of mis- and dis-information.<sup>14</sup> Scholars have pleaded for more definitional rigour, since there is a constant shift in meanings, which is “muddying the discourse around fake news.”<sup>15</sup>

The first clarifying distinction, following the approach of Egelhofer and Lecheler,<sup>16</sup> must be made between fake news as a genre, and as a label used to delegitimize news media. The latter use of the term, albeit damaging to journalism, is not the focus of our study.

To understand fake news as a form of deceitful content, we must differentiate between three related concepts: dis-, mis-, and mal-information.<sup>17</sup> Disinformation is information that is false and deliberately created to harm a person, social group, organization or country. Misinformation is information that is false, but not created with the intention of causing harm, while mal-information is based on reality, and used to inflict harm on a person, organization or country (e.g. hate speech).

We take note of the concerns expressed by Molina et al.<sup>18</sup> that the current conceptualization of fake news is not useful for the design of automatic detection software. The authors plea for more rigor in distinguishing between characteristics and dimensions of fake news and propose a taxonomy of eight categories of online content suitable for operationalization (real news, false news, polarized content, satire, misreporting, commentary, persuasive information, and citizen journalism).

Apart from the basic distinction between information that is intentionally false and information that is false without being strategically designed to deceive, we need to clarify the case of satire and parody. Satire and parody do not meet the features of fake news as a genre, as proposed by Egelhofer and Lecheler:<sup>19</sup> low level of facticity, journalistic format (“imitation of news”),

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<sup>11</sup> See: ALLCOTT, H., GENTZKOW, M.: Social Media and Fake News in the 2016 Election. In *Journal of Economic Perspectives*, 2017, Vol. 31, No. 2, p. 211-236.; MCGONAGLE, T.: “Fake news” False Fears or Real Concerns? In *Netherlands Quarterly of Human Rights*, 2017, Vol. 35, No. 4, p. 203-209.

<sup>12</sup> GUESS, A., NYHAN, B., REIFLER, J.: *Selective Exposure to Misinformation: Evidence from the Consumption of Fake News During the 2016 US Presidential Campaign*. [online]. [2021-10-21]. Available at: <<http://www.ask-force.org/web/Fundamentalists/Guess-Selective-Exposure-to-Misinformation-Evidence-Presidential-Campaign-2018.pdf>>.

<sup>13</sup> See: VARGO, C. J., GUO, L., AMAZEEN, M. A.: The Agenda-setting Power of Fake News: A Big Data Analysis of the Online Media Landscape from 2014 to 2016. In *New Media & Society*, 2018, Vol. 20, No. 5, p. 2028-2049.

<sup>14</sup> WARDLE, C., DERAKHSHAN, H.: *Information Disorder: Toward an Interdisciplinary Framework for Research and Policymaking*. Strasbourg : Council of Europe Report, DGI (2017)09. [online]. [2021-10-21]. Available at: <<http://tverezo.info/wp-content/uploads/2017/11/PREMS-162317-GBR-2018-Report-desinformation-A4-BAT.pdf>>.

<sup>15</sup> TANDOC Jr., E. C., LIM, Z. W., LING, R.: Defining “Fake News”. A Typology of Scholarly Definitions. In *Digital Journalism*, 2018, Vol. 6, No. 2, p. 138.

<sup>16</sup> See: EGELHOFER, J. L., LECHELER, S.: Fake News as a Two-dimensional Phenomenon: A Framework and Research Agenda. In *Annals of the International Communication Association*, 2019, Vol. 43, No. 2, p. 97-116.

<sup>17</sup> WARDLE, C., DERAKHSHAN, H.: *Information Disorder: Toward an Interdisciplinary Framework for Research and Policymaking*. Strasbourg : Council of Europe Report, DGI (2017)09. [online]. [2021-10-21]. Available at: <<http://tverezo.info/wp-content/uploads/2017/11/PREMS-162317-GBR-2018-Report-desinformation-A4-BAT.pdf>>.

<sup>18</sup> MOLINA, M. D. et al.: “Fake news” Is Not Simply False Information: A Concept Explication and Taxonomy of Online Content. In *American Behavioral Scientist*, 2021, Vol. 65, No. 2, p. 181.

<sup>19</sup> EGELHOFER, J. L., LECHELER, S.: Fake News as a Two-dimensional Phenomenon: A Framework and Research Agenda. In *Annals of the International Communication Association*, 2019, Vol. 43, No. 2, p. 99-100.

and intentionality to deceive. Satire is not low on facticity, although it includes deviations from the truth. Parody includes deliberately created false elements for humorous purposes. In both cases, there is no intention to deceive, since the audience is made aware of the type of content they are reading or viewing. Nevertheless, previous studies have operationalized satire and parody as a type of fake news.<sup>20</sup> Satire and/or parody, as borderline genres of fake news, have received extensive attention from scholars.<sup>21</sup> Satire news programs have been studied as a form of soft news, with the end goal to entertain, as opposed to hard news, which primarily informs.

We support the operationalisation of satire as a form of fake news, considering three reasons in particular. Firstly, the humorous exaggeration of actual news usually implies the insertion of false elements/information/content to be successful. Secondly, satirical programs tend to be ideologically driven; in our view, the biased interpretation/contextualisation of news is one of the manifestations of fake news. The third and most important reason stems from the consistent evidence that satire and parody, although not harmful in the sense of intentionally deceiving the audience, does have significant negative effects, especially related to political attitudes and behaviours. The negative effects of parody and satire are numerous, ranging from impact on perceptions, attitudes and behaviours, thus generating politically relevant outcomes,<sup>22</sup> to distrust in the efficiency of the government<sup>23</sup> or increased cynicism.<sup>24</sup>

Another significant category are pieces of news that are intentionally fabricated, and carefully designed to look credible.<sup>25</sup> As Tandoc and his collaborators<sup>26</sup> emphasize, it is the case of articles that have no factual basis, but are published in the style of news articles to create legitimacy. Fabricated items can be published on a website, blog or on social media platforms. They are frequently algorithm-driven, and rely on dissemination through fake accounts, fake bots, etc., to give the illusion that they are highly circulated.

Tandoc et al.<sup>27</sup> advanced one particularly comprehensive typology, mapping fake news according to two dimensions: level of facticity and intention to deceive. The first dimension, facticity, refers to the degree to which fake news relies on facts, while the second refers to the degree to which the creator of fake news intends to mislead. Building on Tandoc et al.,<sup>28</sup>

<sup>20</sup> See: TANDOC JR., E. C., LIM, Z. W., LING, R.: Defining "Fake News". A Typology of Scholarly Definitions. In *Digital Journalism*, 2018, Vol. 6, No. 2, p. 137-153.

<sup>21</sup> See: BALMAS, M.: When Fake News Becomes Real: Combined Exposure to Multiple News Sources and Political Attitudes of Inefficacy, Alienation, and Cynicism. In *Communication Research*, 2014, Vol. 41, No. 3, p. 430-454.; LITTAU, J., STEWART, D. R. C.: "Truthiness" and Second-level Agenda Setting: Satire News and its Influence on Perceptions of Television News Credibility. In *Electronic News*, 2015, Vol. 9, No. 2, p. 122-136.; TANDOC JR., E. C., LIM, Z. W., LING, R.: Defining "Fake News". A Typology of Scholarly Definitions. In *Digital Journalism*, 2018, Vol. 6, No. 2, p. 137-153.; WARDLE, C., DERAKHSHAN, H.: *Information Disorder: Toward an Interdisciplinary Framework for Research and Policymaking*. Strasbourg : Council of Europe Report, DGI(2017)09. [online]. [2021-10-21]. Available at: <<http://tvrezo.info/wp-content/uploads/2017/11/PREMS-162317-GBR-2018-Report-desinformation-A4-BAT.pdf>>.

<sup>22</sup> See: BALMAS, M.: When Fake News Becomes Real: Combined Exposure to Multiple News Sources and Political Attitudes of Inefficacy, Alienation, and Cynicism. In *Communication Research*, 2014, Vol. 41, No. 3, p. 430-454.

<sup>23</sup> See: BAUMGARTNER, J., MORRIS, J. S.: The Daily Show effect: Candidate Evaluations, Efficacy, and American Youth. In *American Politics Research*, 2006, Vol. 34, No. 3, p. 341-367.

<sup>24</sup> See: BALMAS, M.: When Fake News Becomes Real: Combined Exposure to Multiple News Sources and Political Attitudes of Inefficacy, Alienation, and Cynicism. In *Communication Research*, 2014, Vol. 41, No. 3, p. 430-454.; BAUMGARTNER, J., MORRIS, J. S.: The Daily Show effect: Candidate Evaluations, Efficacy, and American Youth. In *American Politics Research*, 2006, Vol. 34, No. 3, p. 341-367.

<sup>25</sup> See: ALLCOTT, H., GENTZKOW, M.: Social Media and Fake News in the 2016 Election. In *Journal of Economic Perspectives*, 2017, Vol. 31, No. 2, p. 211-236. MCGONAGLE, T.: "Fake news" False Fears or Real Concerns? In *Netherlands Quarterly of Human Rights*, 2017, Vol. 35, No. 4, p. 203-209.; TANDOC JR., E. C., LIM, Z. W., LING, R.: Defining "Fake News". A Typology of Scholarly Definitions. In *Digital Journalism*, 2018, Vol. 6, No. 2, p. 137-153.

<sup>26</sup> See: TANDOC JR., E. C., LIM, Z. W., LING, R.: Defining "Fake News". A Typology of Scholarly Definitions. In *Digital Journalism*, 2018, Vol. 6, No. 2, p. 137-153.

<sup>27</sup> Ibidem.

<sup>28</sup> Ibidem.

we argue that it is virtually impossible to create a typology of fake news, because one cannot delimit clear boundaries between low and high facticity; there is a continuous range of possible forms of disinformation, and, arguably, ideologically driven news falls somewhere on this continuum. To what extent does keeping the facts accurate but presenting them in a heavily (or more mildly) biased way (by means of equivalence framing, for example), mean being out of the fake news boundaries? Moreover, if disinformation is merely defined by the intention to deceive, then politically biased information should be by definition a form of disinformation.

In this study we consider ideologically driven news as a form of disinformation, for the mere reason that there is a clear intention to deceive behind this type of news. At the same time, we argue that, compared to no more than one-two decades ago, ideologically driven information is potentially much more harmful, by virtue of the potential of being shared, easily further disseminated within echo-chambers and with the help of filter bubbles. Even though there is no clear agreement among researchers, there are solid studies that identified ideologically partisan echo chambers on social media (see, for example Boutyline and Willer),<sup>29</sup> as well as partisan news consumption with the help of the technology, such as search engines.<sup>30</sup> Additionally, “*it seems apparent, then, that ideological polarization and homogenous partisanship generally have a measurable, negative impact on society and democracy as a whole.*”<sup>31</sup>

Conventionally, and only by reasons of making this study easier to read, we use the “labels” *manipulation* and *fabrication* in a slightly different manner than Tandoc et al.,<sup>32</sup> as to underline the difference between ideologically driven information that keeps the facts accurate, but present it in a heavily ideologically driven way, and false information, that actually does alter the facts in order to deceive the audience. Both types could present information in an ideological manner, framing information either to support (positive valence) or to denigrate (negative valence) a political actor (party, institution, person, etc.). Therefore, in this study, we use valence as a type of framing ideologically driven news, to emphasize either political achievements or failure.

There is a growing body of research on the effects of fake news. In the public discourse, fake news is often “blamed for having a disruptive impact on the outcomes of elections and referenda and for skewing democratic public debate”, or “*fueling propaganda and <<hate speech>> and even violence*”.<sup>33</sup> Despite these accusations, the actual effects of online fake news on voter behaviour are still understudied.<sup>34</sup>

The existing studies on fake news effects explore a wide variety of issues. In so far as the functioning of politics is concerned, studies explore the effects of political satire on distrust in the media,<sup>35</sup> political attitudes of inefficacy, alienation, and cynicism,<sup>36</sup> knowledge and opinion

<sup>29</sup> See: BOUTYLINE, A., WILLER, R.: The Social Structure of Political Echo Chambers: Variation in Ideological Homophily in Online Networks. In *Political Psychology*, 2017, Vol. 38, No. 3, p. 551-569.

<sup>30</sup> See: FLAXMAN, S., GOEL, S., RAO, J. M.: Filter Bubbles, Echo Chambers, and Online News Consumption. In *Public Opinion Quarterly*, 2016, Vol. 80, No. S1, p. 298-320.

<sup>31</sup> SPOHR, D.: Fake News and Ideological Polarization: Filter Bubbles and Selective Exposure on Social Media. In *Business Information Review*, 2017, Vol. 34, No. 3, p. 152.

<sup>32</sup> See: TANDOC JR., E. C., LIM, Z. W., LING, R.: Defining “Fake News”. A Typology of Scholarly Definitions. In *Digital Journalism*, 2018, Vol. 6, No. 2, p. 137-153.

<sup>33</sup> MCGONAGLE, T.: “Fake news” False Fears or Real Concerns? In *Netherlands Quarterly of Human Rights*, 2017, Vol. 35, No. 4, p. 203.

<sup>34</sup> JANG, S. M., KIM, J. K.: Third Person Effects of Fake News: Fake News Regulation and Media Literacy Interventions. In *Computers in Human Behavior*, 2018, Vol. 80, p. 295.

<sup>35</sup> See: LITTAU, J., STEWART, D. R. C.: “Truthiness” and Second-level Agenda Setting: Satire News and its Influence on Perceptions of Television News Credibility. In *Electronic News*, 2015, Vol. 9, No. 2, p. 122-136.

<sup>36</sup> See: BALMAS, M.: When Fake News Becomes Real: Combined Exposure to Multiple News Sources and Political Attitudes of Inefficacy, Alienation, and Cynicism. In *Communication Research*, 2014, Vol. 41, No. 3, p. 430-454.

on political issues,<sup>37</sup> elections,<sup>38</sup> and policy-relevant beliefs.<sup>39</sup> Other studies consider the outcomes of fake news for businesses and consumers,<sup>40</sup> and on health-related beliefs and behaviours.<sup>41</sup> There is no scholarly consensus on the severity of the effects. Some observational and experimental data incline towards the identification of limited effects of fake news apart from increasing beliefs in false claims,<sup>42</sup> while go as far as to identify unconscious effects on behaviour.<sup>43</sup>

The effects of mainstream media coverage about fake news are also under scrutiny. Well-intended media coverage about the incidence of fake news may have negative effects on the audience by making them less certain of the truth or by overexposing them to the wrong information instead of its correction.<sup>44</sup>

Other studies focus on viralisation, contagion effect, opinion polarization and echo chambers<sup>45</sup> or on the capacity of the audience to assess message credibility.<sup>46</sup>

- <sup>37</sup> See: BREWER, P. R., YOUNG, D. G., MORREALE, M.: The Impact of Real News About “Fake News”: Intertextual Processes and Political Satire. In *International Journal of Public Opinion Research*, 2013, Vol. 25, No. 3, p. 323-343.; LITTAU, J., STEWART, D. R. C.: “Truthiness” and Second-level Agenda Setting: Satire News and its Influence on Perceptions of Television News Credibility. In *Electronic News*, 2015, Vol. 9, No. 2, p. 122-136.; CHOI, J., LEE, J. K.: Confusing Effects of Fake News on Clarity of Political Information in the Social Media Environment. In *Journalism Practice*, 2021, p. 1-19. [online]. [2021-03-24]. Available at: <<https://doi.org/10.1080/17512786.2021.1903971>>.
- <sup>38</sup> LEYVA, R., BECKETT, C.: Testing & Unpacking the Effects of Digital Fake News on Presidential Candidate Evaluations & Voter Support. In *AI and Society*, 2020, Vol. 35, No. 4, p. 970.
- <sup>39</sup> DRUMMOND, C., SIEGRIST, M., ÁRVAI, J.: Limited Effects of Exposure to Fake News about Climate Change. In *Environmental Research Communications*, 2020, Vol. 2, No. 8, p. 1.
- <sup>40</sup> See: DI DOMENICO, G. et al.: Fake News, Social Media and Marketing: A Systematic Review. In *Journal of Business Research*, 2021, Vol. 124, No. C, p. 329-341.
- <sup>41</sup> See: MELCHIOR, C., OLIVEIRA, M.: Health-related Fake News on Social Media Platforms: A Systematic Literature Review. In *New Media & Society*, 2021. [online]. [2021-08-18]. Available at: <[https://journals.sagepub.com/doi/full/10.1177/14614448211038762?casa\\_token=HrR\\_XkYmxcMAAAA%3ApcnLTSphwIVwqlbomykiWKfYkZ-wcqvom6fWhNqeFrT6P4dU7mm39mKZgbDMUEGp\\_tibVlL2ZzeB](https://journals.sagepub.com/doi/full/10.1177/14614448211038762?casa_token=HrR_XkYmxcMAAAA%3ApcnLTSphwIVwqlbomykiWKfYkZ-wcqvom6fWhNqeFrT6P4dU7mm39mKZgbDMUEGp_tibVlL2ZzeB)>; GREENE, C. M., MURPHY, G.: Quantifying the Effects of Fake News on Behavior: Evidence from a Study of COVID-19 Misinformation. In *Journal of Experimental Psychology: Applied*, 2021, p. 1-12. [online]. [2021-06-10]. Available at: <<https://psycnet.apa.org/record/2021-55332-001>>.
- <sup>42</sup> See: GUESS, A. M. et al.: “Fake News” May Have Limited Effects Beyond Increasing Beliefs in False Claims. In *Harvard Kennedy School Misinformation Review*, 2020, Vol. 1, No. 1, p. 1-12. [online]. [2021-10-21]. Available at: <<https://doi.org/10.37016/mr-2020-004>>.
- <sup>43</sup> BASTICK, Z.: Would You Notice if Fake News Changed your Behavior? An Experiment on the Unconscious Effects of Disinformation. In *Computers in Human Behavior*, 2021, Vol. 116, p. 106633. [online]. [2021-06-10]. Available at: <<https://www.sciencedirect.com/science/article/pii/S0747563220303800?via%3Dihub>>.
- <sup>44</sup> See: TSFATI, Y. et al.: Causes and Consequences of Mainstream Media Dissemination of Fake News: Literature Review and Synthesis. In *Annals of the International Communication Association*, 2020, Vol. 44, No. 2, p. 157-173.
- <sup>45</sup> See: TÖRNBERG, P.: Echo Chambers and Viral Misinformation: Modeling Fake News as Complex Contagion. In *PloS One*, 2018, Vol. 13, No. 9, p. 1-21.; VOSOUGHI, S., MOHSENVAND, M. N., ROY, D.: Rumor Gauge: Predicting the Veracity of Rumors on Twitter. In *ACM Transactions on Knowledge Discovery from Data (TKDD)*, 2017, Vol. 11, No. 4, p. 1-36.
- <sup>46</sup> See: PENNYCOOK, G., RAND, D. G.: Who Falls for Fake News? The Roles of Bullshit Receptivity, Overclaiming, Familiarity, and Analytic Thinking. In *Journal of Personality*, 2020, Vol. 88, No. 2, p. 185-200.; TANDOC JR., E. C., LING, R., WESTLUND, O., DUFFY, A., GOH, D., ZHENG WEI, L.: Audiences’ Acts of Authentication in the Age of Fake News: A Conceptual Framework. In *New Media & Society*, 2018, Vol. 20, No. 8, p. 2745-2763.

The effects on the audience are explored through the lenses of the uses and gratifications theory,<sup>47</sup> agenda setting,<sup>48</sup> and the third person effect.<sup>49</sup> For the purposes of this study, we are particularly interested in the viral potential of fake news. Viral content is online content that spreads fast and wide, due to remarkable features such as positivity, social significance, novelty, information utility, and humour.<sup>50</sup>

### 3. Fake News Going Viral. An Overview

The viralisation potential of online dis- and mis-information is linked to the affordances of social media and mobile apps, related to the easiness of forwarding messages to many receivers,<sup>51</sup> a potential for highly-shared information to be shared even more,<sup>52</sup> the emergence of deceptive practices such as clickbait titles and headings,<sup>53</sup> the formation of online echo chambers which are, in fact, opinion and network polarized clusters,<sup>54</sup> the contribution of bots (automated accounts) in the spread of mis- and dis-information,<sup>55</sup> the lack of rigorous control over the quality of the information in social media,<sup>56</sup> etc.

Furthermore, there are studies that suggest fake news is shared more than true information, spreads faster, or has a greater reach,<sup>57</sup> even after debunking/ fact-checking.<sup>58</sup> King and Wang<sup>59</sup> examined the spread of authentic news and misinformation on Twitter during Hurricane Harvey, and concluded that users are prone to retweet misinformation more than authentic news. Furthermore, users are more likely to engage with negative tweets as opposed to positive ones.

<sup>47</sup> See: BROWNING, N., SWEETSER, K. D.: The Letdown Effect: Satisfaction, Motivation, and Credibility Assessments of Political Infotainment. In *American Behavioral Scientist*, 2014, Vol. 58, No. 6, p. 810-826.

<sup>48</sup> See: VARGO, C. J., GUO, L., AMAZEEN, M. A.: The Agenda-setting Power of Fake News: A Big Data Analysis of the Online Media Landscape from 2014 to 2016. In *New Media & Society*, 2018, Vol. 20, No. 5, p. 2028-2049.

<sup>49</sup> See: CORBU, N. et al.: "They Can't Fool Me, but They Can Fool the Others!" Third Person Effect and Fake News Detection. In *European Journal of Communication*, 2020, Vol. 35, No. 2, p. 165-180.; JANG, S. M., KIM, J. K.: Third Person Effects of Fake News: Fake News Regulation and Media Literacy Interventions. In *Computers in Human Behavior*, 2018, Vol. 80, p. 295-302.; ȘTEFĂNIȚĂ, O., CORBU, N., BUTUROIU, R.: Fake News and the Third-Person Effect: They are More Influenced than Me and You. In *Journal of Media Research*, 2018, Vol. 11, No. 3, p. 5-23.

<sup>50</sup> See: AL-RAWI, A.: Viral News on Social Media. In *Digital Journalism*, 2019, Vol. 7, No. 1, p. 63-79.

<sup>51</sup> See: CHEN, X. et al.: Why Students Share Misinformation on Social Media: Motivation, Gender, and Study-level Differences. In *The Journal of Academic Librarianship*, 2015, Vol. 41, No. 5, p. 583-592.

<sup>52</sup> See: HA, L., PEREZ, L., RAY, R.: Mapping Recent Development in Scholarship on Fake News and Misinformation, 2008 to 2017: Disciplinary Contribution, Topics, and Impact. In *American Behavioral Scientist*, 2019, Vol. 65, No. 2, p. 290-315.

<sup>53</sup> Ibidem.

<sup>54</sup> See: TÖRNBERG, P.: Echo Chambers and Viral Misinformation: Modeling Fake News as Complex Contagion. In *PloS One*, 2018, Vol. 13, No. 9, p. 1-21.

<sup>55</sup> See: SHAO, C. et al.: Hoaxy: A Platform for Tracking Online Misinformation. In BOURDEAU, J. et al. (eds.): *Proceedings of the 25th International Conference Companion on World Wide Web*. Montréal, Québec, Canada : ACM, 2016, p. 745-750. [online]. [2021-08-10]. Available at: <<https://dl.acm.org/doi/abs/10.1145/2872518.2890098>>.

<sup>56</sup> See: CHEN, X. et al.: Why Students Share Misinformation on Social Media: Motivation, Gender, and Study-level Differences. In *The Journal of Academic Librarianship*, 2015, Vol. 41, No. 5, p. 583-592.

<sup>57</sup> See: SHIN, J. et al.: The Diffusion of Misinformation on Social Media: Temporal Pattern, Message, and Source. In *Computers in Human Behavior*, 2018, Vol. 83, p. 278-287.

<sup>58</sup> See: CHUA, A. Y., BANERJEE, S.: Intentions to Trust and Share Online Health Rumors: An Experiment with Medical Professionals. In *Computers in Human Behavior*, Vol. 87, p. 1-9.

<sup>59</sup> See: KING, K. K., WANG, B.: Diffusion of Real Versus Misinformation During a Crisis Event: A Big Data-Driven Approach. In *International Journal of Information Management*, 2021, Vol. 102390, p. 1-14. [online]. [2021-07-22]. Available at: <[https://www.sciencedirect.com/science/article/pii/S0268401221000839?casa\\_token=aoVKE5apvbYAAAAA:H44S5JGnvpocLhfGds4I16SRfl2foKpS-Jbjr-TVQ2dsMBK2A1qYUGt9VRE8g6b78NNPY0Q](https://www.sciencedirect.com/science/article/pii/S0268401221000839?casa_token=aoVKE5apvbYAAAAA:H44S5JGnvpocLhfGds4I16SRfl2foKpS-Jbjr-TVQ2dsMBK2A1qYUGt9VRE8g6b78NNPY0Q)>.

The reach of fake news is unintentionally extended through attempts to disclose and rectify the false information,<sup>60</sup> and through coverage in the mainstream media.<sup>61</sup>

In the realm of politically-themed fake news, a study on the dynamic communication processes of political disinformation on social media showed that disinformation tends to return multiple times after the initial publication, while facts do not.<sup>62</sup> One of the most comprehensive studies to date<sup>63</sup> investigated the veracity of fake and true information within ~126,000 stories tweeted by ~3 million people, leading to intriguing results. Falsehood diffused “significantly farther, faster, deeper, and more broadly than the truth”,<sup>64</sup> with the strongest effects in the case of false political news. Notably, fake news was spread not only by broadcasting, but also by peer-to-peer diffusion.

By studying real and fake news propagation in actual social media contexts on Weibo (from China) and Twitter (from Japan), Zhao et al.<sup>65</sup> conclude that fake news spread differently than real news in social networks. For example, the number of layers (re-postings whose re-posters have the same distance from the creator of the message) in fake news is larger than that of real news. In the case of fake news, late adopters of the message play a significant role in its virality, while in the case of real news it is the early adopters who are the main spreaders. Additionally, fake news circulates to longer distances than real news.

Given existing evidence that fake news tends to become more viral than true information, especially in the case of political and medical information, we hypothesize that people’s willingness to share news is enhanced by various forms of fake news (viralisation effects) (H1).

## 4. News Framing Effects and Emotions

Among current trends and developments in framing research, the investigation of the effects of news framing on *emotions* and of how the latter mediate political attitudes and behaviour started to gain momentum. In this context, citizens’ emotional reactions to political reporting are thoroughly analysed, since exposure to news framing in general and to certain frame types (e.g. conflict, valenced, episodic) in particular is seen as highly effective in sparking emotions which may further influence how individuals’ political opinions and responses are formed and challenged.<sup>66</sup> Having this in mind, our aim is to look at emotions as *mediators* of *fake news effects*, particularly at how specific discrete emotions enhanced by exposure to deceitful information correlate with individuals’ subsequent tendency towards disseminating that specific information on their social media platforms.

<sup>60</sup> MURAYAMA, T. et al.: Modeling and Predicting Fake News Spreading on Twitter. In *PLoS One*, 2021, Vol. 16, No. 4, p. 1-24. [online]. [2021-04-22]. Available at: <<https://doi.org/10.1371/journal.pone.0250419>>.

<sup>61</sup> See: TSFATI, Y. et al.: Causes and Consequences of Mainstream Media Dissemination of Fake News: Literature Review and Synthesis. In *Annals of the International Communication Association*, 2020, Vol. 44, No. 2, p. 157-173.

<sup>62</sup> See: SHIN, J. et al.: The Diffusion of Misinformation on Social Media: Temporal Pattern, Message, and Source. In *Computers in Human Behavior*, 2018, Vol. 83, p. 278-287.

<sup>63</sup> See: VOSOUGHI, S., ROY, D., ARAL, S.: The Spread of True and False News Online. In *Science*, 2018, Vol. 359, No. 6380, p. 1146-1151.

<sup>64</sup> Ibidem, p. 1147.

<sup>65</sup> See: ZHAO, Z. et al.: Fake News Propagates Differently from Real News Even at Early Stages of Spreading. In *EPJ Data Science*, 2020, Vol. 9, No. 1, p. 7. [online]. [2021-10-21]. Available at: <<https://doi.org/10.1140/epjds/s13688-020-00224-z>>.

<sup>66</sup> See: AARØE, L.: Investigating Frame Strength: The Case of Episodic and Thematic Framing. In *Political Communication*, 2011, Vol. 28, No. 2, p. 207-226.; HOLM, E. M.: *Emotions as Mediators of Framing Effects*. [Dissertation Thesis]. Aarhus : Forlaget Politica, 2012.; LECHERER, S., BOS, L., VLIEGENHART, R.: The Mediating Role of Emotions: News Framing Effects on Opinions About Immigration. In *Journalism & Mass Communication Quarterly*, 2015, Vol. 92, No. 4, p. 812-838.; LECHERER, S., SCHUCK, A. R. T., DE VREESE, C. H.: Dealing with Feelings: Positive and Negative Discrete Emotions as Mediators of Framing Effects. In *Communications: The European Journal of Communication Research*, 2013, Vol. 38, No. 2, p. 189-209.

The definitions and conceptualizations of what a news frame stands for are, literally, uncountable, and very often quite different in terms of the aspects they underline.<sup>67</sup> This leads to confusion and considerable disagreement over what this “catch-all” term is and what it is not. In this context, some recent studies<sup>68</sup> call for more conceptual and terminological clarity with respect to how we understand news frames and use them further in our empirical designs to explain their effects in relation to behavioural or attitudinal outcomes. Thus, instead of fueling the already enormous ambiguity around the *frame* notion, the authors invite scholars to distinguish between two different concepts, stemming from two largely unrelated traditions of thinking: *equivalence* and *emphasis* framing. While equivalence framing refers exclusively to how an information is presented, thus “manipulating the presentation of logically equivalent information,”<sup>69</sup> emphasis framing goes beyond the equivalence notion of framing and defines news frames as means of suggesting *what* an issue is about and *how* people should make sense of it.

In our study, a combination of equivalence and emphasis frames will be used to construct variants of a neutrally framed piece of news, as to reflect some of the various “species” of fake news we have already discussed in the previous section. We will explain these in more detail in the Methods section. More recently, the role of *emotions* in news framing effect theory has been acknowledged as fundamental, mainly in relation to political topics or events that are traditionally associated with emotive language in the media and a susceptibility to cause public dispute and controversy.<sup>70</sup> In this literature, emotions are usually defined as “mental states” that express short-lived, intense, subjective “evaluative reactions” to events, agents or objects.<sup>71</sup>

What seems to be undebatable so far is that individuals respond emotionally to news frames,<sup>72</sup> and that some frames (e.g. episodic) are more influential than others in eliciting emotions and/or emotional reactions in individuals, mainly in terms of the emotional relevance

<sup>67</sup> See: CAPPELLA, J. N., JAMIESON, K. H.: *Spiral of Cynicism: The Press and the Public Good*. Oxford : Oxford University Press, 1997.; DE VREESE, C. H.: News Framing: Theory and Typology. In *Information Design Journal + Document Design*, 2005, Vol. 31, No. 1, p. 51-62.; DE VREESE, C. H.: Framing the Economy: Effects of Journalistic News Frames. In D'ANGELO, P., KUYPERS, J. (eds.): *Doing Framing Analysis: Empirical and theoretical perspectives*. New York : Routledge, 2010, p. 187-241.; ENTMAN, R. M.: Framing: Toward Clarification of a Fractured Paradigm. In *Journal of Communication*, 1993, Vol. 43, No. 4, p. 51-58.; SCHEUFELE, D. A.: Agenda-setting, Priming, and Framing Revisited: Another Look at Cognitive Effects of Political Communication. In *Mass Communication and Society*, 2000, Vol. 3, No. 2-3, p. 297-316.

<sup>68</sup> See: CACCIATORE, M. A., SCHEUFELE, D. A., IYENGAR, S.: The End of Framing as we Know It... and the Future of Media Effects. In *Mass Communication and Society*, 2016, Vol. 19, No. 1, p. 7-23.; NABI, R. L. et al.: Can Emotions Capture the Elusive Gain-Loss Framing Effect? A Meta-Analysis. In *Communication Research*, 2020, Vol. 47, No. 8, p. 1107-1130.; SCHEUFELE, D., IYENGAR, S.: The State of Framing Research: A Call for New Directions. In KENSKI, K., JAMIESON, K. (eds.): *The Oxford Handbook of Political Communication Theories*. Oxford : Oxford University Press, 2017, p. 619-632.

<sup>69</sup> CACCIATORE, M. A., SCHEUFELE, D. A., IYENGAR, S.: The End of Framing as we Know It... and the Future of Media Effects. In *Mass Communication and Society*, 2016, Vol. 19, No. 1, p. 3.

<sup>70</sup> See: LECHER, S., BOS, L., VLIEGENHART, R.: The Mediating Role of Emotions: News Framing Effects on Opinions About Immigration. In *Journalism & Mass Communication Quarterly*, 2015, Vol. 92, No. 4, p. 812-838.

<sup>71</sup> See: LECHER, S., SCHUCK, A. R. T., DE VREESE, C. H.: Dealing with Feelings: Positive and Negative Discrete Emotions as Mediators of Framing Effects. In *Communications: The European Journal of Communication Research*, 2013, Vol. 38, No. 2, p. 189-209.

<sup>72</sup> See: AARØE, L.: Investigating Frame Strength: The Case of Episodic and Thematic Framing. In *Political Communication*, 2011, Vol. 28, No. 2, p. 207-226.; LECHER, S., BOS, L., VLIEGENHART, R.: The Mediating Role of Emotions: News Framing Effects on Opinions About Immigration. In *Journalism & Mass Communication Quarterly*, 2015, Vol. 92, No. 4, p. 812-838.; LECHER, S., SCHUCK, A. R. T., DE VREESE, C. H.: Dealing with Feelings: Positive and Negative Discrete Emotions as Mediators of Framing Effects. In *Communications: The European Journal of Communication Research*, 2013, Vol. 38, No. 2, p. 189-209.; HOLM, E. M.: *Emotions as Mediators of Framing Effects*. [Dissertation Thesis]. Aarhus : Forlaget Politica, 2012.; NABI, R. L. et al.: Can Emotions Capture the Elusive Gain-Loss Framing Effect? A Meta-Analysis. In *Communication Research*, 2020, Vol. 47, No. 8, p. 1107-1130.; OTTO, L. P.: Beyond Simple Valence: Discrete Emotions as Mediators of Political Communication Effects on Trust in Politicians. In *Studies in Communication and Media*, 2018, Vol. 7, No. 3, p. 364-391.

each person attaches to a particular event.<sup>73</sup> However, despite the emotional underpinnings of people's political beliefs, evaluations or judgements, the extent to which their political behaviour (political news sharing for instance) is driven by their affective responses to news frames needs further empirical investigation.

Research studies so far showed that exposure to *certain* frames *might* generate emotional responses that are *likely* to influence how political perceptions and attitudes are shaped. This, however, has been empirically tested in a small handful of studies.<sup>74</sup> Moreover, the available research strongly suggests that not all emotional reactions are expected to have the same effects on political opinions/participation/(voting) behaviour and so forth, revealing that different emotions mediate different effects.<sup>75</sup> Yet, despite the limited insight provided by the current studies into which affective states (e.g. fear, anger, anxiety, sadness, hope, happiness, pride, contentment, etc.) *mediate* what effects, in very general terms, *positively* framed news are presumed to lead to positive emotional responses, whereas *negative* frames are expected to foster negative emotions and reactions.<sup>76</sup> Likewise, *discrete negative* emotions (e.g. anxiety, threat, anger, fear) have a negative impact on political attitudes and behaviour<sup>77</sup> whilst *discrete positive* emotions (e.g. hope, empathy, enthusiasm, contentment) trigger positive attitudes and participation.<sup>78</sup> Along this line, the effects of news frames on people's emotions and opinions have to do with the frame's valence (i.e. the capacity of a frame to impact on opinion formation and support for an issue by emphasizing either its positive or its negative dimensions).<sup>79</sup> Stemming from the research on equivalence framing, we consider *valence* to be a key-concept

<sup>73</sup> See: AARØE, L.: Investigating Frame Strength: The Case of Episodic and Thematic Framing. In *Political Communication*, 2011, Vol. 28, No. 2, p. 207-226.; GROSS, K.: Framing Persuasive Appeals: Episodic and Thematic Framing, Emotional Response, and Policy Opinion. In *Political Psychology*, 2008, Vol. 29, No. 2, p. 169-192.

<sup>74</sup> See: GROSS, K.: Framing Persuasive Appeals: Episodic and Thematic Framing, Emotional Response, and Policy Opinion. In *Political Psychology*, 2008, Vol. 29, No. 2, p. 169-192.; HOLM, E. M.: *Emotions as Mediators of Framing Effects*. [Dissertation Thesis]. Aarhus : Forlaget Politica, 2012.; NABI, R. L.: The Case for Emphasizing Discrete Emotions in Communication Research. In *Communication Monographs*, 2010, Vol. 77, No. 2, p. 153-159

<sup>75</sup> See: BRADER, T., MARCUS, G. E., MILLER, K. L.: Emotion and Public Opinion. In EDWARDS, G. C., JACOBS, L. R., SHAPIRO, R. Y. (eds.): *The Oxford Handbook of American Public Opinion and the Media*. Oxford : Oxford University Press, 2011, p. 384-401.; EBERL, J. M. et al.: What's in a Post? How Sentiment and Issue Salience Affect Users' Emotional Reactions on Facebook. In *Journal of Information Technology & Politics*, 2020, Vol. 17, No. 1, p. 48-65.; LECHELER, S., SCHUCK, A. R. T., DE VREESE, C. H.: Dealing with Feelings: Positive and Negative Discrete Emotions as Mediators of Framing Effects. In *Communications: The European Journal of Communication Research*, 2013, Vol. 38, No. 2, p. 189-209.; MCKASY, M.: A Discrete Emotion with Discrete Effects: Effects of Anger on Depth of Information Processing. In *Cognitive Processing*, 2020, Vol. 21, p. 555-573.; OTTO, L. P.: Beyond Simple Valence: Discrete Emotions as Mediators of Political Communication Effects on Trust in Politicians. In *Studies in Communication and Media*, 2018, Vol. 7, No. 3, p. 364-391.

<sup>76</sup> See: HOLM, E. M.: *Emotions as Mediators of Framing Effects*. [Dissertation Thesis]. Aarhus : Forlaget Politica, 2012; NABI, R. L.: The Case for Emphasizing Discrete Emotions in Communication Research. In *Communication Monographs*, 2010, Vol. 77, No. 2, p. 153-159.

<sup>77</sup> See: VALENTINO, N. A., et al.: Election Night's Alright for Fighting: The Role of Emotions in Political Participation. In *The Journal of Politics*, 2011, Vol. 73, No. 1, p. 156-170.

<sup>78</sup> See: BRADER, T., MARCUS, G. E., MILLER, K. L.: Emotion and Public opinion. In EDWARDS, G. C., JACOBS, L. R., SHAPIRO, R. Y. (eds.): *The Oxford Handbook of American Public Opinion and the Media*. Oxford : Oxford University Press, 2011, p. 384-401.; GROSS, K.: Framing Persuasive Appeals: Episodic and Thematic Framing, Emotional Response, and Policy Opinion. In *Political Psychology*, 2008, Vol. 29, No. 2, p. 169-192.

<sup>79</sup> See: DE VREESE, C. H., BOOMGAARDEN, H.: Valenced News Frames and Public Support for the EU: Linking Content Analysis and Experimental Data. In *Communications: The European Journal of Communication*, Vol. 28, No. 4, p. 261-281.; LECHELER, S., SCHUCK, A. R. T., DE VREESE, C. H.: Dealing with Feelings: Positive and Negative Discrete Emotions as Mediators of Framing Effects. In *Communications: The European Journal of Communication Research*, 2013, Vol. 38, No. 2, p. 189-209.; LEE, B., MCLEOD, D.: Reconceptualizing Cognitive Media Effects Theory and Research Under the Judged Usability Model. In *Review of Communication Research*, 2020, Vol. 8, p. 17-50.

for understanding framing effects.<sup>80</sup> From most of the literature on equivalence framing effects, we know that negative and positive frames affect people's judgements/options/preferences in different ways, and that some authors argue that negative framing tends to have some superiority over positive framing,<sup>81</sup> while more recent studies suggest that in the new media landscape positive emotions might have higher impact.<sup>82</sup> Since economic growth (the topic of the news story we manipulate in the experimental design) may be framed/interpreted as both positive (an accomplishment of the Government) or negative (an artificial growth, based solely on consumption, and thus a failure of the Government in the long run), we expect the effects of positive versus negative economic news framing to be contingent on whether or not the *valence* is positive or negative. This expectation incorporates previous knowledge from equivalence framing in the research on emphasis framing, bringing together the two main approaches of framing as both individual-level and macro-level phenomenon, as recent scholars argue for. Building on these findings, one of the main objectives of this paper is to dig deeper into these aspects in order to see how various forms and valences of political fake news that is framed positively or negatively influence people's willingness to disseminate deceitful information and what is the role of specific emotions in explaining this process.

Moreover, studies investigating the role of emotions in news effects research in East-European contexts are scarce; some studies could be found in the vicinity of the topic.<sup>83</sup> We believe that the mechanisms behind news effects, via emotions, are context-dependent. This study looks at the way ideologically driven information elicits emotions, in the social media environment, in Romania. Thus, we hypothesize that positive emotions are elicited by positively framed fake news (H2), while negative emotions are elicited by negatively framed fake news (H3). Additionally, we investigate the *mediating* role of emotions of one particular effect of political news: going viral. As previously shown, emotions are increasingly depicted as a powerful force in contemporary news media framing and often assumed to play a role "over and above individuals' cognitive evaluations" of politics, politicians or political events.<sup>84</sup> Following this line, many scholars see the investigation of the emotions that are triggered by news media exposure as a reliable starting point in order to understand political processes in general and media effects on people's political (re)actions and decision-making in particular.

Likewise, as current studies show, emotions may substantially influence how people process and deal with the information they encounter, independent of whether that information is true or *false*.<sup>85</sup>

<sup>80</sup> See: DE VREESE, C. H.: Framing the Economy: Effects of Journalistic News Frames. In D'ANGELO, P., KUYPERS, J. (eds.): *Doing Framing Analysis: Empirical and Theoretical Perspectives*. New York : Routledge, 2010, p. 187-214.; SCHUCK, A. R. T., DE VREESE, C. H.: Between Risk and Opportunity: News Framing and Its Effects on Public Support for EU Enlargement. In *European Journal of Communication*, Vol. 21, No. 1, p. 5-32.

<sup>81</sup> See: CAPPELLA, J. N., JAMIESON, K. H.: *Spiral of Cynicism: The Press and the Public Good*. Oxford : Oxford University Press, 1997.; DE VREESE, C. H.: Framing the Economy: Effects of Journalistic News Frames. In D'ANGELO, P., KUYPERS, J. (eds.): *Doing Framing Analysis: Empirical and theoretical perspectives*. New York : Routledge, 2010, p. 187-214.

<sup>82</sup> See: AL-RAWI, A.: Viral News on Social Media. In *Digital Journalism*, 2019, Vol. 7, No. 1, p. 63-79.; BERGER, J., MILKMAN, K. L.: Emotion and Virality: What Makes Online Content Go Viral? In *GfK Marketing Intelligence Review*, 2013, Vol. 5, No. 1, p. 18-23.

<sup>83</sup> See: BURGET, R., KARASEK, J., SMEKAL, Z.: Recognition of Emotions in Czech Newspaper Headlines. In *Radioengineering*, 2011, Vol. 20, No. 1, p. 39-47.; VESZELSZKI, Á.: Linguistic and Non-linguistic Elements in Detecting (Hungarian) Fake News. In *Acta Universitatis Sapientiae Communicatio*, 2017, Vol. 4, No. 1, p. 7-35.

<sup>84</sup> See: LECHLER, S., BOS, L., VLIEGENHART, R.: The Mediating Role of Emotions: News Framing Effects on Opinions About Immigration. In *Journalism & Mass Communication Quarterly*, 2015, Vol. 92, No. 4, p. 812-838.; OTTO, L. P.: Beyond Simple Valence: Discrete Emotions as Mediators of Political Communication Effects on Trust in Politicians. In *Studies in Communication and Media*, 2018, Vol. 7, No. 3, p. 364-391.

<sup>85</sup> See: BAKIR, V., MCSTAY, A.: Fake News and the Economy of Emotions: Problems, Causes, Solutions. In *Digital Journalism*, 2018, Vol. 6, No. 2, p. 154-175.; KILGO, D. K., LOUGH, K., RIEDL, M. J.: Emotional Appeals and News Values as Factors of Shareworthiness in Ice Bucket Challenge Coverage. In *Digital Journalism*, 2020, Vol. 8, No. 2, p. 267-286.; VOSOUGH, S., ROY, D., ARAL, S.: The Spread of True and False News Online. In *Science*, 2018, Vol. 359, No. 6380, p. 1146-1151.

In today's digital media ecosystem, emotional stories (often of uncertain provenance or accuracy) are widely circulated and frequently accepted as facts by the people.<sup>86</sup> This happens not only because emotional language is more attention-grabbing,<sup>87</sup> but also because the so-called "empathic media"<sup>88</sup> use a wide range of online technologies (from facial coding and voice analytics to biosensors and sentiment analysis, etc.) in order to assess and record the emotions one displays on one's social media platforms. This content further alludes to what the literature terms "personally and emotionally targeted news"<sup>89</sup> which often incorporates (deliberately) misleading elements too.

In conclusion, the fake news phenomenon concerns the *economics of emotion rather than the economics of knowledge, specifically how emotions are used (and often abused) to foster audience's attention, engagement, and willingness to share content.*

Under these circumstances, the present paper focuses on how specific emotions enhanced by exposure to deceitful information correlate with individuals' subsequent tendency towards disseminating the news story on their social media platforms. More exactly, we aim at exploring how several key discrete emotions (e.g. anger, fear, enthusiasm and contentment) are likely to influence the viralisation potential of ideologically driven (and counterfeit) fake news (which we define as news spreading information that has the potential to mislead). Drawing on recent research concerning the mediating role of discrete emotions in the political information processing, attitudes and behaviour, we presume that both negative and positive emotions mediate the viralisation effects (H4).

## 5. Method

### Experimental Design and Stimuli

To test our hypotheses, we rely on a 2x2x2 between-subjects experiment (see Table 1), with one control group and 6 manipulated conditions relevant for political communication (as the other two remaining combinations of the three dimensions are to be found in the realm of advertising or public relations). In fact, this could be considered a 2x2 experiment in which we manipulated level of facticity and valence, which accounts for the disinformation dimension (that is information with a clear intention to mislead or deceive the audience), to which parody and satire as possible additional genres were added. The stimuli were constructed as news stories manipulated based on a control condition (N=120), a neutrally written news item on an economic subject, but politically focused. The story presents the (real) fact of a 7% economic growth in Romania, in 2017, as compared to 2016. The facts were presented as either an accomplishment of the Prime Minister, Viorica Dăncilă, and her Government (positive manipulation, N=115), or as artificial and dangerous growth based solely on consumption (negative manipulation, N=132). The fact was altered in the low facticity conditions as to present it as either a 14% growth (positive fabrication, N=116), or as a negative growth of 7% (negative fabrication, N=115). The satire (N=107) and parody (N=108) conditions used easily recognizable irony which addressed repeated mistakes the Prime Minister of Romania made in her public discourse in the last few months prior to the data collection, keeping the facts accurate (satire), or altering them in the same negative fashion as in the negative fabrication condition (parody).

<sup>86</sup> SILVERMAN, C., SINGER-VINE, J.: *Most Americans Who See Fake News Believe It, New Survey Says.* [online]. [2021-10-21]. Available at: <<https://www.buzzfeednews.com/article/craigsilverman/fake-news-survey>>.

<sup>87</sup> See: BRADY, W. J., GANTMAN, A. P., VAN BAVEL, J. J.: Attentional Capture Helps Explain Why Moral and Emotional Content Go Viral. In *Journal of Experimental Psychology: General*, 2020, Vol. 149, No. 4, p. 746-756.

<sup>88</sup> See: MCSTAY, A.: Empathic Media and Advertising: Industry, Policy, Legal and Citizen Perspectives (the Case for Intimacy). In *Big Data & Society*, 2016, Vol. 3, No. 2, p. 1-11.

<sup>89</sup> See: BAKIR, V., MCSTAY, A.: Fake News and the Economy of Emotions: Problems, Causes, Solutions. In *Digital Journalism*, 2018, Vol. 6, No. 2, p. 154-175.

In constructing the stimuli we used a combination of emphasis and equivalence frames, in the sense that, for the high facticity conditions, the content of the news item was just framed positively or negatively as either a success or a failure of the Government, but all information was kept identical, whereas for the low facticity conditions we changed the information about the size and direction (positive or negative) of the economic growth, keeping all other information identical, but also framed positively or negatively.

	Facticity High		Facticity Low	
	Valence positive	Valence negative	Valence positive	Valence negative
<b>Intention to deceive High</b>	Positive manipulation (2)	Negative manipulation (3)	Positive fabrication (4)	Negative fabrication (5)
<b>Intention to deceive Low</b>	N/A	Satire (6)	N/A	Parody (7)

+ control condition (1)

**TABLE 1:** Overview of the experimental conditions

Source: own processing, 2021

The topic and source of the message were held constant in all conditions. The stimuli were presented as news published on a news website, news.com. Each story was accompanied by a photo of the Prime Minister and a title, both manipulated to reflect the specific manipulation of each condition (see Appendix 1, including English translation of the stimuli). The photos reflected either a positive portrayal of the Prime Minister (for the positive fabrication and manipulation), a negative one (for the negative fabrication and manipulation), or a very specific negative portrayal with hints to the lack of taste and elegance of the way the Prime Minister dresses and her peasant origins (satire), and the altered picture of her specific hairstyle, but with the recognizable face of the president of the incumbent party at the time (Liviu Dragnea), suggesting the fact that in the public debates there has been discussions about the Prime Minister being a mere puppet in the hands of the president of the governing party (parody). (see Appendix 1) The title was also manipulated to reflect identical framing as the text and photos, using both equivalence and emphasis frames, with different valence for the high facticity conditions, and different comparison year, to reflect a greater either performance or failure than the real data suggested.

We pretested the stimuli and questionnaire on a diverse sample of 66 respondents, and only minor changes in the wording of both the questionnaire and the stimuli have been added to the initial design.

### Sample

The questionnaire was completed online by a diverse sample of Romanians aged more than 18 (N=1016). The data was collected by Survey Sampling International from July 31<sup>st</sup> to August 10<sup>th</sup>, 2018, using a quota sampling on age, education and gender. A sample of N=813 respondents was kept for analysis after cleaning procedures using completion time and straightlining on manipulation checks variables were applied. The final sample had the following characteristics: gender (52% males), education<sup>90</sup> (M=5.97, SD=1.40), age (M=40.17, SD=13.02), political interest (M=4.26, SD=1.95),<sup>91</sup> political ideology (M=6.03, SD=2.43).<sup>92</sup>

<sup>90</sup> Measured on a scale from 1 (no education at all) to 8 (graduate studies).

<sup>91</sup> Measured on a scale from 1 (not interested at all) to 7 (very interested).

<sup>92</sup> Measured on a scale from 0 (Left) to 10 (Right).

## Procedure

The questionnaire used in the experiment was structured in a typical experimental design: the first part included the informed consent, then the second part consisted of demographics, and control variables. The third part was the random assignment to one of the seven conditions (exposure to one of the online news item, which was visible for at least 15 seconds), while the fourth (post-test) part contained the dependent variables, mediators, and the manipulation checks. Randomization was successful for age ( $F_{6,657}=2.07, p=0.06$ ), gender ( $F_{6,801}=1.46, p=0.19$ ), education ( $F_{6,804}=1.98, p=0.07$ ), political interest ( $F_{6,804}=0.50, p=0.81$ ), and political ideology ( $F_{6,657}=1.41, p=0.21$ ). At the end of the questionnaire participant could read a debriefing and thank-you message.

## Measures

*Viralisation potential* was measured as one item, asking people how likely they were to share the news item on a social networking site (e.g., Facebook, Twitter), using a Likert scale from 1 (very unlikely) to 7 (very likely). *Emotions* were measured discretely (anger, fear, contentment, and enthusiasm) as self-reported emotions (adjusted from Harmon-Jones, Bastian, & Harmon-Jones, 2016), using the following wording – “Thinking of the statements mentioned in the newspaper article, please state to what extent you think it made you feel... angry/ fearful (concerned)/content/enthusiastic” – on a 7-point Likert scale, from 1 (Completely disagree) to 7 (Completely agree).

## Manipulation Checks

Five manipulation check questions were used to assess whether or not the stimuli were perceived as intended. Conditions manipulated using facticity low differed significantly from the rest of the conditions in both manipulation-check variables constructed to this end: one tested whether people agreed that the story reported on a 7% positive economic growth ( $F_{1,691}=205.01, p=.000$ ), and the other whether or not the story presented the growth as the results of consumption volume ( $F_{1,691}=40.61, p=.000$ ). Conditions in positive valence significantly differed from the others with respect to the story being presented as an accomplishment of the Government ( $F_{1,691}=27.05, p=.000$ ). At the same time, the satire and parody conditions were perceived as being ironic at the expense of the Prime Minister, and thus different from the others ( $F_{1,691}=139.67, p=.000$ ). Overall, the manipulation was successful and generally the stimuli were perceived as intended.

## 6. Results

Our data show evidence that negatively biased fake news that keeps the information accurate enhance people’s willingness to share the news story ( $b=.626, SE=.270, p<.05$ ), thus validating H1 for negative manipulation.<sup>93</sup> (see Appendix 2 and 4 for Regression output and Descriptives of sharing effect by condition) No other type of ideologically driven fake news has a significant effect on the viralisation potential. However, looking at the results, they suggest that (potentially with stronger stimuli), the positive conditions decrease the willingness to share, if compared with the control condition (Appendix 2). The surprising fact is that neither satire nor parody had a significant impact, which is probably because people tend to share those kind of *genres* only if they come in any format that is not perceived as proper news story. In short, people might have perceived the stimulus as mainly news, and not as humour.

As far as emotions are concerned, a first significant result shows that valence plays an important part in eliciting/enhancing emotions, mostly in a negative direction. (see Appendix 5 for Descriptives of discrete emotions elicited by various types of fake news). Considering

<sup>93</sup> Controlling for vote intention for the governing party does not significantly change results (see Appendix 3).

valence, positive emotions are not enhanced by positively framed fake news, as expected, but they are attenuated by all types of negatively framed fake news. Thus, contentment is significantly lower for people exposed to parody ( $b=-1.09$ ,  $SE=.21$ ,  $p<.01$ ), negatively fabricated news ( $b=-.79$ ,  $SE=.20$ ,  $p<.01$ ), satire ( $b=-.77$ ,  $SE=.21$ ,  $p<.01$ ), and negatively manipulated news ( $b=-.79$ ,  $SE=.20$ ,  $p<.01$ ). At the same time, people's enthusiasm significantly reduces when exposed to parody ( $b=-.85$ ,  $SE=.20$ ,  $p<.01$ ), negatively manipulated news ( $b=-.60$ ,  $SE=.19$ ,  $p<.01$ ), negatively fabricated news ( $b=-.50$ ,  $SE=.19$ ,  $p<.01$ ), and satire ( $b=-.44$ ,  $SE=.20$ ,  $p<.05$ ). Even though, strictly speaking, H2 is invalidated, our results suggest that the direction of the effects on emotions is the one we have foreseen: positive emotions are significantly reduced by negatively framed fake news.

When looking at negative emotions both anger and fear are enhanced by all types of negatively framed fake news (H3 validated). Thus, anger increases when people are exposed to parody ( $b=.94$ ,  $SE=.30$ ,  $p<.01$ ), negatively fabricated news ( $b=.89$ ,  $SE=.29$ ,  $p<.01$ ), satire ( $b=.88$ ,  $SE=.30$ ,  $p<.01$ ), and negatively manipulated news ( $b=.79$ ,  $SE=.29$ ,  $p<.01$ ). Negatively biased news influences people in a similar manner, namely fear increases significantly when people are exposed to parody ( $b=1.24$ ,  $SE=.30$ ,  $p<.01$ ), negatively fabricated news ( $b=1.20$ ,  $SE=.29$ ,  $p<.01$ ), negatively manipulated news ( $b=.85$ ,  $SE=.29$ ,  $p<.01$ ), and satire ( $b=.72$ ,  $SE=.30$ ,  $p<.05$ ).

Summing up, regardless of the type of negative valence in which a piece of (fake) news is framed, exposure to any of it enhances negative feelings: it either worsens people's fear or anger, or reduces people's contentment or enthusiasm.

Mediation analysis showed that the effects of viralisation potential in negatively manipulated fake news are mediated by negative emotions (both anger and fear), but not by positive ones, thus only partially validating H4. To test the mediation effects, we used PROCESS macro for SPSS, developed by Andrew F. Hayes (using a number of 5000 bootstrap samples). For fear, in the first step we found a significant effect of exposure to negatively manipulated news on people's willingness to share the news story ( $b=.67$ ,  $t(753)=2.40$ ,  $p=.017$ ). The second step tested the effect of exposure to negatively manipulated news on fear (mediator), which also proved significant ( $b=.85$ ,  $t(753)=2.97$ ,  $p=.003$ ). A third step showed that the mediator (fear), when controlled for exposure to the negative news item, was significant ( $b=.11$ ,  $t(752)=3.23$ ,  $p=.001$ ). Step 4 of the mediation process revealed that, when controlling for fear, exposure to the negative news item score remained a significant predictor of people's willingness to share the news, but the power of the effect lowered ( $b=.57$ ,  $t(752)=2.06$ ,  $p=.040$ ). The indirect effect size was .0968, with a 95% confidence interval which did not include zero (effect significantly greater than zero at  $\alpha=.05$ ).

Similarly, the mediation process for anger showed significant (and even stronger) effects. Applying the same procedure, in the first step we found a significant effect of exposure to negative news on the viralisation potential (willingness to share) ( $b=.58$ ,  $t(749)=2.08$ ,  $p<.038$ ). Secondly we found the effect of exposure to negative news on anger (mediator) to be significant ( $b=.79$ ,  $t(749)=2.71$ ,  $p=.007$ ). Steps 3 and 4 showed that, controlling for exposure to negative news, the mediator (anger) was significant ( $b=.11$ ,  $t(748)=3.18$ ,  $p=.002$ ), and that, controlling for anger, exposure to negative news was not a significant predictor of people's susceptibility to share the news any longer ( $b=.59$ ,  $t(748)=1.77$ ,  $p=.078$ ). The size of the indirect effect was .0879 (effect significantly greater than zero at  $\alpha=.05$ ). We found that anger fully mediates the relationship between people's exposure to negatively manipulated news and their willingness to share the news to which they were exposed.

Summing up, the potential for viralisation of negatively framed fake news, not only proved higher than for neutrally framed news (control), but the effect is mediated by anger (and to some extent fear) elicited by the content to which people were exposed.

## 7. Discussion

This study focused on the potential to go viral of politically valence framed fake news (compared to neutrally framed news), and the role that emotions, both positive and negative, play in this context. We found that there is a significant effect of viralisation potential only for negative manipulation, that is negative news that scores highly on both facticity and intention to deceive. We could document no effect for fabricated news, which might be due to a sort of boomerang effect, in the sense that people might perceive the intention to deceive, or might have had an idea about the real facts discussed in the stimulus, and were not inclined to share the content to a greater extent than the control material. Additionally, satire and parody might have been perceived as humour and not as news, people thus judging them as not particularly worthy to be further shared on social networks. This finding is particularly relevant not only for political communication in general, but at the same time to understand what are the real dangers associated with fake news: it might be the case that the real problem is rather the negatively framed news than the (grossly) fabricated content, thus raising the problem that fake news has the potential to create or amplify a highly polarized media ecosystem, which could be further addressed by fact-checkers (see Hameleers and van der Meer).<sup>94</sup>

As far as emotions are concerned, this study shows that negatively framed news (in all four types of framing covered in this experimental design: manipulated content, fabricated content, satire and parody) has a significant effect on both positive and negative emotions. However, positive emotions are not enhanced by positively framed news, but are lowered by negatively framed ones. Both anger and fear are enhanced by all negative news frames. The most powerful effect for both anger and fear are registered for the type of news low on facticity (parody and negative fabrication). This is particularly important from two points of view. On the one hand, maybe the academic debate about what fake news is should include forms such as satire and parody as legitimate genres of fake news, given their potential to elicit powerful negative emotions. On the other hand, findings show that intention to deceive might not be the one most important denominator in the discussion about fake news effects, as people might be influenced in ways still to be determined by content both intended and not intended to deceive in the first place.

Emotions playing an important mediation role in the ongoing viral phenomenon was to be expected, and was confirmed in this study. However, there are important nuances to this statement. Positive emotions do not mediate the effect of negatively manipulating news (the only significant main effect) on viralisation potential. Negative emotions, especially anger, mediate this effect, which is to say that people are actually more willing to share negative news because it elicits feelings of fear and anger, which in turn make them more willing to share. This finding suggests that probably not only negative fake news is powerful in eliciting people's emotions and thus making them actors of a viralisation process, but also that negativity in news in general that has the potential to make people angry might have an important potential to influence the various forms of political engagement, which is somewhat not in line with recent studies showing an increased potential for positivity in news to become viral.<sup>95</sup> This should be further tested in future research.

These findings are particularly important both for the recent academic interest for in fake news phenomena and the relatively scarce body of evidence regarding its effects (with the exception of studies focused on parody and satire), but also in the large discussion about

<sup>94</sup> See: HAMELEERS, M., VAN DER MEER, T. G.: Misinformation and Polarization in a High-Choice Media Environment: How Effective Are Political Fact-Checkers? In *Communication Research*, 2020, Vol. 47, No. 2, p. 227-250.

<sup>95</sup> See: AL-RAWI, A.: Viral News on Social Media. In *Digital Journalism*, 2019, Vol. 7, No. 1, p. 63-79.; BERGER, J., MILKMAN, K. L.: Emotion and Virality: What Makes Online Content Go Viral? In *GfK Marketing Intelligence Review*, 2013, Vol. 5, No. 1, p. 18-23.

the potential of news framed in emotional ways to more effectively influence opinions and attitudes.<sup>96</sup> Additionally, this is consistent with research showing that, among discrete emotions, anger has the potential to influence news effects, already proven with regards to various other topics, such as message processing (time spent consuming news and detail recognition levels),<sup>97</sup> political trust,<sup>98</sup> polarizing effects,<sup>99</sup> etc.

At the same time, the recent concern about fake news in political contexts has raised public concern about fighting the phenomenon. The report of the High Level Expert Group on Fake News and Online Disinformation<sup>100</sup> has outlined the need for “*independent evidence-based research on problems of disinformation.*” The general plea should be for comparative and replicable research, across platforms and types of fake news. However, research on fake news effects in the new media ecosystem is still in its infancy, and we believe this study to be a contribution to the field, especially in the East-European region, where systematic research in this area is almost entirely missing. Even though bound to one cultural context, this study shows, if nothing else, the potential for effects related to fake news viralisation phenomenon, which is, arguably, one of the most dangerous risks associated with fake news, in political context.

As any experimental study, ours too comes with limitations. One is related to the fact that the results are to be considered in the Romanian political context. It might be possible that effects should be dependent on both the context, but also the content of the news. The news story used as stimulus is only representative of political news about economic issues in Romania. However limitative these results, they are also filling a gap in the literature, as data concerning Romania as a case study for effects of news in general (fake news in particular) is almost entirely missing. At the same time, one should keep in mind that these are the results of a onetime exposure, and very specific for short time effects. Nonetheless, both potential for viralisation and emotions are short time effects by definition, which makes the setup relevant for the subject matter. Despite such limitations, this study addresses a very important topic in the literature about fake news: effects on the viralisation potential (which is key for various other types of effects) and their relationship with discrete emotions. Generally speaking, this study showed that negative discrete emotions have more potential for effects in general, and negatively biased news is more likely to lead to viralisation effects.

## 8. Conclusion

This paper contributes to the growing body of literature on fake news and its effects on the audience. It was the goal of our research to provide empirical evidence in three ways: by exploring viralisation potential of ideologically framed fake news, by studying the effects of fake news on emotions, and lastly, by measuring the mediating effect of emotions on the susceptibility to share fake news.

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<sup>96</sup> See: AARØE, L.: Investigating Frame Strength: The Case of Episodic and Thematic Framing. In *Political Communication*, 2011, Vol. 28, No. 2, p. 207-226.; GROSS, K.: Framing Persuasive Appeals: Episodic and Thematic Framing, Emotional Response, and Policy Opinion. In *Political Psychology*, 2008, Vol. 29, No. 2, p. 169-192.

<sup>97</sup> See: DE LOS SANTOS, T. M., NABI, R. L.: Emotionally Charged: Exploring the Role of Emotion in Online News Information Seeking and Processing. In *Journal of Broadcasting & Electronic Media*, 2019, Vol. 63, No. 1, p. 39-58.

<sup>98</sup> See: OTTO, L. P.: Beyond Simple Valence: Discrete Emotions as Mediators of Political Communication Effects on Trust in Politicians. In *Studies in Communication and Media*, 2018, Vol. 7, No. 3, p. 364-391.

<sup>99</sup> CLIFFORD, S.: How Emotional Frames Moralize and Polarize Political Attitudes. In *Political Psychology*, 2019, Vol. 40, No. 1, p. 75-91.

<sup>100</sup> *A Multi-Dimensional Approach to Disinformation: Report of the Independent High Level Group on Fake News and Online Disinformation.* [online]. [2021-10-21]. Available at: <<https://ec.europa.eu/digital-single-market/en/news/final-report-high-level-expert-group-fake-news-and-online-disinformation>>.

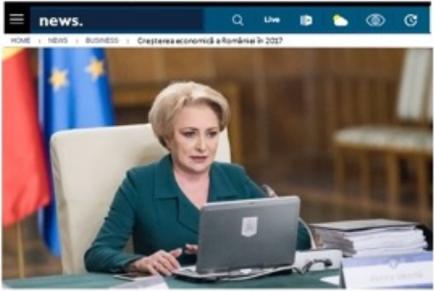
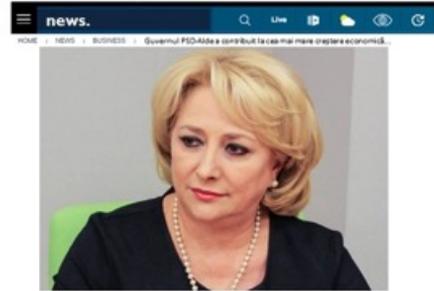
Our findings show that there is one variant of fake news in particular that has a significant viralisation effect: news that is factual in nature, but involve negative manipulations designed to deceive. The fact that we could not find any significant effects for completely fabricated news, which are low on facticity and high in intention to deceive, as well as for the humorous genres of satire and parody, suggests that we may be putting too much emphasis on grossly faked pieces of news. The subtler “species,” negatively ideologically driven news might actually impact the audience to a greater extent. While blatantly fake news stories could be compelling for a smaller fraction of the audience, positively or negatively framed news has the opportunity to be distributed more widely and more deeply and to amplify the polarisation of the media ecosystem.

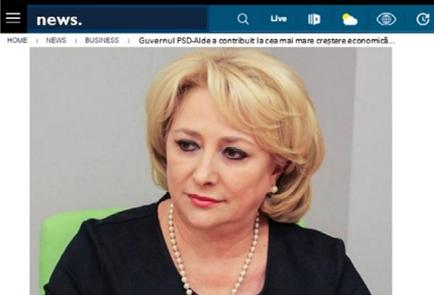
The second key finding is that all types of negatively biased fake news decrease positive emotions and enhance anger and fear in the audience; somewhat unexpectedly, satire and parody showed great effects in this regard, despite the fact that the main effect of viralisation was not confirmed. Given this insight, we propose that future studies pay greater attention to the effects of these two types of fake news, especially since they proved to be impactful even without being intentionally deceitful. Despite the fact that there is a tacit agreement between the source and the audience on the pretense nature of these so-called news, their potential to elicit powerful negative emotions is not negligible.

Lastly, the expectation that emotions play an important mediation role in the viralisation of fake news was confirmed, with the caveat that only negative emotions have the capacity to make people more willing to share negatively manipulating news. This result contributes with empirical evidence to the argument that one of the consequences of political online disinformation is making the audience more fearful and angry, thus more engaged in the dissemination of negative fake news in a vicious circle of distorted political communication.

## Appendix

### Appendix 1: Experimental conditions (stimuli)

Control condition (RO)	Positive manipulation condition (RO)
 <p><b>Economie</b> <b>Creșterea economică a României în 2017</b></p> <p>Premierul Viorica Dănciă a prezentat datele oficiale care au confirmat creșterea economică a României cu 7% în 2017, față de anul 2016. Datele arată că această creștere se datorează în principal cheltuielilor pentru consum final al gospodăriilor populației. În 2017, volumul importurilor a depășit volumul exporturilor.</p> <p>Citește mai mult...</p>	 <p><b>Economie</b> <b>Guvernul PSD-Alde a contribuit la cea mai mare creștere economică a României de după 2008</b></p> <p>Premierul Viorica Dănciă a prezentat datele oficiale care au confirmat creșterea economică a României cu 7% în 2017, față de anul 2016, cea mai mare creștere economică după 2008. Meritul este fără îndoială al Guvernului PSD-ALDE, care a luat măsuri inteligente, deopotrivă benefice economiei țării și oamenilor în general. Datele arată că această creștere se datorează în principal cheltuielilor pentru consum final al gospodăriilor populației, dovadă a faptului că oamenii au dus-o mult mai bine în ultimii ani sub Guvernul PSD-ALDE.</p> <p>Citește mai mult...</p>

<p style="text-align: center;"><b>Control condition (ENG)</b></p> <p>Economy</p> <p><b>Romania's economic growth in 2017</b></p> <p>Prime Minister Viorica Dăncilă announced the official figures reflecting an economic growth of 7% in 2017, compared to 2016. Data shows that this growth is mainly due to an increase in household consumption. In 2017, imports exceeded exports.</p> <p>Read more...</p>	<p style="text-align: center;"><b>Positive manipulation condition (ENG)</b></p> <p>Economy</p> <p><b>The PSD-Alde government coalition contributed to the highest economic growth in Romania since 2008</b></p> <p>Prime Minister Viorica Dăncilă announced the official figures reflecting an economic growth of 7% in 2017, compared to 2016, the highest growth rate recorded since 2008. Undoubtedly, this is credited to the PSD-Alde government, which took intelligent measures to the benefit of the national economy and the Romanian citizens. Data show this growth is mainly due to an increase in household consumption, proof that people's economic situation improved under the PSD-Alde rule.</p> <p>Read more...</p>
<p style="text-align: center;"><b>Negative manipulation condition (RO)</b></p>  <p><b>Economie</b> <b>Guvernul PSD-Alde a contribuit la creșterea economică artificială și periculoasă a României în 2017</b></p> <p>Premierul Viorica Dăncilă a prezentat datele oficiale care au confirmat creșterea economică a României cu 7% în 2017, față de anul 2016, o creștere extrem de periculoasă, din cauza naturii sale artificiale, bazate pe consum. Aceasta este consecința măsurilor economice dezastruoase luate de Guvernul PSD-ALDE în ultimii ani, măsuri care au consecințe profund negative deopotrivă pentru economia țării și pentru oameni în general. Datele arată că această creștere economică artificială se datorează în principal cheltuielilor pentru consum final al gospodăriilor populației, ceea ce poate duce la o criză economică puternică de tipul celei din Grecia, iar vina este exclusiv a Guvernului PSD-ALDE.</p> <p>Citește mai mult...</p>	<p style="text-align: center;"><b>Positive manipulation condition (RO)</b></p>  <p><b>Economie</b> <b>Guvernul PSD-Alde a contribuit la cea mai mare creștere economică a României de după 1989</b></p> <p>Premierul Viorica Dăncilă a prezentat datele oficiale care au confirmat creșterea economică a României cu 14% în 2017, față de anul 2016, cea mai mare creștere economică de la Revoluție până acum. Meritul este fără îndoială al Guvernului PSD-ALDE, care a luat măsuri inteligente, deopotrivă benefice economiei țării și oamenilor în general. Datele arată că această creștere se datorează în principal volumului producției, știut fiind că acest tip de evoluție este unul sustenabil și robust, ceea ce arată performanțele deosebite ale Guvernului PSD-ALDE.</p> <p>Citește mai mult...</p>
<p style="text-align: center;"><b>Control condition (ENG)</b></p> <p>Economy</p> <p><b>Romania's economic growth in 2017</b></p> <p>Prime Minister Viorica Dăncilă announced the official figures reflecting an economic growth of 7% in 2017, compared to 2016. Data shows that this growth is mainly due to an increase in household consumption. In 2017, imports exceeded exports.</p> <p>Read more...</p>	<p style="text-align: center;"><b>Positive manipulation condition (ENG)</b></p> <p>Economy</p> <p><b>The PSD-Alde government coalition contributed to the highest economic growth in Romania since 2008</b></p> <p>Prime Minister Viorica Dăncilă announced the official figures reflecting an economic growth of 7% in 2017, compared to 2016, the highest growth rate recorded since 2008. Undoubtedly, this is credited to the PSD-Alde government, which took intelligent measures to the benefit of the national economy and the Romanian citizens. Data show this growth is mainly due to an increase in household consumption, proof that people's economic situation improved under the PSD-Alde rule.</p> <p>Read more...</p>

**Negative fabrication condition (RO)**

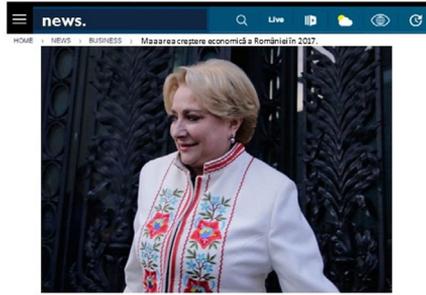


**Economie**  
**Guvernul PSD-Alde a contribuit la creșterea economică negativă a României în 2017**

Premierul Viorica Dăncilă a prezentat datele oficiale care au confirmat creșterea economică negativă a României cu 7% în 2017, față de anul 2016, o scădere extrem de periculoasă, cea mai gravă de la Revoluție până acum. Aceasta este consecința măsurilor dezastruoase luate de Guvernul PSD-ALDE în ultimii ani, măsuri care au consecințe profund negative deopotrivă pentru economia țării și pentru oameni în general. Datele arată că această creștere economică negativă se datorează în principal scăderii dramatice a volumului producției, ceea ce poate duce la o criză economică puternică de tipul celei din Grecia, iar vina este exclusiv a Guvernului PSD-ALDE.

Citește mai mult...

**Satire (RO)**



**Economie**  
**Maaarea creștere economică a României în 2017**

Viorica Vasilica a prezentat datele oficiale care au confirmat o maaare creștere economică a României cu 7% în 2017, față de anul 2016, ceea ce ne dorim și în douăzeci douăzeci. Datele prezentate arată că această creștere se datorează în principal cheltuielilor pentru consum final al gospodăriilor populației, a mai declarat premierul, în meoșoa limbă a strămoșilor săi uitață pe plaiurile bruxelleze. Orice om îi e frică de schimbările comerciale, dar se pare că, în 2017, volumul importurilor a depășit volumul exporturilor.

Citește mai mult...

**Negative fabrication condition (RO)**

Economy

**The PSD-Alde government contributed to the negative economic growth in Romania for the year 2017**

Prime Minister Viorica Dăncilă announced the official figures reflecting a negative economic growth of 7% in 2017, compared to 2016, a very dangerous decrease, and the most severe since the Revolution. These are the consequences of the disastrous economic measures undertaken by the PSD-Alde government in recent years, with extremely negative consequences for the national economy and for Romanian citizens. Data show that this negative growth is mainly due to a dramatic decrease in production; this may lead to an economic crisis mirroring the Greek crisis in proportions, and we have only the PSD-Alde government to blame.

Read more...

**Satire (RO)**

Economy

**Biiiiig deal: Romania's economic growth in 2017**

Viorica Vasilica announced the official figures reflecting a "stupendous" economic growth of 7% in 2017, compared to 2016, a prospect we hold dear for the year twenty-twenty\*) as well. Data show that this growth is mainly due to an increase in household consumption; the Prime Minister added in the native tongue of her ancestors, she completely forgot during her stay in Brussels. Any regular Joe is afraid of trade\*\*), but it looks like imports exceeded exports in 2017.

Read more...

\*) Contextual irony related to one of the Prime Minister's well-known statements

\*\*) Contextual irony referring to one of the most ridiculed statements of the Prime Minister, both for its incorrect grammar and choice of words.

<p style="text-align: center;"><b>Parody (ENG)</b></p>  <p><b>Economie</b> <b>Creșterea economică a României în 2017 este una incertă, întrucât premierul nu știe să citește cifrele</b></p> <p>Viorica Vasilica ar fi vrut să prezinte datele oficiale despre creșterea economică a României în 2017, față de anul 2016, dar a împiedicat-o limba română, mai ales că e mai greu cu cifrele, de când cu locuitul pe plaiuri bruxelleze. Premierul a reușit să articuleze până la urmă, în limba engleză pe care o vorbește din gesturi la perfecție, că această creștere se datorează în principal cheltuielilor pentru consum final al gospodăriilor populației. Orice om îi e frică de schimbările comerciale, dar se pare că, în 2017, volumul importurilor a depășit volumul exporturilor.</p> <p>Citește mai multe...</p>	
<p style="text-align: center;"><b>Parody (RO)</b></p> <p>Economy</p> <p><b>Romania's economic growth for the year 2017 remains a mystery, since the PM has no clue how to read</b></p> <p>Viorica Vasilica would have liked to announce the official figures reflecting the 2017 economic growth, compared to 2016, but her native tongue was too confusing, especially the numbers, since she'd been staying in Brussels as much as she can. Finally, the Prime Minister managed to say a few words in English (proficiently spoken in hand gestures) on the fact that household consumption is accountable for Romania's economic growth. Any regular Joe is afraid of trade*), but it looks like imports exceeded exports in 2017.</p> <p>Read more...</p> <p><i>*) Contextual irony referring to one of the most ridiculed statements of the Prime Minister, both for its incorrect grammar and choice of words.</i></p>	

Appendix 2: OLS Regression predicting willingness to share the news item

	B	SE	Beta	Sig.
(Constant)	2.617	.195		.000
Positive manipulation	-.391	.279	-.063	.162
Negative manipulation	.626	.270	.107	.021
Negative fabrication	.254	.278	.041	.362
Positive fabrication	-.199	.279	-.032	.475
Satire	.056	.284	.009	.843
Parody	.031	.284	.005	.912

Appendix 3: OLS Regression predicting willingness to share the news item, controlled by vote intention for the governing party

	B	SE	Beta	Sig.
(Constant)	2.531	.203		.000
Positive manipulation	-.315	.281	-.052	.263
Negative manipulation	.680	.271	.119	.012
Negative fabrication	.160	.282	.026	.572
Positive fabrication	-.111	.284	-.018	.697
Satire	.072	.286	.012	.801
Parody	.041	.285	.007	.885
Vote intention PSD	.087	.167	.019	.600

Appendix 4: Descriptives of people's willingness to share the news story

	Mean	N	Std. Deviation
Control	2.62	120	2.12
Positive manipulation	2.23	115	1.87
Negative manipulation	3.24	132	2.35
Negative fabrication	2.87	116	2.29
Positive fabrication	2.42	115	2.00
Satire	2.67	107	2.15
Parody	2.65	108	2.13
<b>Total</b>	<b>2.68</b>	<b>813</b>	<b>2.15</b>

Appendix 5: Descriptives of emotions elicited by the various types of politically biased fake news

		Anger	Contentment	Enthusiasm	Fear
Control	Mean	3.59	2.52	2.27	4.13
	N	113	109	109	112
	SD	2.20	1.65	1.52	2.34
Positive manipulation	Mean	4.04	2.60	2.48	4.41
	N	109	108	108	109
	SD	2.31	1.87	1.75	2.29
Negative manipulation	Mean	4.38	1.82	1.68	4.97
	N	116	115	114	119
	SD	2.10	1.34	1.30	2.05
Negative fabrication	Mean	4.49	1.71	1.75	5.35
	N	111	110	110	112
	SD	2.10	1.27	1.37	2.07
Positive fabrication	Mean	4.12	2.40	2.11	4.53
	N	108	106	107	108
	SD	2.32	1.80	1.56	2.27
Satire	Mean	4.47	1.75	1.83	4.85
	N	98	97	98	99
	SD	2.10	1.28	1.40	2.10
Parody	Mean	4.53	1.44	1.42	5.38
	N	101	101	101	101
	SD	2.24	0.93	1.04	2.03

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# Post-Lockdown Metamorphoses Of Television Culture

## **ABSTRACT**

The first twenty years of the 21st century have been marked by intense internalization and digitization, which have significantly influenced the communication processes throughout society and work in many professions. Communication has accelerated significantly, the amount of information we need to perceive, select and process has increased several times, and its credibility has become questionable. These and other technological changes, as well as other factors associated with political or social processes, have also marked the culture of society. Journalists are required to have much more skills and an immediate ability to deal dynamically and flexibly with the demands of these times. The set processes of media production and stereotypes of its perception were significantly changed by another relevant milestone of the 21st century, the Covid-19 pandemic. It closed people in their households, prevented direct contacts, restricted work and changed communication processes. It also significantly marked the work of television creators, their media outlets, as well as the entire television culture. In this paper, the authors analyse the situation that the creators of the main news programs had to deal with during the Covid-19 coronavirus pandemic, formulate what changes in their work have occurred due to the pandemic, how the media content has changed and, finally, define how it all has affected the methods of media creation and the media product that we see on TV screens today.

## **KEY WORDS**

Covid-19 pandemic. Media production methods. Television. Television culture. Television news..

# 1. Instead of an Introduction: The Transformation of Television Culture in the Parallels of Socio-culture

The socio-cultural practices in the last two decades point to their continuity with the development and state from the second half of the twentieth century. Within this period, M. Petrušek situates the creation of a new logic of the action of various social and cultural factors influencing the development of the mentality of societies in the Euro-Atlantic civilization. He coins a term for the new situation and individual cultures sharing common values or lifestyles – late-modern societies.<sup>1</sup> It is a fact that scientists in social sciences and humanities have tried to characterize the social and cultural changes in the last seventy years as concisely as possible.<sup>2</sup> According to M. Petrušek, late-modern societies have some significant features. These are the emergence of new life forms and lifestyle pluralism, the development of new patterns of social behavior as a result of the emergence of a prosperous society, the influence of the media world, on the basis of which one perceives two worlds. It is, on the one hand, the world of everyday life and, on the other, the world simulated by the mass media. As a result, direct repression by the government is being pushed out, but it is effectively being replaced by the methods of media seduction that stabilize social everyday life. Late-modern societies are also characterized by a significant change in their value patterns indicating a low level of compliance with ethical standards, strengthening acculturation processes and their conflicting perceptions, rapid growth of globalization processes, including accompanying global risks, such as new forms of social differentiation, new stratification of society, new social movements, individualism, non-recognition of authorities, etc.<sup>3</sup>

The mental setting of late-modern societies defined by M. Petrušek can also be reflected in the field of television production and the media reality mediated by it. It is a fact that discursive practices in television production have, since the beginning of its existence, reflected not only socio-cultural realities and its mental setting, but also the technical and technological development of audiovisual production. Also from this aspect, it can be argued that television culture was born and created against a background of socio-cultural influences. It has influenced and is still influencing not only the approaches and practices of television creative components, such as authors of themes, screenwriters, cameramen, sound engineers, editors, animators, directors, etc., but also the recipients themselves. The viewers' attention depended on the fascination degree of a screen, as well as on the dynamics and engagingness of the stories depicted. The world of the audiovisual reality of television culture is attractively arranged in a magnificent scenery of diverse simulations, visual images that effectively evoke diverse fascinations, emotions, ideas, experiences and pleasures in the recipients.

The claim that the world of television culture reflects the mental setting of a real socio-culture can also be defended on the basis of understanding the human situation of late-modern societies' people. They have their own ideas about the ranking of preferred values. They

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<sup>1</sup> M. Petrušek prefers the term late-modern society to the term postmodern society. It should be emphasized that the term postmodern society is not rejected, but according to him, the term late modern society characterizes much more broadly the attributes of fragmented societies and globalization processes, including their representative cultural complexes. These are typical of societies in the second half of the 20th century and the first two decades of the new millennium (PETRUSEK, M.: *Společnosti pozdní doby*. Praha : SLON, 2006, p. 25-34).

<sup>2</sup> There are researchers who name the changed social and cultural situation in such a way as to capture their dominant attributes as much as possible. (See: J. F. Lyotard, 1993; W. Welsh, 1993). The concepts of information society (Y. Masuda, 1996; M. Castells, 1996), fluid modernity (Bauman, 2002), experiential society (G. Schultze, 1992), hypermodern society (Lipovetsky, 2013), etc. – are also frequented in scientific studies. We note that different designations do not mean major differences in the characteristics of societies, they only describe their dominant characteristics.

<sup>3</sup> PETRUSEK, M.: *Společnosti pozdní doby*. Praha : SLON, 2006, p. 33-34.

adhere to hyperconsumption,<sup>4</sup> seek entertainment, emotional experiences,<sup>5</sup> they prefer television programs corresponding to their unfulfilled dreams, aspirations, but also fears and even phobias of loss of life security, illness and death. Their desire is a carefree, pleasurable, experiential life, and that is why they are afraid of everything that would disrupt their ideas of a good, hyper-consumptive life, secured by high deposits in banks. That is why, according to D. C. Hallin and P. Mancini, the priority of media since the 1980s is no longer the dissemination of ideas and the formation of social consensus, but the production of entertainment and information that is sold to the consumer public.<sup>6</sup> A prosperous consumer life represents the peak of happiness achieved in a man's life in late modern society. The range of programs on television offers them the opportunity to approach this goal, at least seemingly, to forget about the harsh reality. B. Malík claims that contemporary television is *"the most effective anesthetic"*. New media myths are created in accordance with the needs of a person raised by hyper-consumer and television culture. Thanks to this synergy, a media mythology of prosperity, love and leisure was born. But the cult of film stars was also born, which contributed to the recipients' inspiration for independence and individualism.<sup>8</sup> However, the revolt of postmodern individualism is practiced "upside down". L. Baran reminds that an individual manifests themselves transparently in the fictional media world. Smetana's *The Bartered Bride* becomes a girl for sale, Alexander the Great a homosexual. Heroes turn into antiheroes and vice versa.<sup>9</sup> According to I. Ramonet, television programs, including television news, are prone to necrophilia because they feed *"mainly on blood, violence and death"*.<sup>10</sup> P. Bourdieu thinks that, while in the second half of the 20th century television had the ambition to cultivate viewers, since the 1990s it has been trying to reach the widest possible audience. Therefore, it has adapted to the generally low audience taste producing primitive products, soulless talk shows, reality shows, individual exhibitions and so on.<sup>11</sup>

It is a fact that the uncomfortable competitive environment in the media market forces television creators to invent new impressive ways of presentation, to offer viewers an engaging show. It is important to get to know the audience, their needs, ambitions, aspirations, taste, preferred topics, etc. That is why, according to L. Čábyová, the basis for the success of the media in competition is the right market segmentation, its targeting and the subsequent creation of a certain position in the eyes of potential customers.<sup>12</sup> The same is true for competition in news and journalistic television genres. Regardless of the legal and ownership form, television stations prefer news and current affairs programs that conform to the mental setting of their contemporaries and are subject to the imperative of a competitive struggle for their favor. The contributions are shortened, dynamized, not analyzed, stated, the viewer's eye is exposed

<sup>4</sup> Hyperconsumer society as a higher stage of consumer society according to G. Lipovetsky exceeded all areas of social practice (See: LIPOVETSKY, G.: *Paradoxní štěstí. Esej o hyperkonzumní společnosti*. Praha : Prostor, 2007).

<sup>5</sup> Referring to G. Schulze, by experience we mean the ambition of a person to experience something unusual, adventurous. Experiencing "something" is an effective way of making everyday stereotypes and routines marked by mundaneness more attractive. (Compare: SCHULZE, G.: *Die Erlebnisgesellschaft*. Frankfurt am Main : Campus-Verlag, 1992.).

<sup>6</sup> HALLIN, C. D., MANCHINI, P.: *Systém médií v postmoderním světě. Tři modely médií a politiky*. Praha : Portál, 2008, p. 300.

<sup>7</sup> MALÍK, B.: *Mediomorfóza sveta*. Bratislava : Iris, 2008, p. 59.

<sup>8</sup> LIPOVETSKY, G.: *Říše pomíjivosti. Móda a její úděl v moderních společnostech*. Praha : Prostor, 2010, p. 328-329.

<sup>9</sup> BARAN, L.: *Estetika jako otevřený systém*. Trnava : FMK UCM in Trnava, 2002, p. 46.

<sup>10</sup> RAMONET, I.: *Tyranie médií*. Praha : Mladá fronta, 2003, p. 148.

<sup>11</sup> P. Bourdieu sees the development of television from an elitist point of view because he speaks nostalgically about the times when television programs had to meet high cultural and aesthetic demands. It was not only adaptations of classic literary works, debates about culture, etc., but also documentaries (See: BOURDIEU, P.: *O televizi*. Praha : Doplěk, 2002.).

<sup>12</sup> See: ČÁBYOVÁ, L.: *Mediální marketing*. Trnava : FMK UCM in Trnava, 2010, p. 5-7.

to a stream of diverse images, scenes flickering in a linear flow, but, as N. Postman states, “*in the band of unrelated events*”.<sup>13</sup> Through the periscope of the screen,<sup>14</sup> the viewer forms an idea of what is happening in the real world and identifies with the logic of the medium. For example, if we compare the pathos of mentoring typical of newscasters and reporters in front of television cameras from the beginnings of television journalism to the 1980s with the current speech, we find huge differences. We are currently witnessing a jovial, relaxed speech of newscasters and reporters to the audience, whose affection they are trying to gain. Of course, this way of acting also requires an adequate, attractive appearance. The personalization of the presented information must have its aesthetic, fashionable and personality parameters. In this context, G. Lipovetsky states that “*information is subject to the same laws as goods and advertising: fashionable form, the imperative of personalization and seduction are everywhere*”.<sup>15</sup> Like other feature television genres, television news and journalism have their celebrities, established narrative practices, dramatic construction of both news items, and their ordering in scripts. In news and journalistic stories, the main protagonist, playing their role of a searcher, entertainer and informant is a television journalist, who acknowledge and present only their authority. This approach is in line with the contemporary mental setting, its individualism and the preference of one’s own ambitions, aspirations and desires over social and collective goals.

However, the outbreak of the Covid-19 virus pandemic in Wuhan, China, in December 2019, its worldwide spread and subsequent quarantine measures taken by governments, are proving to change not only the living standards and mental settings of post-lockdown companies, but also approaches to television journalism. The economic slowdown, rising inflation, unemployment, thinning of the state budget, rising national debt, fear for life, nightmares of loss of social security, a feeling of general danger and isolation, have increased people’s dependence on information. This situation, together with several other factors, caused the increase in viewers’ interest in television news. However, it is questionable to what extent the isolation, freezing of social life, economy, etc., have contributed to the change in the methods of creating television news. We also sought an answer to this question through our research. We watched the nationwide public television RTVS, TV Markíza, TV JOJ and TA3 during the first and second waves of the corona crisis. Over the course of one year, we focused mainly on news, news-journalistic and special programs devoted to the corona crisis. We analysed the content of a session as a whole, as well as its individual contributions, the method of their processing in terms of information benefits for the recipient, the method of presentation and form and the method of visual representation.

## 2. Lockdown Methods of Creating Television News

Television broadcasting in news and journalism is based mainly on displaying/showing a topic, problem, situation through real images from the place of action. E. Chudinová states that “*television communication can be understood as the process of transferring various creative contents from the communicator to the auditorium, through audio-visual-technical implementation. It is an acoustic-optical representation of current sections of the current world, a presentation of opinions, stimuli and insights in relation to the present and the past*”.<sup>16</sup>

<sup>13</sup> POSTMAN, N.: *Ubavit se k smrti*. Praha : Mladá Fronta, 2010, p. 92.

<sup>14</sup> V. Flusser refers to the television as a window or periscope, meaning the technical means by which the recipient receives images and sounds as if they were realistic images. The television creates the illusion “as if images of the world were pouring out of the box, it did not care at all whether the world was actual or imperative.” (FLUSSER, V.: *Komunikológia*. Bratislava : Media Institute, 2002, p. 140.)

<sup>15</sup> LIPOVETSKY, G.: *Říše pomíjivosti. Móda a její úděl v moderních společnostech*. Praha : Prostor, 2010, p. 343.

<sup>16</sup> CHUDINOVÁ, E.: *Televízna tvorba*. In TUŠER, A. a kol.: *Praktikum mediálnej tvorby*. Bratislava : Eurokódex, 2010, p. 191.

Thus, visual communication is significantly used in television communication, which includes everything that is relevant and can be shown, and that the communicator tries to mediate and bring to the viewers. According to G. Burton and J. Jiráček, *“the pictures are iconic, which means, they resemble what they represent. In this way, they significantly support the impression of media authenticity – they rely on the ancient cliché that what we see must be true”*.<sup>17</sup> G. Burton and J. Jiráček emphasize that the *“effort to strengthen the authority of the news and the media” is reflected in the choice of topics, the preferences for news values, the editing of reports, the emphasis on the authenticity of reports and the presentation of experts*.<sup>18</sup>

In order to increase authenticity and persuasiveness, it is beneficial if the media content is based not only on showing, but also on the statements of the actors of the topic/situation, not only on the narration of the editor. These two ways of television communication – to show and support the direct comments of the involved participants – are a basic condition for quality authentic television media content, as well as a basic building block of many classic television journalistic genres. As J. Višňovský also confirms, *“the form manifests the content of the text and its internal organization, through which the functions of the content are realized”*.<sup>19</sup> This is also evidenced by a multi-year research on television news and journalism. In the broadcasting of television news, the most frequent ones were a visual news item, a reportage, and an interview within them or separately. Journalism was dominated by reportage and interviews.

The Covid-19 pandemic has also brought changes to television life. The ever-changing rules associated with lockdown, meaning significant restrictions on travel and contact with other people, caused the creators to have very little opportunities to go out into the field and thus, they could not directly meet the respondents. Even their communication to the viewer was limited because they covered half of their faces with a facemask. This reduced articulatory intelligibility and, in part, the non-verbal form of expression – so the recipient’s attention was focused mainly on the communicator’s eyes. The production of several programs on television was stopped, or it was carried out in special conditions – with a small number of actors and production staff and under strict safety hygiene requirements (testing, intensive disinfection). The topics of news and several journalistic programs also changed significantly – dominated by press conferences, information on those affected and the situation in hospitals, the situation in neighbouring countries and the world, and especially on the measures taken by the government and individual ministries and the rules to be followed by the citizens. Press conferences and interviews with experts accounted for about 75% of the news coverage. During the critical period, special journalistic programs were prepared – discussions with experts and responsible government representatives (Facts and Impulses (RTVS)), Coronacrisis: a special program (TV Markíza), Newspaper special (TV JOJ).<sup>20</sup> This exceptional situation brought a significant reduction in the classic way of producing media content and caused the need for a creative approach so that the basic laws of information could be fulfilled through media communication – objectivity, attractiveness, meaningfulness, comprehensibility, credibility. Under the influence of all the changes in television production, there has also been a change in the stereotypes in the perception of media content. The viewer had to adapt to what they saw and what was offered to them, they learned to read the necessary information and messages offered by television news and journalism.

<sup>17</sup> BURTON, G., JIRÁK, J.: *Úvod do studia médií*. Praha : Barrister&Principal, 2001, p. 250.

<sup>18</sup> Ibidem, p. 249.

<sup>19</sup> VIŠŇOVSKÝ, J.: *Problematika štruktúry a kompozície v novinárstve*. Trnava : FMK UCM in Trnava, 2012, p. 81.

<sup>20</sup> HUDÍKOVÁ, Z.: Whipping Up Emotions by Media During : Coronavirus Pandemics. In KVETANOVÁ, Z., SOLÍK, M. (eds.): *Megatrends and Media: On the Edge*. Trnava : FMK UCM in Trnava, 2020, p. 556.

Over the last year (March 2020 – March 2021), the biggest change occurred in the extent to which the broadcast focused on interviews.<sup>21</sup> During the corona crisis, the information was conveyed mainly through longer interviews, a smaller number of respondents were used, the form of the respondent's shooting and the content of the illustrations changed. This was primarily reflected in news programs and journalism. The content began to be tolerated even when only one respondent answered several topics from a given area in a larger time range, meaning respondents did not change so much, it was not necessary for each part of the topic to be presented by another expert. The main content of the interview was to describe the state/situation, explain the causes, predict the consequences and predict the further development. The respondent's statements also included subjective opinions, evaluations, experience or predictions of future development, as well as emotions in the form of feelings and experiences. The purely news level of the interview disappeared. Mostly, it was in the form of an analytical journalistic interview. The viewer therefore had to get used to extensive press discussions, listening to a number of facts and opinions, as well as answers to questions from the reporters. From the beginning, these facts and the opinions of the competent persons, associated with the amount of information, were presented by the performers without more thoughtful graphics, gradually, however, their informative value and clarity increased.

The broadcasting comprised mainly of interviews with the people in charge or with experts who explained the fundamentals of the problem, estimated the development, formulated recommendations. Statements pronounced only by experts carried recommendations to deliver weight/credibility, to mitigate fears and worries or negative mood and to help increase the effectiveness of taken measures. It was not possible to travel to the respondents, reporters mostly processed new items in the editorial, using recurring illustrative shots from hospitals and the scenes of antigen test examinations. If the reporters were in the press conference rooms, they usually spent the whole day there and reported from there or they conducted additional interviews with those in charge. Very often, interviews were conducted directly by the presenters in the studio – either with the reporters or experts. News items contributions (on the situation in individual regions and its development, the situation of entrepreneurs or workers affected by the restrictions due to the corona crisis) were mostly based on the reporter's statements and interviews conducted via a mobile phone or PC communication platforms. The reporters were looking for ways to show the respondent to the viewer, as the image is very important for audio-visual formats. While previously the statements of the respondents were presented via mobile phone only in an auditory form, in a changed situation they searched for and found ways to bring an image. The cameraman started filming the screen of the mobile phone, which also contained the face of the talking respondent (video call). The editor held it in their hand, turning it towards them so that the positions formed the composition of a dialogue. Due to the fact that the lockdown lasted a very long time, many conversations were conducted via Internet computer communication platforms, such as Skype, Zoom, Google Meet, Teams and more.

The viewer gradually had to get used to the various images of faces, which were contrary to the principles of television shooting. The respondent was no longer standing in front of the cameraman, who focused and framed their face professionally, but was usually at home, with the computer on their desk and the camera was shooting them completely or, depending on whether they had the camera at the bottom or top of the screen. Such shooting significantly distorted

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<sup>21</sup> This form of communication is currently very popular and attractive. The reason is that dialogue is a familiar and natural way of communication for the recipient, they most often communicate this way in everyday life. At the same time, the questions heard automatically arouse curiosity and maintain attention in the human brain. Furthermore, the alternation of persons (asking – answering) brings dynamism to communication. The recipient who listens to the conversation remembers more from it than they would if they listened to just one person explaining something to them.

the face, the expressions of which are very important for communication in critical situations.<sup>22</sup> The deformation of the face was even more pronounced when the respondent was very close to the screen, or when they leaned too much towards it in an effort to communicate better with the reporter. The viewer then noticed the details they do not normally follow in media, and often not even in direct interpersonal communication – a more pronounced nose, a look into the nostrils, visuals and deformations of the skin, etc. They disturbed the concentration on the content.<sup>23</sup> The mentioned automation is also associated with another – the most serious visual problem – non-compliance of eye contact with the camera. An interview with a respondent with a direct view of the camera is a simulation of interpersonal communication. The information provided in this way is perceived by the recipient as more credible and convincing. In standard situations, the reporters try to stand the interviewee in such position that will allow the cameraman to shoot the face of the respondent anface through the shoulders of the reporter, once they have communicated the introduction to the news item. This creates a situation of interpersonal communication between the reporter and the respondent. The viewer feels as if the respondent is speaking directly to them. If the respondent was looking at a laptop screen, where they saw the face of the reporter with whom they were communicating, their view was naturally slightly lower/higher than the camera, and therefore the view was not direct. This disrupted the feeling of interpersonal media communication and partially weakened the recipient's attention. The second disturbing element related to the communication partners' eye contact in the conversation was the fact that some people, when formulating ideas, do not look directly into the partner's eyes, but outside – up, sideways or downwards.<sup>24</sup> Therefore, if the respondent's look was directed away from the camera, the recipient's eyes also tried to "look" there. However, he could not do so, which, again, disturbed the concentration on the contents. Another disruptive element in the interviews was a situation in which the respondent was writing some text. In the broadcast, it looked like they were looking at the screen, and their eyes and intonation showed that they were reading the answer. Reading the prepared text in such a way that the performer looks at the camera, presents the text continuously and the viewer perceives it as a free expression of the presenter speaking, is already used by default in media communication. To look natural, the camera must be "behind the text" and the text must move smoothly according to the pace of the presenter's speech, which is not yet possible at home.

The last deficiency of communication via communication PC platforms was the delay. This had been the case with telecoms before and is audible even today, the viewer is already used to it. The presenter in the studio asks the reporter or the respondent a question, which they receive with a slight delay and then answer smoothly. However, when transmitting a signal via a PC, there were sometimes connection failures, so the speakers had to slow down their utterances slightly in order for their devices to catch and transmit speech. Occasionally, there was an error synchronizing speech and image. The consequence of such various disturbances of concentration and minor, but more frequent, distractions from the content is that the recipient does not perceive the content carefully, may not capture some information or may capture it in

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<sup>22</sup> Authors' note: A stressed person is very sensitive to the expressions of the speaker, the small micro-movements and the tone of the facial muscles and they subconsciously read and interpret the experience of emotions (fear, anxiety) from these signals. This in turn evokes feelings in the recipient, based on which they perceive the situation as dangerous and threatening.

<sup>23</sup> Authors' note: For the processing of stimuli, as soon as there is something unusual in our environment that goes beyond the stereotype, our mind immediately registers it and begins to process and evaluate whether it is not threatening to us. This instinctive mental mechanism is a defense tool that our brains have developed over the millennia as a mechanism for ensuring survival. As a result, it draws attention to the threatening elements of communication.

<sup>24</sup> Authors' note: In interpersonal communication, our eyes follow the speaker's gaze, we have control over where they are looking, we can evaluate whether what the respondent is looking at threatens us or not. In media communication, we see only what the camera offers us, in this case the head and face of the respondent.

a distorted way. At the same time, intermittent concentration is tiring for the psyche as well,<sup>25</sup> which, with poor mental condition and a negative atmosphere in society, can further increase individual nervousness and feelings of tension. The above analysis shows that during the last year, long-term stereotypes of the perception of media content in news and journalism – in content and form – have been disrupted. These most common mistakes appeared mainly at the beginning of the pandemic situation. Gradually, the respondents learned to speak “to the computer”, video calling became part of everyday life, and therefore the recipient got used to this way of communication in the media faster.

If we look at the technical side, we can observe changes in several areas within the scope of our interest related to the pandemic and lockdown:

*1. The need to master software applications used to transfer multimedia content.*

In this area, we include online applications that enable communication between two or more respondents. These include the above-mentioned applications from world leaders in the field of IT technologies, such as Google, Microsoft, Cisco and others, who themselves tried to design applications in the simplest possible form with a minimum of controls and settings for more intuitive work. Over time and with the increasing demands of users for their functionality, these applications are also evolving and becoming more robust. Problems can occur when switching from one application to another. Although the main controls are basically identical and use similar pictograms, such a transition requires some time for the user to “get used to the application”. The reporter needs to be automated with the functionality, they need to understand it better than just a regular user to be able to use it quickly in the creation and transmission of media content, or to be able to advise their respondent and ensure a better form of communication output. Universities educating future journalists could also be helpful in this area, either by placing even greater emphasis on practical skills and acquiring technical knowledge related to the future professions of their students, or by providing further lifelong learning in this area.

*2. Technical and aesthetic quality.*

Each television broadcast has given technical parameters, which it must meet, whether it is the resolution currently standardly used by televisions not only in Slovakia, 1920x1080 pixels with a frame rate of 25 images, or the quality of the transmitted sound. This is where the shift we have encountered in the recent period lies. And here is the shift in the last period. The overall technical quality of the broadcast is not declining, on the contrary, but the individual contributions, especially in the news, for the obvious reasons mentioned above, cannot always be considered technically eligible for television broadcasting. The content of the statements of individual respondents became more important than the technical level of records. There are several explanations for this phenomenon. In most cases, the low technical quality of the transmitted communication of the respondent is due to the speed of their internet connection. Not all areas of Slovakia are covered by high-speed internet. And even if they were, the broadcaster cannot influence the specific connection of the respondent if, for example, they have purchased a low-speed connection or are in a problematic place. Another problem is that most respondents use built-in technical means for communication – a camera and a microphone, which are part of laptops or tablets. Their parameters are incomparable with professional equipment, although they declare that some of them are the same. This causes poor quality of the captured image and sound. We consider the above facts to be an objective cause, but there are also subjective circumstances that affect the quality of transmission. These include the level of technical skills of the respondent, whether they can set up the application and other controls of the computer correctly so that the transmission of multimedia content is optimal. It is understandable

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<sup>25</sup> At the same time, it is important to note that the recipient is not aware of these disturbances and the need for higher energy expenditure in the perception of such media content.

and tolerable that e.g., a virology specialist does not have detailed knowledge of the IT field or of audio and editing programs and, thus, the form of their transmitted statement will be of lower quality. But it is less understandable, even striking, if we see such shortcomings in a contribution provided by a spokesperson for an institution, a professional. Even today, we can sometimes hear in television news that, for example, their sound statement is of low quality. This is affected by low data rate or recording in a poorly acoustically modified room. These are lacks that can be remedied very easily and will contribute to more cultivated reporting even during non-standard situations, such as the recent period. Other subjective areas that the respondent can influence are aesthetic aspects. We do not mean the very look and appearance of them, but how they are shown in the camera section. Extreme camera angles, whether ceiling or aerial, should be avoided. The basic rules can include the distance from the camera, which should not be less than 50-60 cm, the outstretched arm distance. This will prevent deformation of the face or other unwanted defects, such as distortion. Equally important is what is in the scanned environment and how the characters themselves are composed. The figure should be framed with enough space above the head as well as on the sides. It is advisable to avoid disturbing elements in the background, which can distract attention from the scanned figure. Lighting is a big problem, which is one of the main attributes of a high-quality image of the respondent. It follows from the written that the communicator can adjust many things before recording the answer or conversation. Appropriately arranged space, quality lighting conditions, correct setting of PC parameters, or additional devices can significantly add up to the quality of the contribution itself.

### 3. Significant use of infographics and data visualization (not only for news).

The use of infographics in news is not a new issue, but it has been gaining ground in recent times. This is causing an enormous increase in the data and messages associated with the covid situation. Especially in the news, we are confronted with the fact that we simply want to convey as much relevant information as possible, while maintaining clarity. This excess of information that affects us is also called *information overload*.<sup>26</sup> The chaotic presentation of information can be successfully prevented through the effective use of infographics. M. Smiciklas<sup>27</sup> defines it as a type of pictorial message that fuses design and data while helping individuals and groups to communicate concisely and clearly with the audience. However, an infographic itself may not be understood correctly if it is not placed in the right context. This shows the importance of a close link with the verbal side of the content provided and unambiguous statements supporting the visual side of the information provided.

## 3. Instead of the Conclusion: Post-lockdown Metamorphoses of Television Culture

Today we can state that new elements and forms have entered television communication. We can also agree with E. Klinenberg, who argues that digital technologies have changed journalistic editorial work, but it is debatable how they affected the quality of journalistic output. In relation to this issue, it is stated that when conglomerates entered the journalistic business, they imported their own management techniques into newsrooms and developed new strategies to ensure increased productivity, efficiency and profitability of the industry. Many journalists and media critics have pointed out that convergence “undermines” journalism, in particular

<sup>26</sup> PRONER, J.: Vizualizácia dát a infografika. In BUČKOVÁ, Z. et al. (eds.): *Megatrendy a médiá 2018*. Trnava : FMK UCM in Trnava, 2018, p. 175.

<sup>27</sup> SMICIKLAS, M.: *The Power of Infographic: A Data Visualization Guide for Business Professionals*. New Jersey : Wiley, 2015, p. 9.

by reducing the time spent gathering information, creating and evaluating social events.<sup>28</sup> Likewise, the use of the potential of multimedia, interactive television and strong internalisation hide behind the essence of the convergence process that we are currently witnessing and which also represents one of the most current trends in the production and reception of media content.<sup>29</sup> This is reflected, among other things, in the hybridization of journalistic practices, which results in the hybridization of journalistic genres. The movement of media professionals in the various types of editorial media offices is also characteristic for the present time. Press journalists work in radio and television, and television and radio reporters have returned to print and online media, and they all automatically convey stereotypes of media production methods used in the media in which they previously worked.<sup>30</sup> The Covid period accelerated all these processes even more and in a relatively short time presented us with new challenges that did not bypass the field of television broadcasting. The procedures used, not only in the news, had to be modified and adapted to the new realities of the dynamically evolving period. This has resulted in several changes, manifested in the methods of journalism, as well as in the content and form of the media products themselves. In news programs, especially the main ones, the newscasters lead many more interviews than before the pandemic period. They have become part of their work. In presenting pairs, they sometimes spread questions among themselves and do it together. Dialogic communication has become more dominant, there are several interviews from the studio during one report, they are of different lengths and depths. The newscasters are no longer just presenters, but have become guides and unify the thematic blocks, as well as the entire content of the news program. The enormous increase in information and the effort to keep it as up-to-date as possible have brought to broadcast the use of a larger number of infographics, new technological procedures (more frequent communication via a virtual screen), as well as online applications. Visual rendering of data is an ideal way to convey a large volume of data, which in many cases are too abstract for the recipient to process, but very important for understanding the situation and context.<sup>31</sup> If in the past the newsacasters just sat during the news, today they go to the space much more often and comment on the information on the virtual screen or have a conversation during it. Respondents in interviews are on-site reporters or experts. If the experts talk to the presenter, they provide them with an interview in the field or via a computer from the space of their workplace or apartment. They are usually shot in the field by a professional camera. But unlike in the past, it is no longer the reporter who would do the interview, but only the cameraman who frames it and the respondent conducts the interview directly with the newsacster in the studio. The recipient has gradually become accustomed to the fact that not all shots are perfect. More informality gets into the media content and form. The pandemic situation, limitations and measures have taught people to tolerate improvisation and to adapt more flexibly to change, which has also been reflected in a shift in perceptual stereotypes and changes in the creation of media content in news and journalism. In this context, however, it is necessary to maintain the quality not only of the content side, but also to pay attention to the technical requirements associated with television broadcasting. We can already state today that some intelligence procedures tested during the pandemic have become an integral part of it and have contributed to greater flexibility in journalistic practice.

<sup>28</sup> KLINENBERG, E.: Convergence: News Production in a Digital Age. In DUFFY, B. E., TUROW, J. (eds.): *Key Readings in Media Today. Mass Communication in Contexts*. New York, London : Routledge, 2009, p. 156.

<sup>29</sup> MINÁRIKOVÁ, J., BLAHÚT, D., VIŠNOVSKÝ, J.: Hi-Tech And Eye-Catching Alike: Information in the Multiplatform Era. In *European Journal of Media, Art and Photography*, 2020, Vol. 8, No. 1, p. 121.

<sup>30</sup> HUDÍKOVÁ, Z., PRAVDOVÁ, H., GAŽICOVÁ, A.: The Pragmatism of Hybridisation Logic of Television News in Slovakia. In *Communication Today*, 2020, Vol. 11, No. 1, p. 97.

<sup>31</sup> VRABEC, N.: Data Journalism as a Tool to Increase Media Literacy Among Media Professionals. In MATÚŠ, J., PETRANOVÁ, D. (eds.): *Marketing Identity: Digital Life – part II*. Trnava : FMK UCM in Trnava, 2015, p. 544-552.

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# Web Personalization And Artificial Intelligence As Tools For Marketing Communications

## **ABSTRACT**

Market relationships have undergone profound changes in the past two decades, which have been accelerated by the crisis of the global pandemic. This has led to a fundamental transformation in the communications not only of businesses but also of governments, organizations, and communities. This study addresses web personalization with an emphasis on artificial intelligence in the context of their use for managing and decision-making in marketing processes in practice. These two techniques tend to be often confused in practice, and for this reason it is helpful to define their positions and mutual interactions. The goal of this article is a theoretical comparison of web personalization and artificial intelligence as part of marketing processes and the proposal of a framework for their use for creators of any online media content. At the same time it sheds light on the meaning and use of web personalization for management in practice and in particular in marketing processes and proposes a model for implementing these techniques that can be used in strategic marketing. This article presents research questions and uses secondary data analysis in the form of literature review and content analysis. The result is categorization of web personalization and artificial intelligence techniques, identifying their mutual links, and proposing an application framework for marketing practice. This article contributes to the discussion by identifying managerial use of defined techniques and their position in strategies for producers of online content and offers a new perspective on the interaction of personalization and artificial intelligence, whereas this approach has not been sufficiently explored in the academic literature.

## **KEY WORDS**

Internet. Personalization. Artificial intelligence. Management. Marketing. Communication.

# 1. Introduction

Web personalization is a tool used by marketers for the purpose of improving competitiveness, as it allows them to better communicate with existing customers or recipients of marketing information. At the same time it is a tool for acquisition of new customers. The current trend in web personalization is to closely integrate it with artificial intelligence (AI). These are two topics each worthy of research in their own right; nonetheless the technological trend of recent years indicates that artificial intelligence is gaining importance in personalization. Web personalization can operate independently without artificial intelligence, and yet AI increases the potential effectiveness of web personalization for marketing purposes. Likewise, artificial intelligence can understandably be used in many other fields, not only in web personalization. Of course, within the use of marketing tools it is advantageous to use artificial intelligence to support existing managerial strategies or to formulate new strategies tailored directly to the use of AI in personalization.

The importance of web personalization is linked to the growth in accessibility of computer technology and its improvements in quality, whereas it may be assumed that future trends in marketing will be fundamentally impacted by these technologies.<sup>1</sup> Every smartphone and other device connected online is a potential source of data for web personalization. The concurrent growth in internet transmission speeds is leading to more efficient work with large volumes of data, which managers now use in the management and administration of online activities.<sup>2</sup>

The importance of web personalization and artificial intelligence for markets but also for the functioning of society has been significantly reinforced by the global pandemic crisis caused by the COVID-19 disease. For example, in the year 2020 the Czech Republic reported a drop in gross domestic product (GDP) of 5.6%, whereas in 2019 GDP grew by 2.2%.<sup>3</sup> The European Union as a whole reported an decrease in its economy of 6.4%, the largest decrease since 1995.<sup>4</sup> During the crisis, customers transformed their behaviour, and oriented themselves even more toward consumer activity on the internet.<sup>5</sup> The result is a fact that managers should reflect on, namely that a customer operating in the online space must inevitably face personalization marketing activities. As the competition must necessarily come to a similar conclusion, the proper setting of these techniques and their use in marketing is one of the key aspects of success for marketing managers at the time of the crisis and, it can be assumed, in the period after the pandemic. This applies to all sectors with steep competition, since as Vrabec states: *“Informatisation and cybernetization of all processes is not a phenomenon that affects only the sphere of industry, but also the whole service sector, the functioning of all institutions and last but not least the labour market.”*<sup>6</sup> It is therefore an important marketing task to figure out how to balance these techniques in properly implemented management and decision-making in marketing processes<sup>7</sup> in practice.

<sup>1</sup> SOSIN, A.: How to Increase the Information Assurance in the Information Age. In *Journal of Defense Resources Management (JoDRM)*, 2018, Vol. 1, No. 13, p. 45.; DAVENPORT, T. et al.: How Artificial Intelligence Will Change the Future of Marketing. In *Journal of the Academy of Marketing Science*, 2020, Vol. 48, No. 2, p. 24.

<sup>2</sup> HU, K.-H. et al.: Identifying the Key Factors of Subsidiary Supervision and Management Using an Innovative Hybrid Architecture in a Big Data Environment. In *Financial Innovation*, 2021, Vol. 7, No. 1, p. 23.; YUAN, Q. et al.: Research on Mixed Planning Method of 5G and LTE. In *3rd International Conference on Information and Computer Technologies (ICICT)*, 2020, p. 489.

<sup>3</sup> ČTK: *Česká ekonomika se loni rekordně propadla, letos se vrátí k růstu.* [online]. [2021-09-21]. Available at: <<https://www.ceskenoviny.cz/zpravy/ceska-ekonomika-se-loni-rekordne-propadla-letos-se-vrati-k-rustu/1990527>>; ČESKÝ STATISTICKÝ ÚŘAD: *Hrubý domácí produkt – časové řady ukazatelů čtvrtletních účtů.* [online]. [2021-09-21]. Available at: <[https://www.czso.cz/csu/czso/hdp\\_cr](https://www.czso.cz/csu/czso/hdp_cr)>.

<sup>4</sup> ČTK: *Ekonomika EU loni kvůli pandemii klesla o 6,4 procenta.* [online]. [2021-09-21]. Available at: <[https://www.ceskenoviny.cz/index\\_view.php?id=1990662](https://www.ceskenoviny.cz/index_view.php?id=1990662)>.

<sup>5</sup> ALMEHMADI, A.: COVID-19 Pandemic Data Predict the Stock Market. In *Computer Systems Science & Engineering*, 2021, Vol. 36, No. 3, p. 451.

<sup>6</sup> VRABEC, N.: Soft Skills in the Digital Age. In BUČKOVÁ, Z., RUSŇÁKOVÁ, L., SOLÍK, M. (eds.): *Megatrends and Media: Digital Universe*. Trnava : FMK UCM v Trnave, 2019, p. 301.

<sup>7</sup> LUKÁČ, M. et al.: The Interaction Between the Marketing Communications Audit and Visitors in Museum Facilities. In *Communication Today*, 2021, Vol. 12, No. 1, p. 80.

As the techniques of web personalization and artificial intelligence are often perceived as separate and unrelated techniques (even in the academic literature), despite their close mutual association, it would be fitting to focus on their mutual relationship and the options to apply them as part of the marketing processes of a business. Within the above context, two research questions (Q)/problems (P) emerge:

- Q1/P1<sub>descriptive</sub>: What is the relationship between web personalization and artificial intelligence in academic literature?
- Q2/P2<sub>descriptive</sub>: What is the conceptual relationship between web personalization and artificial intelligence?

The goal/aim (A1) of this article is therefore a theoretical comparison of the techniques of web personalization and artificial intelligence in the marketing environment. This goal will be achieved using the following hypotheses (H):

- H1: The techniques of web personalization and artificial intelligence are comparable in terms of academic interest.
- H2: There is a correlation between the techniques of web personalization and artificial intelligence.

## 2. Literature Review

Focusing on web personalization has never been more pressing than at the time of the global pandemic crisis. Communication with customers is a key factor in such critical moments.<sup>8</sup> It is web personalization that serves for targeting communications to the end customer<sup>9</sup> and its efficiency is increased by using artificial intelligence.<sup>10</sup> Its use therefore represents one of the tools that marketing managers can use in their management to handle this complex situation. The reason is that apart from profit, they monitor reputation, positioning, and general awareness of the topic (concept, product, service) they are communicating.<sup>11</sup> For this reason it is important to review it also with a view to using techniques for working with artificial intelligence.

Data from the perspective of businesses in the Czech Republic at the turning point of the year 2020 are not yet available, however in 2019 over 30% of companies and businesses carried out sales over the internet, whereas these sales accounted for 30% of all their revenue in the given year, which means that since 2009 the number of sellers increased to the same extent as the share of sales out of the total sales of companies approx. 1.5 times over.<sup>12</sup> And yet customer data for 2020 is available, from which it appears that while the share of buyers on the internet grew at a stable tempo, between 2019 and 2020 this share leapt upward from 39% to 54%.<sup>13</sup> Here a wide space has thus opened for the use of web personalization and artificial intelligence.

<sup>8</sup> LEE, S. Y.: Stealing Thunder as a Crisis Communication Strategy in the Digital Age. In *Business Horizons*, 2020, Vol. 63, No. 6, p. 801.; PETRŮ, N., JAKUBÍKOVÁ, D.: The Management of Succession Strategy - Intergenerational Challenge. In *Ad Alta - Journal Of Interdisciplinary Research*, 2015, Vol. 5, No. 2, p. 69.

<sup>9</sup> GARRIGÓS, I., GOMEZ, J., HOUBEN, G.-J.: Specification of Personalization in Web Application Design. In *Information and Software Technology*, 2010, Vol. 52, No. 9, p. 991.

<sup>10</sup> HUANG, M.-H., RUST, R. T.: Engaged to a Robot? The Role of AI in Service. In *Journal of Service Research*, 2020, Vol. 24, No. 1, p. 30.

<sup>11</sup> ASLAN, E. Ş., DEMIREL, Ç.: The Slogan Effect: The Power Of Brand Discourse in Liking And Purchasing Behaviour. In *Media Literacy and Academic Research*, 2021, Vol. 4, No. 1, p. 70.

<sup>12</sup> ČESKÝ STATISTICKÝ ÚŘAD: *Využívání informačních a komunikačních technologií v podnikatelském sektoru za rok 2020*. [online]. [2021-09-21]. Available at: <<https://www.czso.cz/csu/czso/vyuzivani-informacnich-a-komunikacnich-technologii-v-podnikatelskem-sektoru-2020>>.

<sup>13</sup> ČESKÝ STATISTICKÝ ÚŘAD: *Využívání informačních a komunikačních technologií v domácnostech a mezi jednotlivci – 2020*. [online]. [2021-09-21]. Available at: <<https://www.czso.cz/csu/czso/vyuzivani-informacnich-a-komunikacnich-technologii-v-domacnostech-a-mezijednotlivci-2020>>.

## 2.1 Web Personalization

Personalization has become an inseparable part of everyday reality for internet users, even though they do not realize it much of the time. It serves for targeting communication at consumers and its impact for the communicating subject can be critical.<sup>14</sup> Because the internet is used in society mostly by individuals – for example, in the Czech Republic alone this accounts for more than three quarters of the population aged 16 to 74 years,<sup>15</sup> which suggests that the influence of personalization affects a substantial part of society. The situation in which online media<sup>16</sup> and profiles on online platforms brings an increasing number of personalized campaigns regardless of whether they are political or commercial is described in academic research.<sup>17</sup> Web personalization is therefore used by commercial organizations and producers of media content<sup>18</sup> to target their customers, whereas the trend is such that customers require responsive communication with the seller or producer of online content.<sup>19</sup> Customers therefore wish to have a dialog with the other party, whereas they are also willing to provide valuable data using this responsive communication, which the business and producer can then use for additional targeting of their campaign. Such data can nonetheless be obtained from customers even without their awareness. Among other things, it is necessary to discuss a wide range of risks associated with web personalization.<sup>20</sup>

And yet it is necessary to view personalization as a tool that presents a significant advantage and opportunity for businesses and all who have their activity on the internet.<sup>21</sup> In moments such as the contemporary COVID-19 crisis, such a tool can also bring a competitive advantage that can play a significant role in survival on the market. When the off-line economy is suddenly de facto closed, businesses seek other opportunities to ply their trade. This therefore creates an opportunity to move their activities into the online space if businesses aren't already operating there. If they were already active before the crisis, they can enhance their internet activity. Since it can be assumed that a similar step will be taken by competitors offering a substitute product, the business should seek out a tool for differentiating from the competition. Here a substantial space can thus be found for web personalization. Based on research and academic texts focusing on this topic, it can be said that the proper management of personalization leads to increasing the customer's awareness to purchase a product or goods.<sup>22</sup>

<sup>14</sup> GARRIGÓS, I., GOMEZ, J., HOUBEN, G. J.: Specification of Personalization in Web Application Design. In *Information and Software Technology*, 2010, Vol. 52, No. 9, p. 991.

<sup>15</sup> ČESKÝ STATISTICKÝ ÚŘAD: *Informační společnost v číslech*. [online]. [2021-09-21]. Available at: <<https://www.czso.cz/documents/10180/90577061/06100419c.pdf/3f2e4e4e-cbdb-4e6c-8904-c21160ddaea8?version=1.2>>.

<sup>16</sup> BEŽÁKOVÁ, Z., MADLEŇÁK, A., ŠVEC, M.: Security Risks of Sharing Content Based on Minors by Their Family Members on Social Media in Times of Technology Interference. In *Media Literacy and Academic Research*, 2021, Vol. 4, No. 1, p. 53.

<sup>17</sup> METZ, M., KRUIKEMEIER, S., LECHLER, S.: Personalization of Politics on Facebook: Examining the Content and Effects of Professional, Emotional and Private Self-personalization. In *Information, Communication & Society*, 2019, Vol. 23, No. 3, p. 1481.

<sup>18</sup> MADLEŇÁK, A., ŽULOVÁ, J.: *The Right to Privacy in the Context of the Use of Social Media and Geolocation Services*. Budapest : Wolters Kluwer, 2019, p. 32.

<sup>19</sup> ZIEMBA, E. et al.: Prosumers' Engagement in Business Process Innovation – The Case of Poland and the UK. In *Interdisciplinary Journal of Information, Knowledge, and Management*, 2019, Vol. 17, No. 5, p. 119.; MORAVČIKOVÁ, E.: Media Manipulation And Propaganda In the Post-Truth Era. In *Media Literacy and Academic Research*, 2020, Vol. 3, No. 2, p. 23-37.

<sup>20</sup> ROUIBAH, K., LOWRY, P., HWANG, Y.: The Effects of Perceived Enjoyment and Perceived Risks on Trust Formation and Intentions to Use Online Payment Systems: New Perspectives from an Arab Country. In *Electronic Commerce Research and Applications*, 2016, Vol. 19, p. 33.

<sup>21</sup> XUE, J. et al.: See Now, Act Now: How to Interact with Customers to Enhance Social Commerce Engagement? In *Information & Management*, 2020, Vol. 57, No. 6, p. 21.

<sup>22</sup> PAPPAS, I. O. et al.: Shiny Happy People Buying: The Role of Emotions on Personalized E-shopping. In *Electronic Markets*, 2014, Vol. 24, No. 1, p. 193.; TYRVAINEN, O., KARJALUOTO, H., SAARIJARVI, H.: Personalization and Hedonic Motivation in Creating Customer Experiences and Loyalty in Omnichannel Retail. In *Journal of Retailing and Consumer Services*, 2020, Vol. 57, p. 2.

## 2.2 Artificial Intelligence

Artificial intelligence is a field that is developing at a pace similar to that of web personalization. In general it can be said that this refers to a capability to learn, adapt, or understand the environment with which the holder of this feature interacts, whereas the purpose is mostly to achieve a goal.<sup>23</sup> If it is necessary to take a definition with larger overlap into the field of information technology, this consists of the capability of a system to properly interpret external data, to learn from this data, and to use the findings obtained in order to achieve specific goals and tasks through flexible adaptation.<sup>24</sup> In the contemporary world artificial intelligence can be encountered quite frequently, it is used, for example, when distinguishing the content of images, in intelligent speakers, or in cars with autonomous driving elements. Its use for marketers is also important for the reason that the internet is saturated with a huge quantity of poor-quality content,<sup>25</sup> and therefore AI can be used to mediate specific information for its consumer.

The academic literature exploring artificial intelligence in relation to marketing usage can be sorted into four main categories:<sup>26</sup> i) artificial intelligence algorithms, their technical creation and use in specific marketing situations – simply stated, “*technical challenges of AI in marketing*”;<sup>27</sup> ii) the psychological response of customers to contact with artificial intelligence – simply stated, “*psychological response to AI in marketing*”;<sup>28</sup> iii) use of artificial intelligence in personnel management of companies – “*use of AI in HR*”;<sup>29</sup> iv) managerial and strategic challenges associated with artificial intelligence – “*managerial approaches for AI*.”<sup>30</sup>

With respect to this topic, academic articles and publications that can be classified into the fourth area are essential for the purposes of this text, i.e., managerial approaches for AI. This focus nonetheless presently offers a limited spectrum of published academic articles, even though texts focusing on strategic management and marketing in the context of current perspectives on management have been published. These include, for example, artificial intelligence for the innovation process and its digitization,<sup>31</sup> its influencing of the organization

<sup>23</sup> LEGG, S., HUTTER, M.: A Collection of Definitions of Intelligence. In *Advances in Artificial General Intelligence: Concepts, Architecture and Algorithms*, 2007, Vol. 157, p. 17.

<sup>24</sup> KAPLAN, A. M., HAENLEIN, M.: Siri, Siri, in My Hand: Who's the Fairest in the Land? On the Interpretations, Illustrations, and Implications of Artificial Intelligence. In *Business Horizons*, 2019, Vol. 62, No. 1, p. 15.

<sup>25</sup> BIELIK, P., VIŠŇOVSKÝ, J.: Explanatory Journalism – A New Way How To Communicate In Digital Era. In *Media Literacy and Academic Research*, 2021, Vol. 4, No. 1, p. 24.

<sup>26</sup> HUANG, M.-H., RUST, R. T.: A Strategic Framework for Artificial Intelligence in Marketing. In *Journal of the Academy of Marketing Science*, 2021, Vol. 49, p. 30.

<sup>27</sup> XU, Y. et al.: Electricity Market Empowered by Artificial Intelligence: A Platform Approach. In *Energies*, 2019, Vol. 12, No. 21, p. 1.; DZYABURA, D., HAUSER, J. R.: Recommending Products when Consumers Learn Their Preferences Weights. In *Marketing Science*, 2019, Vol. 38, No. 3, p. p. 365.; CHEN, T.-L., CHEN, F.-Y.: An Intelligent Pattern Recognition Model for Supporting Investment Decisions in Stock Market. In *Information Sciences*, 2016, Vol. 346-347, p. 261.

<sup>28</sup> PASHENTSEV, E.: Malicious Use of Artificial Intelligence: Challenging International Psychological Security. In *European Conference on the Impact of Artificial Intelligence and Robotics (ECIAIR)*. Oxford : Academic Conferences and Publishing International Limited, 2019, p. 238.; MENDE, M. et al.: Service Robots Rising: How Humanoid Robots Influence Service Experiences and Elicit Compensatory Consumer Responses. In *Journal of Marketing Research*, 2019, Vol. 56, No. 4, p. 535.

<sup>29</sup> KONG, H. et al.: Influences of Artificial Intelligence (AI) Awareness on Career Competency and Job Burnout. In *International Journal of Contemporary Hospitality Management*, 2021, Vol. 33, No. 2, p. 717.; VAN ESCH, P., BLACK, J. S., FEROLIE, J.: Marketing AI Recruitment: The Next Phase in Job Application and Selection. In *Computers in Human Behavior*, 2019, Vol. 90, p. 215.; ROTMAN, D.: Making AI into Jobs. In *MIT Technology Review*, 2018, Vol. 121, No. 4, p. 10.

<sup>30</sup> FOUNTAINE, T., MCCARTHY, B., SALEH, T.: Building the AI Powered Organization. In *Harvard Business Review*, 2019, Vol. 97, No. 4, p. 63.; HUANG, M.-H., RUST, R. T.: Engaged to a Robot? The Role of AI in Service. In *Journal of Service Research*, 2020, Vol. 24, No. 1, p. 30.

<sup>31</sup> HAEFNERA, N. et al.: Artificial Intelligence and Innovation Management: A Review, Framework, and Research Agenda. In *Technological Forecasting and Social Change*, 2021, Vol. 162, p. 8.; YAMS, N. B. et al.: Integrated AI and Innovation Management: The Beginning of a Beautiful Friendship. In *Technology Innovation Management Review*, 2020, Vol. 10, No. 11, p. 5.

and management of marketing processes and strategies,<sup>32</sup> the management and support of the management portfolio,<sup>33</sup> machine learning for prediction in marketing for mobile technologies,<sup>34</sup> AI support of personalized marketing,<sup>35</sup> AI in managing communication strategies<sup>36</sup> and in-store technologies such as robots, intelligent and reactive display devices, expanded reality, and other technologies for the user comfort of the customer.<sup>37</sup>

For the purposes of this text it is appropriate to connect theses from existing studies of different individual foci that reflect important elements of AI management in marketing. Such as those that discuss algorithms and artificial intelligence,<sup>38</sup> managerial responsibility and results of decision making,<sup>39</sup> social and societal impacts,<sup>40</sup> AI and psychology<sup>41</sup> and the ethical problems associated with AI.<sup>42</sup>

### 3. Methods

This text works with literary review and content analysis. Literature review is a tool that allows the preparation of a detailed understanding of the current state of awareness about a given topic, which is based on logical argumentation and rules on the basis of which a synthesis of the individual perspectives can be achieved.<sup>43</sup> This synthesis then may reveal links within the monitored phenomenon and the association between these links and components of the given phenomenon,<sup>44</sup> which can consequently lead to revealing how it works.

The relationship in contemporary academic literature between artificial intelligence and web personalization is addressed in this text using content analysis. Content analysis means sorting words (characters, phrases) according to their content into categories, taking into consideration

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- 32 JAREK, K., MAZUREK, G.: Marketing and Artificial Intelligence. In *Central European Business Review*, 2019, Vol. 8, No. 2, p. 46-55.; STONE, M. et al.: Artificial Intelligence (AI) in Strategic Marketing Decision-Making: A Research Agenda. In *Bottom Line*, 2020, Vol. 33, No. 2, p. 183.
- 33 ZHANG, X., CHEN, Y.: An Artificial Intelligence Application in Portfolio Management. In *Proceedings of the International Conference on Transformations and Innovations in Management (ICTIM 2017)*, 2017, Vol. 37, p. 86.
- 34 TONG, S., LUO, X., XU, B.: Personalized Mobile Marketing Strategies. In *Journal of the Academy of Marketing Science*, 2020, Vol. 48, No. 2, p. 64.
- 35 KUMAR, V. et al.: Understanding the Role of Artificial Intelligence in Personalized Engagement Marketing. In *California Management Review*, 2019, Vol. 61, No. 4, p. 135.
- 36 ZERFASS, A., HAGELSTEIN, J., TENCH, R.: Artificial Intelligence in Communication Management: A Cross-national Study on Adoption and Knowledge, Impact, Challenges and Risks. In *Journal of Communication Management*, 2020, Vol. 24, No. 4, p. 377.
- 37 GREWAL, D. et al.: The Future of In-Store Technology. In *Journal of the Academy of Marketing Science*, 2010, Vol. 48, No. 2, p. 96.
- 38 SUN, Q., YIN, F.: Study on the Learning Algorithms of Artificial Intelligence. In *2019 5th International Conference on Environmental Science and Material Application*, 2020, Vol. 440, p. 2.; WANG, C.: Research on the Progress of Computer Artificial Intelligence Algorithm. In TONG, X., LIAO, W. (ed.): *Proceedings of the 2016 2nd International Conference of Materials Engineering and Information Technology Applications*. Shanghai : Atlantis Press, 2017, Vol. 107, p. 267.
- 39 KUČERA, D.: Artificial Intelligence in the Context of Managerial Responsibility. In *Proceedings of the 7th International Conference Innovation Management, Entrepreneurship and Sustainability*. Prague : University of Economics, 2019, p. 419.
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- 41 LEUNG, E., PAOLACCI, G., PUNTONI, S.: Human versus Machine: Resisting Automation in Identity-based Consumer Behavior. In *Journal of Marketing Research*, 2018, Vol. 55, No. 6, p. 818.
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- 43 MACHI L. A., MCEVOY, B. T.: *The Literature Review: Six Steps to Success*. California : Corwin, 2012, p. 3.
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frequency of occurrence,<sup>45</sup> type of analysed content, study sample, depth of analysis, and inspection of analysed data and the form of expression of the results of the analysis.<sup>46</sup>

This literature review and content analysis were performed in the period from January to April 2021. Electronic academic sources were used for searching such as the Web of Science, EBSCO, and ProQuest. The following phrases were used for the literature review: *web personalization; personalization of internet; website + personalization; artificial intelligence; AI; machine learning*. On the basis of this data, articles and resources were selected for determining additional relevant articles and resources. As part of the content analysis, the texts searched ranged from the years 2011 to 2020, the literature review was then also conducted on texts published in 2021.

## 4. Results

This article focuses on categories of techniques for web personalization in the sense of their use in managerial practice. It examines contemporary and past trends, whereas it is considered a set of tools and algorithms that can be applied on the web for the needs of marketing processes. Personalization influences the information displayed to a user in the online environment. The same applies to artificial intelligence, yet it should be taken into account that artificial intelligence is one of the specific and fundamental tools used by certain web personalization techniques.

### 4.1 Web Personalization Techniques

Academic texts discuss web personalization in the sense that it is a process of changing website structure and content. In this manner it adapts the web to the needs of each individual user, and is therefore flexible and targeted.<sup>47</sup> The reason is that the development of digital technologies has changed the character of access to various media<sup>48</sup> and has thrown into relief the need for quality interaction with a user.<sup>49</sup> The critical piece for adequately performed personalization is the quantity and quality of user data available to a marketing manager performing personalization.<sup>50</sup>

Academic texts differ in their classification of personalization techniques. For example, older literature<sup>51</sup> differentiates solely between recommender systems and recognition filtering. And yet this is dictated by information technology trends and the development of the associated personalization techniques.

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<sup>45</sup> WEBER, R. P.: *Basic Content Analysis*. London : SAGE Publications, 1990, p. 10.

<sup>46</sup> GAVORA, P.: Obsahová analýza v pedagogickom výskume: Pohľad na jej súčasné podoby. In *Pedagogická orientace*, 2015, Vol. 25, No. 3, p. 345.

<sup>47</sup> GARRIGÓS, I., GOMEZ, J., HOUBEN, G.-J.: Specification of Personalization in Web Application Design. In *Information and Software Technology*, 2010, Vol. 52, No. 9, p. 991.; KALAINAMA, K., KUSHWAHAB, T. R.: How Does Web Personalization Create Value for Online Retailers? Lower Cash Flow Volatility or Enhanced Cash Flows. In *Journal of Retailing*, 2018, Vol. 94, No. 3, p. 265.

<sup>48</sup> GRACOVÁ, S. et al.: Comparison of Television Broadcasting for Children and Youth in a Public Broadcaster in the Slovak and Czech Republic During the Covid-19 Pandemic. In *Media Literacy and Academic Research*, 2020, Vol. 3, No. 2, p. 49.

<sup>49</sup> VRABEC, N., BŔTOŠOVÁ, L.: The Concept of Learning-by-Doing in the Context of Media Education and School Quality Assessment. In *Communication Today*, 2020 Vol. 11, No. 1, p. 140.

<sup>50</sup> WANG, J. et al.: The Application of Data Mining Technology to Big Data. In *IEEE International Conference on Computational Science and Engineering*. Los Alamitos, CA : IEEE Computer Society, 2017, p. 284.

<sup>51</sup> ADOMAVICIUS, G., TUZHILIN, A.: Towards the Next Generation of Recommender Systems: A Survey of the State of the Art and Possible Extensions. In *IEEE Transactions on Knowledge and Data Engineering*, 2005, Vol. 17, No. 6, p. 734.

For the needs of this text, the classification specified by Kupec<sup>52</sup> is used, which corresponds to contemporary trends and knowledge of web personalization. This categorization differentiates personalization techniques into four main categories: recommender systems, collaborative filtering, contextualization, and customization. The main categories of personalization above contain various techniques, the overarching listing of which based on the above literature review is as follows:

- Recommender systems: Rule-based systems; content-based filtering; remarketing; pers. newsletters; hybrid recommender systems.
- Collaborative filtering: Memory-based collaborative filtering; model-based collaborative filtering.
- Contextualization: Responsive web; server communication with the customer; localization.
- Customization: Content customization; product configuration; price adaptation; support of task completion.

## 4.2 Artificial Intelligence Techniques

The text also focuses on artificial intelligence, which like web personalization must sorted by techniques that can be used in a company.<sup>53</sup> This is achieved by joining various academic resources on the basis of literature review, whereas these resources were also divided into four specific groups, see Chapter 3.1.

Artificial intelligence can be divided into three categories: mechanical artificial intelligence; artificial intelligence capable of decision making on the basis of “hard” data; artificial intelligence capable of responding to user emotions, preferences, and positions.<sup>54</sup> Each of the three categories of artificial intelligence is used for a different purpose in business management, whereas certain applications used by marketing staff and managers can use multiple types of artificial intelligence together.

- Mechanical artificial intelligence (mechanical AI): Using automation, data is collected about the market, environment, employees, customers, competition, etc. In other words, it is used for simple tasks that are repeated frequently. Used to provide a basis for decision-making and management. This is unilateral artificial intelligence.
- Artificial intelligence capable of its own decision-making (decision-making AI): This includes, for example, machine learning, nervous system simulations, etc., it can analyse unstructured data and make decisions from it, it can seek out patterns and relationships in the data. This is unilateral artificial intelligence.
- Artificial intelligence capable of responding to the specific user (emotion AI): Designed as bilateral artificial intelligence, i.e. compared to the other two types of AI, it not only collects data but also returns it to the user. It is capable of analyzing the feelings and emotions of the specific individual and responding to it in a suitable way. The most familiar examples include chatbots.

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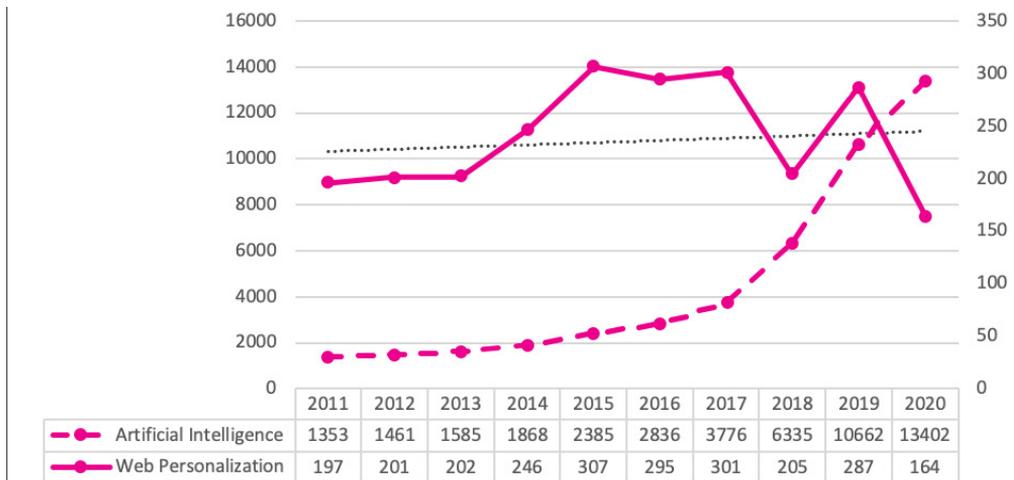
<sup>52</sup> KUPEC, M.: Use of Internet Personalization in Crisis Communication. In KVETANOVÁ, Z., BEZÁKOVÁ, Z., MADLEŇÁK, A. (eds.): *Marketing Identity 2020: COVID-2.0*. Trnava : FMK UCM v Trnave, 2020, p. 331.

<sup>53</sup> TOMÁŠKOVÁ, A., HAVLÍČEK, K.: Family Enterprises and Their Support through Subsidies. In *European Research Studies Journal*, 2018, Vol. 21, No. 2, p. 23.

<sup>54</sup> HUANG, M.-H., RUST, R. T.: A Strategic Framework for Artificial Intelligence in Marketing. In *Journal of the Academy of Marketing Science*, 2021, Vol. 49, p. 30.

### 4.3 Content Analysis

This is followed by content analysis, which has the goal of finding a link between artificial intelligence and web personalization in relation to the how they appear in contemporary academic literature. This content analysis contains not only basic phrases (see chapter 2) but also articles and academic texts containing the individual techniques of web personalization and artificial intelligence sorted above in this chapter.



**FIGURE 1:** Number of academic texts focused on web personalization and artificial intelligence from 2011-2020

Source: own processing, 2021

The graph in *Figure 1* captures the outcome of the content analysis, i.e. texts from the years 2011-2020 that address web personalization and texts that address artificial intelligence over the same timeframe. For the number of texts on web personalization there is also a line graph to give a better idea of the long-term trend in the number of these texts. Because the number of texts on artificial intelligence is an order of magnitude higher (particularly in the more recent years of the reference period), web personalization is depicted on the next axis. Given that 2021 is still in progress, it was not included in the content analysis in order not to distort the graph. The year 2021 was not included in the literature review.

From the literature review and content analysis the finding emerged that web personalization is not central to expert interest in terms of academic research when compared with artificial intelligence. The topic of artificial intelligence is more heavily examined, by an order of magnitude (in 2020 there were 13.402 texts about AI compared to 164 texts about web personalization), moreover the trend of interest in this topic increases every year. While web personalization has shown a slight growth in academic interest over the past ten years, whereas it has been somewhat declining in recent years, artificial intelligence as a topic has shown marked growth in interest particularly in the last four years. Hypothesis H1 is therefore not confirmed. The high number of academic texts about artificial intelligence in the year 2020 cannot be explained solely by increased interest as a result of the COVID-19 crisis, since as the graph indicates, the tendency toward increasing interest is ongoing. In the texts web personalization and artificial intelligence appear alongside each other. A link exists between both topics in the academic literature, which confirms hypothesis H2.

It can be stated for research question Q1/P1 that almost all texts on web personalization in some way address artificial intelligence = of course, at the level of the usability of this technique as part of personalization, not as a substitute for it. The opposite of course does not apply. Texts on artificial intelligence often make no mention of personalization. This

situation is noteworthy given the fact that web personalization as a field is on the rise and its use is nowadays common in companies active on the internet, which can be said for artificial intelligence only partially. Companies use it rather as part of a technology solution, often as a part of web personalization. This indicates an area that should be examined and expanded academically.

#### 4.4 Usage of Defined Techniques in Marketing

As was stated above, technological advancement impacts the operation of modern societies in a fundamental way. The commercial environment has completely transformed as a result of ownership of personal computers, smartphones, and the internet access contained therein. All of this means that companies have had to respond with a change of business and managerial approaches, which is reflected in strategic decision-making and management in general.

The use of web personalization and artificial intelligence technologies is now a common part of interactions between seller and customer and the producer and recipient of media content. Sometimes customers are not even aware of it, which in such cases is often the goal (these consist of different solutions for sellers), at other times they access it voluntarily, and are even willing to pay for it (various assistance applications).

There are many examples of popular applications and tools that use both technologies. In the case of consumer use, this consists for example of various personal assistants (e.g. Siri, Alexa, Cortana), music applications (Spotify, Deezer, Pandora), financial planning (Olivia), smart home solutions (Google Nest, Nest), machine translation (DeepL) etc. Other tools using these techniques include serious games intended for pedagogical and academic work.<sup>55</sup>

For practical use, the more popular tools using artificial intelligence and web personalization include solutions for business needs (e.g. Fluid AI), electronic trade and digital marketing (Sentient), process automation (Amazon MTurk), facial recognition (Haystack), legal assistance (Legal Robot), and credit assessments (Lenddo). The rapid growth of these tools corresponds to the substantial improvements in their precision. In this respect, a turning point came in the year 2016, when artificial intelligence surpassed human sight in the field of facial recognition. This year, the error rate in recognition dropped from 30% in 2010 to 4%, where AI surpassed the human eye, which has an error rate of 5%.<sup>56</sup>

As far as marketing processes and web personalization are concerned, it is typically used at moments when a manager has a sufficient quantity of information about customer data on the basis of data collection. At such moments traditional marketing tools are available on which the mined data can be applied. It is usually possible to the marketing mix, for example. It depends on what personalization tool is selected. It may therefore appear that the customer modifies the marketing mix themselves with their own reactions (often unwittingly), or that the marketing mix is customized to them on the basis of data previously obtained. In other words, it consists either of online customization or static. As a rule, however, these techniques overlap. In this way, artificial intelligence and personalization also overlap.

It is then necessary to use a high level of personalization, which cannot get by without artificial intelligence. AI can be considered a main factor in the success of web personalization at an advanced level. Artificial intelligence has therefore shifted the use of web personalization from a rule-based system to a system based on deep learning from available and mined data

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<sup>55</sup> VRABEC, N.: The Concept of Soft Skills Clusters and Descriptive Indicators in the Process of Gamification. In KUSÁ, A., ZAUŠKOVÁ, A., BUČKOVÁ, Z. (eds.): *Marketing identity: Offline Is the New Online*. Trnava : FMK UCM v Trnave, 2019, p. 998.

<sup>56</sup> KUMAR, V. et al.: Understanding the Role of Artificial Intelligence in Personalized Engagement Marketing. In *California Management Review*, 2019, Vol. 61, No. 4, p. 16.

(for example, model-based collaborative filtering).<sup>57</sup> If a seller properly takes advantage of these technologies, it leads to the creation of special links between the seller and the customer, which as a result contributes to increases in competitiveness and a high likelihood of commercial success.

The success of such web personalization processes is of course strongly linked to the manner in which data is obtained about customers and the depth, precision, and overall quantity of such information. And here artificial intelligence has its own irreplaceable role, which contributes not only to the above but also to effective implementation of knowledge obtained on the basis of data mining. Overall it may be stated that suitable use of artificial intelligence and web personalization plays a role in the creation of positive relationships of the customer to the seller and its product, which has a direct link to the strategic and marketing management of the organization.

For easier identification of the use of web personalization and artificial intelligence techniques in management and decision making in the marketing processes of the company, it is appropriate to create a framework usable for strategic marketing, i.e. for planning, organization, control,<sup>58</sup> etc. The following Three-Stage cycle, which includes the following phases: marketing research; marketing strategy; marketing activity; is a supplementation of research conducted by Huang<sup>59</sup> focused on artificial intelligence. The application of web personalization techniques offers the managerial aspect the new perspective of the aforementioned three-stage cycle. The proposed cycle in *Figure 2* also uses Kotler's<sup>60</sup> approach to marketing strategies. The proposed framework also confirms H2 as it captures the specific links between the techniques of web personalization and artificial intelligence. It is also a descriptive answer to research question Q2/P2.

Marketing research is found in the first phase of the cycle. The widest palette of personalization techniques can be applied in marketing research; all four techniques are found in this grouping. The same applies to artificial intelligence techniques, for which all three are applied here. Personalization and AI are used here for data mining, market analysis, and grasping customer emotions and feelings.

The second phase of the cycle describes the formulation of marketing strategies. For the three steps of marketing strategy, which are segmentation, targeting, and positioning, different personalization techniques and artificial intelligence techniques are used. Mechanical artificial intelligence and collaborative filtering are used in segmentation, where the market is divided into target groups of customers and the description of those groups.<sup>61</sup> Its uses include but are not limited to searching and identifying new customer groups in unsorted data.

In targeting, the goal is to choose from the segments specified in the previous step those market segments that are most advantageous for the seller and most accessible in terms of ease of reach. For such recommendations of the best segments, it is appropriate to use decision-making artificial intelligence and personalization tools, specifically collaborative filtering and recommender systems, although contextualization also plays a role.

Positioning is a step in marketing strategy in which a company tries to create certain feelings, perceptions, and opinions toward its own products and services (or the brand, the company, etc.). It could be described as the infusion of opinion on the product, and is sometimes interpreted as "*placement/embedding in the mind of the customer.*" In other words, it does not mean working with products, but with impressions and opinions that the customer creates about the products. It relates closely to building image and is an important part of increasing the competitiveness of a company. For these reasons, emotional artificial intelligence used in conjunction with collaborative filtering, recommender systems, contextualization, and customization is a suitable tool for proper positioning.

<sup>57</sup> MULLAINATHAN, S., SPIESS, J.: Machine Learning: An Applied Econometric Approach. In *Journal of Economic Perspectives*, 2017, Vol. 31, No. 2, p. 87.

<sup>58</sup> KUPEC, V. et al.: Conceptual Comparison of Internal Audit and Internal Control in the Marketing Environment. In *Sustainability*, 2021, Vol. 13, No. 12, p. 13.

<sup>59</sup> HUANG, M.-H., RUST, R. T.: A Strategic Framework for Artificial Intelligence in Marketing. In *Journal of the Academy of Marketing Science*, 2021, Vol. 49, p. 30.

<sup>60</sup> KOTLER, P.: *Moderní marketing: 4. evropské vydání*. Praha : Grada, 2007, p. 89.

<sup>61</sup> KOUDELKA, J.: Segmentation of Czech Consumers as for Their Relationship to Organic Foods. In *Agricultural Economics*, 2013, Vol. 59, No. 8, p. 348.

The third phase of the proposed cycle consists of marketing activity, which uses mechanisms of standardization, personalization, and rationalization. Each of these mechanisms can be used either independently or in combination with other mechanisms. The decision of which web personalization and artificial intelligence techniques to use for a specific mechanism of marketing activity is a key task of business management.



**FIGURE 2** The three-stage cycle for use of Web Personalization (WP) and Artificial Intelligence (AI) in the marketing management of a company

Source: own processing incorporating Huang 2021

For example, payments and delivery of goods are functions that can mine from the standardization using mechanical artificial intelligence and collaborative filtering, one example being automatic monitoring of payments and deliveries. Digital marketing<sup>62</sup> can mine from personalization using decision-making AI; here the above recommender systems can be mentioned. Customer service and immediate interaction with the customer can use relationalization through emotion artificial intelligence<sup>63</sup> and all the personalization techniques; one example include chatbots, which can converse with the customer and provide them a certain level of customer service.

In order to monitor the use of web personalization and artificial intelligence from the perspective of marketing management in greater detail, the Three-Stage cycle for use of web personalization and artificial intelligence in the marketing management of a company must be expanded to include a specific marketing tool.

For this purpose the marketing mix (the 4P method) is integrated into the existing Three-Stage Cycle, specifically in the phase of marketing activity. This leads among other things to balancing the entire model, which expands to a perspective of the entire company as well as the customer (if the 4C method has been applied).

Whereas *Figure 2* defines the various strategic elements and their interrelation within the entire Three-Stage Cycle, *Figure 3* expands marketing activities to include product, price, place, and promotion, in which the use of mechanical artificial intelligence and personalization is implemented for standardization, decision-making artificial intelligence for personalization, and emotion artificial intelligence and personalization for relationalization, whereas everything is supplemented by various practical examples and scenarios. These examples also supplemented the remaining two phases of the Three-Stage Cycle.

<sup>62</sup> PETRŮ, N., KRAMOLIŠ, J., STUHLÍK, P.: Marketing Tools in the Era of Digitization and Their Use in Practice by Family and Other Businesses. In *Economics and Management*, 2020, Vol. XXIII, No. 1, p. 199.

<sup>63</sup> HUANG, M.-H., RUST, R. T.: A Strategic Framework for Artificial Intelligence in Marketing. In *Journal of the Academy of Marketing Science*, 2021, Vol. 49, p. 30.

Artificial Intelligence		Mechanical	Decision-making	Emotion	
Web Personalization		collaborative filtering, recommender systems, contextualization, customization	collaborative filtering, recommender systems, contextualization	collaborative filtering, recommender systems, contextualization, customization	
Marketing Management	Marketing Research	Data collection	Marketing analysis	Customer understanding	
		continuous automated collection customer data and its processing	identification of the competition and competitive advantages	utilization of customer emotions for understanding existing – and prediction of future – needs and desires	
Artificial Intelligence		Mechanical	Decision-making	Emotion	
Web Personalization		collaborative filtering	collaborative filtering, recommender systems, contextualization	collaborative filtering, recommender systems, contextualization, customization	
Marketing Management	Marketing Strategy	Segmentation	Targeting	Positioning	
		identification of new patterns of customer behaviour and preferences	recommending the best of target markets	direct targeting of customer emotions such that the product resonates with the customer	
Artificial Intelligence		Mechanical	Decision-making	Emotion	
Web Personalization		collaborative filtering	collaborative filtering, recommender systems, contextualization	collaborative filtering, recommender systems, contextualization, customization	
Marketing management	Marketing Activity		Standardization	Personalization	Relationalization
	Marketing mix	Product	automation of processes when performing customer needs	adaptation of products to customer needs	understanding and satisfying customer needs and desires
		Price	automation of the process of specifying prices and payments	adaptation of prices according to willingness of the customer to pay	interactive price negotiation
		Distribution place	automation of customer access to the product	adapting first contact and customer interaction	adaptation of the customer environment such as to enable him to gain and engage
		Promotion	automation of communication with the customer	adaptation of promotion to each customer	adaptation of communication on the basis of customer emotions, preferences, and reactions

**FIGURE 3:** The three-stage cycle for use of web personalization and AI in the marketing management of a company with specific scenarios stated

Source: own processing incorporating Huang 2021

It must be noted that all the techniques mentioned can be used by subjects operating on the internet either individually or in various combinations to capitalize on the synergistic effect of such an approach. The marketing mix in this expanded Three-Stage Cycle is applied according to the theories of Kotler,<sup>64</sup> who defines them as the summary of four tactical marketing tools: product, price, place, and promotion. If the marketing mix is revised into the 4C format – consumer, cost, convenience, and communication – nothing at all changes in the entire model.

<sup>64</sup> KOTLER, P.: *Moderní marketing: 4. evropské vydání*. Praha : Grada, 2007, p. 89.

## 5. Discussion

The proposed Three-Stage Cycle using web personalization and artificial intelligence in the marketing management of a company offers marketing managers a framework for strategic and systematic use of web personalization and artificial intelligence in marketing. The problem in managerial use of defined techniques is the fact that managers who decide on the use of the given techniques must differentiate which of the referenced technologies is most effective for the given situation in terms of their own competitiveness. This requires an ability to orient in collected data, to analyse it, and to make the right decisions on the basis thereof. For this it is necessary to know how to identify the competition and their use of web personalization and AI techniques, as well as to identify the behaviour and characteristics of existing and potential customers. The results show differences in the approach to web personalization and artificial intelligence research (H1 – unconfirmed hypothesis) and their mutual relationship (H2 – confirmed hypothesis).

The research conducted reveals the limits that can be seen in the recency of results given the rapid growth of this field, as well as the fact that there is not at present a sufficiently wide base of academic studies focused on the integration of web personalization and artificial intelligence. It would be good to support a precise differentiation of web personalization and artificial intelligence, and the determining of a correlation, with future research directly in company practices. It would also be appropriate to support research by assessing the behaviour of a suitable sample of customers in their confrontation with the techniques of web personalization and artificial intelligence. Quantification of such data would lead to clarification of the theory cited. Despite these limitations, the results presented clarify current understanding of web personalization and artificial intelligence.

The perspectives of the issues addressed can be seen in the confrontation of the proposed Three-Stage Cycle with other marketing tools and theories. The analysis could also be expanded to a longer timeframe and include in the literature reviewed not only academic articles but also articles from non-academic literature. Another possible direction for growth of this outlined concept is its supplementation with moral and ethical questions related in particular to interference with user privacy. Both techniques analysed reach into the social/societal area, where they can be used for polarization of societies, influencing public thought, etc. The complexity of the topic examined is also given by the fact that in the online environment the behaviour of individuals as a rule differs from their behaviour in the real environment.

## 6. Conclusion

The use of internet personalization and artificial intelligence is part of new strategies and approaches in the marketing communications available in the online environment and that manage to effectively increase the competitiveness of subjects operating on the internet by appealing to new customers (clients, recipients of information, etc.) It achieves this by targeting information and identifying not only entire customer groups but also the specific needs of the individual, forming bonds with existing customers, building a close relationship to a brand, product, or idea, and using additional techniques that create a positive impression on the customer.

The goal of this article (A1) is a theoretical comparison of the techniques of web personalization and artificial intelligence in marketing processes of subjects active on the internet. Secondary data analysis using literature review and content analysis is used to achieve this goal. From the results presented, responses may be formulated to the questions posed and problems documented (Q1/P1, Q2/P2). This article offers a complex perspective on the techniques of web personalization and artificial intelligence on the basis of current academic

thought. It presents a literature review and content analysis, and proposes its own Three-Level Cycle of use of web personalization and artificial intelligence in marketing management, which is applicable in practice for marketing managers as it can be used as a framework for the strategic application of the techniques in question. Its benefit is a targeted approach to the techniques of personalization and AI and their integration with the individual phases of the marketing process.

The development of information technology has led to web personalization in connection with AI becoming an important topic for research and practice. Their importance has been confirmed by the global COVID-19 crisis. In a situation where certain marketing techniques (those operated in the real-world environment) cannot be applied, personalization has proven a precise, relatively inexpensive, accessible, and effective tool of marketing communication that can also be widely available. This is also the reason why personalization needs to be constantly subjected to critical review.

Web personalization represents an effective tool for support of business activities from the perspective of a marketing manager. From all the facts stated in this text, the conclusion can be drawn with certainty that the use of web personalization and artificial intelligence has one significant benefit. This is the fact that if a customer wishes to avoid their influence, they would have to remain offline. Which, as the data referenced in this text and elsewhere would indicate, fewer and fewer do.

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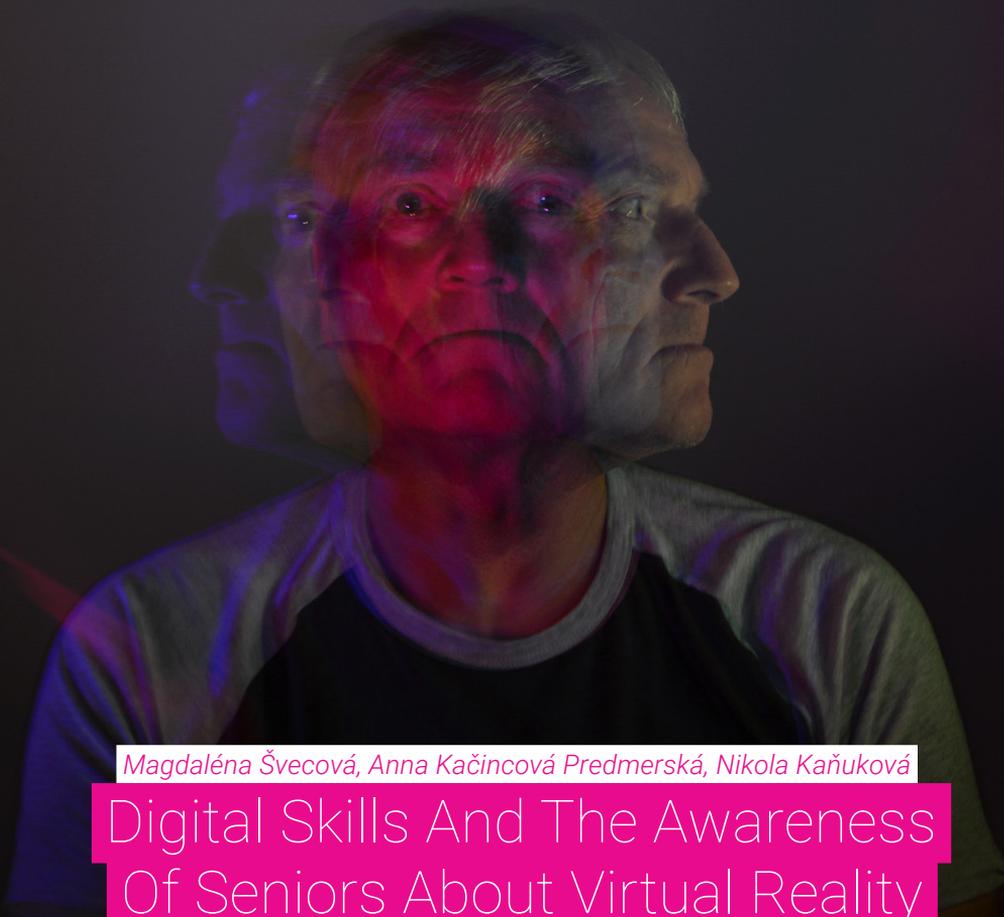
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## Digital Skills And The Awareness Of Seniors About Virtual Reality

### **ABSTRACT**

The aim of the presented paper is to define the current situation and attitudes of seniors related to the way they perceive selected current digital technologies, in particular, virtual reality. The digital technologies in question have significantly been widening the gap between the generation of younger people and seniors. It is defined in the first part of the presented paper. Subsequently, after presenting the theoretical basis, by applying the focus group method, the authors try to define how seniors perceive modern technologies, their positives, and negatives, how they feel when using them (threatened, enthusiastic) and what do they see as the biggest pitfalls that prevent them from using the technologies. To specify the topic in more detail, the authors focused on a specific technology – virtual reality (specifically VR headset - HTC Vive Pro, all the members of the focus groups had an opportunity to play three different VR games on it). The results of the research are also important for the development of digital game studies, as they provide closer insight into the behaviour of a specific age category, which is often excluded from the issue.

### **KEY WORDS**

Baby Boomers Generation. Digital Technologies. Focus Group. Generation X. Silent Generation. Virtual Reality.

# 1. Introduction

Year 2021. Different authors define and give this age different names – post-factual age, postmodern, hypermodern, supermodern, information society, etc. However, most of them agree that it is very fast-paced and is characterized by hyperconsumption, hyperindividualism and hyper changes.<sup>1</sup> As Z. Slušná notes, “our everyday – real and virtual – space is full of visual representations that seek our attention and force us to do specific activities or have certain patterns of behaviour: consumption without need – consumerism,”<sup>2</sup> while subsequently specifying that the whole of contemporary society, respectively the space, in which it is, is full of images whose task is to arouse desire, to enchant, to seduce.<sup>3</sup> Among the expressive principles of this hypermodern society she includes, for example, undisguised hedonism from things experienced, aestheticized narcissism, admiration of youth, exclusion of the old and the general dictation of being “in.” It is exactly in this context that we decided to conduct research on how a group of seniors who, we assume, do not fall among the typical representatives of this hyperconsumer majority, perceive modern technological advances (specifically the visually captivating virtual reality).

In the group of seniors, we included the so-called the silent generation, the Baby Boomers Generation, and Generation X. A. Abramson defines the age variance of each generation as follows. The term *Silent generation* refers to people who were born in 1928–45, *Baby Boomers* refers to people born between 1946–64 and *Generation X* refers to people who were born between 1965–80.<sup>4</sup> The people of the *Silent Generation* grew up during the Second World War and the economic crisis, which significantly affected their character. They are characterized by a greater fear of expressing their own opinions and confrontations, which they would always deal with by silence. Hence the origin of the name itself, which was first used in Time magazine. R. Smith notes that its members were also called “*Radio Babies*” or “*Traditionalists*”. They were characterized by lower birth rates (a consequence of the social situation when people did not dare to start families and raise children), thriftiness, respect and loyalty (to authorities and employers – they often spent most of their careers with the same employer; religion, faith, and family ties and commitments were also important for them). At the same time, however, it should be noted that efforts to promote equality and the civil rights movement were also typical of them. Its members thus included many important personalities who changed history, e. g. Martin Luther King Jr.<sup>5</sup> The parents of the Baby Boomers generation were members of the Silent Generation. The baby boom (the growth in birth rate) occurred after the end of World War II. Authors U. Wittig-Berman and N. Beutell recall that the Baby Boomers were formed by assassinations (Martin Luther King, JF Kennedy, RFK), social unrest, astronomical discoveries (the first people on the Moon), civil rights movements, women’s movements, diversions from traditional family, but also illegal drugs and the Cold War. Because of this, they are very individualistic and cynical.<sup>6</sup> According to D. Schawbel, they are the generation of the most active and rich people, who at the same time achieved the

<sup>1</sup> VERHOEVEN, P., VERČIČ, D.: Organising and Communicating in Hypermodern Times. In *Communication Director*, 2017, Vol. 13, No. 4, p. 38-40. [online]. [2020-12-13]. Available at: <<http://www.communicationmonitor.eu/wp-content/uploads/2018/03/Verhoeven-Vercic-2017-Organising-and-Communicating-in-Hypermodern-Times-Hypermodernity-Postmodernity-Strategic-Communication-Public-Relations-PR.pdf>>.

<sup>2</sup> SLUŠNÁ, Z.: Simulakrá v kontexte hyperkonzumu: zvädzanie k zážitku a konzumu ako inovovaná funkcia nových médií a fotografie. In *European Journal of Media, Art & Photography*, 2013, Vol. 1, No. 2, p. 68-75.

<sup>3</sup> See: BRNÍK, A.: *Násilie na televíznych obrazovkách v kontexte jednotného systému označovania*. Trnava: FMK UCM, 2020, p. 90.

<sup>4</sup> ABRAMSON, A.: *Multi-Generational Differences in the Workplace*. [online]. [2020-12-03]. Available at: <<https://www.wsb.com/speakers/alexis-abramson/>>.

<sup>5</sup> SMITH, R.: *The Silent Generation: Characteristics and History*. [online]. [2020-12-04]. Available at: <<https://www.familysearch.org/blog/en/silent-generation-characteristics/>>.

<sup>6</sup> BEUTELL, N., WITTIG-BERMAN, U.: Work-Family Conflict and Work-Family Synergy for Generation X, Baby Boomers and Matures. In *Journal of Managerial Psychology*, 2008, Vol. 23, No. 5, p. 509. [online]. [2020-12-09]. Available at: <[https://www.researchgate.net/profile/Nicholas\\_Beutell/publication/242341096\\_Work-family\\_conflict\\_and\\_work\\_family\\_synergy\\_for\\_Generation\\_X\\_baby\\_boomers\\_and\\_matures\\_Generational\\_differences\\_predictors\\_and\\_satisfaction\\_outcomes/links/0c96052c3156ed8645000000.pdf](https://www.researchgate.net/profile/Nicholas_Beutell/publication/242341096_Work-family_conflict_and_work_family_synergy_for_Generation_X_baby_boomers_and_matures_Generational_differences_predictors_and_satisfaction_outcomes/links/0c96052c3156ed8645000000.pdf)>.

highest available income for food, clothing (etc.) and the possibility of enjoying their retirement age. Although they retire later (due to the economic recession in 2008), they live longer than any generation before them.<sup>7</sup> Members of Generation X were again influenced by historical events such as the end of the Cold War, the fall of the Berlin Wall, the period of Thatcher's reign, etc. The authors U. Wittig-Berman and N. Beutell define the characteristics of the generation as follows. Its members search for emotional security, prefer informality, they strive for a work-life balance and value career opportunities and positive working relationships more. At the same time, they can be characterized by high divorce rates and they function and educate their children in so-called single-parent families.<sup>8</sup> An important part of this generation is expanding digital technology. Its members already work with computers and take advantage of the Internet, which makes them increasingly independent, although the differences in digital skills are most striking across this generation. While the Silent Generation and Baby Boomers have already reached or are reaching retirement age, in Generation X there are still people who work. That is why, for the purposes of our research, we will particularly focus on the first two generations, which we can already consider as seniors, because most of them have reached the age of 65.

Seniors constitute a group of the population that is characterized by several characteristics that define them much more accurately than just an age classification. Their lives are accompanied by an ageing process that manifests itself at the physical, mental and social level of the individual. The process of ageing at different levels is very individual and partially depends on the lifestyle that the individual has led during his or her life. The lifestyle is as well connected to the functional age, which means the intersection of the psychological, physical and social potential of a person.<sup>9</sup> In general, however, as time goes on, the functions of seniors weaken, whether it is the loss of social ties as a consequence of retirement or death of their relatives and friends. In addition, physical functions gradually weaken similarly. Both above-mentioned phenomena result in mental health problems and the ability of a senior to adapt is also reduced.<sup>10</sup> The issue of acquiring skills in the field of new, especially digital technologies, the acquisition and use of which is a challenge for seniors, is also connected with this. It is the ability to adapt and make full use of the benefits and risks of digital technologies that has divided society into two groups – digital natives and digital immigrants. The second group is mainly represented by seniors that face digitization and technical progress, due to which many offline activities are being moved to the online space. Digital immigrants were born at a time when these technologies were about to emerge in the future or were still in an early stage of development. For example, they are not familiar with using tablets or surfing the Internet via mobile phones, it is difficult for them to learn to use these devices or they are afraid of them. Prensky compares the term of digital immigrant to real immigrants. According to M. Prensky, digital immigrants are able to adapt to the new environment – the digital world – at the same pace as if they moved to a new country. For some it goes faster, for others slower. It follows from the above that even if digital immigrants do not have the automatic ability to work with digital media or devices, they are able to learn it.<sup>11</sup>

<sup>7</sup> SCHAWBEL, D.: *53 of the Most Interesting Facts About Baby Boomers*. [online]. [2020-12-07]. Available at: <<https://danschawbel.com/blog/53-of-the-most-interesting-facts-about-baby-boomers/>>.

<sup>8</sup> BEUTELL, N., WITTIG-BERMAN, U.: Work-Family Conflict and Work-Family Synergy for Generation X, Baby Boomers and Matures. In *Journal of Managerial Psychology*, 2008, Vol. 23, No. 5, p. 509-510. [online]. [2020-12-09]. Available at: <[https://www.researchgate.net/profile/Nicholas\\_Beutell/publication/242341096\\_Work-family\\_conflict\\_and\\_workfamily\\_synergy\\_for\\_Generation\\_X\\_baby\\_boomers\\_and\\_matures\\_Generational\\_differences\\_predictors\\_and\\_satisfaction\\_outcomes/links/0c96052c3156ed8645000000.pdf](https://www.researchgate.net/profile/Nicholas_Beutell/publication/242341096_Work-family_conflict_and_workfamily_synergy_for_Generation_X_baby_boomers_and_matures_Generational_differences_predictors_and_satisfaction_outcomes/links/0c96052c3156ed8645000000.pdf)>.

<sup>9</sup> HROZENSKÁ, M. et al.: *Sociálna práca so staršími ľuďmi a jej teoreticko-praktické východiská*. Martin : Osveta, 2008, p. 62.

<sup>10</sup> HANGONI, T., CEHELSKÁ, D., ŠÍP, M.: *Sociálne poradenstvo pre seniorov*. Prešov : Vydavateľstvo Prešovskej univerzity v Prešove, 2014. [online]. [2020-09-12]. Available at: <<http://www.unipo.sk/public/media/13489/Soci%C3%A1lne%20poradenstvo%20pre%20seniorov.pdf>>.

<sup>11</sup> PRENSKY, M.: Do They Really Think Differently? In *On the Horizon*, 2001, Vol. 9, No. 6. No pagination. [online]. [2020-11-12]. Available at: <<https://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part2.pdf>>.

However, many factors related to ageing need to be emphasized when speaking of the education of seniors in the field of acquisition of skills to use digital media. Except for health problems of a physical nature (deteriorating vision or fine motor skills, diseases of the musculoskeletal system, etc.), the impairment of cognitive functions must be taken into account, including perception and processing of information, attention, problem solving, speech and memory.<sup>12</sup> The latter – memory – represents an important influencing factor in the process of learning, but also in everyday life. An older person needs more memorising to remember new information. At the same time, the degree of teachability is also related to the neuroplasticity of the brain – the ability of neurons to change their properties according to external influences.<sup>13</sup> This means that if we, for example, learn to use a tablet, new nerve connections will appear in our brain, while others will remain weakened. Ultimately, seniors can learn to use any technology, but it takes them more time depending on how plastic their brain is. Therefore, it is important that during the acquisition of these digital skills, seniors are approached appropriately. The first important tool is the approach of teachers or lecturers. They should be patient as the seniors are in a new environment of digital technologies, which they do not understand and are not familiar with, so they may ask many questions repeatedly. Seniors can forget more often, so it is important to explain the individual actions repeatedly. It is also very important to let seniors work independently and not solve the problems that have arisen in the digital world for them and, if so, with proper explanation and clarification.<sup>14</sup> In addition to this, the health and psychological limits of seniors must also be taken into account as well as the characteristics of a particular generation, life experiences, on the basis of which their personalities, opinions and attitudes were formed. Many of them have difficulties with fine motor skills or poor vision, which makes working especially with touch-screen technologies more difficult. Any nervous behaviour by the lecturer caused by low patience levels may upset the senior more quickly, as he or she is more vulnerable due to the life challenges they face. It is also effective if seniors learn in the company of a friend or a partner, as they can inspire each other and socialize, which is an extremely important aspect of a senior's life that needs to be supported. The attitude of seniors themselves and their belief in new advances in technology, the Internet, smartphones and computers, also play a major role in the barriers to learning to master digital technologies. Seniors must first overcome the fear they have of technology or a negative attitude towards the effects of these technologies.<sup>15</sup> If they manage to overcome these prejudices or fears, seniors can benefit from the technologies.

Apart from smartphones and the Internet, virtual reality (hereinafter referred to as VR) also has its justification in the lives of seniors. Virtual reality can have positive effects on the social and emotional aspect of senior's lives. Seniors who regularly interact with VR compared to those who only watch television (but the content is the same: travel, relax, popular places), feel better in terms of health, positive emotions predominate over negative emotions and depression and they do not feel so isolated. They manage conflicts better, or avoid them, and feel more relaxed than seniors who only watch television.<sup>16</sup> As an example we can mention a project that was realized at the University of Tokyo, where they help seniors to overcome physical deficiencies with the use of virtual reality. Thanks to 360-degree videos, seniors can visit places they would

<sup>12</sup> HAGOVSÁ, M.: *Hodnotenie efektu tréningu kognitívnych funkcií v kombinácii s pohybovým programom u seniorov s miernym kognitívnym*. [Dissertation Thesis]. Brno : Masarykova univerzita, 2016, p. 17.

<sup>13</sup> HORT, J. et al.: *Paměť a její poruchy*. Prague : Maxdorf, 2007, p. 109.

<sup>14</sup> ŠVECOVÁ, M.: Location-Based Games as a Method of Teaching Seniors in the Field of Digital Technologies. In *Media Literacy and Academic Research*, 2019, Vol. 2, No. 1, p. 70.

<sup>15</sup> ŠVECOVÁ, M., KANUKOVÁ, N.: Location-based Games as a Teaching Method for Seniors in the Field of ICT. In ALBAEK, L., MAJGAARD, G., VALENTE, A. (eds.): *The Proceedings of the 13th International Conference on Game Based Learning ECGBL 2019*. Odense : University of Southern Denmark, 2019, p. 718.

<sup>16</sup> XUEYANG LIN, CH.: *Impact of Virtual Reality (VR) Experience on Older Adults' Well-Being*. [online]. [2020-11-10]. Available at: <[https://agelab.mit.edu/sites/default/files/lin\\_lee\\_lally\\_coughlin\\_2018.pdf](https://agelab.mit.edu/sites/default/files/lin_lee_lally_coughlin_2018.pdf)>.

like to see or have memories associated with them. Experiences in virtual reality support social interaction and the quality of life affects its length, including mental health and the ability to manage anxiety on a daily basis.<sup>17</sup> VR can also have a direct positive effect on health, through various applications used to treat phobias (thanks to a controlled immersive environment), but also, for example, rehabilitation after an injury or surgery. A good example is the Naviga project which works with CyberGlove and the disabled person can practice stretching, grabbing and manipulation with objects.<sup>18</sup> It is also necessary to design VR applications that have a simple user interface, so that they are easier for seniors to use. It is also necessary to present to seniors such applications or games that do not cause a significant feeling of nausea, as is common when using VR. Seniors should be also notified about the possible side effects. When seniors are in contact with VR, they view this experience positively as a good experience when they can see the positive aspects of new technologies. VR has a motivating effect on seniors as part of their daily activities and for the purposes of their mental relaxation. The most important factors in motivating seniors to use VR include: usefulness, simple use and level of experience.<sup>19</sup> On the other side, digital experience is also related to the gamers' intrinsic and extrinsic motivational factors, and immersion (sensory, challenge-based, imaginative), although both significantly depend on individual psychological needs.<sup>20</sup> Although the population of seniors in Slovakia faces many challenges, whether it is health, social or financial problems, we consider contact with new digital technologies to be a suitable way to solve some problems, stay in touch with the younger generation, but also peers, or engage in new leisure activities. With its immersive and, to some extent, entertaining nature, VR can help seniors to overcome the pitfalls of old age, take them away from ordinary problems and from passive television viewers they can become active users of VR. Of course, it is not easy to ensure that every senior owns a VR device, but senior care centres have a better chance of providing VR devices for their clients.

## 2. Objectives and Methodology

The aim of the research is to find out and define how seniors perceive the new digital technology, specifically VR. The partial goals of the research are:

- Find out if and how the perception of modern technology (VR) by a group of seniors changes before and after they get acquainted with the selected VR possibilities and functions.
- Define how seniors perceive digital technologies in general.

In the theoretical part of the study, we used standard scientific methods, primarily analysis, synthesis, induction, deduction, comparison, concretization and generalization. In order to achieve the set goals, in the empirical part of the study we applied the focus group method. T. Trampota and M. Vojtěchovská define this as a situation where several participants are surveyed simultaneously through a structured discussion that is led by a discussion leader. Participants in such a discussion usually sit at a round table and take turns participating in the

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<sup>17</sup> ROGERS, S.: *How Virtual Reality Is Benefiting Seniors*. [online]. [2020-11-10]. Available at: <<https://www.forbes.com/sites/solrogers/2020/02/26/how-virtual-reality-is-benefiting-seniors/>>.

<sup>18</sup> GACHET PAÉZ, D.: *Personalized Health Care System with Virtual Reality Rehabilitation and Appropriate Information for Seniors*. [online]. [2020-11-10]. Available at: <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3386697/>>.

<sup>19</sup> SYED-ABDUL, S. et al.: *Virtual Reality Among the Elderly: a Usefulness and Acceptance Study from Taiwan*. [online]. [2020-11-10]. Available at: <<https://bmcgeriatr.biomedcentral.com/articles/10.1186/s12877-019-1218-8>>.

<sup>20</sup> MAGO, Z.: *Bringing Reality Closer to Gamers*. In SOLÍK M., RYBANSKÝ, R. (eds): *Megatrends and Media: Reality and Media Bubbles*. Trnava : FMK UCM v Trnave, 2018, p. 91.

discussion and respond to the discussion leader's/researcher's questions.<sup>21</sup> As J. Hendl says, a group discussion (i. e. the focus group method) is a suitable tool for revealing the content of public opinion and collective attitudes.<sup>22</sup> The two previously mentioned authors define the basic characteristics of such a group as follows: 1. it consists of several participants (in our case 13 senior women), 2. people are selected for it on the basis of some identical characteristic (in our case it was age), 3. this method brings qualitative data that often reveals information about which the researcher does not know (more information can be found in the Summary), 4. researcher focuses on a specific topic, based on predetermined questions, their order is also known in advance.<sup>23</sup>

As J. Hendl notes, when preparing group interviews the first problem is to form a group. It arises either spontaneously (in everyday life) or is created artificially (with individual participants being selected on the basis of the predetermined criteria which reflect the research intention).<sup>24</sup> With regard to our main goal, the choice of group members was clear – female pensioners. Our focus group thus consisted of 13 senior women aged from 64 to 78 years, as no men wanted to participate in the experiment. We divided them into 3 smaller groups of four respondents, in one group there were five respondents.

The course of the research corresponded to J. Hendl's schedule of sequences,<sup>25</sup> i. e. in the preparatory phase (before the actual interviews were made), we contacted the focus group participants by phone to confirm their participation, we provided refreshments and name tags, and checked the functionality of the recording devices. As the ladies agreed, the entire conversations were recorded on dictaphones. As part of the organizational phase, we arrived 3 hours before the start and prepared the room and the necessary materials. The welcome phase was easy, as the ladies already knew each other (friendships, 3 of them even took part in Logaset training courses), so they didn't need to get to know each other. We divided them into three groups, each group with its own discussion leader. In the initial phase, each of the discussion leaders explained the basic problem (our interest in seniors' view of current modern technologies), notified participants of the presence of recording devices, asked them for permission to use them (to record interviews) and made notes on the names and positions of the individual members. Then the discussion leaders described the basic rules: each of them asked the participants to talk one by one (so that they could be well understood, i.e. so that the conversations could be well transcribed), explained that all information and observations were beneficial to her, i.e. there are no good or bad or correct or incorrect answers and explained that if they did not agree with each other, it would not harm the research in any way, on the contrary, it would be helpful. Then the discussion leaders followed the set discussion outline.

When creating the structure of the research, we were inspired by the research of the University of Edinburgh.<sup>26</sup> We focused on 4 phases:

1. In the first phase, we focused on easier issues. We were interested in the attitude of seniors towards new technologies, their use in everyday life, their view of what such digital technologies bring to life.

<sup>21</sup> TRAMPOTA, T., VOJTĚCHOVSKÁ, M.: *Metody výzkumu médií*. Prague : Portál, 2010, p. 216.

<sup>22</sup> HENDL, J.: *Kvalitativní výzkum: Základní metody a aplikace*. Prague : Portál, 2005, p. 182.

<sup>23</sup> TRAMPOTA, T., VOJTĚCHOVSKÁ, M.: *Metody výzkumu médií*. Prague : Portál, 2010, p. 216.

<sup>24</sup> HENDL, J.: *Kvalitativní výzkum: Základní metody a aplikace*. Prague : Portál, 2005, p. 182.

<sup>25</sup> Ibidem.

<sup>26</sup> VAPORTZIS, E., CLAUSEN, M. G., GOW, A. J.: *Older Adults Perceptions of Technology and Barriers to Interacting with Tablet Computers: A Focus Group Study*. [online]. [2020-12-01]. Available at: <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5649151/>>.

**2. Acquaintance with VR:** Then we showed the ladies the switched off VR device. We tried to find out what feelings and connotations the device evokes in them. We directed them with the following questions:

- Do you know this device?
- What is it used for?
- Have you ever used it?
- Try to define its meaning and the benefits it brings.
- Do you see any disadvantages in using it?

**3. Getting to know VR:** In the next phase, we gave the device to the seniors so that could have a look at it. Based on this, we found out how (and if at all) their initial attitude changed. We were detecting a change of opinion with the following questions:

- How do you feel about the device and how did you perceive it before you held it in hand/ got to know it better?
- What do you think this device is used for – would you be able to use it in everyday life?

**4. Trying to use VR:** In the last phase, the seniors tried to use the device. Our goal was to confront their ideas and opinions before and after its use. We were interested to know:

- How do you feel about using this technology?
- What do you think would make it easier for you to get used to it and start using it? (professional training for seniors, help from family or friends)

## 3. Results

### Respondents' Attitudes towards Technologies

Based on the questions in the first phase of our research which are focused on the attitudes of senior women to new technologies, we can say that among the respondents in general a negative attitude prevails. They are aware of the need for technology in their daily lives, they can name the activities that make it easier for them to use technology, they even want to improve their user skills, but on the other hand they agree that many technologies are often a waste of time, they take people's freedom, they create gaps between family members and communication barriers and according to them they even create addiction and therefore they prefer to avoid them despite the advantages of using them.

### Introduction to Virtual Reality

We showed the respondents a VR headset (HTC Vive Pro) with controls that the seniors recognized as a 3D device. One respondent called it "digitization," the others agreed that it was *"some kind of space in which one seems to live real life."* Two respondents knew this device from their grandchildren, with whom they visit facilities with VR, but only one of them tried it herself, but she described her experience negatively: *"My head was so dizzy that I never want to experience it again."* One more respondent had a personal experience with VR, who met the device at a tour in the museum and liked the possibility of expanding knowledge in such a form so much. Two participants in the research had the opportunity to try VR, but did not, because they were *"neither impressed by this technology, nor will ever be."* They say that they have established and ingrained prejudices against this technology. Another respondent claimed that she was disturbed most by the loud sound in the headphones and did not understand how her son could use it all the time.

Some respondents did not know the device at all, others mentioned 3D cinema, but most of them encountered VR on television or in the press. Respondents mutually agreed that the purpose of VR is primarily for playing, but they also knew a simulator for medical students who are educated through VR and the senior women even knew that such a simulator was invented by experts in Slovakia. The senior women had heard about VR that it causes dizziness and radiates dangerous radiation. The participants perceived VR as a modern invention to which they have no relation, which they do not know and do not know what to expect from it. One of the seniors, on the other hand sees VR as a dream come true: *"When I was little, thinking in my bed I was imagining what it would be like if I could watch movies on my wall and I had no idea that television or such a virtual reality would one day be real."*

When asked what can be done with the device, the respondents gave various answers. One participant immediately responded: *"They use it for games (children, grandchildren), shootings, which I hate and you can control the characters there, it's a virtual world where you find yourself and you can direct it as a director."* Another participant added that in addition to games, VR can also be used for education, for viewing flats, caves (2 women tried it themselves on a trip to the High Tatras). One of them says: *"I was in an area where I would never ever go, but I cannot say that I need it in any particular way."* The other seniors did not know what VR could be used for; they tried to connect it with something they already knew, for example with a car driving school simulator.

The reasons why senior women have not used VR yet were mainly that three quarters of them have not yet encountered it and have not had the opportunity to try it. Several of them said that the reason was that they themselves did not want to do so and that they did not need VR in their life. Another reason should be the generational difference and "a different age:" *"Because we were not directed to it at that time and now, I do not have such a need."*; *"I wouldn't even enjoy it,"* added another respondent. The availability of technology also has a role to play. *"It's also about the fact that children have computers and technologies at home. But I have to go somewhere where there are many young people, where they play and where we would probably look funny,"* said one of the respondents. We also asked them what advantages and disadvantages VR had. Those who have already encountered VR have been able to say that it is used to simulate situations where they can try different sports, visit different places from home safely and thus save money. Others see the great advantage of using VR in education, e. g., in medicine (operation simulations). The second part of the respondents could not comment on this question: *"I think it has advantages, but I can't say what advantages."*; *"I have no idea what can be done there (in VR), I don't know."* Respondents consider the creation of addiction to technology to be a disadvantage if no limits are set, especially time limits. This is especially true for children and young people, who grow up with technology and are directed to it from an early age even by their parents, which seniors do not like. Respondents are also convinced of the harmfulness of the radiation that is allegedly emanating from these devices. Another disadvantage was that users of technology, and in particular VR users, no longer perceive the difference between reality and the virtual world. Those who had experience with 5D cinema even said that *"It was terrible. It was a shock, jumps, falls, it was terrible."*

### Getting to Know the Device

After the seniors took the virtual reality device in their hands, their opinions did not change compared to the previous phase. They only commented on the weight of the headset, which seemed greater to them and the controls were difficult for them to operate. The senior women talked about more "hidden" buttons which they are no longer able to see and recognize well, which could cause problems when using it. We tried to find out from senior women whether virtual reality is a new technology and therefore it could be true that they have never encountered it before in their lives. They agreed that VR was a new technology; some argued that it could 20 years old; others said it had been developed in the 1990s, so it is true that they did not encounter

it as young women. However, when we showed them a stereoscope – the predecessor of virtual reality in the form of glasses, in the front part of which the pictures or photographs were inserted, each taken from a different angle, the participants began to remember. The device, which was lent to us by Mgr. Michal Kabát, PhD. from his FMK collection has its origins around 1900, so the respondents were very surprised that it was older than them. They became more interested in VR and wanted to understand how it works, as the device seemed very complicated at first glance, but when they knew its origins, they found it close to them and were able to associate it with something they knew. At this point, the atmosphere among the respondents changed and instead of a negative approach, the group began to show interest in this technology and all participants wanted to try virtual reality. We consider this phase of the research to be very important and successful, because we have managed to change the view of senior women on VR before they tried it and thus enter their first experience with VR without resistance and fear.

### **Trying to Use the Device**

For the research participants, we chose three different VR games, which we gave them to try. With the first of them we picked up on the predecessor of the current VR, which we showed the senior women in the previous phase of the research. We exchanged the photos of people that we had to exchange in a modified spectacle frame for a virtual tour of the images in the gallery in the virtual world via HTC Vive without the possibility of the player interacting with the environment. The participants were amazed from the beginning. They liked the space of the gallery. In addition to the paintings, they were also fascinated by the old furniture and period exhibits which they wanted to touch. They were surprised that they also have virtual arms and legs that they wanted to use to walk and touch objects. *“It’s interesting to watch exhibits in a museum like this, walk there or go to a concert of your favourite artist, for example”*, said one of them. *“And then we marvel at the young!”* added another respondent. After each participant went through this virtual tour of the gallery, we smoothly moved on to the next activity in the virtual space, which was drawing. The seniors could use the controls to draw anything around them in the virtual space. They could rotate around their drawing, move it, and change its colours, shapes, sizes and tools. At first, the participants did not like this activity at all. They said that they could not draw and did not even want to try it; they were ashamed in front of each other. However, when the first one of them tried it, they immediately liked it. They commented on each other’s creations, laughed at the associations that reminded them of their creations and were interested in the features of the game, changing colours, and erasing imperfections. This activity required the involvement of several senses and skills of the individual. The participants complained the most about the manipulation of the controls. With the exception of two ladies, none of the senior women met with a similar object, so they had trouble grasping the device, finding the necessary button and being able to use it correctly in time. What was adding to the stressful situation was the fact that the ladies did not feel comfortable if other participants looked at them and thus felt more pressure to do it better. Some of them said that they would get used to the control over time and that it was just about getting more practice with it. However, most of them agreed that there were many unnecessary buttons on the control which they inadvertently pressed while holding it, which may be related to the impaired fine motor skills of seniors. The third activity in the world of VR, which we chose for them, was viewing mountains with the possibility of playing fetch with a dog, so that the player throws him a stick, which the dog will still bring back. This activity was especially interesting for those senior women, who loved sports, those who love nature and perhaps their current health condition does not allow them to get to places like mountain peaks. The participants enjoyed the view; they were even moved by the beauty and authenticity of the experience. Some were more interested in playing with a dog, but the senior women clearly had difficulties with the device control. In order to throw the stick to the dog, they had to find some, bend down, lift it with one button, stand up, direct their throw, throw the stick and release the button in time so that the stick landed

in the right place, which players did not always manage to do. During this activity they needed a lecturer most often. It was difficult to explain to the seniors if the controls stopped responding to the player's instructions for a while. The participants immediately switched from having fun to feeling stressed from technology that had suddenly stopped listening to them. They didn't understand why it did not work 100%, and if they had to wait a while, they stopped enjoying it and didn't want to play the game anymore. During this activity, the senior women began to perceive VR as a space for new experiences, getting to know new places that they may never go to on their own. The seniors even expressed interest in more frequent contact with the VR, whether in designated facilities or at home with their families and they even suggested an interesting option for companies to rent VR devices to seniors homes for a period of time.

## 4. Conclusion

The interviews that we conducted with the research participants before and after our personal experience with VR technology brought us some interesting ideas for further scientific research. From the introductory words of the senior women, it was clear that they had respect, and even resistance towards technologies which are new to them, which they do not know and which they did not grow up with. They carry a lot of prejudices and learn information about these technologies only from television, newspapers or magazines or by observing their children or grandchildren, but we can state that senior women were little informed in this area. The negative attitude of seniors in this case is therefore understandable. Children use technology for completely different activities than adults and adults use technology for activities other than seniors. At every age, we want a different benefit from things and also from technology and if no one shows it to us or we do not see for ourselves, it is only an incomprehensible object for us, which has no significance in our life. And this is how seniors can understand VR, as long as they do not experience it themselves. In our research, we not only gave seniors the opportunity to experience VR, but we also tried to help them get rid of the above-mentioned prejudices by likening the VR device to what they can know from the past or to something which is close to them. When the participants found out that the origin of virtual reality can be found in glasses with interchangeable photographs from the period around 1900, they immediately began to be more open to VR and, in particular, they began to understand how it works. Virtual reality suddenly ceased to be a waste of time, an activity only for young people that creates addiction or breaks down family relationships and forms a communication barrier. It is therefore important that we always explain to the older generation the principle of how new devices work. When this fact ceases to be a secret to them, they will also understand the significance of the technology itself.

When trying to use VR the participants showed several feelings. It was curiosity, passion, enthusiasm, excitement from a new experience, from exploring new spaces and places or a feeling of self-realization and pride in the result of one's own efforts. All this was accompanied by a feeling of fear, what if something went wrong, what if it stopped working, what if they pressed the wrong button, what if they looked ridiculous in front of others. The senior women had most difficulties with controlling the games. The controls were complicated for them, unsuitable for seniors, they had many buttons placed in inappropriate places, which were either difficult to control or, on the contrary, they pressed some buttons without wanting to and so they did not have the right experience of the game. Several participants complained that they had to constantly use their entire wrists to manipulate with the control, which was difficult for them. If they did not like one game, they tended to evaluate the whole VR negatively, but during the next activity they were able to get involved with interest, which convinced them that they should trust their first impression. *"For example, adrenaline sports that I could never try live could be a great experience in VR,"* admitted one of the participants. However, senior women have shown great

interest in learning about technology, they would like to try other activities in the virtual world, but they realize that they need to be educated first and gain general knowledge in the use of information and communication technologies. However, they also perceive new technologies in connection with the awareness of the transience of their own lives. "We already have less time to live and we have a very bad feeling if something eats up our time, which virtual reality can do if we pay more attention to it. We prefer to spend this time with our grandchildren and family somewhere in nature," said one of the participants at the end.

Several principles need to be followed when seniors learn and acquire digital skills. There is no need to underestimate older people and one needs to explain to them the principles of functioning of a particular technology. It is the ignorance of the technological background that can discourage them from using new technologies. It is important to explain to seniors the positive aspects of a particular device, in our case VR, with an emphasis on the effectiveness of the time used and the amount of experience they can absorb in the virtual space. In the future, however, it is important to develop VR devices that are ergonomic and take into account the specific physiological needs of seniors; otherwise discomfort will discourage them from their further use.

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# Methods For Disseminating Research And Its Popularisation In The Media – The Impact Of Universities On Society

## **ABSTRACT**

The new *Law on Higher Education and Science* introduced a new measure for the evaluation of universities in Poland – the impact of scientific activity on the functioning of society and the economy. The aim of this article is to outline the possibilities of universities and scientists in regard to the dissemination of research within two main areas of action. One of them concerns professional efforts towards facilitating access to academic publications (open access publishing, posting articles on platforms and databases for scholars and research institutions, or establishing scientific profiles and university knowledge bases). The second area concerns the popularisation of research in the media by means of public relations (especially media relations). This article presents the view that coordinated activities in those two areas are of key importance for increasing scientific visibility. The ways in which research issues are presented in the media have been shown in the example of media coverage at the University of Gdańsk. The investigation has shown that dissemination of research and science in the media requires increasing the role of professional communicators, for it is possible to shape the agenda setting of academic research using instruments of public relations, taking advantage of the newsworthy character of media coverage.

## **KEY WORDS**

Media relations. Academic research in the media. Public relations. Social impact. Scientific visibility.

# 1. Introduction

*The Law on Higher Education and Science*<sup>1</sup>, also called the *Constitution for Science or Act 2.0*, is the primary document outlining the scope of autonomous development for each of the Polish research entities. The reform of higher education was aimed at broadening this scope by offering a new, comprehensive approach to the development of academic research as well as the methods for its dissemination, and evaluation of its impact on the economy and society. One of the elements of the reform was a modified system of evaluation of academic institutions, prescribed by the Regulation of the Minister of Science and Higher Education of 22 February 2019 on the evaluation of the quality of scientific activities.<sup>2</sup> The system of research evaluation in Poland is becoming increasingly developed, and its current assumptions are to take into account the specific character of individual academic fields and disciplines. These have been reclassified and limited to 44 disciplines of science and 3 artistic disciplines.<sup>3</sup>

For many years European countries have been developing and improving parametric systems for the evaluation of scientific achievements. Multiple qualitative indicators were taken into account, often supplemented with figures. Nowadays, regardless of the measurable achievements, the third mission of universities is increasingly emphasised - that is, their activity for the benefit of the society, entrepreneurship, and innovation, conducted alongside research and didactic activities.<sup>4</sup> The excellence achieved in the primary mission of university (which is research and education) does not always translate to an extensive pro-social activity or a noticeable impact on the economy and society.<sup>5</sup> Hence the need to define the social impact of science and the methods for measuring it. It is not an easy task, due to difficulties in obtaining quantified data (especially data concerning social sciences and humanities), and due to the diversity of academic disciplines and the scope of their impact.<sup>6</sup>

## 2. Methods

The purpose of this article is to present the most current methods for disseminating scientific research, employed by universities and researchers themselves, whereas the context of the study encompasses the influence of academic research on the economy and society. This impact is of great importance for the evaluation of academic institutions. Two areas of action have been studied – the activity of universities and academics aimed at enabling the access to their research as well as promotion of research in the media, performed by professional communicators.

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<sup>1</sup> Act of 20<sup>th</sup> July 2018. *The Law on Higher Education and Science*, Journal of Laws 2018, item 1688.

<sup>2</sup> Regulation of the Minister of Science and Higher Education of 22<sup>nd</sup> February 2019 on evaluation of the quality of scientific activities, Journal of Laws 2019, item 392 as amended.

<sup>3</sup> Regulation of the Minister of Science and Higher Education of 20<sup>th</sup> September 2018 on the fields of study and scientific disciplines and art disciplines, Journal of Laws 2018, item 1818 as amended.

<sup>4</sup> See: ZOMER, A. et al.: *The Rise of the University's Third Mission, Reform of Higher Education in Europe*. Rotterdam : The Netherlands Sense Publishers, 2011, p. 81-101.

<sup>5</sup> See: MONTESIONS, P. et al.: Third Mission Ranking for World Class Universities: Beyond Teaching and Research. In *Higher Education in Europe*, 2008, Vol. 33, No. 2/3, p. 259-271. [online]. [2020-08-10]. Available at: <[https://www.researchgate.net/publication/248961164\\_Third\\_Mission\\_Ranking\\_for\\_World\\_Class\\_Universities\\_Beyond\\_Teaching\\_and\\_Research](https://www.researchgate.net/publication/248961164_Third_Mission_Ranking_for_World_Class_Universities_Beyond_Teaching_and_Research)>.

<sup>6</sup> See: GALLERON, I. et al.: Valorizing SSH Research: Towards a New Approach to Evaluate SSH Research' Value for Society. In *Journal for Research and Technology Policy Evaluation*, 2017, Vol. 44, No. 44, p. 35-41. ISSN 1726-6629. [online]. [2020-07-30]. Available at: <<https://repository.fteval.at/314/>>.

In our study we have implemented content analysis (i.e. quantitative research) combined with media discourse analysis (qualitative research).<sup>7</sup> The research was conducted in the form of computer-assisted media monitoring (of various press titles, radio and television, and internet websites, including scientific and scholarly portals).<sup>8</sup> The key word under study was “Uniwersytet Gdański” in the context of scientific activity. The obtained data (publications of the university’s scientific research) was then subject to quantitative analysis (that is a study on the frequency of the occurrence of specific terms and their collocations, categorisation of data according to the medium type, reach and scope of a given publication, as well as sources published most frequently). Qualitative research (sentiment and topic analyses) as well as corpus analysis were also conducted. Press releases simultaneously published by the university Press Office were also subject to quantitative and qualitative research. This allowed the study of the impact of professional communicators on the media visibility of the University of Gdańsk. The research covers a three-year time span (from 2015 to 2018) and encompasses research material from 3,527 articles, 766 radio or television news reports, as well as 464 press releases. The case study is the University of Gdańsk.

Such unique combination of corpus analysis and emotive text analysis with topic modelling tools allowed the addressing of research hypotheses regarding methods for disseminating scientific research implemented by institutions and the researchers themselves.

A comprehensive take on the presented problem, both the methods for disseminating science in the media and measures for enabling open access to publications, has also been grounded on phenomenological and hermeneutical approaches, whenever they were found to be applicable in media research. Source analysis of the currently employed means of promoting science as well as eidetic analysis (seeking differences, similarities and common points in the area of universities and researchers’ activity) were also included.

Furthermore, the implementation of hermeneutical methodology allowed a critical perspective on the subject matter as well as research assumptions.

## 2. New Model of Quality Evaluation of Research – Opportunities and Threats

In truth, bibliometric data may be included in the evaluation model, but only as one of the elements of assessment, not its exclusive parameter. The assessment should be supplemented with, or indeed based on an extensive system of expert evaluation.<sup>9</sup>

However, the Polish model as well as the Norwegian, Czech, Finnish or Danish models, have thus far relied mainly on bibliometric data (publications and citations).<sup>10</sup> Here, the expert evaluation (conducted in a form of panels of individual disciplines’ experts) was only an element supplementing the system.<sup>11</sup> Countries with greater experience in parametric assessments

<sup>7</sup> See: GACKOWSKI, T., ŁĄCZYŃSKI, M. (eds.): *Metody Badania Wizerunku w Mediach*. Warszawa : Wydawnictwo CeDeWu, 2009.; LISOWSKA-MAGDZIARZ, M.: *Analiza Tekstu w Dyskursie Medialnym*. Kraków : Uniwersytet Jagielloński, 2006.; LISOWSKA-MAGDZIARZ, M.: *Analiza Zawartości Mediów. Przewodnik dla studentów*. Kraków : Uniwersytet Jagielloński, 2004.; PISAREK W.: *Analiza Zawartości Prasy*. Kraków : Ośrodek Badań Prasoznawczych, 1983.

<sup>8</sup> The media monitoring was conducted in accordance with the authors’ guidelines by one of the biggest institutions in Poland specialising in the field – *the Institute of Media Monitoring*.

<sup>9</sup> Science Needs to Redefine Excellence. In *Nature*, 2018, Vol. 554, No. 7693, p. 403-404. [online]. [2020-01-25]. Available at: <<https://www.nature.com/articles/d41586-018-02183-y>>.

<sup>10</sup> See: GUENA, A., MARTIN, B. R.: University Research Evaluation and Funding: An International Comparison. In *Minerva*, 2013, Vol. 41, p. 277-304. [online]. [2020-01-25]. Available at: <[https://www.researchgate.net/publication/226632670\\_University\\_Research\\_Evaluation\\_and\\_Funding\\_An\\_International\\_Comparison](https://www.researchgate.net/publication/226632670_University_Research_Evaluation_and_Funding_An_International_Comparison)>.

<sup>11</sup> See: KULCZYCKI, E.: Assessing Publications Through a Bibliometric Indicator. The Case of Comprehensive Evaluation of Scientific Units in Poland. In *Research Evaluation*, 2017, Vol. 26, No. 1, p. 41-52. [online]. [2020-08-10]. Available at: <<https://doi.org/10.1093/reseval/rvw023>>.

(i.e. Great Britain, Italy, France, or Germany) have already implemented extensive expert evaluation models. The most advanced model in Europe is the British system, already in use in the 1980s, currently transformed into the Research Excellence Framework (REF).<sup>12</sup>

The new Polish model for the quality evaluation of research, which comprises elements of parametric assessment used in other European countries, introduces a criterion directly related to measuring the impact of scientific activity on the society and economy. Such a trend in evaluation systems has been developing for several decades. The scientific research and its results are no longer exclusive and available only to a few selected or interested parties. The outcomes of academic research ought to translate into economic progress, innovation and socio-cultural development. Research institutions must therefore open to the needs of the outside world, not only by means of commercialisation of research results, or knowledge and technology transfer, but they need to open also to broadly understood needs of society.<sup>13</sup>

Higher education institutions play a significant role in creating and fostering social innovations that contribute to an improved quality of life. Academic centres and research teams initiate and participate in projects implemented for the sake of the common good. They also adapt their curricula and programmes to meet the needs of the market and the local community.<sup>14</sup>

The evaluation parameter which encompasses the third mission of universities first appeared in the British REF system and was labelled as a *social impact*. It is defined as a certain positive influence that an institution may have on the economy, society, culture, legislation, budget, health, environment or quality of life, outside the scientific world. It also includes the impact on the behaviours and practices, knowledge, awareness and definition of social groups or individuals on a regional, national or international scale. However, it is important to perceive as a form of social impact also reducing an unfavourable phenomenon or damage, or minimising the risk of its occurrence.<sup>15</sup>

The Regulation of the Minister of Science and Higher Education of 22<sup>nd</sup> February 2019 in paragraph 23 outlines the scope for the assessment of the societal and economic impact of science, which is conducted on the basis of the *impact description*. Similarly, in the British REF system, the assessment is carried out drawing upon the *case studies*. The main objective of such a description of impact is to prove the connection between the research results and development. The same applies to the relationship between scientific or artistic activity, and economy, functioning of public administration, health care system, culture and art, environmental protection, security and defence of the state, or other factors of social development. The number of impact descriptions which can be submitted for evaluation is limited and depends on the academic discipline, and the number of its representatives in the assessed institution. The value of the impact (its scoring) is calculated by external experts. Here, particularly important is the possibility of application of research findings and the value of their reach. The application should be original, reproducible, and creative, whereas the reach should be as large as possible, preferably international.

<sup>12</sup> See: ANTONOWICZ, D.: Doświadczenia Ewaluacji Badań Naukowych w Wielkiej Brytanii w Kontekście Funkcjonowania Research Assessment Exercise 2008. In *Kultura i Edukacja*, 2011, Vol. 2, No. 81, p. 158-173.

<sup>13</sup> See: ANTONOWICZ, D. et al.: The Roads of 'Excellence' in Central and Eastern Europe. In *European Educational Research Journal*, 2017, Vol. 16, No. 5, p. 547-567. [online]. [2020-01-25]. Available at: <<https://journals.sagepub.com/doi/pdf/10.1177/1474904116683186>>.

<sup>14</sup> See: KLEIN, J. L.: Social Innovation, Universities and the Quest for Social Transformation, Higher Education in the World 6. Towards a Socially Responsible University: Balancing the Global with the Local. In XAVIER GRAU, F., GODDARD, J., HALL, B. et al. (eds.): *Global University – Network for Innovations*. Barcelona : GUNi, 2017, p. 165-174. [online]. [2020-08-10]. Available at: <<https://unesdoc.unesco.org/ark:/48223/pf0000248150>>; JONGBLOED, B., ENDERS J., SALERNO C.: Higher Education and its Communities: Interconnections, Interdependencies and a Research Agenda. In *Higher Education*, 2008, Vol. 56, p. 303-324. [online]. [2020-01-25]. Available at: <<https://link.springer.com/article/10.1007/s10734-008-9128-2>>.

<sup>15</sup> See more: ANTONOWICZ, D. et al.: The Roads of 'Excellence' in Central and Eastern Europe. In *European Educational Research Journal*, 2017, Vol. 16, No. 5, p. 547-567. [online]. [2020-01-25]. Available at: <<https://journals.sagepub.com/doi/pdf/10.1177/1474904116683186>>.

In the current Polish system, the legislature grants a good deal of freedom to the assessed institutions in regard to the choice of research results, and their impact. The types of achievements assessed could be various. These can include technologies, models, plans, methods, procedures, recommendations, or expert opinions for external entities. The same is true of their application. The results can be presented during trainings, conferences organised by non-university units or conjointly with their representatives, published free of charge or in a commercialised form, and take place both once and over the course of permanent cooperation. The only obligatory requirement of the impact description is to document that impact. The official confirmation may be submitted in a form of written approval provided by an external entity, a reference letter, an e-mail, a report, non-scientific publications, interviews, press articles, or surveys.<sup>16</sup>

It is a challenge, in a sense, for scientific and research institutions in Poland. In practice, it means a change in the approach to the way research results are disseminated. It also requires that the universities open up to the outside world in order to meet the expectations and needs of the society. Finally, it necessitates an increase in the visibility of a given institution, its researchers and their work in all possible channels of communication. Thus, university's activities aimed at broadening social impact should be conducted on multiple levels: from publishing (where of key importance are: a form of sharing, academic internet platforms, descriptions of publication content prepared in popular science language) to popularisation of researchers' profiles, and use of social media in promoting research results. Owing to the global tendency to acknowledge the impact of the conducted research on society and the economy (not only in research evaluation), new solutions are being created to facilitate the process of dissemination of knowledge. Amongst these there are internet platforms for documenting research findings, and new positions in academic units – namely that of *impact officer/impact manager*.

Within the scope of the *Scopus* database and *SciVal* tool, the so-called *Societal Impact* is already measured, and it takes into account three basic indicators:

- Mass media – indicates the total number of mentions of a given institution in the media (only in the English language) and includes news published on the internet, press cuttings or texts that were originally made available in print, blogs containing entries or posts displayed in reverse chronological order, as well as readers' comments on posts and comments published on blogs.
- Media exposure – indicates the number of mentions in the media measured according to the publication type, demographic data and audience reach. The significance of mentions depends on their reach.
- Field – weighted citation impact – a factor that helps to eliminate the influence of a discipline type on the institution's exposure in media. It is an index of mentions in comparison with the expected world average for a given field, type, and year of publication.

Drawing upon the provided data and measured indicators it is possible to investigate the measurable (according to the presented methodology) societal impact of publications penned by the researchers of a given institution. Such data is collected in the *Scopus* database; other databases and platforms run by scholarly journals' publishers are currently being prepared to implement similar solutions.

Whether the introduced changes had positive impact on the quality of Polish research and the position of Polish universities in the world rankings, will be judged in a few years' time. But even now, while there is quite a common agreement on the necessity of changes, those currently being introduced spark controversies, and new areas which may generate threats are pointed out. For instance, Grzegorz Węgrzyn, the current Chairman of the Council of Scientific

<sup>16</sup> See: DAŃDA, A. et al.: *Ewaluacja Jakości Działalności Naukowej – Przewodnik*. Warszawa : Ministerstwo Nauki i Szkolnictwa Wyższego, 2019, p. 78-81.

Excellence<sup>17</sup>, explaining the reasons behind Poland's low position in international rankings and problems with the scientific development, listed, amongst others, the past difficulties, low level of funding, bureaucracy and formal constraints, the system of evaluation of research units, and the crisis of reviewing and review acceptance. Professor Węgrzyn also pointed out that the new system does not solve a significant part of the aforementioned problems. However, he emphasised the potential of Polish research (a significant potential, also intellectual, of the human capital, its diligence, and good infrastructure and increasing funding).<sup>18</sup>

### 3. Results – Methods for the Dissemination of Scientific Research

Conducting research entails the need for promoting and reporting scientific achievements, therefore, the dissemination of research results has become an inseparable part of researchers' work around the world. At times, it is an obligation prescribed by external or internal regulations, but increasingly often it is motivated by the desire to shape one's own image and recognition as well as the promotion of an institution in which one works.<sup>19</sup> The very process of creating reports, their visualisation and digital dissemination is not an easy task. Databases and platforms for creating research profiles are aimed at facilitating that process. The scientific or academic achievements and projects, collected in such networks can thus be evaluated with reference to the researcher or team responsible. The data made available as well as the possibility of visualisation and tracking of scientific achievements, given by such databases or internet platforms, significantly facilitate the analysis, evaluation, and management in the field of academic research. Especially now, after the entry into force of new regulations focused on scores and parameters, attention should be paid to the scientific and research visibility of universities and research units, and their employees.<sup>20</sup>

Most Polish higher education institutions offer internal systems or databases in which information about the scientific output of academic teachers is collected. The rules of depositing and the scope of entered data are prescribed by the autonomous internal regulations of the given university. Some of the systems serve as a repository, not only as a database. A good example of such a platform is a system implemented at the Gdańsk University of Technology named the Bridge of Knowledge. It is a comprehensive internet platform where one can find information about the achievements of individual researchers, research teams, journals, research equipment, projects, and conferences. One can find also an open access repository providing direct access to publications.<sup>21</sup> Some universities implement other innovative solutions, such as the repository of the Adam Mickiewicz University in Poznań: AMUR,<sup>22</sup> which can be followed on Twitter.

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<sup>17</sup> The Council of Scientific Excellence (Polish RDN) is a body appointed by the Minister of Science and Higher Education under the new Law on Higher Education and Science of 20 July 2018. The Presidium of the Council comprises members together with its Chairman. The Council consists of eight teams representing various fields of science. It promotes the development of academic staff, in accordance with the highest quality standards of research activity required to obtain academic degrees, art degrees and professor's title. The Council has replaced the Central Degrees and Titles Commission for the supervision of individual promotions of researchers. [online]. [2020-07-30]. Available at: <<https://www.rdn.gov.pl/>>.

<sup>18</sup> Sourced from a lecture of prof. dr hab. Grzegorz Węgrzyn, *Szanse rozwoju polskiej nauki*, given during the inauguration of the new academic year at the University of Gdańsk on 1<sup>st</sup> October 2019.

<sup>19</sup> See: OSICA, N., NIEDZICKI, W.: *Sztuka Promocji Nauki. Praktyczny Poradnik Dla Naukowców*. Warszawa : OPI, 2017, p. 7-10.

<sup>20</sup> See: GACA, K.: Śledzenie, Wizualizacja Oraz Ocena Dorobku Naukowego z Wykorzystaniem Bazy Scopus. In *Społeczeństwo Informacyjne*, 2017, Vol. 1, No. 1, p. 14-27.

<sup>21</sup> *The Bridge of Knowledge – Your Knowledge Portal*. [online]. [2020-08-10]. Available at: <<https://mostwiedzy.pl/pl/>>.

<sup>22</sup> *Adam Mickiewicz University Repository*. [online]. [2020-08-10]. Available at: <<https://repozytorium.amu.edu.pl/>>.

Taking into account the above and the importance of the presented issue, a quantitative analysis of research profiles of the University of Gdańsk employees has been conducted. Most profiles of authors affiliated with the UG are to be found in the Web of Science database – 2359. A comparable number are to be found in the Scopus database, i.e. 2293.<sup>23</sup>

However, these are mainly profiles automatically established by the system itself, which include only academic publications without the option of supplementing additional data. It is comforting, nonetheless, that researchers increasingly reach to various databases and wish to promote their work through platforms such as ResearchGate, Academia or Google Scholar. It then should be considered, how to further encourage employees to set up academic social networks, and how to facilitate and popularise such activities.

The provisions of the new law impose the necessity of creating profiles in the ORCID system with a view to facilitating future parameterization. However, the implementation of such academic openness cannot be imposed only by a statutory order. Therefore, appropriate incentives and constant awareness of the advantages of such solutions are all the more important.

The University of Gdańsk plans to expand the system of registering the research results of its employees, doctoral students, and students. The Knowledge Base of the University of Gdańsk is to be supplemented with academic profiles whose functions will not be limited to reporting, but they will also promote the achievements of individual researchers and thus the entity to which they are affiliated. In addition, an integral part of the Knowledge Base of the UG is a repository which facilitates archiving and sharing full texts of articles, monographs, chapters, and other documents.

Such a holistic systemic solution allows the collection of the works and their dissemination, thus increasing the visibility of the University of Gdańsk. All of the above were important also in the competition for the title of a research university.

The competition of the Ministry of Science and Higher Education “Excellence Initiative – Research University”, held for the first time on 26<sup>th</sup> March 2019, employed an in-depth analysis of the research achievements of institutions aspiring to the title of research universities. In the application, a given unit was to include a SWOT analysis, which served as the basis for the identification of priority research areas. Every such analysis took into account each unit’s achievements divided by fields which correspond to the classification used in the Web of Science or Scopus. These measures allowed for a broad overview of the assessed units’ research potential, but also drew attention to new development opportunities. The institutions have developed detailed action plans which will help them to improve the quality of their work and effectively compete with the best academic centres in Europe and in the world. Such measures were implemented, for instance, by the Nicolaus Copernicus University in Toruń, which was ranked in the final ten of Polish research universities in the competition (also in this case the funds of about PLN 1 million from the “Excellence Strategy – Research University” grant were used). The university established, amongst others, special research teams which were to analyse the situation and launched a competition for priority research teams. As a result, five Priority Research Areas and eight Emerging Fields were selected. An in-depth analysis of scientific achievements based on the Scopus database was also conducted. The researchers toured similar universities in Europe, including those located in Hungary and Estonia, which have already implemented improvements in the areas of research and organisation. An audit of the organisations was also conducted, and the unit responsible was the Institute for Higher Education Development.

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<sup>23</sup> Data according to the report on the Project 0003/SDU/2018/18 financed within the programme of Ministry of Higher Education and Science “Excellence Initiative – Research University” 2018-2019.

### 3.1 Media Effects of Research Popularisation

Communication of research has become one of the greatest challenges for the academic units, and its most important purpose is to increase the scientific visibility through the popularisation of research results amongst audiences as wide as possible, including non-specialists.<sup>24</sup> This can be achieved by means of broadly understood promotional and public relations activities (that is popularisation of knowledge in the media and media relations, dedicated marketing strategies, conferences, open meetings/lectures, events, science festivals, open days, or advertising campaigns). It should be remembered, however, that media relations are part of public relations. Aspects of media relations comprise building good and mutually beneficial relations with the media with a view to communicating the messages to the public along with building and maintaining the desired image of an organisation.<sup>25</sup> And public relations, on the other hand, also offer possibilities to popularise the undertakings of organisations and universities. Other outlets for the dissemination of knowledge are social media, blogs, vlogs, cooperation with influencers, and other digital measures (e.g. publishing short films about scientific research or so-called knowledge pills). These are new ways to communicate in the Digital Era.<sup>26</sup> Given the current circumstances, when an excess of information and a lack of media education (allowing the verification of the value/truth of information) is observed, communication of research is a difficult task, but very important at the same time, due to the social responsibility of universities.<sup>27</sup>

This article presents a closer analysis of one of the aforementioned issues - activities aimed at popularisation of research in the media such as daily and weekly magazines, influential magazines, various peer-reviewed popular science journals, radio, television, and the internet. It is an area that provides an opportunity to disseminate research results and document social impact using articles, interviews, expert opinions, and reports.

It is worth noting that the described form of popularising and disseminating academic research is concurrently a tool for building the researchers and universities' image. Thus, a university can be portrayed as an institution which employs the greatest scholars who conduct scientific research at the highest level and serve society with their expert knowledge.<sup>28</sup> Here, the image is defined in the context of public relations as *"the subjective image of a company, organisation, service, product, or person that is created in people's minds, in the external and internal environment (...)"*.<sup>29</sup> What is worth stressing here is both the category of identity (i.e. what a university or a scholar says about themselves) and reputation (defined as an opinion about a person or organisation in its external environment).<sup>30</sup>

<sup>24</sup> See: ŻYREK-HORODYSKA, E., HODALSKA, M. (eds.): *Komunikowanie o Nauce*. Kraków : Wydawnictwo Uniwersytetu Jagiellońskiego, 2016.

<sup>25</sup> OLĘDZKI, J., TWORZYDŁO, D. (eds.): *Leksykon Public Relations*. Rzeszów : Wydawnictwo Newsline i Bonus Liber, 2009, p. 106.

<sup>26</sup> See: BIELIK, P., VIŠŇOVSKÝ, J.: Explanatory Journalism – A New Way How to Communicate in Digital Era. In *Media Literacy and Academic Research*, 2021, Vol. 4, No. 1, p. 24-37.

<sup>27</sup> See: BULGANOVÁ, D., KAČINOVÁ, V.: Axiocentric Teaching and Learning about Media in the Context of School Practice. In *Media Literacy and Academic Research*, 2019, Vol. 2, No. 2, p. 85-93.; KAČINOVÁ, V.: The Topic of Media-Disseminated Mis-Information and Dis-Information as an Integral Part of General Education in Slovakia. In *Media Literacy and Academic Research*, 2020, Vol. 3, No. 1, p. 18-31.; MORAVČÍKOVÁ, E.: Media Manipulation and Propaganda in the Post-Truth Era. In *Media Literacy and Academic Research*, Vol. 3, No. 2, 2020, p. 23-37.

<sup>28</sup> PRUCHNICKA, J.: Media Relations – Promocja Nauki i Instytucji Badawczych w Mediach w Polsce i Europie. In *Marketing Instytucji Naukowych i Badawczych*, 2012, Vol. 2, No. 1, p. 165-183. [online]. [2021-09-12]. Available at: <[http://ilot.edu.pl/prace\\_ilot/public/PDF/spis\\_zeszytow/222\\_2012/9\\_Pruchnicka.pdf](http://ilot.edu.pl/prace_ilot/public/PDF/spis_zeszytow/222_2012/9_Pruchnicka.pdf)>; BINIEWICZ, J.: Mediatyzacja dyskursu naukowego. In GRASZEWICZ, W., JASTRZĘBSKI, J. (eds.): *Teorie komunikacji mediów*. Wrocław : Oficyna Wydawnicza Atut, 2010, p. 189-198.; DIETL, J., SAPIJASZEK, Z. (eds.): *Rola Mediów Masowego Przekazu w Kształtowaniu Wizerunku Uczelni i Jakości Kształcenia*. Łódź : FEP, 2004.

<sup>29</sup> OLĘDZKI, J., TWORZYDŁO, D. (eds.): *Leksykon Public Relations*. Rzeszów : Wydawnictwo Newsline i Bonus Liber, 2009, p. 174.

<sup>30</sup> See: DAVIES, A.: *Public Relations*. Warszawa : Polskie Wydawnictwo Ekonomiczne, 2007.

Investigation on the media visibility of the University of Gdańsk in the years 2015-2018 allows the indication of both the opportunities and difficulties in using the media as a channel for popularisation of research. The study was carried out as a part of a project aimed at increasing the international recognition of the University of Gdańsk activity, and within the framework of the Ministry of Science and Higher Education's "Excellence Strategy – Research University".<sup>31</sup>

Quantitative research has shown that in the years 2015-2018, a total of 464 press releases were sent from *The Office of the Spokesperson for the University of Gdańsk*, including 227 press reports on research, which constitutes 48.9%. At the same time, 3,527 publications concerning the same subject were published on the internet (3,223 or 91%) and in the press (304 or 9%). That constitutes almost 17% of the overall number of publications on the University. Here, the most prominent web portals are: nauka.trojmiasto.pl, naukawpolsce.pap.pl, gdansk.pl, forumakademickie.pl, radiogdansk.pl, and wyborcza.pl. The press titles, on the other hand, include: "Forum Akademickie", "Gazeta Wyborcza Trójmiasto", "Dziennik Bałtycki", "Perspektywy", "Świat Nauki", "Polityka", "Dziennik Gazeta Prawna", and "Rzeczpospolita" (Fig. 1). These magazines are influential websites and daily magazines, mostly with a regional reach (that corresponds to the national reach), and trade journals related to science and research. The overrepresentation of the internet sources stems from the specific character of their functioning – the information presented on the web portals is easily replicated and thus the so-called "media snowball effect" occurs.

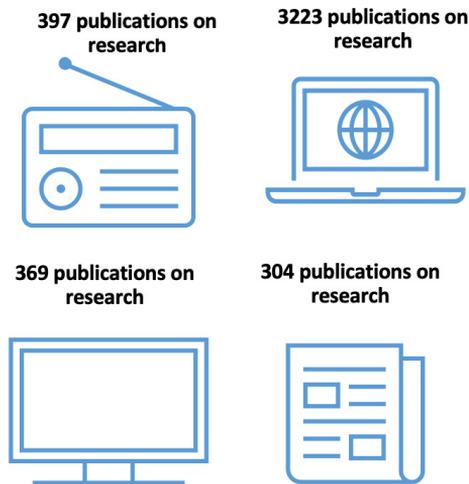


FIGURE 1: Websites and journals publishing papers on the University of Gdańsk

Source: own processing, 2021

Between the years 2015-2018 a total of 766 materials on the research at the UG were presented on the radio and television, which accounts for almost 30% of the total publications on the University in these media. 1583 broadcasts were noted on the radio (of which 397 or 25% were mentions related to science), while on television they were 1191 mentions (of which 369 or 30% took on the subject of research at the University of Gdańsk) (Fig. 2).

<sup>31</sup> Project report: 0003/SDU/2018/18 financed within the programme of Ministry of Higher Education and Science "Excellence Initiative – Research University" 2018-2019.



**FIGURE 1.** Number of publications on research of the University of Gdańsk in the years 2015-2018

Source: own processing, 2021

Therefore, the percentage share of materials concerning the University's research activity in relation to all the featured materials on the UG (especially those presented on the internet and in the press) proves that there is still room for improvement.

The reach of the internet and press publications related to research at the University of Gdańsk (i.e. the potential number of recipients who have read or noticed the publications) in the years 2015-2018 was estimated at over 200 million in total. Within that number, 186,183,747 of people could have had contact with materials on the internet (which constitutes 93%), and 14,954,781 might have read the press reports (that is 7%). It is a quantitative survey which does not indicate the actual number of people who read or noticed the publications. However, the numbers illustrate how powerful the media can be in popularising research.

In regard to the qualitative research, an analysis of the so-called *sentiment* can be of use. It is a method which allows the investigation of the emotional characteristics of a given text and thus classify its positive, neutral, or negative reception/overtone. Often employed in research on attitudes of consumers/recipients of services or goods, currently it is particularly useful in the analysis of social media.<sup>32</sup> What is more, the described method dynamically evolves due to the rapid development of IT tools which can be used for such research. The main criterion for classifying the text is the evaluation of emotionally charged expressions. In the investigation of media reports concerning the research at the UG, positive and negative remarks were studied, along with the promotional aspects of a given publication.

As the results of the research have shown, the share of media reports with neutral overtones is significant, whereas materials with positive overtones constitute a small percentage of publications. At the same time, publications classified as negative were nearly negligible.

In regard to materials published on the web portals and in press, almost 90% were neutral, 10% were positive, and 0.003% were negative. Regarding the radio and television, the positive mentions were observed in almost 78% of the reports, while neutral in 22%, and negative in 0.2%.

<sup>32</sup> See: BING, L.: *Sentiment Analysis and Opinion Mining*. Virginia : Morgan & Claypool Publishers, 2012.; KRIPPENDORF, K.: *Content Analysis An Introduction to Its Methodology*. Pennsylvania : The Annenberg School for Communication, University of Pennsylvania, 2018.; NEUENDORF, K.: *The Content Analysis. Guidebook*. Cleveland : Cleveland State University, 2017.; TOMANEK, K.: Analiza Sentymentu – Metoda Analizy Danych Jakościowych: Przykład Zastosowania Oraz Ewaluacja Słownika RID i Metody Klasyfikacji Bayesa w Analizie Danych Jakościowych. In *Przegląd Socjologii Jakościowej*, 2014, Vol. 10, No. 2, p. 118-136. [online]. [2020-07-30]. Available at: <[http://www.qualitativesociologyreview.org/PL/Volume26/PSJ\\_10\\_2\\_Tomanek.pdf](http://www.qualitativesociologyreview.org/PL/Volume26/PSJ_10_2_Tomanek.pdf)>.

The qualitative analysis of the publications shows that the topics related to maritime research aroused the greatest interest, for instance the works and expert comments on the Hel Marine Station and scientific research concerning the Baltic Sea. Topics related to research financed by the National Science Centre, National Centre for Research and Development, and Foundation for Polish Science also draw attention. In the latter, however, journalists exhibit greater interest in the outcomes of the grant projects, not the projects themselves, or the fact of winning the competition. The projects carried out under the programmes of research agendas are also very popular, i.e. The International Centre for Cancer Vaccine Science, The International Centre for Theory of Quantum Technologies, and the Biological Station of the University of Gdańsk. Moreover, reports on the successes and prizes awarded to UG scholars are also greatly represented, primarily the Johannes Hevelius Scientific Award of the City of Gdańsk and The City of Gdańsk Jan Uphagen Award for Young Scientists. Projects implemented under the grants of the Foundation for Polish Science as well as its awards (including the “Polish Nobel Prize” for outstanding scientific achievement) also attract interest. Amongst the popular topics are those concerning synergy between science and business, and the possibilities of implementing academic research - especially inventions and cooperation agreements with enterprises.

The scholars mentioned in the media most frequently are associated with the topics of research on cancer, new medications, virology, new technologies, quantum physics, and archaeological discoveries. (Table 1).

The scholar's name and surname	Subject of research project
Grzegorz Węgrzyn	medication for Sanfilippo syndrome
Marek Żukowski Ryszard Horodecki, Paweł Horodecki	quantum physics
Maciej Dębski	research on addiction to new technologies
Arkadiusz Koperkiewicz	archaeological discoveries
Dariusz Szlachetko Marta Kolanowska	new species of orchid
Agnieszka Gajewicz	women in science, L'Oréal-UNESCO award
Ewelina Król	research on the zika virus
Jerzy Zajadło	expertise in the field of law
Adam Lessner and Natalia Gruba	research on the bladder cancer test

**TABLE 1:** *The most popular research projects and their authors, the scholars of the University of Gdańsk*

Source: own processing, 2021

The subject matter of publications in the media concurs with the press releases issued by The Office of the Spokesperson for the University of Gdańsk. This raises the possibility of creating the University's agenda setting in the media.

The research which contributes to the improvement of quality of life for various groups of people sparks the greatest interest. Such research concerns broadly understood medical issues, biology, environmental protection, new technologies, synergy of science and business, inventions and solutions facilitating or changing everyday life, and forecasts and recommendations concerning various social or natural phenomena.

One of the most desirable forms of cooperation with the media is to invite the University's scholars to comment on presented issues and perform the role of experts. However, most of such materials draw upon sensational news, and present them likewise using slogans such as “they will search for a cure for cancer”, “a test for cancer is under study”, or “they have discovered a cure”. More in-depth materials, interviews, and broader research presentations are rare. These findings are consistent with the 2016 research results on the presentation of

science in Polish weekly magazines (namely “Newsweek”, “Polityka”, “Wprost”, and “wSieci”).<sup>33</sup> Successful media relations can be shaped with a number of measures, i.e. formal and informal contacts with media. In regard to the communication of research, the most effective vehicles are press releases, briefings and press conferences, but also newsletters, events or sponsored articles. However, it should be noted that the media effect is a result of multiple concurrent activities: management of expert cooperation (expert opinions of scholars in the media), planning interviews with researchers, and media tours aimed at popularising science, to name a few. Such tours include meetings with editors-in-chief and heads of promotion departments as well as individual meetings with journalists.<sup>34</sup>

## 4. Conclusion

Activities aimed at popularising research and increasing its visibility can be considered as belonging to social responsibilities, i.e. the third mission of universities (aside from research and education). Broadly understood as creation, the third mission means use and application of knowledge and other academic resources for the benefit of society (or social involvement of the university).<sup>35</sup> This mission conditions the approach to disseminating and popularising research.

The key conclusion which might be drawn from the conducted analyses indicates that Polish universities and research institutions will need to introduce long-term solutions and implement activities in two specific areas. The first concerns building or expanding the appropriate infrastructure to collect data and identify achievements of potential significance for society and the economy (through professional knowledge bases or research platforms). It also means active promotion of research findings through international channels and in English-speaking media along with assigning persons who are proficient in international databases (such as impact officer/impact manager). Offering professional assistance to scientists is also needed. This concerns conducting training in bibliometrics, parameterization, international databases, rankings, building and popularising research profiles as well as cooperation with the media, and public speaking. The second area of actions concerns a change of priorities in regard to promotion, and focusing on popularisation of research in the media.

Moreover, it will be very important to strengthen the role of professional communicators and manage public relations activities, including media relations. Currently media relations at universities remain primarily the responsibility of press spokespersons (or press offices and departments). Some of the advertising and marketing tasks are fulfilled by the promotion and marketing offices. These departments are often diverse in terms of number of employees, hierarchy, and competences, and thus their structure does not always allow for effective operating. In addition, communication of research is often performed by units such as technology transfer centres, departments of science and European programmes, university channels (newspapers, radio, television, websites), and officers for rankings, implementation or cooperation between science and business. Universities have yet to employ a professional *science communicator* who would coordinate cooperation for the popularisation of research in the media (including social media). What is more, the majority of universities do not employ persons responsible solely for the promotion of research and cooperation with the media in that regard.

<sup>33</sup> See: CZECHOWSKA-DERKACZ, B.: Newsowy Charakter Artykułów o Nauce w Polskich Tygodnikach Opinii. In *Horyzonty Wychowania*, 2017, Vol. 16, No. 39, p. 115-133.

<sup>34</sup> See: CZECHOWSKA-DERKACZ, B., ZIMNAK, M. (eds.): *Rzecznictwo Prasowe. Oczekiwania i Możliwości. Perspektywa Teoretyczna i Praktyczna*. Warszawa : Wydawnictwo DIFIN, 2015.; WOJCIK, K.: *Public Relations. Wiarygodny Dialog z Otoczeniem*. Warszawa : Agencja Wydawnicza Placet, 2009.; GAJDKA, K.: *Rzecznik Prasowy w Otoczeniu Mediów. Teoria i Praktyka*. Kraków : Towarzystwo Autorów i Wydawców Prac Naukowych UNIVERSITAS, 2012.

<sup>35</sup> See: JASTRZĘBSKA, E., PRZYBYSZ, M. (eds.): *Spółeczna Odpowiedzialność – Znaczenie Dla Uczelni i Sposoby Wrażania*. Warszawa : Ministerstwo Nauki i Szkolnictwa Wyższego, 2019.

Finally, it is necessary to understand the expectations of media in regard to the attractiveness of coverage on research. This concerns its comprehensibility, direct impact on an individual, average recipient or specific groups, and society at large. Presenting exclusive and explanatory approaches are also amongst aspects valuable for the media. In this approach, scientists perform the role of experts and authorities who explain complicated phenomena and mechanisms. Last but not least, unique and unusual subjects, making use of controversy, and building a database of experts enables broadcasters to portray academic research in an attractive way.

The aforementioned issues are the challenges which universities, research institutions, research teams, and individual scholars are to face. Successful solutions for these problems will rely on systemic approaches, i.e. increasingly professional actions, relations with the environment, public relations, well-thought-out information policy, and finally strengthening the role of professional communicators.

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Ekaterina Teneva

## Pseudo-Authorities As A Manipulation Tool In The News Coverage Of “Sputnik V”

### ABSTRACT

The present article is devoted to the issues of public opinion manipulation in the post-Covid era. Within the framework of the study, the author introduces the concept of “pseudo-authority” which is defined as a rhetorical strategy used by journalists with the aim of the manipulation of the Internet news reports that contain either appeals to non-experts' opinions or no indication of the authoritative source of knowledge so that the information is perceived by the audience as the truth and does not require evidence. The study is also focused on the distinction between appeals to authority and pseudo-authority, which is vital for developing skills of media literacy. Through the discourse analysis of the news stories about the Russian vaccine “Sputnik V” extracted from highly circulated British and American online newspapers, it is revealed that there are three main types of appeals to pseudo-authorities in Internet news discourse: appeals to “nominal” and “implicit” pseudo-authorities as well as appeals to “pseudo-visibility”. The study found that these appeals are used with the aim of political decision-making, enhancing or discrediting the image of the country as well as polarizing social groups in digital information warfare. The results of the research can be applied in the fields of linguistics, political and media studies.

### KEY WORDS

Media Literacy. Pseudo-authority. Coronavirus. Covid-19. Sputnik V. Manipulation. Rhetorical strategy. Internet news discourse.

# 1. Introduction

It goes without saying that the outbreak of Covid-19 has become a new global threat which has fundamentally changed all spheres of human life and which has led to unprecedented challenges to lifestyles, behaviours and business practices.<sup>1</sup> In such uncertain times the role of mass media has become quintessential in terms of informing the public on the pandemic. A global epidemic of misinformation or “infodemic”, spreading rapidly through social media platforms and other news outlets, has posed a serious new problem to the whole world and, first and foremost, to the media and public spheres.<sup>2</sup>

Recent studies carried out suggest that during the Covid-19 crisis “journalists found themselves in a vulnerable position within the communication ecology and sought to mitigate the forces challenging their work as they sought to reverse the flow of misinformation”.<sup>3</sup> It is evident that journalism has been largely affected by the pandemic. On the one hand, much has been written about the positive effect of the Covid-19 pandemic on the media sector, including citizens turning to traditional media institutions to obtain reliable information. Media coverage of coronavirus news also seems to have had a significant positive impact on protective behaviours and pandemic transmission, helping to prevent the spread of the disease.<sup>4</sup> However, on the other hand, a recent study shows that news stories about Covid-19 induced fear and caused psychological stress,<sup>5</sup> which indicates the media’s vulnerable and arguable role during the Covid-19 pandemic. Moreover, it is also worth noting that the print media sector was largely affected by closing newspapers in various countries for fear of their contribution to the spread of infection.

Another factor which gained media attention and contributed to the increasing global concern in the media and public spheres is the fast development and global distribution of vaccines against Covid-19. The arrival of the Russian vaccine “Sputnik V” or “Gam-Covid-Vac”, which was developed by the Gamaleya Research Institute, part of Russia’s Ministry of Health, and is regarded as the first vaccine against Covid-19 registered on 11 August 2020, was initially met with controversy and caused heavy skepticism and serious concerns about its efficacy among many politicians, scientists, journalists as well as the international community since it was rolled out before its final trial. Though it was scientifically proved in the article of the oldest, most respected and widely read medical journal *The Lancet* that the “Sputnik V” vaccine was 91.6% effective<sup>6</sup> and with more than 40 countries having approved it for their use so far, it has not yet been approved by the European Medicines Agency (EMA). Meanwhile, the efficacy and validity of the “Sputnik V” vaccine concern not only the scientific world but also political and media organizations. Many politically biased media outlets started to criticize and politicize the promotion of the Russian vaccine, viewing it as a geopolitical “soft-power weapon” aimed

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<sup>1</sup> GUPTA, S. D.: Coronavirus Pandemic: A Serious Threat to Humanity. In *Journal of Health Management*, 2020, Vol. 22, No. 1, p. 115.

<sup>2</sup> ZAROCOSTAS, J.: How to Fight an Infodemic. In *The Lancet*, 2020, Vol. 395, No. 10225, p. 676. [online]. [2021-06-30]. Available at: <[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30461-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30461-X/fulltext)>.

<sup>3</sup> PERREAULT, M. F., PERREAULT, G. P.: Journalists on COVID-19 Journalism: Communication Ecology of Pandemic Reporting. In *American Behavioral Scientist*, 2021, Vol. 65, No. 7, p. 976.

<sup>4</sup> CAO, Q. et al.: The Role of Media Coverage on Pandemic Containment: Empirical Analysis of the COVID-19 Case. In *PACIS 2020 Proceedings*. Dubai, UAE : Association for Information Systems, 2020, p. 162. [online]. [2021-06-30]. Available at: <<https://aisel.aisnet.org/pacis2020/162/>>.

<sup>5</sup> MHEIDLY, N., FARES, J.: Leveraging Media and Health Communication Strategies to Overcome the COVID-19 Infodemic. In *Journal of Public Health Policy*, 2020, Vol. 41, p. 412.

<sup>6</sup> LOGUNOV, D. Y. et al.: Safety and Efficacy of an rAd26 and rAd5 Vector-based Heterologous Prime-boost COVID-19 Vaccine: An Interim Analysis of a Randomised Controlled Phase 3 Trial in Russia. In *The Lancet*, 2021, Vol. 397, No. 10275, p. 671.

at advancing the image of Russia on the global political arena<sup>7</sup> as well as discrediting Western vaccines and seeking to divide the European bloc amidst the Covid-19 crisis.<sup>8</sup>

In the post-truth era, which is characterized by the ignorance of rational arguments and by appeals to emotions, the diffusion of online media and social media platforms as well as the proliferation of online user-generated news have led both to opportunities in fast distribution and sharing scientific data as well as the spread of personal opinions which often have no relation to real facts or scientific knowledge. In fact, objective facts no longer play the role of a key to attracting news audiences.<sup>9</sup> It is also believed that arguments based on facts will not convince people if that information is contrary to a person's world view.<sup>10</sup> The readers tend to trust opinion leaders or those people who appear to be experts or authorities more than real facts. Thus, in the context of the Covid-19 pandemic the sharing of scientific data in the media has two aspects: the presence or absence of "filters" capable of fact-checking the reliability of the information and increasing individual responsibility for making information public and disseminating it.<sup>11</sup>

Furthermore, due to the birth of the post-truth era and the proliferation of social media there have been a great deal of lies, hoaxes, disinformation and conspiracy theories with propaganda and manipulation being the key features here.<sup>12</sup> As a result, many people all over the world have lost confidence in most governmental institutions as well as media outlets. This process is accompanied by a decline in the authority of social and political subjects who were once widely recognized as "authorities" and role models and a decline of public trust in traditional (mainstream) media. Hence, massive online consumption of conspiracy-driven and unverified news which often contains sensational and viral content has made modern media vulnerable to manipulation, which has contributed to increased disinformation, the declining distrust in news sources and further radicalisation of society.<sup>13</sup> As Helvoort and Hermans note, "the spread of fake news is considered a new threat for democracy and civic participation in a lot of European countries".<sup>14</sup>

In general, one of the main aims of mass media is to share information with the public and objectively assess socially significant events and phenomena, which is particularly important during a public health crisis. However, the vague origin and nature of Covid-19 and the controversy and inconsistency of the scientific data have created new challenges both for journalists and researchers in providing credible and accurate information about it, thus making news stories difficult to keep up with from a journalist's perspective, which, in its turn, makes the readers feel confused about the provided information and distrust the media source on the

<sup>7</sup> VARGINA, V.: Sputnik V Vaccine as a Soft-Power Instrument of Russia. In *Journal of Governance and Politics*, 2020, Vol. 7, No. 2. No pagination. [online]. [2021-06-30]. Available at: <<https://sgpjournals.mgimo.ru/2020/2020-7/sputnik-v-vaccine-soft-power-instrument-of-russia>>.

<sup>8</sup> STOICESCU, K.: *Sputnik V is a Geopolitical Soft-power Weapon*. [online]. [2021-06-30]. Available at: <<https://icds.ee/en/sputnik-v-is-a-geopolitical-soft-power-weapon/>>.

<sup>9</sup> TENEVA, E.: The Rhetoric of Political Emotions in the Internet News Discourse. In *Galactica Media: Journal of Media Studies*, 2021, Vol. 3, No. 1, p. 126. [online]. [2021-06-30]. Available at: <<https://galacticamedia.com/index.php/gmd/article/view/146/119>>.

<sup>10</sup> HERMANS, M., VAN HELVOORT, J.: Effectiveness of Educational Approaches to Elementary School Pupils (11 Or 12 Years Old) to Combat Fake News. In *Media Literacy and Academic Research*, 2020, Vol. 3, No. 2, p. 40.

<sup>11</sup> ORSO, D. et al.: Infodemic and the Spread of Fake News in the COVID-19-era. In *European Journal of Emergency Medicine: Official Journal of the European Society for Emergency Medicine*, 2020, Vol. 27, No. 5, p. 327.

<sup>12</sup> MORAVČÍKOVÁ, E.: Media Manipulation and Propaganda in the Post-Truth Era. In *Media Literacy and Academic Research*, 2020, Vol. 3, No. 2, p. 25.

<sup>13</sup> MARWICK, A., LEWIS, R.: *Media Manipulation and Disinformation Online*. [online]. [2021-06-30]. Available at: <<https://datasociety.net/library/media-manipulation-and-disinfo-online/>>.

<sup>14</sup> HERMANS, M., VAN HELVOORT, J.: Effectiveness of Educational Approaches to Elementary School Pupils (11 Or 12 Years Old) to Combat Fake News. In *Media Literacy and Academic Research*, 2020, Vol. 3, No. 2, p. 39.

whole. In this sense, due to social media danger and the probable harm of fake news about Covid-19 the role of media literacy has become quintessential in developing newsreaders' evaluation skills necessary to understand how mass media direct their attention and to be able to critically analyze media messages and their profound impact, which is one of the key tasks of media literacy.<sup>15</sup> Therefore, all these factors combined have led to the fact that it is necessary to carry out a thorough and comprehensive study of the manipulative tools, rhetorical strategies and their language markers used for manipulating a mass addressee in the context of the Covid-19 crisis. In our research we will focus on the appeals to "pseudo-authority" or "false" authority and consider them in the context of false news as one of the "threats" to democracy and the principle of objectivity in journalism. However, first and foremost, these appeals are worth investigating from an educational point of view. Familiarity with the manipulation tools used in news discourse and designing educational literacy programs aimed at developing critical skills and competence in distinguishing between fake and credible Covid-19 media messages and critically evaluating media content for all people is relevant and essential especially in the new media infodemic ecosystem.<sup>16</sup>

## 2. Research Objective and Methodology

Within the framework of this study, it is hypothesized that appeals to pseudo-authorities have become one of the most common tools for manipulating public opinion in modern Internet news discourse. The research aim is to provide new insights into the understanding of the notion of pseudo-authorities and their impact in the news coverage of the vaccine "Sputnik V" vaccine. There are several research objectives which facilitate the achievement of the research aim, which are as follows:

- a) to analyze appeals to authority and pseudo-authority within the framework of the author-audience relationship;
- b) to classify the types of authority and pseudo-authority in modern Internet news discourse;
- c) to identify the role of pseudo-authorities in the news coverage of the "Sputnik V" vaccine from a rhetorical viewpoint;
- d) to detect the language markers used for public opinion manipulation.

To do this, we used critical discourse analysis (CDA) and content analysis. For the purpose of our study we analyzed more than 150 news stories about "Sputnik V" extracted from the online versions of the highly-circulated British and American newspapers ("The Times", "The Guardian", "The Independent", "The Telegraph", "BBC news", "The New York Times", "The Washington Post" and "The Wall Street Journal") which were published between 2020 and 2021 and are considered to be highly reputable papers, which contributes to the reliability of the research. The news stories containing information about "Sputnik V" were collected using the LexisNexis database as a data collection tool. Content analysis was used to make inferences about the rhetorical potential of the appeals to pseudo-authorities in Internet news discourse.

## 3. Literature Review

Undoubtedly, the processes of the rapid digitalisation of mass media as well as mediatization of politics have modified the pragmatic goals and attitudes of the participants in mass communication. The binary category "addresser/addressee" has undergone a significant

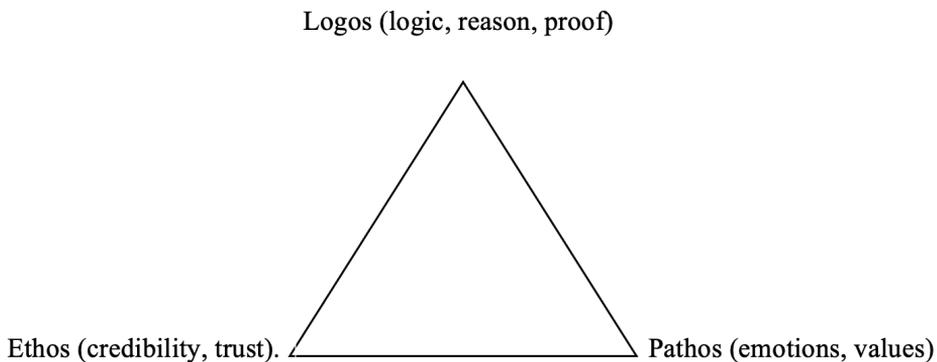
<sup>15</sup> BIELIK, P., VIŠŇOVSKÝ, J.: Explanatory Journalism – A New Way How to Communicate in Digital Era. In *Media Literacy and Academic Research*, 2021, Vol. 4, No. 1, p. 25.

<sup>16</sup> JORMAND, H. et al.: A Qualitative Study on People's Experiences of Covid-19 Media Literacy. In *Media Literacy and Academic Research*, 2021, Vol. 4, No. 1, p. 39.

transformation and is of particular importance to the scientists studying argumentation in Internet news discourse. Though the author-audience relationship has been studied over the centuries, there is still much to learn about this relationship, especially in the context of online communication.

Recent studies show that modern media discourse is characterized by heightened interactivity and a blurring division between author and audience. Modern audiences tend to “engage with texts in digital forms and generate their own content, which makes it difficult for researchers to capture how the people interact within technologically mediated contexts”.<sup>17</sup> It is also noteworthy that the study of the binary categories “addresser/addressee” and “producer/consumer” of media content is impossible without considering another important text-forming category - the category of authority which is associated with the communicative status of the participants in communication. It indicates the relationship between the participants of communication, regulates the process of communication between communicants and directs it in the right direction: either the reader accepts the author’s position and agrees with them, or the author takes the side of the reader and identifies their position with the position of the reader.<sup>18</sup>

In general, the author-audience relationship dates back to the founders of rhetoric such as Aristotle, Cicero, and Quintilian, who laid a foundation of the “rhetorical triangle” which is made up of three basic components: topic (*logos*), author (*ethos*), and audience (*pathos*). These components are displayed in Figure 1.



**FIGURE 1:** The “rhetorical triangle”

Source: EnglishWithLatini.com. [online]. [2021-06-14]. Available at: <<https://sites.google.com/site/englishwithlatinicom/writing/persuasive-writing/ethos-pathos-logos>>.

According to Aristotle, “the orator has to instill an attitude oriented toward following the rule of law”.<sup>19</sup> In other words, the main aim of the speaker (author) is to influence the audience in such a way that would make it accept the view that is advantageous for him/her. The speaker (author) would appeal to the logic inherent in the subject matter (*logos*), to the emotions of the audience (*pathos*), or to their own character (*ethos*) in order to affect a particular audience in particular ways. In Aristotelian rhetoric, the appeal to *ethos* (Greek for “character”) refers to the credibility and authority of the writer or speaker, or the credibility and authority of those brought in to testify on behalf of the argument. This appeal is intended to show the audience that they can trust the speaker.

<sup>17</sup> RINGROW, H., PIHLAJA, S.: *Contemporary Media Stylistics*. London, UK; New York, USA : Bloomsbury Publishing Company, 2020, p. 3.

<sup>18</sup> TENEVA, E.: Implicit Authorities in the Political and Publicistic Discourse (by the material of the English language). In *Philology. Theory & Practice*, 2016, Vol. 4, No. 1, p. 155.

<sup>19</sup> COELHO, N. M. M. S., HUPPES-CLUYSENAER, L.: *Aristotle on Emotions in Law and Politics*. Switzerland : Springer, 2018, p. 9.

Our study found that there is abundance of research addressing the concept of authority. The notion of authority, derived from the Latin *auctoritas* which means social authority, reputation, and status, is inexplicit and has various meanings: from reputation, dignity, value, conscience, assurance, affirmation, veracity, notability, significance to role model and opinion.<sup>20</sup> Since the phenomenon of authority is present in many spheres and dimensions of human life: from socio-political and legal relations to scientific knowledge, research approaches in determining the concept of authority are numerous and there is a lack of common taxonomy and definitions on this topic.

For instance, in political sciences the concept of authority is mainly related to the concept of power and is seen as the exercise of legitimate influence (power) by one social actor over another. Within social psychology, there is no common definition of authority. However, sociologists distinguish between the concepts of power and authority and view the latter as the result of the relationship between two or more social actors, in which one exerts an influence over the other as a consequence of social status.<sup>21</sup> In philosophy, authority is regarded as “a way of justifying belief by appealing to a positive past experience” or as “a way of arguing by referring to famous people”.<sup>22</sup> In this sense, authority is most often related to a person whose judgement or behaviour is highly valued and accepted as undoubtedly correct,<sup>23</sup> whereas in cultural studies, a broader definition of authority is given: it is a “subsystem of culture which is responsible for the goal-setting process, socialization and the choice of life attitudes of a person”.<sup>24</sup> In psychological terms, our tendency to listen to experts is a principle known as ‘authority’. The famous social psychologist in the fields of influence and persuasion, Robert Cialdini, claims that authority is one of the six key principles behind the science of persuasion. As he notes, “we can be confident that there will be compliance professionals trying to take advantage. We can stay within the field of medicine and see that advertisers have frequently harnessed the respect accorded to doctors in our culture by hiring actors to play the roles of doctors speaking on behalf of the product”.<sup>25</sup>

As regards the concept’s ambiguity and vagueness, it should be noted that research approaches in distinguishing the types of authority are numerous. According to Goodwin, there are authorities based on command, expertise and dignity. Each type is distinguished with respect to the reaction that a failure to follow it ordinarily evokes.<sup>26</sup> Goodwin notes that the dignity authority cannot be distinguished by knowledge or power, but rather by eminence. The appropriate response to such authorities is not obedience (as to command authority) or prudence (as to expertise authority), but deference - or showing respect.<sup>27</sup> Another prominent scientist, sociologist M. Weber, distinguishes three forms of authority, including the traditional form which is based on the relations of strong personal respect and

<sup>20</sup> NJEGOVAN, B. R., VUKADINOVIĆ, M., NEŠIĆ, L. G.: Characteristics and Types of Authority: The Attitudes of Young People. A Case Study. In *Sociología*, 2011, Vol. 43, No. 6, p. 658.

<sup>21</sup> MORSELLI, D., PASSINI, S.: New Perspectives on the Study of the Authority Relationship: Integrating Individual and Societal Level Research. In *Journal for the Theory of Social Behaviour*, 2011, Vol. 41, No. 3, p. 291.

<sup>22</sup> STEPANOV, A.: *Ontognoseologičeskaya koncepcija avtoriteta*. [Synopsis of Dissertation Thesis]. Tomsk : National Research Tomsk State University, 2002, p. 5.

<sup>23</sup> NJEGOVAN, B. R., VUKADINOVIĆ, M., NEŠIĆ, L. G.: Characteristics and Types of Authority: The Attitudes of Young People. A Case Study. In *Sociología*, 2011, Vol. 43, No. 6, p. 660.

<sup>24</sup> STEPANOV, A.: *Ontognoseologičeskaya koncepcija avtoriteta*. [Synopsis of Dissertation Thesis]. Tomsk : National Research Tomsk State University, 2002, p. 21.

<sup>25</sup> CIALDINI, R.: *Influence: The Psychology of Persuasion*. New York : Collins, 2007, p. 165.

<sup>26</sup> GOODWIN, J.: Forms of Authority and the Real Ad Verecundiam. In *Argumentation*, 1998, Vol. 12, No. 2, p. 267.

<sup>27</sup> SORM, E.: *The Good, the Bad and the Persuasive: Normative Quality and Actual Persuasiveness of Arguments from Authority, Arguments from Cause to Effect and Arguments from Example*. [Dissertation Thesis]. Nijmegen : Radboud University Nijmegen, 2010, p. 34.

the acceptance of norms based on holy traditions, the charismatic form which is based on the emotional belief in the importance and value of personal power and the rational-legal form which is featured by abstract legality, patrimonial qualities and persistence in the sense of every day deeds. In addition to the mentioned theoretical research on different types of authority, a recent study suggests that authority may be differentiated into charismatic type (with characteristics such as reliability, progressiveness, determination, dignity and charisma), traditional type (with characteristics such as: familiarity, esteem, categoricalness, tradition and habitualness) and bureaucratic type of authority (described with characteristics such as: credibility, exclusiveness, uniqueness, omnipresence and validity).<sup>28</sup>

In the modern online media appeals to authorities have become very common. Nevertheless, the reliability and validity of such argumentation which uses appeals to authorities has always caused debates in the scientific world. On the one hand, we cannot understand much without others' help, particularly in a technological and culture-laden world. Thus, it is prudent to take expert statements into account.<sup>29</sup> In news reporting authority plays a very important role. The use of the author's knowledge of this concept stimulates the thinking activity of the audience, convinces it to include the proposed information into the fund of its knowledge, helps the author to guide the logic of perception of information by news audience and to justify his/her opinion. In this context, for the reader of newspapers and magazines as well as for the reader of any other literature, it is very important to deal with reputable experts. Sorm, analyzing several types of authority (the argument from authority, the argument from cause to effect and the argument from example), concludes that for the argument from authority "*there is relatively high agreement on the relevant expertise criterion, the expert criterion, the trustworthiness criterion, the ability to provide evidence criterion, the recency criterion and the hedged statement criterion*".<sup>30</sup> However, it is often very difficult to determine what these "relevant" expertise criteria are. Hence, in some cases appeals to authority are often regarded suspicious and fallacious.<sup>31</sup> This refers to *appeals to so called "false" authority* which is an argument that relies on the opinion of a false authority figure, who is framed as a credible authority on the topic being discussed. These appeals are widely spread in our daily lives, both in politics and the press.

In general, the use of false or illogical reasoning has been studied since Aristotle, who introduced a theory of logical fallacies. According to his theory, fallacies are instances of *specious* reasoning and not merely logical errors but *hidden* errors which give the illusion of an argument being sound. Aristotle divided fallacies into two broad categories: those which depend on language and those that are independent of language. The famous English philosopher, Francis Bacon, also contributed to the knowledge of fallacies by paying attention to prejudice and bias in scientific investigation and the effect they could have on our beliefs. Bacon distinguished four types of false notions which he called the idols of mind (Tribe, Cave, Marketplace and Theatre), which mislead and prevent men from attaining true understanding.

In fact, the term "fallacy" (or faulty reasoning) was coined in the 17th century by the English philosopher and physician John Locke who studied the *argumentum ad verecundiam*, also known as appeal to ignorance. It is used when a person appeals to a false authority as evidence for his claim. Irving Copi identified eighteen core fallacies, including the following:

<sup>28</sup> NJEGOVAN, B. R., VUKADINOVIĆ, M.: Relationship between the Types of Authority and Authoritarianism. In *Škola biznisa*, 2011, Vol. 4, p. 14-15. [online]. [2021-06-30]. Available at: <<http://www.vps.ns.ac.rs/SB/2011/8.2.pdf>>.

<sup>29</sup> GOODWIN, J.: Forms of Authority and the Real Ad Verecundiam. In *Argumentation*, 1998, Vol. 12, No. 2, p. 274.

<sup>30</sup> SORM, E.: *The Good, the Bad and the Persuasive: Normative Quality and Actual Persuasiveness of Arguments from Authority, Arguments from Cause to Effect and Arguments from Example*. [Dissertation Thesis]. Nijmegen : Radboud University Nijmegen, 2010, p. 228.

<sup>31</sup> GOODWIN, J.: Accounting for the Appeal to the Authority of Experts. In *Argumentation*, 2011, Vol. 25, No. 3, p. 285.

1. *Argumentum ad numerum* (an argument or appeal to numbers) which include appeals based on the number of people who hold a particular belief.
2. *Argumentum ad populum* (an argument or appeal to the public) which include appeals to popular opinion, or common knowledge, rather than a specified authority.
3. *Argumentum ad verecundiam* (an argument or appeal to authority) which includes citing some person, even though that person may have no expertise in the given area.<sup>32</sup>
4. In this research we followed Copi's typology and considered the above-mentioned types of appeals to pseudo-authorities and their rhetorical potential in the context of the news stories about "Sputnik V".

## 4. Results

As we have already emphasized, authority is considered to be one of the most complex phenomena in a modern society which is hard to describe in empirical studies since it embraces both sociological and psychological content and deals with the most important relationships between individuals or groups that are based on some type of authority. It has pivotal importance within social sciences, being a fundamental element in organization of social life.<sup>33</sup>

Modern journalists tend to appeal to "false" authorities or non-experts - the opinions of famous people who are taken to be an authority in the fields where they virtually lack special competence and expertise to enhance the persuasiveness of the provided arguments. Their opinions often serve as an argument taken by the audience for granted without any evidence or proof. Let us consider their types in Internet news discourse in more detail.

For the purpose of this research, we have analyzed over 150 news stories about "Sputnik V" extracted from British and American online papers using the LexisNexis database and have concluded that there are several types of pseudo-authorities in Internet news discourse:

### 1. Appeals to "nominal" pseudo-authorities or "false" experts

In modern Internet news discourse pseudo-authorities can be represented in the form of quotations, and testimonials for greater persuasiveness. Celebrity endorsements often have an enormous impact on the entire online community since they are trusted role models for many people. To illustrate it, let us study the following examples:

1. *"I got a vaccine a few days ago. I don't know if it'll work but I heard good things about the Russian vaccine," Oliver Stone told Russia's Channel One state "I'm hopeful. It's a very good vaccine; I don't understand why it's being ignored in the West."*<sup>34</sup>
2. [Michael Kretschmer]: *"Russia is a great land of science and I don't have the faintest doubt that scientists there are capable of producing an effective vaccine."*<sup>35</sup>
3. *"The French foreign minister, Jean-Yves Le Drian, has described Sputnik V as more 'a means of propaganda and aggressive diplomacy' than a medical asset."*<sup>36</sup>

<sup>32</sup> COPI, I. M., COHEN, C., RODYCH, V.: *Introduction to Logic*. New York and London : Routledge, 2018, p. 120.

<sup>33</sup> MORSELLI, D., PASSINI, S.: New Perspectives on the Study of the Authority Relationship: Integrating Individual and Societal Level Research. In *Journal for the Theory of Social Behaviour*, 2011, Vol. 41, No. 3, p. 291.

<sup>34</sup> LEWIS, I.: *Oliver Stone Receives Russian Coronavirus Vaccine as Experts Warn It May Be Harmful to Over-60s*. Released on 15th December 2020. [online]. [2021-06-30]. Available at: <<https://www.independent.co.uk/arts-entertainment/films/news/oliver-stone-vaccine-coronavirus-sputnik-v-b1774166.html>>.

<sup>35</sup> CONNOLLY, K.: *German Minister Defies EU by Saying He Wants Russia to Supply Sputnik Vaccine*. Released on 8th April 2021. [online]. [2021-06-30]. Available at: <<https://www.theguardian.com/world/2021/apr/08/germany-seeks-russia-talks-over-possible-supply-of-sputnik-v-covid-vaccine>>.

<sup>36</sup> Ibidem.

4. *“The prime minister of Lithuania, Ingrida Šimonyté, tweeted in February that Russia’s president, Vladimir Putin, saw the shot not so much as a ‘cure for the Russian people’ but as “another hybrid weapon to divide and rule”.*<sup>37</sup>

In these examples the opinions of celebrities and politicians who are non-experts in the field of medicine serve as arguments either in favour of (№1, 2) or against (№3, 4) the Russian vaccine “Sputnik V”, thus enhancing or discrediting the image of both the product and the country on the whole. Example № 1 shows that the American film director, producer, and screenwriter, Oliver Stone expresses his positive opinion about “Sputnik V” after receiving the jab. The use of emotive language with positive meaning (“good things”, “hopeful”, “a very good vaccine”) is intended to identify the thoughts and feelings of the celebrity about the efficacy of the vaccine with that of the audience and contributes to the emotional impact on the audience. The feeling of emotional “involvement” and unity with the audience increases the emotionality and persuasiveness of the information, brings the audience closer to the opinion of the famous director and is used for its “emotional infection”. In example № 2 the journalist appeals to the opinion of the famous politician, Michael Kretschmer, who speaks about the efficacy of the vaccine and enhances the image of Russia by referring to the stereotype of it as “a great land of science”. Stereotypes often have rhetorical function: they evoke a number of associations in the minds of representatives of national and cultural communities, have an axiological meaning and are used by the journalist in the text in order to make the audience believe the politician’s opinion.

As is evident from examples № 3 and № 4, where the journalists refer to politicians who consider the vaccine as “a means of propaganda and aggressive diplomacy”, quotations of non-experts (e.g. politicians, celebrities) are intended to “hide” the journalist’s opinion, removing responsibility from him/her and shift it to celebrities as well as making the argument sound more valid in the eyes of the audience. In this example quotations that contain words with negative meaning (“aggressive diplomacy”, “another hybrid weapon”) are used to emotionally manipulate the audience and justify the negative opinion of the journalist about “Sputnik V” as a political tool for Russia’s propaganda.

In order to make the arguments about the efficacy of “Sputnik V” more compelling and sound, journalists may refer to the testimonials of vaccinated people. In these cases the evidence from those who have been inoculated serves as an argument in favour of the journalist’s opinion so that the audience cannot but believe and accept it. For instance:

5. *“Sitting nearby was Galina Chupyl, a 65-year-old municipal worker. What did she think of getting vaccinated? ‘I am happy, of course’, she said. ‘Nobody wants to get sick.’ I agreed.”*<sup>38</sup>
6. *“People are afraid; there’s all sorts of rumours about complications,” Lidia Nikolaevna reasoned, shovelling thick snow away from her garage door.”*<sup>39</sup>

In these examples (№ 5 and 6) the journalists, who are either in favour of (№5) or against (№6) “Sputnik V”, appeal to the testimonials of vaccinated people that prove journalists’ positive or negative opinion about it, making the readers accept their viewpoint about the efficacy of the vaccine. The use of emotive language (“happy”, “agreed”, “afraid”, “complications”) contributes to the persuasiveness of the appeals to pseudo-authorities and creates either positive or negative image of the Russian vaccine.

<sup>37</sup> HENLEY, J.: *Is Russia’s Covid Vaccine Anything More Than a Political Weapon?* Released on 30th April 2021. [online]. [2021-06-30]. Available at: <<https://www.theguardian.com/society/2021/apr/30/is-russias-covid-vaccine-anything-more-than-a-political-weapon-sputnik-v>>.

<sup>38</sup> KRAMER, A. E.: *Why I Got the Russian Vaccine*. Released on 27th April 2021. [online]. [2021-06-30]. Available at: <<https://www.nytimes.com/2021/01/08/world/europe/russian-vaccine.html>>.

<sup>39</sup> RAINSFORD, S.: *Why Many in Russia Are Reluctant to Have Sputnik Vaccine*. Released on 3rd May 2021. [online]. [2021-06-30]. Available at: <<https://www.bbc.com/news/world-europe-56250456>>.

Thus, it is evident that references to people, who are non-experts in a certain domain and do not have enough competence on the subject to be objective, have a profound effect on the mass audience, forcing it to trust the words of pseudo-authorities. This is one of the widespread manipulative tools in modern Internet news discourse.

## 2. Appeals to “implicit” pseudo-authorities

Based on the findings of our research it is obvious that when it comes to the discussion of the efficacy of the Russian vaccine “Sputnik V”, journalists often use so-called “implicit” pseudo-authorities. We have assumed that “implicit” pseudo-authorities are rhetorical strategies which are used by journalists when there is deliberately no indication of an authoritative source of knowledge, and the information transmitted with the help of them is perceived by the audience as obvious, generally accepted and does not require special evidence. Let us study them by considering the following examples:

7. *“An Italian politician described as an ‘iron Putinist’ has called for the country to adopt Russia’s ‘Sputnik V’ coronavirus vaccine.”*<sup>40</sup>
8. *“‘Russia’s low vaccination rate just doesn’t tally with it having a supposedly cheap, easy-to-make and effective vaccine’, one EU diplomat said.”*<sup>41</sup>
9. *“Experts say that approving a vaccine even for limited use before large-scale testing carries risks.”*<sup>42</sup>
10. *“Observers say the Sputnik V jab is aimed more at sowing political division than fighting coronavirus.”*<sup>43</sup>
11. *“Russia expected a surge for its Sputnik V vaccine. But many skeptics still stayed away.”*<sup>44</sup>

In examples № 7-11 common nouns (“observers”, “experts”, “Italian politician”, “EU diplomat”) are used as implicit authorities. The journalists identify their opinion with an authoritative source of information, but the name of this source is not mentioned. In fact, it is hidden from the reader. Replacing specific nouns by general nouns which contain the notion of authority in their meaning and have no determiners has a rhetorical function. It allows the journalist not to prove his/her point of view and is intended to create an illusion of objectivity and reliability of the information presented by the journalist, which contributes to the implicit impact on the reader.

Another way to refer to “implicit” pseudo-authorities is to use impersonal sentences (“there is / are ...”) or passive constructions (“it has been thought / criticised...”) in order to identify the journalist’s point of view with popular opinion and manipulate the reader’s opinion. In these cases, the journalists may mislead the reader, presenting their opinion as popular opinion and, hence, forcing the reader to accept it as obvious. The addressee of such statements is the entire society, whereas the author presents him/herself as a member of this society, one of the majority with the ultimate aim of manipulation. For instance:

<sup>40</sup> PENNA, D., MCTAGGART I., DAVIES, G.: *UK ‘Getting Safer Every Day’ as Almost 1 in 5 Adults Have Had First Vaccine, Says Nadhim Zahawi*. Released on 4th February 2021. [online]. [2021-06-30]. Available at: <<https://www.telegraph.co.uk/global-health/science-and-disease/coronavirus-news-covid-vaccine-uk-south-africa-variant-lockdown/>>.

<sup>41</sup> HENLEY, J.: *Is Russia’s Covid Vaccine Anything More Than a Political Weapon?* Released on 30th April 2021. [online]. [2021-06-30]. Available at: <<https://www.theguardian.com/society/2021/apr/30/is-russias-covid-vaccine-anything-more-than-a-political-weapon-sputnik-v>>.

<sup>42</sup> KANTCHEV, G.: *Russia Fast-tracks Second Coronavirus Vaccine*. Released on 5th October 2020. [online]. [2021-06-30]. Available at: <<https://www.wsj.com/articles/russia-fast-tracks-second-coronavirus-vaccine-11601909843>>.

<sup>43</sup> HENLEY, J.: *Is Russia’s Covid Vaccine Anything More Than a Political Weapon?* Released on 30th April 2021. [online]. [2021-06-30]. Available at: <<https://www.theguardian.com/society/2021/apr/30/is-russias-covid-vaccine-anything-more-than-a-political-weapon-sputnik-v>>.

<sup>44</sup> DIXON, R.: *Russia Expected a Surge for Its Sputnik V Vaccine. But Many Skeptics Still Stayed Away*. Released on 11th December 2020. [online]. [2021-06-30]. Available at: <[https://www.washingtonpost.com/world/europe/russia-vaccine-sputnik-interest/2020/12/10/005917fa-3702-11eb-9699-00d311f13d2d\\_story.html](https://www.washingtonpost.com/world/europe/russia-vaccine-sputnik-interest/2020/12/10/005917fa-3702-11eb-9699-00d311f13d2d_story.html)>.

12. 12) *"For now, with so many Russians deeply skeptical of their medical system and the vaccine, there is no great clamor for the shot."*<sup>45</sup>
13. 13) *"The development of the Sputnik V vaccine has been criticized for unseemly haste, corner cutting, and an absence of transparency."*<sup>46</sup>

In examples № 12 and 13 the journalists use the strategy of generalization, in which case, according to T.A. van Deuk, "a concrete specific example that has made an impact on people's mental models, is generalized to more general knowledge or attitudes, or even fundamental ideologies".<sup>47</sup> The negative opinion of the journalists about "Sputnik V" and its promotion is represented in a hidden way as a popular opinion and conveyed by using words with a negative meaning ("deeply skeptical", "no great clamor", "criticised", "unseemingly haste corner cutting", "absence of transparency"), impersonal structures and passive voice.

### 3. Appeals to "pseudo-visibility"

In some cases mentioning the name of the authoritative source is unnecessary. In these cases the journalist employs statistical data to enhance the "pseudo-visibility" and persuasiveness of the material in the paper. By "pseudo-visibility" we mean the use of such language means that contain large numbers and serve to enhance the emotional effect of information with the ultimate aim of manipulating the audience. Here are some examples to illustrate it:

14. *"Distrust of vaccines is so high in Russia that 53 per cent of people who say they are worried about catching the virus also say they will not get vaccinated, according to a recent opinion poll by the Levada Centre. About 60 per cent of all respondents said they had no plans to get the jab."*<sup>48</sup>
15. *"A recent survey found that 52 per cent of Russians do not want to receive the vaccine due to safety concerns."*<sup>49</sup>

With the help of statistics, the journalists seek not to deceive the audience but to disguise their true goal under data with large numbers - emotional influence on the addressee. They refer to very detailed statistics in order to support their negative viewpoint - the skepticism and distrust of the Russian vaccine. In these cases the appeals to statistics are used not as factual information but as a means of emotional manipulation since many laymen tend to trust statistics and large numbers.

## 5. Discussion

Within the framework of this paper, appeals to authority and pseudo-authority are regarded from a rhetorical viewpoint. Considering an appeal to authority, we have assumed that it is a rhetorical strategy which implies appeals to either popular opinion that exists among the members of a macro- or microsocial group or the opinion and statements of a highly authoritative member of a

<sup>45</sup> KRAMER, A. E.: *Why I Got the Russian Vaccine*. Released on 27th April 2021. [online]. [2021-06-30]. Available at: <<https://www.nytimes.com/2021/01/08/world/europe/russian-vaccine.html>>.

<sup>46</sup> KRAMER, A. E.: *Russia's Vaccine Is Safe and Effective, Published Study Shows*. Released on 2nd February 2021. [online]. [2021-06-30]. Available at: <<https://www.nytimes.com/2021/02/02/world/europe/russia-vaccine-safe-effective.html>>.

<sup>47</sup> VAN DEUK, T. A.: Discourse and Manipulation. In *Discourse & Society*, 2006, Vol. 17, No. 3, p. 370.

<sup>48</sup> BENNETTS, M.: *Get Covid Vaccine and Chance to Win a Car as Moscow's Death Toll Grows*. Released on 14th June 2021. [online]. [2021-06-30]. Available at: <<https://www.thetimes.co.uk/article/get-covid-vaccine-chance-win-car-moscow-ss0v2ft80>>.

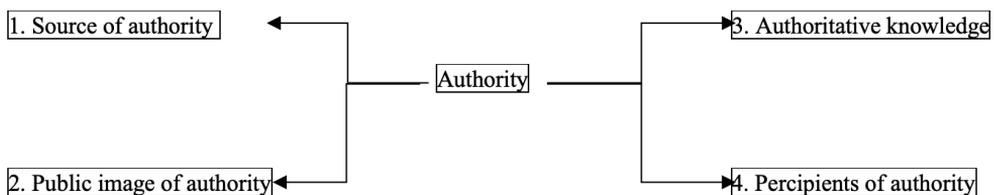
<sup>49</sup> VASILYEVA, N.: *Why I Received Russia's 'Sputnik' Coronavirus Vaccine before Vladimir Putin*. Released on 27th December 2020. [online]. [2021-06-30]. Available at: <<https://www.telegraph.co.uk/news/2020/12/27/received-russias-sputnik-coronavirus-vaccine-vladimir-putin/>>.

group that is a role model with the ultimate aim of justifying the author’s viewpoint and influencing the audience. This is consistent with the views of Hartelius who examined rhetorical strategies that experts of various specialities employ to compete for authority and legitimacy with respect to how experts gain audience approval. From his viewpoint, “*expertise is rhetorical: a social and symbolic process, a relational logic at once real and imagined, theoretical and pragmatic.*”<sup>50</sup>

It is also assumed that authority is a necessary premise of the category of “addresser/ addressee” since the success of communication depends not only on the degree of the reader’s awareness and trust in the author but, first and foremost, on the degree of credibility of the author. The higher the author’s authority, the greater his/her influence on the audience. Similarly, the greater the degree of the trust in the author, the greater the success of communication. Thus, authority is a category which links both participants of communication, emphasizing the role that the audience and the author play in the process of communication.

In this research we follow largely the views of Stepanov, who considered authority as “*a mechanism of goal-setting, socialization and choice of the strategies of personal behavior.*”<sup>51</sup> From his viewpoint, the concept of authority consists of the following elements: the bearer of authority, authoritative knowledge, imitators of authority and the product created on the basis of imitation. The main structural relations between these elements are: creativity, storage, interpretation and propaganda of authoritative knowledge and imitation of it. It is worth mentioning that authoritative knowledge and its credibility play a central role in this system.

As regards Internet news discourse, we have assumed that authority is largely based on the general agreement or consensus of readers’ opinions and depends on the popularity, public image and fame of this or that person (source) rather than on facts and knowledge. As we have previously underlined, modern readers of online news tend to trust opinion leaders, influencers, bloggers and those people who seem to be experts and authorities more than real facts. Hence, in our research the elements of the system “authority” within the framework of Internet news discourse include: “the bearer or source of authority” (a person or thing that is perceived as an expert in a certain field and influences the audience), his/her/its “public image” (popularity), “authoritative knowledge” (information that is transmitted) and “percipients of authority” (the audience that complies with those in positions of authority). In this case the popularity and public image of the bearer of authority plays a key role in the process of persuasion. These structural elements are presented in Figure 2.



**FIGURE 2:** The elements of the system “authority” in Internet news discourse”

Source: own processing, 2021.

Regarding appeals to pseudo-authority, it is noteworthy that journalists seek to convey some part of information anonymously, deliberately selecting those facts that are beneficial to achieve their goal of influencing the audience. In these cases, they often appeal to “pseudo-authorities” or appeals to fallacies. The prefix “pseudo” comes from Greek *ψευδής*, “pseudes” and means “lying, false”. In this context, “pseudo-authorities” are “false” authorities or fallacies.

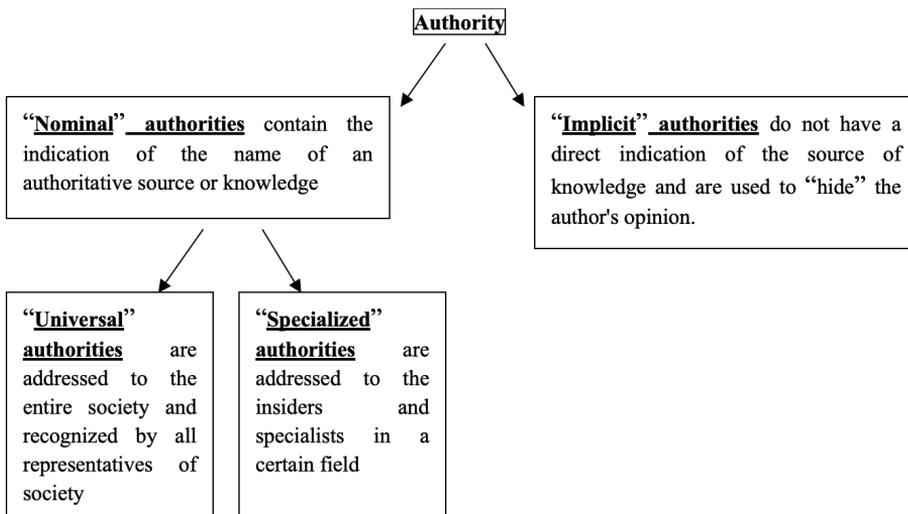
<sup>50</sup> HARTELIUS, J.: *The Rhetoric of Expertise*. [Dissertation Thesis]. Austin, Texas : The University of Texas at Austin, 2008, p. 164.

<sup>51</sup> STEPANOV, A.: *Ontgnoseologicheskaya Konceptciya Avtoriteta*. [Synopsis of Dissertation Thesis]. Tomsk : National Research Tomsk State University, 2002, p. 22.

From a rhetorical viewpoint, fallacies are rhetorical strategies that are logically unreasonable and serve to enhance the emotional effect of information and manipulate public opinion. Based on the findings of this research and following Irvin Copi’s classification of core fallacies, we tend to assume that “pseudo-authorities” are used in Internet news discourse when:

1. there is an appeal to non-experts that show themselves as experts in the fields in which they have no special competence. In these cases we deal with “nominal” pseudo-authorities.
2. there is no indication of an authoritative source of knowledge. In these cases we deal with “implicit” pseudo-authorities.

Hence, two main types of authorities in Internet news discourse may be distinguished (“nominal” and “implicit”) based on the assumption that the bearer of authority and his/her/its public image plays the most significant role in the process of persuasion. The classification of authorities is presented in Figure 3.



**FIGURE 3** Types of authorities in Internet news discourse

Source: own processing, 2021

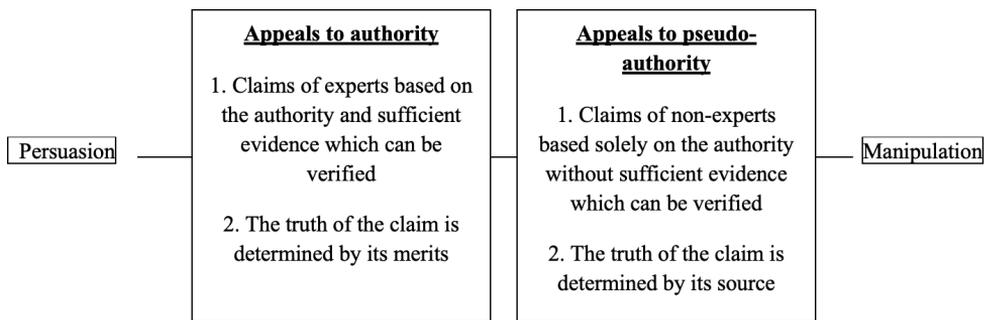
Appeals to authorities are related to the so-called “halo effect” which appears to happen in online media. It is a psychological effect when the authority of this or that person is automatically projected onto all the people around him/her, making them believe his/her words.<sup>52</sup> This is in reference to one of the unspoken rules of public communication – “worship” and idolization of authority. It is needless to say that a person idolizes people of higher social standing. Thus, reference to authority in online media is virtually a substitute for the evidence of the author’s viewpoint. Nevertheless, the audience must have awareness of the subject of discussion and background knowledge in order to evaluate the trustworthiness and credibility of the information and arguments presented by the journalist. Since the readers of Internet news discourse are mainly laymen, they do not have “preliminary preparation” for this kind of information. Moreover, massive online consumption has contributed to the fact that the “users” of modern media do not have sufficient time or expertise to reflect on the information in online papers. The audience needs to receive information quickly, which, as a result, often leads to the fact that they are often manipulated though they do not recognize it themselves. Thus, appeals to pseudo-authorities have become one of the ways to manipulate public opinion.

<sup>52</sup> TENEVA, E.: The Rhetoric of Political Emotions in the Internet News Discourse. In *Galactica Media: Journal of Media Studies*, 2021, Vol. 3, No. 1, p. 134. [online]. [2021-06-30]. Available at: <<https://galacticamedia.com/index.php/gmd/article/view/146/119>>.

To accurately discern the difference between appeals to authority and pseudo-authority it is essential to understand their communicative intention which can be either persuasive or manipulative. In this research we tend to think that appeals to authorities are used to persuade the audience, whereas appeals to pseudo-authorities are used to manipulate it.

Following the views of Aristotle who considered persuasion as inherently good because it is one of the primary means through which truth becomes known, we have assumed that the communicative purpose of appeals to authorities is mainly persuasion since they are usually used by people who have expertise and competence in the certain field and supported by sufficient evidence which can prove the reliability of the authority’s opinion. In this case, the audience is allowed to freely choose to either accept or reject these persuasive appeals.

In contrast, when it comes down to appeals to pseudo-authorities which rely on insufficient evidence of people who lack competence, the ultimate goal of them is mainly manipulation since they are aimed at misleading the audience and hence have a negative impact on it. In this case, the addressee has to accept the author’s viewpoint without any evidence or proofs. Therefore, detecting appeals to pseudo-authorities is essential especially in mass communication when these appeals are used for public opinion manipulation. The difference between these two appeals is demonstrated in Figure 4.



**FIGURE 4:** *The difference between appeals to authority and pseudo-authority*

Source: own processing, 2021

Based on the analyzed material, it may be inferred that one of the characteristic features of pseudo-authorities is their anonymity and “pseudo-visibility”: the information transmitted with their help contains either insufficient evidence by non-experts which cannot be verified or no indication of the source of the authoritative knowledge. This information is perceived by the reader as true and generally accepted. Rather than turning to empirical evidence, the argumentation relies solely on the authority’s credibility and, hence, the reader is assigned the passive role of the “victim” of manipulation that has no choice but to accept the journalist’s opinion.

From the obtained results it is also evident that the main function of appeals to pseudo-authorities is to stimulate either positive or negative perception of the information presented by the journalist, “hide” the opinion of the journalist, influence the addressee and manipulate public opinion. In order to “hide” the opinion of the journalist, the whole spectrum of various linguistic means can be used: from syntactic (impersonal sentences and passive constructions) to lexical and grammatical (words with positive or negative meanings, abstract nouns with the meaning of authority, numerals that present statistics). Undoubtedly, the degree of persuasiveness of pseudo-authorities largely depends on the degree of competence and expertise of the addressee in a certain domain. The lower the reader’s awareness, the higher the impact of pseudo-authorities and vice versa.

We have also concluded that appeals to pseudo-authorities have a profound influence on people's mental models - the way they perceive not only the "Sputnik V" vaccine itself, but also the country (Russia) as well. The attitude towards the vaccine that is imposed on the readers by journalists is transferred to the image of the whole country. Thus, appeals to pseudo-authorities may be seen as a tool for political propaganda.

## 6. Conclusion

Our findings that result from the analysis of more than 150 extracts taken from news stories in online versions of the highly circulated British and American papers underpin the research hypothesis that appeals to pseudo-authorities have become one of the most common tools for manipulating public opinion in modern Internet news discourse. This state of affair can be explained by the fact that due to the fast pace of modern life, proliferation of online user-generated news and large Internet consumption the readers of online media do not have sufficient time, knowledge or expertise to reflect comprehensively on the information presented in the online papers and fact-check it. Modern readers, often being laymen rather than experts in a certain field of knowledge, need to receive information quickly, which, as a result, leads to the fact that they are likely to become vulnerable to manipulation though they do not recognize it themselves. In this regard, appeals to pseudo-authorities question media credibility and may lead to misconception of facts, distortion, subjectivity and unreliability of media information. Nevertheless, it does not mean that all experts' claims are false and should be dismissed. When relying on the credibility of any authority, it is valid to accept the opinion which is qualified and unbiased and has sufficient evidence that can prove a point. In this regard, the role of media literacy is quintessential.

Overall, the process of the digitalization of journalism has brought both new communication instruments and a lot of challenges, thus increasing demands on the informational literacy and media education of a recipient. It is evident that what the percipient in the media space understood twelve years ago has changed,<sup>53</sup> which requires of them not only a certain level of competence in the use of media devices but, first and foremost, the ability to critically evaluate media content as well as understand the nature, functioning and influence of mass media. In order to conduct verification of news stories, distinguish appeals to experts from non-experts' claims, truth from lies and to stop the spread of disinformation, it is essential not only to study pseudo-authorities in Internet news discourse, which is increasingly flooded with a huge flow of unverified information, from a purely scientific viewpoint but, more importantly, to educate readers to orientate in the Internet mass media and develop their critical evaluation skills, which is one of the key tasks of media education. By designing educational literacy programs aimed at raising the awareness of individuals of modern tools for public opinion manipulation such as appeals to pseudo-authorities, we can teach them to detect false opinions that have no relation to real facts or scientific knowledge, develop their expertise in the understanding of the nature of media manipulation and the complexity of the transformations in the field of journalism that have been caused by the outbreak of Covid-19 and the arrival of "Sputnik V" as well as the significance of their influence on individuals, society and politics in the post-Covid era.

It is also important to emphasize that the narratives about the "Sputnik V" vaccine in the British and American papers play a crucial role in political decision-making and implementing the macro-level discursive strategy of expressing journalists' views towards political issues: either enhancing or discrediting the country's image on the global political arena. The discussion of the Russian vaccine in the media is undoubtedly politicized to a large extent and based on

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<sup>53</sup> BIELIK, P., VIŠŇOVSKÝ, J.: Explanatory Journalism – A New Way How to Communicate in Digital Era. In *Media Literacy and Academic Research*, 2021, Vol. 4, No. 1, p. 25.

the attitude towards Russia, reflecting either pro-Russian or anti-Russian moods, which contributes to the further polarization of social groups and intensifies existing internal and external political tensions in many countries. From the empirical material, we have assumed that appeals to pseudo-authorities can be used with the aim of political propaganda. In this sense, it is important to continue studying pseudo-authorities as they pose a serious threat to democracy and the principle of journalistic objectivity. Thus, the paper opens up perspectives for further research in media practice. Its results can be applied in the fields of linguistics, journalism, psychology, media studies and political science.

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Andrej Brník, Miroslav Kapec

# Impact Of The First And Second Waves Of Coronavirus On Slovak Radio Audiences

## ABSTRACT

During the first and second waves of coronavirus, with the increase in new positive cases of COVID-19, the population of Slovakia had to get used to various restrictive mobility restrictions on several occasions. Among the most significant were the restrictions which closed bars, restaurants, sports grounds, and other cultural and social spaces and events. People were forced to stay more at home and devote their time to themselves and their families. Did this condition help increase radio listening or damage it? Does the main indicator of a pandemic – the number of new cases of disease detected by PCR tests affect radio listening? The paper maps the audiences of selected and the most listened-to Slovak commercial and public radio stations based on a comparison of listening data between March 2019 and January 2020, and between March 2020 and January 2021. We will use data obtained from two surveys by median.sk: MML-TGI and RADIOPROJEKT. The aim of the article is to provide the reader with a detailed analysis of the currently available radio stations Expres, Fun, Vlna, and Slovak public radio stations with regard to the effects of the corona crisis and aims to find out the impact on and possible connection with listening to selected radio stations.

## KEY WORDS

Radio. Radio Communication. Listening. Coronavirus. COVID-19.

# 1. Introduction

It has been more than a year since the COVID-19 pandemic entered our lives. None of us could predict how deeply the pandemic would affect society and where it would impact most. Eventually, it turned out that it penetrated all levels of life. It changed our daily routines, work procedures, limited us compared to what we were used to. We all had to adapt to the measures that the pandemic provoked. Some sectors, such as culture, services, and tourism, are experiencing critical times. Even the radio industry, which holds a stable place in our society, has felt the impact of the spread of coronavirus. It is related to the fact that “*all forms of media and communication are playing a major role in helping people feel less alone and closer to each other*”.<sup>1</sup> Various measures to restrict mobility may have seemed to have contributed to increased listening. For example the corona crisis in Belgium led to changes in listening patterns. According to M. Dujardin, listeners started work from home which increased online radio streaming “*by 52% compared to the previous year*”.<sup>2</sup> Also recipients in German speaking countries listened radio “*highly significantly more than before the crisis*”.<sup>3</sup> In some countries radio became one of the most important sources of information about the actual situation.<sup>4</sup> In Slovakia, during the first wave, one large radio station stopped broadcasting and others reported problems.<sup>5</sup> Within a year, however, the radio market also adapted to the new situation. Thanks to the available data, we analysed the impact of the pandemic on radio broadcasting. The paper provides an insight into the analysis of radio listening. Thanks to the analysis of available data on radio listening and the spread of COVID-19, we were able to identify connections and effects of restrictions on the listening to selected radio stations. The aim is to answer the question of whether the pandemic has affected the radio market in the area of listening and, if so, to show the context. The data analysis we have carried out can help to predict the behaviour of listeners in the future, which can have a positive effect on the planning of the programs of commercial and public radio stations. After a thorough search, we found that it is also a current topic, which at the time of our research is not devoted to by scientific study and by only a few foreign research articles, the most important of which we also mention in our article.

## 2. Current Radio Market in Slovakia

Radio broadcasting is a special form of information transmission that has long had an important function. Its advantage is its ability to convey information to the listener right here and now.<sup>6</sup> Other important features that characterize radio broadcasting include, in particular, spoken word, music, passivity (we usually listen to the radio together with other activities), or, for example,

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<sup>1</sup> *Radio's Key Role in Crisis and Emergency Situations*. [online]. [2021-10-26]. Available at: <<https://www.itu.int/en/myitu/News/2021/02/12/08/04/Radio-key-role-crisis-emergency-situations-World-Radio-Day-2021>>.

<sup>2</sup> *Radio Provides Solace During COVID-19 Pandemic*. [online]. [2021-10-26]. Available at: <<https://www.un.org/en/coronavirus/radio-provides-solace-during-covid-19-pandemic>>.

<sup>3</sup> DREISIEBNER, S., MÄRZ, S., MANDL, T.: Information Behavior During the Covid-19 Crisis in German-Speaking Countries. In *Journal of Documentation*, 2021, Vol. Ahead of print, No. Ahead of print. [online]. [2021-10-27]. Available at: <<https://www.emerald.com/insight/content/doi/10.1108/JD-12-2020-0217/full/html>>.

<sup>4</sup> See, for example: BELIK, L.: Radio as a Tool of Education and Resistance in Brazilian Communities during the Pandemic. In *Design and Culture: The Journal of the Design Studies Forum*, 2021, Vol. 13, No. 1, p. 79-90. [online]. [2021-10-27]. Available at: <<https://doi.org/10.1080/17547075.2020.1871192>>; LASKAR, K. A., BHATTACHARYYA, B.: Community Radio Stations' Production Responses to COVID-19 Pandemic in India. In *Media Asia*, 2021, Vol. 48, No. 4, p. 243-257. [online]. [2021-10-27]. Available at: <<https://doi.org/10.1080/01296612.2021.1970421>>.

<sup>5</sup> BRNÍK, A.: The Impact of “Corona Crisis” on Slovak Radio Broadcasting. In KVETANOVÁ, Z., SOLÍK, M. (eds.): *Megatrends and Media – On the Edge*. Trnava : FMK UCM, 2020, p. 492-501.

<sup>6</sup> PRONER, J., BÔTOŠOVÁ, Ľ., MIČOVÁ, S.: *Ako na mediálne výstupy*. Trnava : FMK UCM, 2019, p. 23.

acoustics.<sup>7</sup> All these characteristics gave radio its unique quality. Radio as a medium has been our companion for more than 100 years. It has undergone many changes during this time. Since the days of state-controlled and controlled radio broadcasting, radio has also achieved private ownership in Slovakia.

The Slovak radio market, on the basis of dual broadcasting, which was established by the Act of the Federal Assembly of the Czechoslovak Socialist Republic No. 468/1991 Coll. on the operation of radio and television broadcasting, has been evolving for a long time. Only one year after the fall of communism and the associated censorship, the first competitors to state radio in Slovakia appeared in 1990. With the creation of the first private radio station, assisted by students who were aided by the French Embassy in Slovakia. Exactly on June 10 at 2:00 PM, the first beep sounded, followed by a song by Pink Floyd. Thus began the process of private radio station broadcasting in our territory. This radio station broadcasts to this day and we know it under the brand FUN rádio.<sup>8</sup> Although there was no legislation governing the broadcasting of commercial stations when FUN rádio was established, it soon arrived. Over the years, a dual-radio market in Slovakia has developed.<sup>9</sup> Radio broadcasting, which has a stable place as part of the media, has had to be transformed over time and adapted to current market requirements. In the program structure, in addition to streaming, it also offers news blocks, but these differ depending on the focus of the radio station in terms of work, or in the form of processing and interpretation. Private broadcasting has undergone the biggest change. The composition of the program is governed by the results of surveys. They try to adapt to the largest possible audience in order to maximize profits.<sup>10</sup> In more than 30 years of the free market, new local, regional or multiregional radio stations have been created but have also disappeared.

In 2021, the Broadcasting and Retransmission Council granted a license for terrestrial radio broadcasting to 37 different radio stations broadcasting throughout Slovakia (of which 11 are local, 18 regional and 9 multiregional radio stations), to which must be added a public broadcaster broadcasting on the basis of the law that allows 9 different radio stations on one frequency:

- **Local** – Rádio Aetter, Rádio Liptov, Rádio Mária, Rádio Modra, Rádio Piešťany, Rádio Plus, Rádio Portus, Rádio Roma, Rádio SITY, SKY Rádio, Rádio The End.
- **Regional** – Rádio Beta, Rádio Frontinus, Rádio Goldies, Rádio 7, Kiss Rádio, Rádio Košice, Rádio Muzika, Rádio ONE, Rádio ONE Rock, Rádio Rebeca, Rádio Širava, Trnavské Rádio, Rádio Viva, Rádio WOW, Rádio YES, Záhorácke rádio, Rádio WOW Nitra.
- **Multiregional** – Antena rock, Best FM, Európa 2, Rádio Expres, Fun Rádio, Rádio Jazz, rádio Jemné, Rádio Lumen, Vlna rádio.
- **Public** – Rádio Devín, Rádio\_FM, Rádio Patria, Rádio Regina, Rádio Regina – Západ, Rádio Regina – Stred, Rádio Regina – Východ, Rádio Slovensko, Rádio Slovakia International.<sup>11</sup>

### 3. Method of Implemented Research

The aim of the research is, based on the analysis of available data, to determine the impact of the possible effects of government measures concerning the spread of COVID-19 and other related restrictions on the listenership of Slovak radio stations. The basis for the research was a quantitative method - official statistics - analysis of previously collected data and their mutual comparison.

<sup>7</sup> HUDÍKOVÁ Z., HABIŇÁKOVÁ, E.: *Radio Broadcasting and Radio Production*. Trnava : FMK UCM, 2018, p. 25-26.

<sup>8</sup> SUDOR, K.: *Študenti pred 30 rokmi na kolene založili prvú súkromnú stanicu FUN rádio a nezarobili na tom*. [online]. [2020-10-24]. Available at: <<https://dennikn.sk/1924710/studenti-pred-tridsiatimi-rokmi-na-kolene-zalozili-a-postavili-prvu-sukromnu-stanicu-fun-radio-a-nezarobili-na-tom/>>.

<sup>9</sup> *Zákon o vysielaní a retransmisii č. 308/2000, Z. z. z dňa 14. septembra 2000*, from 1st January 2021. [online]. [2020-03-30]. Available at: <<https://www.epi.sk/zz/2000-308>>.

<sup>10</sup> BRNÍK, A., BŤOŠOVÁ, L., KAPEC, M.: *Rozhlasová tvorba a prax*. Trnava : FMK UCM, 2020, p. 56.

<sup>11</sup> *Zoznam terestriálnych rádii*. [online]. [2020-10-21]. Available at: <<https://www.radia.sk/radia>>.

## Research questions:

The following main research question was determined within the quantitative method of analysis of previously collected data.

*Does the pandemic, the first or second waves of coronavirus in Slovakia affect radio listenership?*

When we talk about the spread of COVID-19, we mean new confirmed cases of coronavirus in Slovakia, which have a direct impact on the actual introduction of government restrictions. In addition to the main research question, we also determined the following secondary questions:

1. *How did radio listening change during the first and second waves of coronavirus spread?*
2. *Was radio listened to more during the first and second waves of coronavirus spread than the previous year?*

By answering these questions, we will get an overview of listening on the Slovak radio market during the pandemic and its possible context.

The basis for this analysis was data that we drew on the basis of availability from the MEDIAN SK agency, which has been collecting data for a long time via the national survey MML-TGI (Market & Media & Lifestyle - Target Group Index). In Slovakia, this survey has been carried out continuously since 1997. In addition to media consumption, this survey monitors the lifestyle and consumer behaviour of the Slovak population in more than 200 categories of goods and services. The survey is completed annually by 8000 people, citizens of the Slovak Republic aged 14 - 79 years.<sup>12</sup> The data that was important to us from MML-TGI was only the "MEDIA" section.

"Face-to-face" (personal interviews) and "self-complete CAWI" methods are used to collect data from the "MEDIA" section. Respondents were included in the survey on the basis of recruitment by personal interview, telephone, or recruiting via other surveys.<sup>13</sup>

In addition to MML-TGI, the MEDIAN SK agency also conducts another survey, focused only on radio stations and their audiences, the so-called RADIO PROJECT. The results are published monthly and are based on data collected over a rolling period of three consecutive months. It has been implemented since 2009.<sup>14</sup> These are relatively accurate numbers of listening and representation of the radio market in Slovakia. From this part, we analyzed the listening data of the 4 most listened-to radio stations (Rádio Expres, Rádio Slovensko, Fun rádio, Rádio Vlna) over the period: March 2020 to January 2021 and for the previous year, March 2019 to January 2020.

In addition to data from MEDIAN SK, we also worked with data from the korona.gov.sk portal. This portal is under the responsibility of the Ministry of Health and brings together all the data on the number of people infected with the COVID-19 virus, deaths, PCR tests performed, etc.<sup>15</sup>

## 4. Discussion

MEDIAN SK regularly examines radio listening in Slovakia. **In 2019**, they conducted a survey<sup>16</sup> where 86% of respondents answered positively in the parameter "listened to last week", which represents almost 3.9 million listeners aged 14-79. On the contrary, more than 58% of the population listens to the radio every day, representing 2.6 million people. On average, listeners

<sup>12</sup> *Národný prieskum MML-TGI@*. [online]. [2021-03-11]. Available at: <<https://www.median.sk/sk/narodny-prieskum-mml-tgi-22/>>.

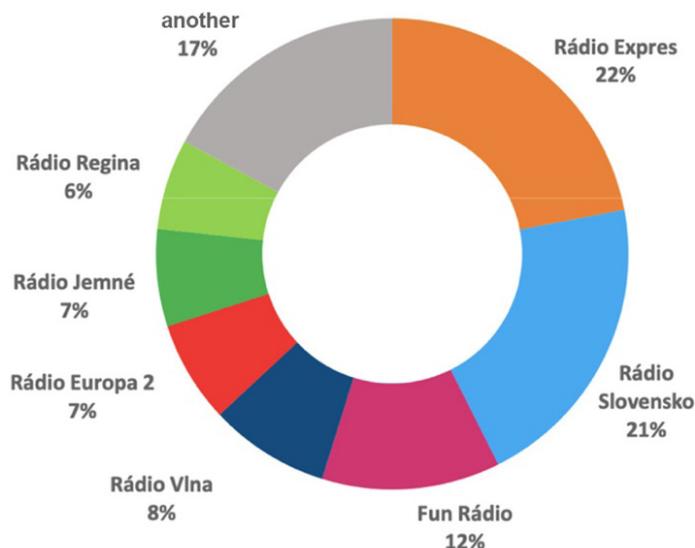
<sup>13</sup> *MML-TGI národný prieskum spotreby, médií a životného štýlu Market & Media & Lifestyle -TGI Základné výsledky za 3. kvartál 2020 a 4. kvartál 2020*. [online]. [2021-03-15]. Available at: <<https://www.median.sk/pdf/2020/ZS204SR.pdf>>.

<sup>14</sup> *Charakteristika median.sk*. [online]. [2020-10-23]. Available at: <<https://www.median.sk/sk/>>.

<sup>15</sup> *Koronavírus na Slovensku v číslach*. [online]. [2021-03-15]. Available at: <<https://korona.gov.sk/koronavirus-na-slovensku-v-cislach/>>.

<sup>16</sup> The survey was conducted on a sample of 3,157 respondents aged 14-79 years.

listen to the radio for about 50 minutes a day.<sup>17</sup> Rádio Expres has been the leader in the Slovak radio market for several years for example in 2019 it had a share of 22% in the radio market. In second place is the public station RTVS - Rádio Slovakia - with a share of 21%. It is followed by Fun Rádio (12%), Rádio Vlna 8%, Europe 2 (7%), Rádio Jemné (7%), the public station RTVS – Rádio Regina 6%, and other smaller regional or local radio stations.



**PICTURE 1:** Listening to radio broadcasting in 2019 according to MML-TGI

Source: MML-TGI národný prieskum spotreby, médií a životného štýlu Market & Media & Lifestyle -TGI Základné výsledky za rok 2019. [online]. [2021-03-15]. Available at: <<https://www.median.sk/pdf/2019/ZS1914SR.pdf>>.

The radio market in Slovakia has been relatively stable for several years. At the beginning of the year, however, since March 2020, several things and facts have radically altered that have contributed to this change. The pandemic has affected all parts of our lives for more than a year. As a result, cultural events and foreign trips were cancelled and people had to learn to work from home. Population mobility decreased significantly. These events could have had a significant impact on shaping the radio market. Let us imagine a series of events that took place during the first and second waves in the period between March 2020 and January 2021 in Slovakia and what restrictive measures were taken by the Slovak government.

#### 4.1 Measures Introduced against the Spread of Coronavirus in Slovakia

The SARS-CoV-2 coronavirus pandemic in Slovakia is part of the worldwide pandemic of the infectious disease COVID-19, which began to spread from China and of which Italy later became the European epicentre. The first case was confirmed in Slovakia on March 6, 2020. A 52-year-old man from the Bratislava region, who had not been abroad, but whose son was in Venice in mid-February, proved positive.<sup>18</sup> A day later, on March 7, 2020, a positive test was

<sup>17</sup> Slováci počúvajú rádiá, denne majú takmer 2,7 milióna poslucháčov. [online]. [2020-10-21]. Available at: <<https://strategie.hnonline.sk/media/2004975-slovaci-pocuvaju-radia-denne-maju-takmer-2-7-miliona-posluchacov>>.

<sup>18</sup> HAJČÁKOVÁ, D.: Na Slovensku potvrdili prvý prípad koronavírusu, od pondelka sa zakážu lety do Talianska. [online]. [2020-10-22]. Available at: <<https://domov.sme.sk/c/22351714/na-slovensku-potvrdili-pripad-koronavirusu.html>>.

also recorded for the son, who was confirmed as patient “0” - the first carrier of the disease.<sup>19</sup> The measures which followed:

- **March** - On March 12, crisis staff adopted the first restrictions on movement - the closure of schools, leisure facilities, international traffic restrictions, and the introduction of a 14-day mandatory quarantine when returning home from abroad.<sup>20</sup> In addition, kindergartens, primary and high schools, universities, retail sales and services other than food, pharmacies, and drugstores, and sports venues were closed on March 16.<sup>21</sup> From March 25, it was required to wear facemasks in public.<sup>22</sup>
- **April** - On April 22, the first phase of the relaxation of measures began, which the government divided into 5 parts. Retail stores and services up to 300 m<sup>2</sup> were opened, long-term accommodation, outdoor contactless sports were allowed, open markets.<sup>23</sup>
- **May** - On May 6 the second and at the same time the third phase of releasing measures began. Short-term accommodation, meals in common areas, pedicures, manicures, outdoor hiking, taxis, massages, museums, and libraries were added.<sup>24</sup> Later, on May 20 the last phase of release began. Theatres and cinemas opened, events with less than 100 participants were allowed, and shopping malls opened. Residents of Slovakia could travel abroad.<sup>25</sup>
- **June** - Kindergartens also opened in June. and the first grade of primary schools, with the second grade being on a voluntary basis. The 5th release phase also started on June 3 for larger service events.<sup>26</sup>
- **July, August** - these months were without any restrictions, the only ones concerned the organization of mass events for up to 1,000 people.
- **September** - so-called traffic lights for districts, which, in addition to measures or those with a worse than green colour, provided for stricter measures for holding mass events (with the exception of weddings). At the same time, the end of September also included the start of the so-called second wave.<sup>27</sup>
- **October** - At the beginning of October, several measures were tightened, in addition to which daily records were broken several times concerning the number of confirmed coronavirus infections.<sup>28</sup> At the end of October, the curfew also came into force and all

<sup>19</sup> COVID-19: Slovensko pozná pacienta “0”. [online]. [2020-10-24]. Available at: <[https://www.uvzsr.sk/index.php?option=com\\_content&view=article&id=4064:covid-19-slovensko-pozna-pacienta-0q&catid=250:koronavirus-2019-ncov&Itemid=153](https://www.uvzsr.sk/index.php?option=com_content&view=article&id=4064:covid-19-slovensko-pozna-pacienta-0q&catid=250:koronavirus-2019-ncov&Itemid=153)>.

<sup>20</sup> COVID-19: Krízový štáb zavádza prísne opatrenia, zatvárajú sa školy, letiská. [online]. [2020-10-19]. Available at: <<https://www.health.gov.sk/Clanok?koronavirus-opatrenia-sprisenene>>.

<sup>21</sup> Termín maturít sa presunul, študenti by sa mali vrátiť do škôl v apríli. [online]. [2020-10-25]. Available at: <<https://domov.sme.sk/c/22361633/termin-maturit-sa-presunul-studenti-by-sa-mali-vratit-do-skol-v-aprili.html>>.

<sup>22</sup> FOLETOVÁ, V.: Nové opatrenia: Povinné rúška vonku, obchody otvorené pre seniorov, odsun úradných lehôt, sledovanie pohybu mobilov. [online]. [2020-10-21]. Available at: <<https://dennikn.sk/1818474/nove-opatrenia-povinne-ruska-vonku-obchody-otvorene-pre-seniorov-odsun-uradnych-lehot-sledovanie-pohybu-mobilov/>>.

<sup>23</sup> FRANTOVÁ, E.: Uvoľňovanie opatrení: Od stredy sa otvoria maloobchodné prevádzky a služby. [online]. [2020-10-24]. Available at: <<https://ekonomika.pravda.sk/ludia/clanok/549196-nazivo-vlada-o-postupnom-otvarani-prevadzok/>>.

<sup>24</sup> CEHLÁRIKOVÁ, A.: Slovensko vstúpi rovno do tretej fázy uvoľňovania opatrení. [online]. [2020-10-20]. Available at: <<https://bratislavskykraj.sk/slovensko-vstupi-rovno-do-tretej-fazy-uvolnovania-opatreni/>>.

<sup>25</sup> KATUŠKA, M.: Rúška už nebudú povinné všade, povolia cesty do zahraničia na krátky čas. [online]. [2020-10-22]. Available at: <<https://domov.sme.sk/c/22406854/koronavirus-slovensko-uvolnenie-dalsich-opatreni.html>>.

<sup>26</sup> Od 1. júna sa časť detí a žiakov bude môcť vrátiť do škôl. [online]. [2020-10-21]. Available at: <<https://www.minedu.sk/od-1-juna-sa-cast-deti-a-ziakov-bude-moct-vratit-do-skol/>>.

<sup>27</sup> COVID-19: Toto je mapa rizikových regiónov na Slovensku, kde platia nové opatrenia. [online]. [2020-10-23]. Available at: <<https://www.omeiach.com/strucne/18762-covid-19-toto-je-mapa-rizikovyh-regionov-na-slovensku-kde-platia-nove-opatrenia>>.

<sup>28</sup> Nový rekord potvrdených prípadov: Prekročili sme hranicu 2000. [online]. [2021-03-15]. Available at: <<https://www.teraz.sk/slovensko/novy-rekord-potvrdenych-pripadov-pre/500741-clanok.html>>.

schools except kindergartens were closed.<sup>29</sup> On the last day of October, we also held the first country-wide testing in Slovakia using antigen tests.<sup>30</sup>

- **November** – In November, the second round of testing took place, this time only in selected, so-called red districts.<sup>31</sup> In addition, the establishment of mobile testing centres began, where it was possible to test for free.<sup>32</sup> In mid-November, for example, churches, fitness centres and swimming pools were opened, subject to strict adherence to hygiene rules.<sup>33</sup>
- **December** – In Nové Mesto nad Váhom, the hospital was re-profiled and was designated as the first hospital only for COVID-19 patients.<sup>34</sup> The Ministry of Health introduced the new COVID AUTOMAT, which had 7 phases from green to black and which would start operating in Slovakia in January.<sup>35</sup> At the same time, a new curfew came into force, where it was possible to meet two other households. During the holidays, so-called “Family bubbles” were in existence. The first Slovak was vaccinated with Pfizer BioNtech in December.
- **January** – Stricter measures came into force in January. All ski resorts were closed, outdoor food consumption was banned and the government called for everyone who could do so to work from home.<sup>36</sup> In eastern Slovakia, a new variant of COVID-19 was confirmed, which spread from the south of England and had a 70% higher ability to spread.<sup>37</sup> EMA approved another vaccine from Moderna.<sup>38</sup> At the end of January, screening for COVID-19 was held, resulting in positivity of 1.24%.<sup>39</sup>

The first restrictions during the so-called “first wave” of coronavirus spread came into effect on March 13, and the last major restrictions (apart from organizing mass events with more than 1,000 participants) were lifted on June 3, 2020. Together, these government restrictions lasted 69 days. However, at the end of April, after 39 days, the measures began to ease. The so-called hard lockdown lasted from March 13 to April 22. During this period, the mobility

<sup>29</sup> *Na Slovensku bude zákaz vychádzania, zatvoria školy.* [online]. [2021-03-15]. Available at: <<https://myzilina.sme.sk/c/22516909/na-slovensku-bude-zakaz-vychadzania-zatvoria-aj-skoly.html>>.

<sup>30</sup> *Prvé kolo celoplošného testovania bolo úspešnou operáciou.* [online]. [2021-03-15]. Available at: <<https://www.minv.sk/?tlacove-spravy&sprava=prve-kolo-celoplosneho-testovania-bolo-uspesnou-operaciou>>.

<sup>31</sup> *Sledujeme online: Druhé kolo celoplošného testovania zatiaľ bez komplikácií a incidentov.* [online]. [2021-03-15]. Available at: <<https://www.trend.sk/spravy/sledujeme-online-slovensku-zacalo-druhe-kolo-celoplosneho-testovania>>.

<sup>32</sup> FOLENTOVÁ, V.: *Odborné miesta na bezplatné testy otvorili len v 15 mestách. Krajčí podľa Matoviča nesplnil úlohu.* [online]. [2021-03-16]. Available at: <<https://dennikn.sk/2134174/odberne-miesta-na-bezplatne-testy-otvorili-len-v-11-mestach-krajci-podla-matovica-nesplnil-ulohu/?ref=mpm>>.

<sup>33</sup> FOLENTOVÁ, V., BARČÍKOVÁ, M.: *Od pondelka sa otvárajú divadlá, kiná, kostoly, žiaci zostávajú doma, premiér ustupuje od plánu na “komunitné testovanie”.* [online]. [2021-03-16]. Available at: <<https://dennikn.sk/2141779/premier-ustupuje-od-planu-na-komunitne-testovanie-chce-otvarat-divadla-kina-a-kostoly/?ref=tema>>.

<sup>34</sup> *Otvorili prvú nemocnicu len pre covidových pacientov, má pomôcť “horiacemu” regiónu.* [online]. [2021-03-16]. Available at: <<https://slovensko.hnonline.sk/2266599-otvorili-prvu-nemocnicu-len-pre-covidovych-pacientov-ma-pomocet-horiacemu-regionu>>.

<sup>35</sup> *Schválili COVID automat, mal by pomôcť s návratom do normálu.* [online]. [2021-03-16]. Available at: <<https://www.ta3.com/clanok/1198898/schvalili-covid-automat-mal-by-pomocet-s-navratom-do-normalu.html>>.

<sup>36</sup> *Začiatok roku 2021: Koniec lyžovačiek, zatvorené kostoly, jedlo len so sebou.* [online]. [2021-03-16]. Available at: <[https://www.trnavskyhlas.sk/c/29869-zaciatok-roku-2021-koniec-lyzovaciek-zatvorene-kostoly-jedlo-len-so-sebou/?fb\\_comment\\_id=3600448776736449\\_3602387046542622](https://www.trnavskyhlas.sk/c/29869-zaciatok-roku-2021-koniec-lyzovaciek-zatvorene-kostoly-jedlo-len-so-sebou/?fb_comment_id=3600448776736449_3602387046542622)>.

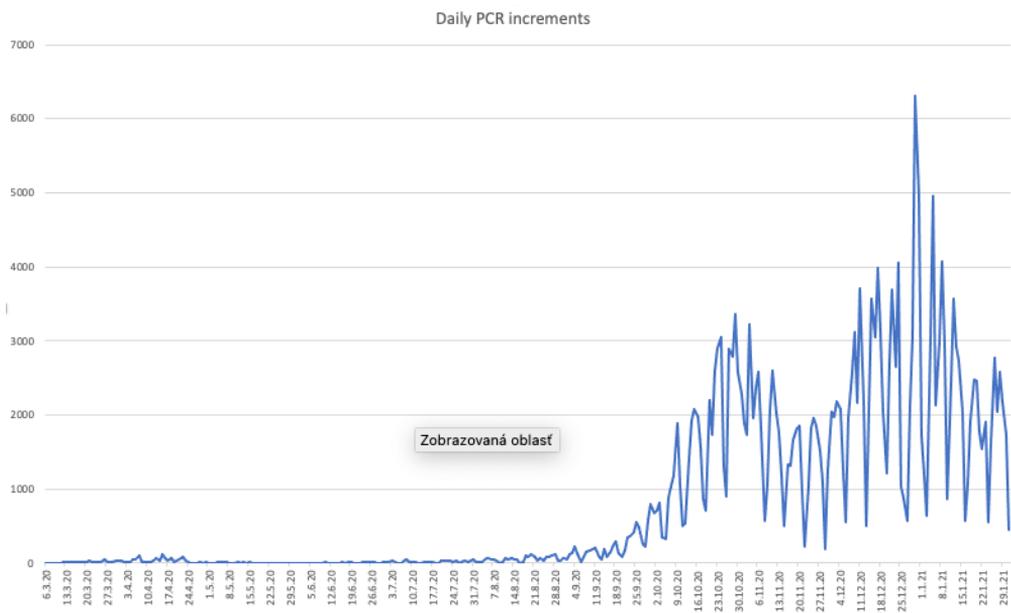
<sup>37</sup> *Zmutovaný vírus, ktorý sa šíri z Anglicka, je už aj na Slovensku.* [online]. [2021-03-16]. Available at: <<https://www.ta3.com/clanok/1200111/zmutovany-virus-ktory-sa-siri-z-anglicka-je-uz-aj-na-slovensku.html>>.

<sup>38</sup> *Európska agentúra pre lieky schválila vakcínu od spoločnosti Moderna.* [online]. [2021-03-16]. Available at: <<https://www.trend.sk/spravy/europska-agentura-pre-lieky-schvalila-vakcinu-spolocnosti-moderna>>.

<sup>39</sup> *Definitívne výsledky skriningu: z 2,9 milióna ľudí malo pozitívny test 1,24 percenta.* [online]. [2021-03-16]. Available at: <<https://www.minv.sk/?tlacove-spravy&sprava=definitivne-vysledky-skriningu-z-2-9-miliona-ludi-malo-pozitivny-test-1-24-percenta>>.

of citizens in Slovakia was the lowest, as factories, schools, churches remained closed and people remained at home. From this, we could reasonably expect that March, and in particular April, would record higher listening figures than in previous months if the lockdown had an effect on radio listening. This period was followed by a period of relaxation, and life returned to normal for most of society. Except for large mass events (over 1000 people), all movement restrictions were lifted.

Other measures came into force in September. These measures were further tightened in October. The second wave of COVID that occurred was far more widespread than the first wave regarding the number of confirmed cases of COVID-19 patients and the number of deaths. In December, the so-called slight lockdown took place. Schools remained closed except for the final graduation years and kindergardens were available to parents working in critical infrastructure (doctors, soldiers, firefighters, police, businessmen, etc.). In addition, it was recommended that all those who could, by the nature of their work, be permitted to work at home. Restaurants could only sell take away food, and some shops providing necessary supplies remained open. It was the so-called second wave of coronavirus. In our analysis, we will see how both waves affected the audiences of selected Slovak radio stations.



**PICTURE 2:** Numbers of daily PCR increments positive for COVID-19

Source: *Koronavirus a Slovensko*. [online]. [2021-03-16]. Available at: <<https://www.korona.gov.sk>>.

## 4.2 Listening to Slovak Radio Stations during the First and Second Waves of Coronavirus

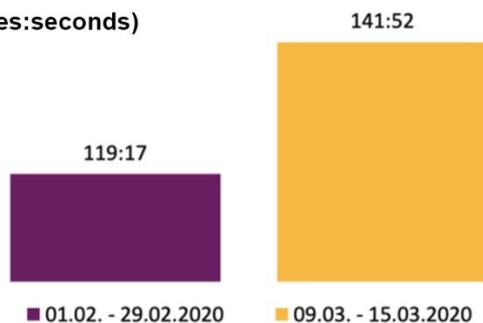
The global community (not only Slovakia) was forced to remain in domestic quarantine due to the measures in place. According to UN estimates, 3.4 billion people worldwide, about 50% of the world's population, were forced to stay at home during the first wave of coronavirus and associated restrictions.<sup>40</sup> We can assume that these numbers meant an increased demand for

<sup>40</sup> *Pandémia prinútila zostať doma takmer 3,4 miliardy ľudí*. [online]. [2020-10-23]. Available at: <<https://spravy.pravda.sk/domace/clanok/547072-online-v-najhorsom-scenari-moze-virus-v-usa-zabit-200-tisic-ludi/>>.

media such as television, streaming services and, of course, radio.<sup>41</sup> According to a survey conducted by the MEDIAN SK agency during the first wave, from an average of six and a half hours spent before the introduction of individual measures, the time spent on media, between individual media types, increased to more than seven hours a day. Radio stations also performed well, with about a 25% increase in listening in March.<sup>42</sup> However, we are not talking about an increase in new listeners, but an increase in time spent with popular radio stations. For example, according to the BBC, interest in the online streaming of their radios rose by 18%, while data from two US analysts meanwhile indicated that the use of music streaming applications such as Spotify had fallen by about 8%.<sup>43</sup> The online environment, which was sometimes perceived as a free environment fighting large-scale media cooperation, “*paradoxically, media corporations have expanded their original spheres of influence by stepping into the world of multimedia and digital applications, i.e. into the virtual world that used to be perceived as the most efficient ‘weapon’ against media monopolies and oligopolies*”.<sup>44</sup> In the classic media, more began to watch more television than listen more to radio, which according to several sources broke first wave viewership records as well as making additional website visits.

### Radio listening

(ATS relative, minutes:seconds)



**PICTURE 3:** Listening to ATS relative radio (minutes: seconds) in February. compared to March

Source: adMeter a koronavírus – zmeny v mediálnej konzumácii Slovákov. [online]. [2020-10-23]. Available at: <[https://www.median.sk/pdf/OSTATNE/MEDIAN\\_SK\\_adMeter\\_koronavirus\\_media\\_20200330\\_22\\_v014.pdf](https://www.median.sk/pdf/OSTATNE/MEDIAN_SK_adMeter_koronavirus_media_20200330_22_v014.pdf)>.

Home isolation did not change only radio listening habits,<sup>45</sup> but also affected news media in general.<sup>46</sup> An example is data from Canada. Before the outbreak of the pandemic, the most-listened time during the radio broadcasting schedule was the block from 6:00 to 9:00a.m., but subsequently lockdown, plus a later wake-up time caused by “working from home” or forced home isolation, shifted the start time of this block’s prime time. In Canada, radio before

<sup>41</sup> See, for example: RODERO, E.: Radio: The Medium that Best Copes in Crises. Listening Habits, Consumption, and Perception of Radio Listeners During the Lockdown by the Covid-19. In *Relaciones Públicas*, 2020, Vol. 29, No. 3, p. 1-14. [online]. [2021-10-27]. Available at: <<https://doi.org/10.3145/epi.2020.may.06>>.

<sup>42</sup> adMeter a koronavírus – zmeny v mediálnej konzumácii Slovákov. [online]. [2020-10-23]. Available at: <[https://www.median.sk/pdf/OSTATNE/MEDIAN\\_SK\\_adMeter\\_koronavirus\\_media\\_20200330\\_22\\_v014.pdf](https://www.median.sk/pdf/OSTATNE/MEDIAN_SK_adMeter_koronavirus_media_20200330_22_v014.pdf)>.

<sup>43</sup> Coronavirus: Radio Listening Booms while Music Streaming Stalls. [online]. [2021-01-23]. Available at: <<https://www.bbc.com/news/technology-52037461>>.

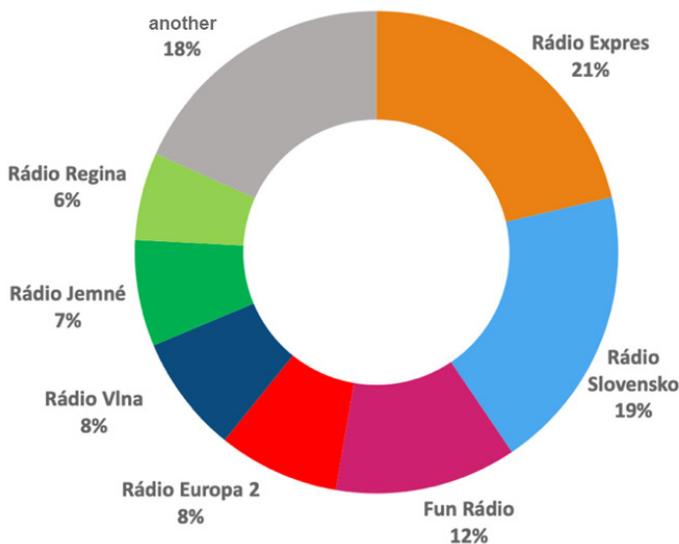
<sup>44</sup> RADOŠINSKÁ, J., KVETANOVÁ, Z., VIŠŇOVSKÝ, J.: To Thrive Means to Entertain: The Nature of Today’s Media Industries. In *Communication Today*, 2020, Vol. 11, No. 1, p. 18.

<sup>45</sup> Not only that the radio stations professionals started working remotely, programs had to be modified with content about the coronavirus, but even radio prime time had changed. See: RODERO-ANTON, E., BLANCO-HERNANDEZ, M.: The Role of Radio in Crisis Situations. Initiatives in the Coronavirus Pandemic. In *Index Comunicación*, 2020, Vol. 10, No. 3, p. 193-213. [online]. [2021-10-27]. Available at: <<https://doi.org/10.33732/ixc/10/03Elpape>>.

<sup>46</sup> VAN AELST, P. et al.: Does a Crisis Change News Habits? A Comparative Study of the Effects of COVID-19 on News Media Use in 17 European Countries. In *Digital Journalism*, 2021, Vol. 9, No. 5, p. 1-31. [online]. [2021-10-27]. Available at: <<https://doi.org/10.1080/21670811.2021.1943481>>.

the pandemic was listened to around 7 a.m. In the period from the end of March to the middle of May (during the first wave), however, this trend shifted to 8 o'clock in the morning, whereas even during the period until the end of August it had moved to 9 o'clock. Overall, radio stations accepted the trend of getting up later due to restrictions and moved their early moderated program blocks to 7:00 - 10:00 a.m.<sup>47</sup>

For the 1st and 2nd quarters of 2020, during the first wave and the beginning of the second wave of coronavirus, according to the obtained MML-TGI data, Slovak radio stations performed as follows: 90% (compared to 86% in 2019) of respondents reacted positively in the parameter "listened to last week", aged 14-79. Conversely, "every day" radio is listened to by just over 59% of the population (58% last year).<sup>48</sup> The first place in listening was occupied by the stable Rádio Expres with a 21% share of the radio market. In second place in listening is the public channel RTVS – Rádio Slovensko with a share of 19%. Third-place belongs to Fun Rádio with 12%, Rádio Vlna 8%, Európa 2 (8%), Rádio Jemné (7%), the public channel RTVS – Rádio Regina 6% and other smaller regional or local radio stations.



**PICTURE 4:** Listening to radios in Slovakia in 2020 according to MML-TGI

Source: MML-TGI za 1. kvartál 2020 a 2. kvartál 2020. [online]. [2020-10-23]. Available at: <<https://www.median.sk/pdf/2020/ZS202SR.pdf>>.

We looked at the listening of the first four of the most listened-to radio stations in even more detail and we tried to find out whether the restrictions or the pandemic affect the listening of selected radio stations.

### 4.3 Characteristics of Selected Radio Stations

For our research, we chose the four most listened Slovak radio stations as a sample (according to the MML-TGI survey). In the first four, in addition to commercial radio stations, there is also a public broadcaster (Rádio Slovensko channel). At the beginning, we briefly characterize

<sup>47</sup> BREE, R.: *The Biggest Difference Between Pre-COVID Radio Listening and Now*. [online]. [2021-01-23] Available at: <<https://mediaincanada.com/2020/09/23/the-biggest-difference-between-pre-covid-radio-listening-and-now/>>.

<sup>48</sup> MML – TGI za 1. kvartál 2020 a 2. kvartál 2020. [online]. [2020-10-23]. Available at: <<https://www.median.sk/pdf/2020/ZS202SR.pdf>>.

the selected radio stations. We are also adding an overview of their origin, ownership and radio format, which has the greatest impact on the station's listening. Large commercial radio stations in Slovakia only specifically changed the broadcasting program itself due to the pandemic during the first wave. For example, Fun rádio included reading from audiobooks on weekdays from 18:00. Other radio stations added more news.<sup>49</sup> However, public service broadcasting fully adapted itself in all areas to include:

- Educational programs for children who did not go to school, which was included mainly in the morning.<sup>50</sup>
- Religious programs for people who were unable to attend church - half-hour broadcasts for catholic believers are broadcast on Rádio Regina, always from Monday to Thursday from 5.30 pm, and on Friday for Greek and Orthodox catholics. Mass is broadcast directly from the studio.<sup>51</sup>
- Increased demands for information in the fields of news and journalism.

**Rádio EXPRES** – since the last quarter of 2002 it has been the most listened-to commercial radio station and since mid-2005 the most listened-to radio station in Slovakia. Its broadcasting contains only the biggest music hits, the latest news and transport reports throughout the day. The signal of Rádio Expres covers 88.08% of the territory of Slovakia through a network of its own transmitters (*official text of the broadcaster*).<sup>52</sup>

Start of broadcast: 2000.

Station type: private.

Target group: 18 - 40 years.

Music format: Hot AC - a radio format that includes music of various genres from the 70s to the present. At the same time, it avoids aggressive genres (hard rock, heavy metal, hip-hop), music intended for young people and genres of techno and dance music. It has a high proportion of new songs and these are included early in the broadcast.<sup>53</sup>

**Rádio SLOVENSKO** – in its 24-hour program it is primarily focused on streaming with a dominant focus on current news and analytical journalism, supplemented by blocks of artistic programs. The mission of Radio Slovakia is to provide a service to the public in the field of broadcasting, which is universal in terms of its geographical reach, programmatically diverse, prepared on the principle of editorial independence and which develops the cultural level of listeners while providing space for current social and cultural activities. It focuses primarily on credible opinion-forming news, unrivalled sports news (live broadcasts from sports events), and analytical journalism. It provides information that is impartial, verified, unbiased, up-to-date, comprehensible and, as a whole, balanced and pluralistic. Radio Slovakia is in constant contact with its listeners through interactive broadcasting and discussion sessions, in which it presents a wide range of opinions. Primarily, Rádio Slovensko wants to correctly inform, educate interestingly and, at the same time, entertain (*official broadcast text*).<sup>54</sup> The RTVS program structure consists of news, current affairs, documentaries, drama, music, sports, entertainment,

<sup>49</sup> *Sed' doma a počúvaj, Fun rádio uvádza audioknihu do tvojich uší.* [online]. [2020-03-27]. Available at: <[https://www.radia.sk/spravy/4174\\_sed-doma-a-pocuvaj-fun-radio-uvadza-audioknihu-do-usi-tvojich](https://www.radia.sk/spravy/4174_sed-doma-a-pocuvaj-fun-radio-uvadza-audioknihu-do-usi-tvojich)>.

<sup>50</sup> *Bohatá rozhlasová ponuka na vzdelávanie aj príjemné trávenie času.* [online]. [2020-03-27]. Available at: <[https://www.radia.sk/spravy/4169\\_bohata-rozhlasova-ponuka-na-vzdelavanie-aj-prijemne-travenie-casu](https://www.radia.sk/spravy/4169_bohata-rozhlasova-ponuka-na-vzdelavanie-aj-prijemne-travenie-casu)>.

<sup>51</sup> *RTVS rozširuje vysielanie bohoslužieb.* [online]. [2020-03-28]. Available at: <[https://www.radia.sk/spravy/4181\\_rtv-s-rozsiruje-vysielanie-bohosluzieb](https://www.radia.sk/spravy/4181_rtv-s-rozsiruje-vysielanie-bohosluzieb)>.

<sup>52</sup> *O Rádio Expres.* [online]. [2020-10-22]. Available at: <<https://www.expres.sk/reklama/o-radio/>>.

<sup>53</sup> *Malý lexikon rozhlasových formátov.* [online]. [2020-10-21]. Available at: <[https://www.radiotv.cz/p\\_radio/r-program/maly-lexikon-rozhlasovych-formatu/](https://www.radiotv.cz/p_radio/r-program/maly-lexikon-rozhlasovych-formatu/)>.

<sup>54</sup> *Programové služby RTVS – Rádio Slovensko.* [online]. [2021-01-22]. Available at: <<https://www.rtv-s.org/programove-sluzby/radio-slovensko>>.

educational programs for children and youth. Speaking of the activities of RTVS, the law states that there should be radio broadcasting on at least four radio program services, one of which is intended for content and regional balanced programs in the languages of national minorities and ethnic groups living in Slovakia.<sup>55</sup>

Start of broadcast: 1993.

Station type: private.

Target group: 25 - 60 years.

Music format: *Full Service* – provides a complete service, ie music, news, journalism, entertainment. The greatest emphasis is on the information component.<sup>56</sup> The core consists of proven hits of the '80s and '90s. There is no fundamental emphasis on any volume of contemporary (current chart) music. The exception is current domestic production. In addition to the profiled music format in streaming, Rádio Slovensko does not neglect minority genres in specialized journalistic programs. Special attention is paid to contemporary and older Slovak music. Radio Slovakia also supports new musical talent in its broadcasting.<sup>57</sup>

**FUN rádio** - Fun rádio was the first Slovak private radio station, born on the frequency 94.3 FM on June 10, 1990. Initially, the broadcast from the studio in Bratislava covered 4 hours, then for the rest of the day, the broadcasting was taken over by French Fun Radio. Gradually, the broadcast from Bratislava expanded - from 4 hours to 12 to finally 24 hours a day. We make the day more pleasant for our listeners with fantastic music and in addition to having fun with our presenters, we also provide them with a fully-fledged information service throughout the day - the latest news, transport and weather reports (*official broadcast text*).<sup>58</sup>

Start of broadcast: 1990.

Station type: private.

Target group: 18 - 40 years.

Music format: *CHR* – music format based on current hits. The playlist is very narrow and the rotation of songs is high.<sup>59</sup>

**Rádio VLNA** - Rádio Vlna plays hits proven over time from the 60's to the millennium. We are oldies radio. There is plenty of current news monitored by experienced editors throughout the day (*official text of the broadcaster*).<sup>60</sup>

Start of broadcast: 2015.

Station type: private.

Target group: 30 - 60 years.

Music format: *Oldies AC* - they play mostly pop/rock music of the '60s and '70s with an overlap into the '80s and '90s. The latest songs do not belong to this format.<sup>61</sup>

<sup>55</sup> BÔTOŠOVÁ, L.: Genre Diversity in Journalism in Public Service Broadcasting. In KVETANOVÁ, Z., SOLÍK, M. (eds.): *Megatrends and Media – On the edge*. Trnava : FMK UCM v Trnave, 2020, p. 20.

<sup>56</sup> *Malý lexikon rozhlasových formátov*. [online]. [2020-10-21]. Available at: <[https://www.radiotv.cz/p\\_radio/r\\_program/maly-lexikon-rozhlasovych-formatu/](https://www.radiotv.cz/p_radio/r_program/maly-lexikon-rozhlasovych-formatu/)>.

<sup>57</sup> *O Rádio Slovensko*. [online]. [2020-10-21]. Available at: <<https://www.rtls.org/programove-sluzby/radio-slovensko>>.

<sup>58</sup> *O Fun rádiu*. [online]. [2020-10-21]. Available at: <<https://www.funradio.sk/clanok/750-o-nas-o-fun-radiu/>>.

<sup>59</sup> *Malý lexikon rozhlasových formátov*. [online]. [2020-10-21]. Available at: <[https://www.radiotv.cz/p\\_radio/r\\_program/maly-lexikon-rozhlasovych-formatu/](https://www.radiotv.cz/p_radio/r_program/maly-lexikon-rozhlasovych-formatu/)>.

<sup>60</sup> *O Rádio Vlna*. [online]. [2020-10-22]. Available at: <<https://www.radiovlna.sk/o-radiu>>.

<sup>61</sup> *Malý lexikon rozhlasových formátov*. [online]. [2020-10-21]. Available at: <[https://www.radiotv.cz/p\\_radio/r\\_program/maly-lexikon-rozhlasovych-formatu/](https://www.radiotv.cz/p_radio/r_program/maly-lexikon-rozhlasovych-formatu/)>.

## 4.4 Listening to Selected Radio Stations in Numbers

We collected data from the RADIOPROJEKT survey within our monitoring period during the pandemic and compared them with the previous period before the pandemic. We visualize the data in more detail in the attached tables. First, we analyse listening data over a selected period from March 2020 to January 2021.

The first restrictions on movement occurred in mid-March, during the summer months of July and all restrictions were lifted in August, and with the arrival of the second wave of coronavirus, new measures restricting citizens' mobility were gradually introduced again in September. As this contribution was created in February 2021, the data ends in January 2021.

RADIO	Listening 2020 - 2021 median.sk (in millions)										
	March	April	May	Jun	July	August	September	October	November	December	January
Expres	1,507	1,502	1,535	1,535	1,548	1,527	1,524	1,534	1,528	1,534	1,533
Fun	1,033	1,048	1,073	1,081	1,060	1,044	1,051	1,062	1,057	1,063	1,058
Vlna	0,712	0,775	0,760	0,764	0,752	0,787	0,803	0,827	0,833	0,855	0,853
Rádio Slovensko	1,130	1,123	1,134	1,127	1,140	1,087	1,073	1,073	1,096	1,111	1,112
<b>Totals</b>	<b>4,382</b>	<b>4,448</b>	<b>4,502</b>	<b>4,507</b>	<b>4,500</b>	<b>4,445</b>	<b>4,451</b>	<b>4,496</b>	<b>4,514</b>	<b>4,563</b>	<b>4,556</b>

1<sup>st</sup> wave of measures

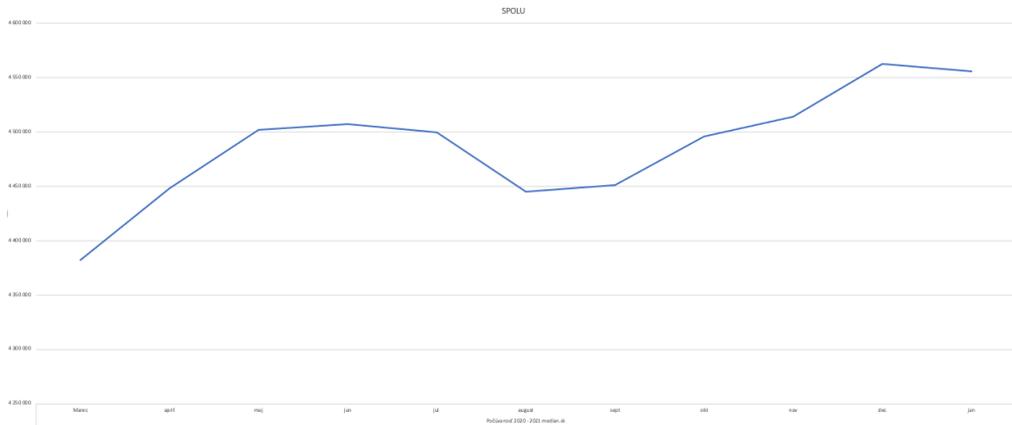
2<sup>nd</sup> wave of measures

**TABLE 1:** Listening to selected radio stations over the period March 2020 to January 2021

Source: own processing, 2021

Within the RÁDIO PROJECT from the analytic company MEDIAN SK, the listening to of multiregional and nationwide radio stations in Slovakia is measured every month. According to the available data, which are shown in Table 1, it is clear that the radio stations maintained their audiences during the pandemic, in approximately the same numbers every month, therefore the difference in audience was small. Rádio Expres held its position and audience steadily and FUN rádio grew slightly from March to the end of the so-called first wave. Rádio Slovakia fluctuated the most and Rádio Vlna is on the rise, growing most significantly of all the monitored radio stations. It is interesting to observe that the largest radio listening numbers were not during the first wave, in March, but paradoxically in May and June, when anti-pandemic measures were gradually released. Since March, all commercial radio stations have improved slightly in their numbers, except in April, when we expected an increase in listening. It did not affect Rádio Expres and Rádio Slovensko, but for example Fun rádio grew and so did Rádio Vlna. The second wave was especially good for Radio Slovakia, which increased its audience. In addition, Rádio Vlna also grew. Express and Fun rádio kept about the same audience numbers.

It is interesting to monitor the data on total listening for the four most listened-to stations, as the individual listening data usually changed only slightly. However, the summary data show a better view of the changes. Their listening generally increased during the first wave, then slightly decreased in the summer, and after the onset of the second wave, their listening increased again.



**PICTURE 5:** Listening curve of the first four most listened-to radio stations in Slovakia over the period March 2020 - January 2021

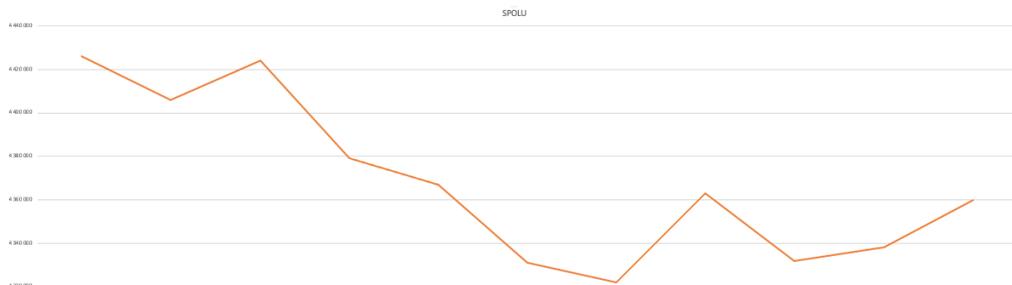
Source: own processing, 2021

If we compare it with the previous year and period, 2019, compared to 2020, the listening rate was slightly lower. Rádio Vlna did not increase in the previous period, on the contrary, it decreased, as did Rádio Slovensko. Overall, the combined listening of the selected four radios over the same period more or less declined.

RADIO	Listening 2019 - 2020 median.sk (in millions)										
	March	April	May	Jun	July	August	September	October	November	December	January
Expres	1,497	1,494	1,494	1,481	1,482	1,481	1,483	1,484	1,497	1,501	1,511
Fun	1,045	1,042	1,068	1,053	1,045	1,009	1,003	0,999	1,014	1,023	1,042
Vlna	0,682	0,673	0,672	0,659	0,659	0,660	0,662	0,721	0,680	0,686	0,677
Rádio Slovensko	1,202	1,197	1,190	1,186	1,181	1,181	1,174	1,159	1,141	1,128	1,130
<b>Totals</b>	<b>4,426</b>	<b>4,406</b>	<b>4,424</b>	<b>4,379</b>	<b>4,367</b>	<b>4,331</b>	<b>4,322</b>	<b>4,363</b>	<b>4,332</b>	<b>4,338</b>	<b>4,360</b>

**TABLE 2:** Listening to selected radio stations over the period March 2019 to January 2020

Source: own processing, 2021



**PICTURE 6:** Listening curve of the first four most listened-to radio stations in Slovakia over the period March 2019 - January 2020

Source: own processing, 2021

A representative survey from MEDIAN SK shows the difference from previous years in the increase in listening. In the case of the most listened-to commercial radio, Express, we see only small differences at the level of a few per cent. Rádio Vlna grew the most, on average up to 17% in the period under review, also at the expense of the public channel Rádio Slovensko, which lost a significant share of listeners compared to the previous year 2019, 2020 - 5%.

However, new listeners arrived, as evidenced by the joint data for each month. In total, the four most listened-to radio stations in the pandemic period grew on average by 17% compared to the same period in the previous year before the onset of the pandemic. These good numbers are mainly thanks to Rádio Vlna, which saw the most significant additions. The first (orange) and second waves (blue) are marked in colour. We can observe that, compared to the same period last year, all radios grew during the autumn. Not significantly, but nevertheless, almost all of them improved in listening numbers, except for public radio stations, which, on the contrary, lost but gradually reduced the losses.

RADIO	Diference 2019 - 2020 and 2020-2021 median.sk											AVERAGE
	March	April	May	Jun	July	August	September	October	November	December	January	
Expres	1%	1%	3%	4%	4%	3%	3%	3%	2%	2%	1%	17%
Fun	-1%	1%	0%	3%	1%	3%	5%	6%	4%	4%	2%	
Vlna	4%	15%	13%	16%	14%	19%	21%	15%	23%	25%	26%	
Rádio Slovensko	-6%	-6%	-5%	-5%	-3%	-8%	-9%	-7%	-4%	-2%	-2%	
Totals	-2%	10%	12%	17%	17%	18%	20%	17%	25%	29%	27%	

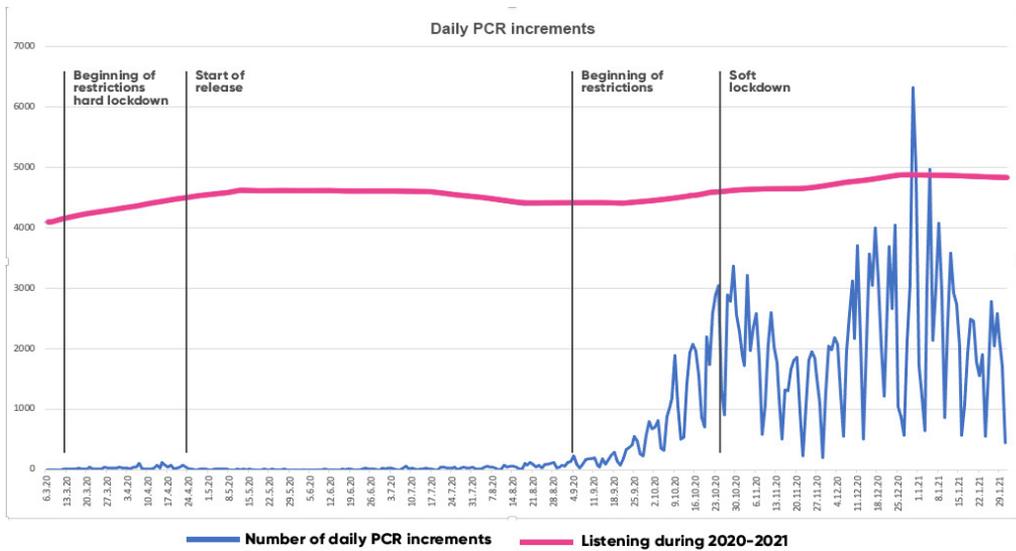
1<sup>st</sup> wave of measures

2<sup>nd</sup> wave of measures

**TABLE 3:** Difference in %, for the period March 2019 - to January 2020 and March 2020 to January 2021 - median.sk

Source: own processing, 2021

However, we will try to compare the main indicator and the cause of the restrictions - daily increments of confirmed COVID-19 cases using PCR tests. If we combine this graph with the audience graph, which we already know has grown, we can see the real impact of the pandemic on the growth of the audience.



**PICTURE 7:** *Listening curve of the first four most listened-to radio stations in Slovakia in comparison with the daily growth of patients confirmed by COVID-19 PCR tests*

Source: own processing, 2021

It is evident that with the onset of the first restrictions during the first, hard lockdown, the overall audiences of the first four most listened-to radio stations in Slovakia increased. In April, the individual measures were gradually relaxed. A bigger release occurred in May, where we see that the radio station audiences we studied began to decline slightly. Summer followed when listening again decreased. After new restrictions, listening began to increase slightly again, and after the announcement of a new lockdown, and after sharp increases in daily cases of COVID-19, listening became significantly higher again. With the decrease of new PCR positive increases, the audiences of selected radio stations also started to decrease slightly. It is thus clear and evident that the audience replicates the measures and the numbers of new PCR cases.

Based on our findings, we can answer our secondary research questions:

1. *How did radio listening change during the first and second waves of coronavirus?*

People are worried about themselves and their loved ones. Although not everyone strictly adheres to the measures, the high number of new patients with COVID-19 also affected them and during this period they spend more time at home for fear of possible infection. It benefits radio stations that take advantage of being a good companion for people during a variety of activities. This is the reason for the arrival of new listeners.

2. *Were the radio stations more listened-to during the first and second waves of coronavirus than the previous year?*

The radio stations recorded a slight increase in listening compared to the same period of the previous year. The increase was mostly only slight, except for Radio Vlna, which grew significantly. In addition, according to the data, we can say that people spent more time listening to the radio during the pandemic than at the same time before the arrival of COVID-19.

At the same time, after answering our secondary research questions, we can also answer the main research question:

*Did the pandemic, either the first or second wave of coronavirus in Slovakia affect radio listening?*

**Yes, the pandemic and the associated mobility restrictions had an impact on radio listening, and we can even say that the number of new cases is replicated by the curve of new listeners in radio listening.**

## 5. Conclusion

So how has the corona crisis affected the radio market? We can summarize this in a few points that characterize its impact on radio listening:

- 1. Increased listening time** - as is clear from the median.sk survey, new listeners did not appear, only their time spent listening to individual radio stations increased. During the first lockdown, listeners had more time at home and could have their radios on for longer.
- 2. Program changes shift in morning broadcasting** - due to reduced mobility and working from home, people's habits changed, and their morning rituals around getting up shifted, which is related to the shift in the morning moderated block of radio broadcasting by about an hour.
- 3. Only a slight increase in listening** - we recorded a certain increase, really only in small percentages, which, however, are at the expense of Slovenský broadcasting or radio stations, which disappeared or stopped playing during the peak of the crisis. However, it is in small numbers. In most cases, the increase was associated with an increase in new COVID-19 cases confirmed by PCR tests.
- 4. The order of listening does not change** - the corona crisis did not change the order of listening, so the most listened-to radio stations still maintain their share of the radio market.
- 5. The clear winner of the epidemic is Rádio Vlna** - during the corona crisis, Rádio Vlna improved the most. It gained new listeners - up to 5 times (on average 15%) more than its competitors.
- 6. Public Radio Broadcaster** - while all radio stations more or less kept their broadcasting structure the same (increased the share of news and supplementary short programs), Public Radio Broadcaster was forced to change its structure quite significantly in all areas due to its public nature. This also affected its most listened to channel, Rádio Slovensko. It lost the most listeners of all on average – up to 5%. We can thus state that the changes in its broadcasting structure did not help.

Although the pandemic and its consequences are far from over, we now know that in some respects it has also highlighted radio broadcasting in Slovakia. On the one hand by gaining new listeners and on the other hand by a longer listening time to favourite stations. In addition, the lockdown shifted morning radio blocks. Whether everything will soon return to the same state as before the pandemic is questionable and currently unpredictable. It will only be possible to assess the overall impact of the spread of the coronavirus on Slovak Radio, as well as on the entire media market, over a period of several years.

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# Let's Go Virtual... How Digital Communications Affect Youth Media Literacy Education In High School: The Ukrainian Experience

## **ABSTRACT**

In the era of the modernization of professional and educational services due to the COVID-19 pandemic innovation processes have been activated. An important condition for high school graduate students is to have new competences in media literacy as part of the educational vision for modern Ukrainian society. New approaches and requirements for professional education determine fundamental changes in the methodology, organization of the education process, subjects, content and instruments helping students in practice and everyday activities. Vectors of educational cooperation with students are more reflected in virtual communications using information and communication technologies (ICT) as modern progressive digital media literacy and educational practices are adapted for young people. In our article, the results of the experimental investigation in using virtual info media practices in the organization of education of students in Journalism and Social Communications field is presented. The aim of the research is to demonstrate how applied experience of using school lessons with connected virtual communicative practices such as info media quests, virtual workshops and media bridges affect media literacy education. We underline the educational advantages of innovative technologies in studying media literacy in Ukrainian high schools and improving the digital communication and critical thinking competencies of young people. The results of the present investigation show that virtual info media practices in high school have made significant progress and have huge advantages over the traditional methods of education in the context of the realization of individual oriented approaches in media literacy education for young people. The opinion poll of the students studying Journalism and Social Communications at Lesya Ukrainka Volyn National University with the approbation of appointed virtual communications forms demonstrates this upgrading of their media literacy levels and professional capabilities.

## **KEY WORDS**

Digital tools. Education. Information and communication technologies (ICT). Media literacy. Virtual communications. Young people.

# 1. Introduction

Under the influence of the advancement of the latest technologies, information and communication technological didactic tools, modern teaching methods allow realizing the pace of changes in today's world. Some researches see them within "human progress"<sup>1</sup>, global challenges atypically carrying us through "pandemic to infodemic"<sup>2</sup>, highlighting the importance of worldwide new technologies eras and media education<sup>3</sup>. Moreover, according to D. Schilirò, "digital transformation is no longer an option"<sup>4</sup> but a requirement for socioeconomic development,<sup>5</sup> cultural life and a national approach to information policy. During the last eight years beginning in 2013, Ukraine has carried out a strategy of information society development as a significant component of the state. One of the priorities of the national policy is the development of the information space with the help of the system of education, namely through implementation of state-of-the-art information and communication technologies and media literacy into academic activity. Even today we have unanswered questions about the role of ICT in education about how students in high school "can use information to learn more; that is to learn how to learn"<sup>6</sup> taking into account media literacy education, digital competences and communications in the Googleburg Galaxy.<sup>7</sup>

Last year, 2020, was full of pandemic sentiments and revealed that conventional teaching methods in higher school are not efficient enough or not always correct and appropriate. Today, higher school pedagogues are facing the task not only to teach the younger generation but also to form an innovative type of specialist, who will be competitive, able to work in a team, possess leadership skills, be creative and able to apply theory in practice. However, such negative phenomena as the absence of motivation to obtain knowledge, the prevalence of theory over practice, the low efficiency of academic activity, etc. are abundant in modern Ukrainian education. The COVID-19 pandemic is not the only reason for this. The necessity exists to transfer from the Ukrainian (and not only Ukrainian) system of higher education including media literacy to technologies, digital formats of distance management and shared access, gamification, integrated information workshop technologies and constant virtual practices of scientific and academic communication. Accounting for the "COVID-19 crisis, online education became a pedagogical shift from traditional methods to the modern approach of teaching-learning from the classroom to Zoom, from personal to virtual and from seminars to webinars."<sup>8</sup> Online

<sup>1</sup> See: LEE, S., HONG, A., HWANG, J.: ICT Diffusion as a Determinant of Human Progress. In *Information Technology for Development*, 2019, Vol. 25, No. 2, p. 171-183. [online]. [2021-02-10]. Available at: <<https://www.tandfonline.com/doi/full/10.1080/02681102.2019.1596654?src=recsys>>.

<sup>2</sup> See: SANDU, A.: From Pandemic to Infodemic. In *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 2020, Vol. 11, No. 2, p. 277. [online]. [2021-01-06]. Available at: <<https://www.brain.edusoft.ro/index.php/brain/article/view/1033>>.

<sup>3</sup> See: GÓMEZ-GALÁN, J.: Media Education in the ICT Era: Theoretical Structure for Innovative Teaching Styles. In *Information*, 2020, Vol. 11, No. 5, p. 1-17. [online]. [2020-05-20]. Available at: <<https://www.mdpi.com/2078-2489/11/5/276/htm>>.

<sup>4</sup> SCHILIRÒ, D.: Towards Digital Globalization and the Covid-19 Challenge. In *International Journal of Business Management and Economic Research*. 2020, Vol. 11, No. 2, p. 1711. [online]. [2021-01-22]. Available at: <[https://www.academia.edu/43062956/Towards\\_Digital\\_Globalization\\_and\\_the\\_Covid\\_19\\_Challenge](https://www.academia.edu/43062956/Towards_Digital_Globalization_and_the_Covid_19_Challenge)>.

<sup>5</sup> See: ROZTOCKI, N., SOJA, P., WEISTROFFEN HEINZ, R.: The Role of Information and Communication Technologies in Socioeconomic Development: Towards a Multi-dimensional Framework. In *Information Technology for Development*, 2019, Vol. 25, No. 2, p. 171. [online]. [2021-09-11]. Available at: <<https://www.tandfonline.com/doi/full/10.1080/02681102.2019.1596654?src=recsys>>.

<sup>6</sup> ERSTAD, O.: Educating the Digital Generation – Exploring Media Literacy for the 21st Century. In *Nordic Journal of Digital Literacy*, 2015, Vol. 10, p. 98. [online]. [2020-04-18]. Available at: <[https://www.idunn.no/file/pdf/66808553/educating\\_the\\_digital\\_generation\\_-\\_exploring\\_media\\_literacy.pdf](https://www.idunn.no/file/pdf/66808553/educating_the_digital_generation_-_exploring_media_literacy.pdf)>.

<sup>7</sup> More about Googleburg Galaxy read in: GENNARO, S., MILLER, B.: Critical Media Literacy in the Googleburg Galaxy. In *Media Literacy and Academic Research*. 2020, Vol. 3, No. 2, p. 6-22.

<sup>8</sup> MISHRA, L., GUPTA, T., SHREE, A.: Online Teaching-learning in Higher Education during Lockdown Period of COVID-19 Pandemic. In *International Journal of Educational Research Open*, 2020, Vol. 1. No pagination. [online]. [2021-02-28]. Available at: <<https://www.sciencedirect.com/science/article/pii/S2666374020300121?via%3Dihub>>.

education should become informative, favouring the “involvement” of a student into studies at all stages. Modern educational paradigm forms new challenges grounding on gamification and digitalization of education as traditional teachers and lecturers are being exchanged with game trainers, innovation pathways and online-platforms coordinators.

## 1.1 Media Education in Ukraine: Challenges, Practices and Experience

The Ukrainian educational environment does not look at media literacy<sup>9</sup> as a problem that has arisen unexpectedly. At one time or another, it has been a burning issue for all (especially for pupils, students, teachers and lecturers) as it was looked into unsystematically and from different points of view. It was only thematically included in the basic disciplines of the humanities curricula. Teaching media literacy to young people has not yet become widespread enough in Ukrainian society to allow us to speak about any results. This process is activated<sup>10</sup> at the stage of implementation<sup>11</sup> and has its distribution area including three basic stages. The first one is school education, which, by the way, started the integration of media literacy into the Ukrainian audience. Following Conception of Implementation of Media Education in Ukraine<sup>12</sup> it corresponds to an experimental stage (2010-2016) and the stage of the gradual settlement of media education and standardization of the contents of media education (2017-2020). The Ministry for Education and Science in Ukraine together with the Academy of the Ukrainian Press supported the spread and integration of media education into various school subjects under the influence of the project “Learn to Discern: National Rollout” (IREX Ukraine). Studying various subjects and courses, solving tasks on specialized topics children and youth obtain media literacy competencies. Another group of the audience in focus is young people, mostly teachers and practitioners, who will be spreading media literacy using pedagogical influence. And the third group is youth studying in higher educational establishments aged 17 to 22 for whom critical thinking is an extremely significant skill for orientation in the information streams of untruthful or quite often even partly truthful information. The skill becomes even more crucial accounting for the insufficient ability to perceive information critically by an untrusted user. As highlighted by E. Moravčíková *“information boom, brought about by the internet and new information technologies, has allowed unverified, false and half-true information to spread like*

<sup>9</sup> In new Conception of Implementing Media Education in Ukraine (2016) this term defined as “component of media culture, which applies the ability to use information and communication techniques, express and communicate through the media, successfully obtain the necessary information, consciously perceive and critically interpret information obtained from different media, separate reality from its virtual simulation, understand the reality constructed by media comprehend power relations, myths and types of cultivated control.” Source: NAJDIONOVA, L., SLUSAREVSKI, M.: *Conception of Implementing Media Education in Ukraine (New Edition)*. Kyiv : Institute of Social and Political Psychology of National Academy of Educational Sciences of Ukraine, 2016, p. 8.

<sup>10</sup> The intensity of the process of implementation of media literacy is revealed at the level of involvement of the public and informal education: a Ukrainian environment witnesses the appearance of online courses and platforms, which can provide a free quality teaching of media literacy preparation. We mean such online courses as “News literacy,” “Media literacy for citizens,” “Verification in the Internet,” “How to understand social networks,” “Very verified” etc.

<sup>11</sup> Many programs and textbooks on media literacy were developed and approved for usage by pedagogues in Ukraine, in particular, such academic programs as “Media education (media literacy),” “Media literacy: questions and answers,” “Media literacy,” and such textbooks as “Information Fraud,” “How to recognize fake?” (Published in cooperation with Ministry for Information Policy in Ukraine), “Trust but Verify. Media literacy in the Ukrainian Society,” “Media compasses: a guide for a professional journalist,” a multimedia online-textbook “MediaDriver” etc. were adapted for Ukrainian universities. Part of the textbooks was created under the auspices of the Ministry of Education and Science in Ukraine, Ministry of Information Policy in Ukraine and active public organizations.

<sup>12</sup> NAJDIONOVA, L., SLUSAREVSKI, M.: *Conception of Implementing Media Education in Ukraine (New Edition)*. Kyiv : Institute of Social and Political Psychology of National Academy of Educational Sciences of Ukraine, 2016, 16 p.

cancer.”<sup>13</sup> Such social media as Facebook, Twitter, Instagram, Tik Tok, Youtube or Telegram channels are mostly “crafty” in terms of information attacks. Users of the Internet, in particular children and youth, do not differentiate fake news from the truth and, correspondingly, become emotionally dependent on other people’s thoughts and preferences, getting into the so-called social bubble.

Today in Ukraine, as well as in other countries, skills of training of media literacy are mostly digital, similar to the media used by students, use convergence and are digital. Accordingly, students’ skills of using these media are supposed to use digital competences of media literacy reducing the negative influence of untruthful information. As S. Gennaro and B. Miller state “*new media grants individuals the opportunity to engage in critical media literacy.*”<sup>14</sup> N. Grytsyshyna points out that “*a modern graduate is supposed to possess many competencies which should differ from a mere combination of knowledge, skills and know-how which cannot be formed within the framework of usual studying modes.*”<sup>15</sup> Innovations aimed at the changing of the system of modern media education into a wholesome educational model should develop along the following directions: 1) formation of the innovative educational system of the educational institution to create an individual innovative system as an environment for the realization of the concept of “life-long education” with components of media literacy; 2) establishment of broad interdisciplinary links in the course of teaching of general and special subjects. It does not only develop critical thinking skills but also widens world outlook, forming it as a cohesive conglomerate of knowledge highly valuable for any personality; 3) implementation of innovative visual multidisciplinary didactic complexes allowing not only combination of disciplines but the formation of the abilities to rearrange already obtained knowledge and search for new interconnected links. 4) STEM-oriented approach to studying that forms flexibility, the divergence of the thinking mode of modern young people. 5) Application of media products, namely of media technologies and digital storytelling which can become a “*powerful teaching tool for teachers and their pupils both in the course of the program acquisition and development of the information and digital competence.*”<sup>16</sup> It will positively influence students’ digital media literacy.

## 2. Methods

In the course of the research, such general scientific methods as analysis, synthesis, comparison, and generalization were used. Besides, specialized methods were applied too. Methods of observation and pedagogical experiment were highly helpful for the realization of the technology of the virtual info media quest and other types of virtual workshops, online trainings and media bridges for teaching future journalists and social communication specialists. Also, a method of online mapping with sharing was made use of for marking fake news further afield.

In the course of the virtual info media quest a searching method, a method of game practice (e. g. to find a mark, a hint), a method of content-analysis (e. g. to analyze the content of a particular media, such as texts, contexts, data, opinions, facts, manipulative content etc.), a comparative method for particular media phenomena was used. We also used an interview method to study the influence of media quests on the level of media literacy of the students. The interview questions were divided into three blocks. The first two determine the level of media literacy among the students on a one to five scale, where 1 is the minimum value and 5 is the maximum one. They

<sup>13</sup> MORAVČÍKOVÁ, E.: Media Manipulation and Propaganda in the Post-truth Era. In *Media Literacy and Academic Research*. 2020, Vol. 3, No. 2, p. 27.

<sup>14</sup> GENNARO, S., MILLER, B.: Critical Media Literacy in the Googleburg Galaxy. In *Media Literacy and Academic Research*. 2020, Vol. 3, No. 2, p. 7.

<sup>15</sup> GRYTSYSHYNA, N.: Workshop Technology as One of the New Forms and Methods of Teaching a Foreign Language by Students. In *Almanakh sovremennoi nauky y obrazovaniya*, 2012, Vol. 3, No. 58, p. 49.

<sup>16</sup> PODLINIAJEVA, O.: Media Technologies in Education: Creating and Using of Digital Storytelling. In *Phizyko-matematychna osvita*, 2017, Vol. 4, No. 14, p. 256.

were used twice: questions from Block 1 for the determination of the level of media literacy was applied before the media quest (immediately before its beginning), and questions from Block 2 were asked after the students completed the media quest. We aimed to reveal the dynamics of the media literacy level directly influenced by the studied experiment. The questions from Block 3 were divided into two levels, which could correspondingly predict the dynamics of hard and soft skills in the course of their training within a short time period (not more than three days). Four teams consisting of six members each (24 journalist-students of Lesya Ukrainka National University of the second year of studying) participated in the discussions of the results and game practices as well as of the proposed virtual info media quest for the teaching of media literacy to 150 other people. Together, 174 took part in the experiment. All their reviews were positive.

To reveal the effectiveness of the virtual workshops including trainings and media bridges we used a questionnaire method. Altogether 254 people participated, among which 54 were students visiting workshops, 160 were participants of the series of training on media literacy and 40 were members of the media bridge. The opinion poll of the students studying Journalism and Social Communications at Lesya Ukrainka Volyn National University with approbation of appointed virtual communications forms demonstrates the upgrading of their media literacy levels and professional capabilities. Among positive determinants they mentioned: 35% – using received media literacy knowledge in journalism practice; 25% – effective communications with others, self-expressions; 20% – pro-activeness, dynamism in subject's studying; 12% – successful results in creating educational products; 8% – cooperation, effective group work.

## 3. Results and Discussion

### 3.1 Digital Game Communications in Ukrainian Media Education

Gamification is a peculiarity of teaching media literacy namely in higher school. They are games that, to our mind, are the easiest way to realize phenomena, remember and understand how they are integrated into our lives. A media literate person receives an opportunity to work professionally but easily and in a lively manner. S. Mairson says *“as health care systems around the world fight the COVID-19 pandemic /.../ social distancing complicates efforts to teach people the media literacy skills to recognize and resist disinformation. Online games and activities can be fun and effective alternatives to in-person training.”*<sup>17</sup>

There are few studying alternatives in the form of games on media literacy created and adapted for the Ukrainian youth. Among them we would like to highlight such free online game resources in the Ukrainian language as “Mediaznajko,”<sup>18</sup> “Adventures of Literatus,”<sup>19</sup> “MediaDriver,”<sup>20</sup> “Very verified,”<sup>21</sup> “Fake Busters,”<sup>22</sup> “Don’t Trust, Verify!”<sup>23</sup> They are presented in Table 1 to show how many levels or themes they have, if they permit working in teams and if online platforms are available.

<sup>17</sup> MAIRSON, S.: *Online Games and Activities Can Help People Recognize COVID-19 Disinformation*. [online]. [2021-09-15]. Available at: <<https://www.irex.org/insight/online-games-and-activities-can-help-people-recognize-covid-19-disinformation>>.

<sup>18</sup> *MEDIAZNAJKO*. [online]. [2021-09-15]. Available at: <<https://www.aup.com.ua/Game/>>; Remark by the authors: It is the first online game in Ukraine for youth media literacy education.

<sup>19</sup> *ADVENTURES OF LITERATUS*. [online]. [2021-03-01]. Available at: <<https://www.aup.com.ua/mediaosv/onlayn-gra-prigodi-literatusa/>>.

<sup>20</sup> *MEDIADRIVER. YOUR NAVIGATOR IN THE WORLD OF MEDIA*. [online]. [2021-03-01]. Available at: <<https://www.mediadriver.online>>.

<sup>21</sup> *VERY VERIFIED!* [online]. [2021-02-23]. Available at: <<https://verified.ed-era.com/ua>>.

<sup>22</sup> Remark by the authors: Fake Busters is a kind of online quest with active participants catching fakes using Internet technology in Kyiv city. The Fake Busters game doesn't have a special online platform or site.

<sup>23</sup> *DON'T TRUST, VERIFY: INFORMATION VIROLOGY*. [online]. [2021-02-26]. Available at: <[https://www.facebook.com/watch/live/?v=253928586057697&ref=watch\\_permalink](https://www.facebook.com/watch/live/?v=253928586057697&ref=watch_permalink)>.

	Frontpage	Levels/ themes	Cooperation	Platform
<b>Mediaznajko</b>		9	INDIVIDUAL	YES
<b>Adventures of Literatus</b>		10	INDIVIDUAL	YES
<b>MediaDriver</b>		14	INDIVIDUAL	YES
<b>Very Verified</b>		5	INDIVIDUAL	YES
<b>Fake Busters</b>		20	TEAMWORK	NO
<b>Don't trust. Verify!</b>		N/A	TEAMWORK	NO

**TABLE 1:** Ukrainian media literacy games approved by the Ministry of Education and Science in Ukraine

Source: own processing, 2021

Our observations have revealed that gamification as a tool for teaching media literacy is favourably accepted by Ukrainian students doing their Bachelor’s degree (1-4 years of studying) and students doing their Master’s degree (5-6 years of studying). This tool is highly effective and involving in the process of teaching and acquiring new skills irrespective of the mode of studying: in-class or digital.

We have tested conventional and virtual formats of media quests, online workshops, trainings and media bridges with digital mapping shared access in the course of studying media literacy with journalism students and they demonstrate great results in terms of popularizing and training critical thinking.

### 3.2 Virtual Info Media Quest as an Educational Game Experiment on Media Literacy

We proposed a studying experiment in the form of an online game (media quest) in the course of the virtual training of the skills of info media literacy among students of the second year of study doing their Bachelor’s degree in Journalism and Social Communications. The media quest was developed with an account of specifics of studying in the sphere of journalism, the Standard of Ukraine in the sphere of Journalism and an opportunity to use the minimum amount of special knowledge by the participants (basic or beginner level is enough). This allows using games even at classes with groups of youth of different ages, with hobby groups, media training or with thematic research groups.

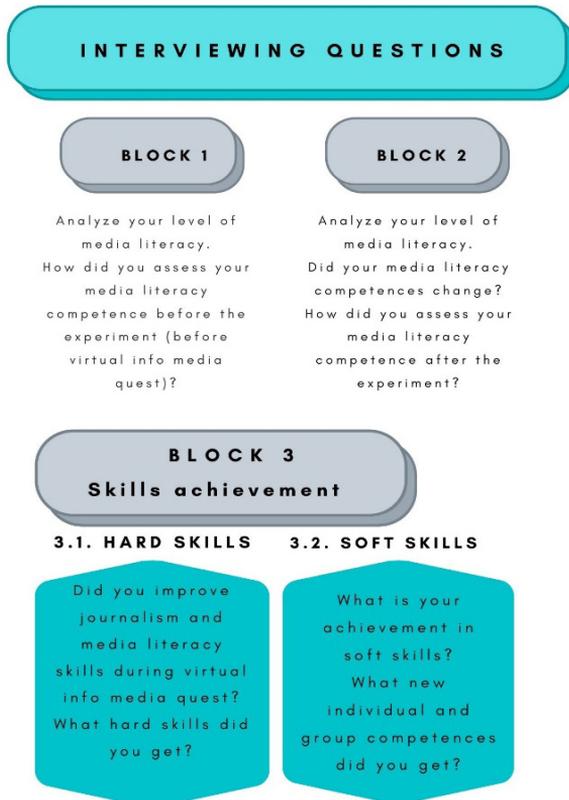
What was our aim? Virtual info media’s quest is to softly train young people while playing two things: first of all, these are skills which are highly significant for journalists as they are in newsrooms and communicate with various people in the course of effective cooperation.

The other thing we were trying to achieve was more academic. It was the so-called training of soft skills or training of critical thinking, evaluating journalist activity in the context of the creation of media products even in situations of “emergency journalism” and the performance of editorial tasks.

*The essence of the experiment* was to trace the interrelation of media literacy indexes (hard skills) with soft skills among young people studying journalism before and after the media quest. In other words, we wanted to find out whether these indexes were changing under the influence of the short-term game practices of digitally studying media literacy.

The questions for the interview (Table 2) were divided into three groups:

- Block 1: Questions concerning the assessment by the participants of their media literacy competence before the experiment. This assessment was extremely significant as it served as a starting point of count down and observation of the qualitative knowledge of the digital tools for teaching media literacy.
- Block 2: Questions concerning the media literacy competencies after the media quest. The questions from Block 2 were asked a few days after the Block 1 questions but not later than three days. We needed to understand and describe the effect of the game quest on media literacy on the youth.
- Block 3: Questions concerning competencies acquired during the training with info media quest. Two levels were activated in this block, namely, the one that regards professional achievements (media literacy itself), and another one that regards soft skills. We aimed to find out what was acquired by young people in the course of the implementation of studying online interaction in the form of the virtual info media quest.



**TABLE 2:** Interviewing questions for the virtual media quest experiment

Source: own processing, 2021

*Game description:* The game is played online in the 3D space of Lutsk city with marked locations. With the help of online recording, young students-journalists participate in the quest. All the participants are divided into 3 or 4 teams depending on the number of participants. Every team should not have more than 6 members. A teacher can form teams in the class but we recommend allowing those who want to boost their potential of studying media literacy to participate. This way the experiment will be most effective. The thing is that the inner motivation and desire for secret adventures will serve as an additional stimulus. After the automated formation of the teams, the participants introduce themselves to each other, choose the name of the editorial (after that moment the team will have the name of the editorial) and allocate roles.

*Legend:* You are a young journalist who has just landed a job in the editorial in the unknown city Lu. Your chief editor is demanding and tries to check whether you adhere to journalist standards and do not manipulate. The most effective way to answer this question is to «try you by fire».

*Players:* 3 or 4 teams consisting of a maximum of 6 and a minimum of 4 can participate in the quest. The teams allocate the roles and choose the name for their editorials. The roles are; a young journalist, an editor and the rest of the participants are the team of the editorial (journalists-colleagues). Choosing the editorial's name.

*Timing:* Within 24 hours, the players perform editorial tasks (5 tasks) at different locations around the city. The tasks are aimed at the training of hard skills (basic journalist skills and media literacy) and soft skills (teamwork in the virtual editorial). Video instruction

### 3.3 Tasks: Test, Description, Focus

*Text:* Your boss has prepared 5 tasks. The tasks are reliably hidden and coded with QR-codes. To get them you will need assistants (your colleagues from the editorial / the team). The prepared materials shall be sent to the editorial's email. The winner is the team that will perform all the tasks most precisely and quickly.

*Task 1:* Video instruction. Location – the territory of Lubart castle in Lutsk. When inside you have to find a hidden mark with a task on it. The off-screen voice belongs to O. Kosheliuk. The background is a publication on the site “A Mirror of the Week” about inclusion. The focus is on sensitive groups of the population. The participants have to find a publication, choose and classify the facts, commentaries and arguments.

*Task 2:* Video instruction. Location – a park with a mural in the form of a trident. When inside you have to find a hidden mark with a task on it. O. Terebus is in shot. The focus is on sensitive groups of the population. The participants have made a series of news from the official site of the National Police in the Volyn region.

*Task 3:* Video instruction. Location – Lutsk local evangelic church. Evening. When inside you have to find a hidden mark with a task on it. O. Kosuyk is in shot. The focus is on religious manipulations. The participants have to create rubrics of the (expert) commentaries about religious life in Volyn.

*Task 4:* Video instruction. Location – Lesya Ukrainka Volyn National University. When inside you have to find a hidden mark with a task on it. N. Blahovirna is in shot. The focus is on manipulations about the pandemic, namely manipulations with statistics. The participants have to write a publication about the pandemic and education. It is advised to use digital data from official sources.

*Task 5:* Video instruction. Location – The Korsaks' Museum of Contemporary Ukrainian Art. When inside you have to find a hidden mark with a task on it. O. Kosuyk is in shot. The focus is on manipulation of public opinion, the stereotypes of art perception. The participants have to find out whether mass media in the Volyn region help or prevent manipulation of public opinion.



# Virtual info media quest



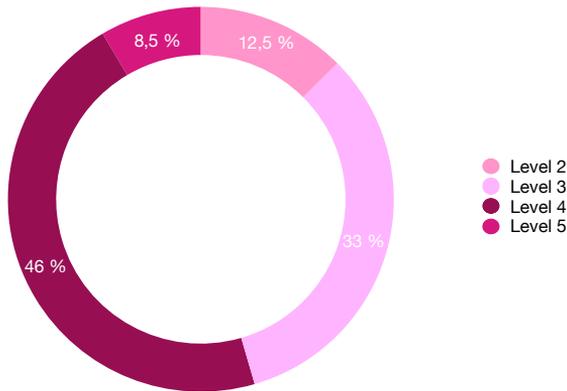
**TABLE 3:** *Virtual info media quest: manipulation focuses and task*

Source: own processing, 2021

## 3.4 Results and Their Interpretation

24 players, second-year students of Journalism at Volyn National University participated in the virtual 3D quest on media literacy. The online game took place during the autumn semester in 2020. 4 teams (editorials) were formed. Each team consisted of 6 members who were freely chosen by the partners. The names of the teams were “Aesthetics,” “Journalists,” “Liberty,” and “Journalistic Sharks.” The team “Liberty” took the main prize, as they were the quickest and performed the tasks the most correctly. Within 24 hours, the teams-editorials were virtually performing the tasks during their distance learning, whilst staying in different places but acting as one team in the virtual space of the imagined city for the sake of cooperation.

Before the start of our investigation, we measured the indexes of the students, namely to find out their level of media literacy. It allows understanding to what extent the participants were aware of the issues of media literacy before and the degree to which their skills changed after the quest. The data about the level of media literacy of the participants before the quest are shown in the diagram below.

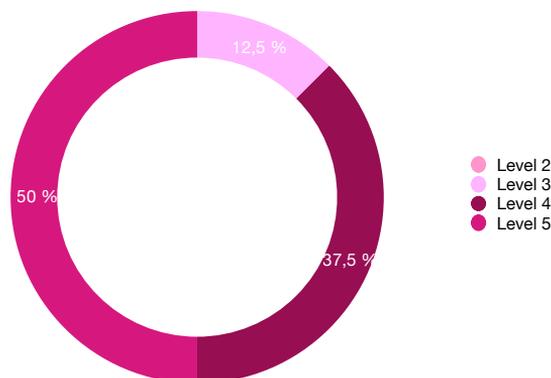


**DIAGRAM 1:** Media literacy level of students before the experiment

Source: own processing, 2020

Diagram 1: Evaluate your knowledge of media literacy on a scale from one to five where 1 is the lowest grade corresponding to the minimum value and 5 is the highest grade corresponding to the maximum value. This diagram shows that the students assessed their media literacy competencies in the following way: 12.5% – level 2 corresponding to lower than average, 33% – average level, 46% – higher than average, 8.5% – the highest level. No one chose level 1. We can comment that such results can be explained by the fact that the participants are second-year students and they obtained basic journalist skills as well as skills of critical thinking in the course of studying the corresponding introductory disciplines of vocational training of journalism during their first year of studying at university.

Diagram 2 helps to understand how the assessments changed after the short-term intensive course of digital communication in the form of the virtual info media quest.



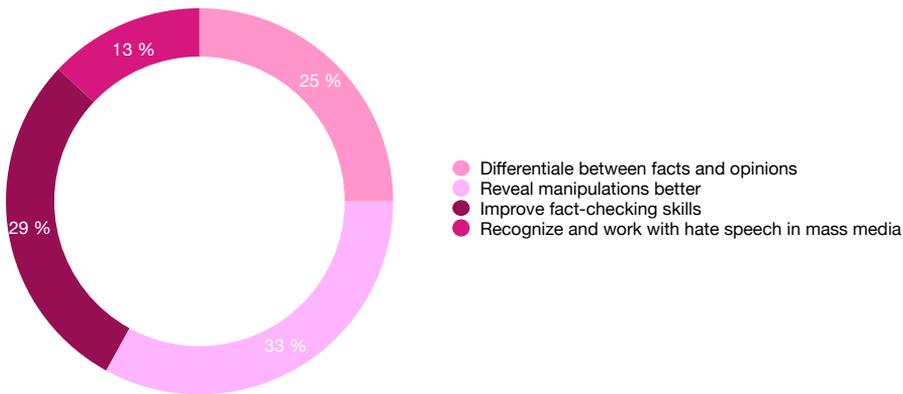
**DIAGRAM 2:** Media literacy level of students after the experiment

Source: own processing, 2020

As we can see the general level of media literacy rose: we didn't have anybody with level 2 and it means that there were no participants who assessed their level as lower the average. Instead, 12.5% assess their level as average (level 3), 37.5% – higher than the average (level

4) and 50% – as the highest level (level 5). These figures point out the effectiveness of digital strategies of teaching media literacy as in aggregate 87.5% are higher than average and the highest assessments of the level of media literacy compared to 54.5% before the quest. Thus, the quality indicator increased by 33%. Accounting for the fact that there were only three days between the first and second assessment we can state that such information and communication technologies are successful and effective as means of teaching media literacy and can improve media literacy within a short period of time.

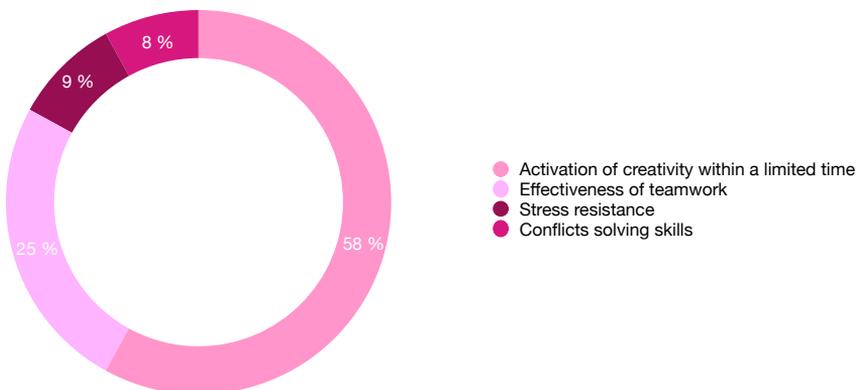
Furthermore, the results of the experimental research show the hard and soft skills mostly improved by the virtual info media quest. Namely, the results of the diagram below (Diagram 3) describe the professional achievements: 25% of students-participants learned to differentiate between facts and opinions, 33% of the interviewed now know better how to reveal manipulations, 29% became better at fact-checking and a further 13% learned how to recognize and work with hate speech in mass media.



**DIAGRAM 3:** *Hard skills achievement*

Source: own processing, 2020

However, it became clear that hard skills for studying media literacy are an integral part of soft skills. So, the next diagram (Diagram 4) allows us to understand the skills developed by the participants of the virtual game and those which they needed to perform the tasks and reach the final.



**DIAGRAM 4:** *Soft skills achievement*

Source: own processing, 2020

The participants noted such positive factors as activation of creativity within a limited time – 58%, increase of the effectiveness of teamwork – 25% of the participants, and increase of stress resistance – 9% of the participants, conflicts solving skills – 8%. As we can see, digital game communication indicates the positive dynamics during the study and training of media literacy skills. Also we added to our experiment 150 persons, discussing with them about the virtual info media quest and its impact on media literacy of the students. They saw the results, could pass the virtual quest individually and gave their opinion about it. We had all positive reviews as far as 138 of them (92%) saw perspectives in rising media literacy skills.

### **3.5 Virtual Integrated Workshops, Trainings and Media Bridge for Media Literacy Education**

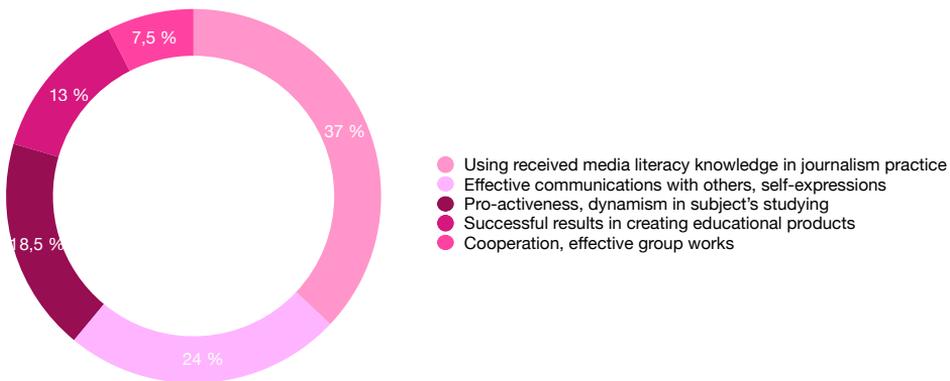
Implementation of information and communication technologies into the academic process within the framework of the organization and holding classes is proved by the integrated educational workshop by application of the virtual game tools. This interactive technology is effective accounting for its peculiarities allowing the creation of a comfortable atmosphere for studying and easy communication between all the subjects of the academic activity. Such a situation favours the development of students' critical thinking as they are learning how to find creative and attractive approaches to solving the proposed tasks, quickly solve arising problems and successfully digest even the most difficult intellectual models.

Our perennial experience of the organization of media literacy classes using practices of the conventional and virtual workshop demonstrated that such a form of organization of academic activity would be even more effective if various interactive teaching methods were also used. For instance, brainstorming, a lecture-dialogue, demonstrations, learning by doing, a virtual academic excursion, etc. would be effective in lectures. Teaching to students of the journalism department we used a method of academic online excursion, which appeared to be quite efficient for acquiring professional skills. Studying media literacy, students were excitedly surfing foreign and national media sites, investigating the ways the factual material was presented and analyzing whether the facts had any manipulative influence on the public. Such an organization of the academic process was effective for the students studying TV media as online excursions were appropriate enough in the contexts of these special disciplines and allowed looking into the process of news creation from the inside.

We consider that such innovative methods as paired work and work in small groups will be efficient in practical and seminar classes on media literacy. Short-term workshops will not be tiring for young people and efficient for the acquisition of journalist knowledge and media literacy skills. Mini workshops lasting up to an hour and a half are more useful for the academic process in higher schools as such technology calls for intensive studying. As the academic process in higher educational institutions is basing on the alteration of lectures and practical classes, a model of long-term workshops is not successful enough. On the other hand, long-term intensive work with high dedication might have an adverse effect. Such teaching methods as media discussions, business and role games on media literacy, simulating journalistic situations, video training, etc. will be as effective at practical classes-workshops. Conducting a workshop for the students of journalism, it is advisable to use a case-method, which includes a situational analysis. It is possible to make use of it organizing a discussion on a particular situation that has already happened or still exists in the media sphere. The students-participants of the workshop should study the situation thoroughly applying their professional skills, find out the essence of the problem, propose all the possible ways for its resolution and choose the most efficient solution together.

Teaching students of journalism, we tested the experience of game interactive workshops and virtual project workshops. 54 students were training their skills in media literacy and fact checking. They were acting as news presenters, correspondents and reporters creating TV materials. Doing this they were using such services for work with video as Video Toolbox, Avidemux, VSDC Free Video Editor, and online editing programs for working with images Fotor, iLoveIMG, Befunky. Play techniques were integrated into real-life situations for the motivation of the particular behaviour modes in the studying group. To determine the benefits of the workshop using online tools for teaching media literacy in practical classes we conducted a questionnaire among the students of Journalism and Social Communications. 54 students that participated in the organized and described above academic events were interviewed.

The opinion poll of students studying Journalism and Social Communications at Lesya Ukrainka Volyn National University with approbation of appointed virtual communications forms demonstrates the upgrading of their media literacy levels and professional capabilities. Among positive determinants they mentioned: 37% – using received media literacy knowledge in journalism practice; 24% – effective communications with others, self-expressions; 18.5% – pro-activeness, dynamism in subject’s studying; 13% – successful results in creating educational products; 7.5% – cooperation, effective group working.



**DIAGRAM 5:** Effectiveness of virtual workshops

Source: own processing, 2020

The results of the series of academic virtual trainings on media literacy conducted by Zoom on December 14-18, 2020 are also quite impressive. Three thematic sessions took place every other day. Every new session was one-step more difficult than the previous one. Such a training week was not exhausting for a student and allowed the learning of the material and active cooperation in the course of studying in the context of media literacy.

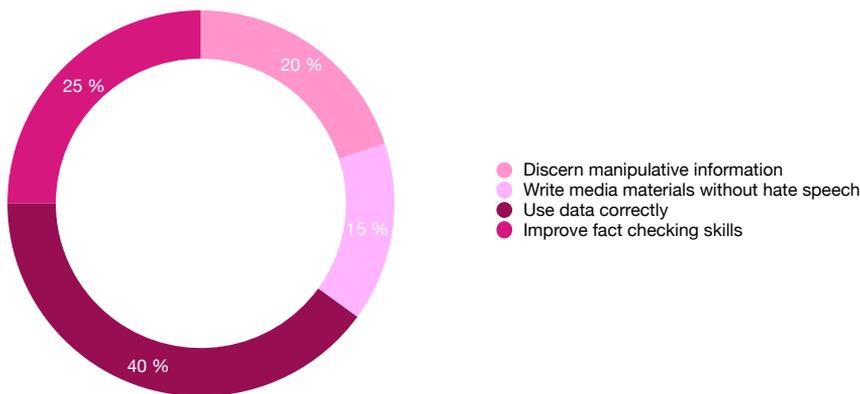
The first training was “Critical thinking in the era of “fast” media: how to analyze information?” The goal was to develop a critical perception of media information, motivate the audience to check information from different sources. As a result, we expected understanding of the concepts “manipulative content (manipulative information)”, “critical thinking”; ability to identify different types of content in the media (messages, beliefs, manipulation); skills of distinguishing features of manipulative content and skills of application of methods of critical analysis of media manipulations.

The second online training “Hate speech in the media: we write about vulnerable groups”. The purpose and objectives of the training: to highlight the existence of hate speech in the context of the functioning of negative stereotypes, prejudices, unverified information; demonstrate to participants the consequences of journalists’ non-compliance with professional standards, in particular in the context of the use of hate speech; outline the area of responsibility for the use of hate speech. What competencies will we form: understanding of the concepts of hate

speech and code of ethics, professional standards of the journalist, the ability to identify and distinguish hate speech from the general content of the media; skills in applying hate speech avoidance techniques.

The third and most visited online training was “Digital Data in Media Texts: Interpretation and Manipulation.” The training shows through activities how much we can perceive even accurate (digital) data in two ways and how provocatively the media sometimes presents them. After the training participants developed certain practical skills and at the same time mastered an array of theoretical information (in particular, understanding the role of the author as the main person responsible for the quality of prepared material; form a clear idea of the volume and quality of factual material). Participants learned how to apply the techniques of external and internal verification of the actual accuracy and reliability of digital data (verification of sources of facts and facts by sources; correlation of facts related to the content – the correlation of dates related to the content; the date that determines age of the event; century and year, values and units of measurement, general provisions and its detailed provisions, related to the regularity of numbers with this pattern, understand the need for internal calculations of the sum of parts of an integer, the correlation of relative and absolute values, pay attention to the possibility of rebuilding many facts, other principles, etc.)

Altogether 160 students participated in the online trainings. The training week was very intensive so we need to find out its effects on the media literacy skills of the participants. We asked our students who participated in all three trainings to answer a question about changes in their media literacy competences. 93.75% of the participants admitted their skills grew in basic critical thinking and thoughtful analysis of the information from media. In addition, the opinion poll of the students of Journalism and Social Communications bring to light their achievements in media literacy such as: discern manipulative information – 20%, 15% of the interviewed could write their media materials without hate speech, 40% learned how to use data correctly and another 25% improved their fact checking skills. Diagram 6 represented the results.



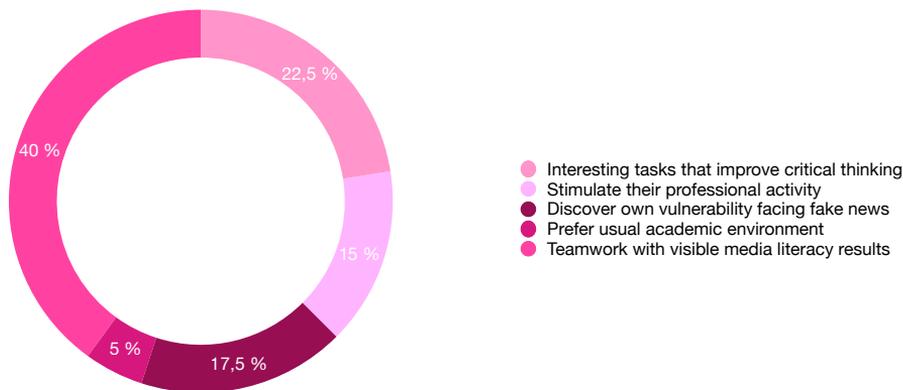
**DIAGRAM 6:** Effectiveness of online trainings of media literacy

Source: own processing, 2020

The peculiarity of virtual educational communications is that it is possible to use technologies of group work with shared access, as we did in the classes using media bridges. Media bridges online activities stimulate students to work together with others from one university or with students from partner universities and specialties. In this way, we cooperated virtually through Skype connections with students from Kaunas (Lithuania) for the first time and with students from Kyiv (Ukraine) via Zoom for the second time. The advantages of such virtual learning are: 1) the possibility of virtual academic mobility for students and lecturers, 2) cooperation in learning of educational topics and tasks, 3) the need to share and exchange experiences and knowledges, 4) training digital competence and effective interaction in teams.

The media bridge, dedicated to media literacy and virtual practices, was organized with online learning opportunities. We offered work in small groups of 5-7 people (the group consisted of students from different high schools), who had the task of monitoring and manipulation with coronavirus and vaccination information in Ukraine and other countries and the dissemination of manipulative data by publishers. We added a simple search, image and / or video verification, analysis of the content logic, attention to emotions, stereotypes, individual opinions, causal relationships, context, situation, source of information and method of dissemination etc. Using critical thinking and cognitive theory, we also rethink the media effects (both individual and macro) improving media literacy after W. James Potter.

We found through the opinion poll that among our participants there are 92.5% who said their level of media literacy has increased and for only 7.5% participants it remained at the same level. We use a method of online mapping with sharing access functions for generative work with students, which provides the opportunity to create in real time a map of fakes and manipulations using the Google maps service. This made it possible to take a virtual excursion to the places where media companies are registered or to places mentioned in manipulative content. The group work with mapping provoked positive feedback: 22.5% of students pointed to interesting tasks that improve critical thinking; teamwork with visible media literacy results as their priority was mentioned by 40% of participants, 17.5% discovered their own vulnerability facing fake news, 15% – said that working together during media bridge stimulated their professional activity and only 5% confessed they preferred the usual academic environment. The results are shown in diagram 7.



**DIAGRAM 7:** Effectiveness of virtual media bridges

Source: own processing, 2020

The results of our observations also prove that different types of integrated workshops, online trainings and media bridges should be organized so that every stage is informative, engaging and enabling the methodic management of the process. The academic atmosphere should be filled with support, mutual respect and recognition. Everybody should have an opportunity to communicate with a moderator-tutor and participants-colleagues. To achieve high productivity we need to form professional skills gradually and systematically whilst thinking through the model of the academic process thoroughly. Accounting for the physiological and psychological peculiarities of every student-participant of the academic process, a lecturer should activate the audial, verbal and non-verbal, visual, creative and emotional abilities of every student. We believe that during such activities every participant should be actively assessed as this will be motivating and allow them to take responsibility for their education and development of their abilities.

## 4. Conclusion

Ukrainian experience of the application of digital communications influenced by the COVID-19 sentiments gave an impetus to transfer the educational system into the intensive online format. All this activated the application of innovative information and communication technologies in the academic process in higher schools for teaching media literacy. In particular, we can see that it concerns, first of all, such game didactic technologies as virtual info media quests, workshops, online trainings and media bridges. They are beneficial, as they have managed to improve the level of media literacy of the students. In general, in our research on virtual information and communication technologies in media literacy education in high schools, 428 students participated. The results of the present investigation show that virtual info media practices in high schools show significant progress and huge advantages over the traditional methods of education in the context of the realization of individual oriented approaches in media literacy education for young people. The opinion polls of the students studying Journalism and Social Communications at Lesya Ukrainka Volyn National University with approbation of appointed virtual communications forms demonstrates the upgrading of their media literacy levels and professional capabilities.

Our investigation allowed us to conclude two aspects:

1. One of the effective modes of digital communication in the process of studying is a virtual info media quest aimed at the training of media literacy skills while playing. Development of the info media quest includes designing a legend, 3D map with marks on it and QR-coding for the participants. A media quest as technology gives positive results. Measuring the level of media literacy of the participants playing this online game before and after the quest showed the increase of media literacy competencies. In addition, students have noted the acquisition and training of the hard skills and soft skills of a journalist. Thus, first of all, they pointed out the improvement of the ability to differentiate between facts and beliefs, manipulations, fact checking skills and abilities to understand hate speech in mass media. Besides, young people also remarked that such an academic experience resulted in the acquiring of soft skills. For instance, most of them mentioned the activation of creativity within a short time period, an increase in the effectiveness of the teamwork, stress resistance, which is of high significance for young journalists not only in a professional capacity but for self-actualization too.
2. Integrated workshops like online trainings and media bridges with the application of the virtual and visual practices are active innovative technologies characterized by dynamic group studying, namely in an academic group which provides for the active participation of every student-participant of the event. Knowledge and skills acquisition are realized through interaction with highly qualified experts such as lecturers or visiting professionals. The advantages of these studying technologies are that all the participants are active leaders but not merely observers and listeners. Such a form of academic activity is characterized by the minimum generally known theory but maximum practical and new information including active virtual digital forms of work with shared access. The main aim is to develop an individual solution to particular tasks for every participant. This teaching methods are effective also because they reduce the barrier between a student and a trainer as the function of the latter is much less, because now he/she is not a manager but merely a presenter and a moderator. And, the most important point is that the efficiency of these methods depends on the dynamic work of the whole group on the one hand, and the individual contribution of every participant, on the other.

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*Denisa Jánošová, Renáta Sádecká*

## Aspects Of Communication In The Digital Literacy Of Generation Y In The Region

### **ABSTRACT**

This paper deals with digital literacy, which helps develop generation Y's skills and competencies. The aim of this paper is, based on a questionnaire survey, to obtain information on the digital literacy of Generation Y in the Trenčín region (Slovak Republic) and the Zlín region (Czech Republic) and whether these regions help to increase Generation Y's digital competences. Also, analyse and compare specific survey results in each region and, based on the obtained data, prepare recommendations that would be generally applicable not only for the selected regions from the survey but also for other regions. Before starting our marketing research, we set research questions and hypotheses, which we justify and statistically verify in this article's empirical part. Based on our findings, there is no statistically significant relationship between sex and learning new digital media of Generation Y. According to our findings, Generation Y is interested in learning about digital media, but none of the regions studied offers sufficient development opportunities.

### **KEY WORDS**

Digital literacy. Generation Y. Communication. Trenčín region. Zlín region.

# 1. Introduction

Generally, literacy has several levels of understanding and is associated with essential related areas, such as the ability to express oneself, digital competence, and the ability to analyse information media critically.<sup>1</sup> An individual's literacy skills can help him/her gain confidence, improve health, well-being and increase civic or societal engagement. Digital literacy does not only depend on the technical mastery of tasks and knowledge associated with the control of one technology, i.e., computers. These are the individual competencies, which are related to the technical mastery of information and communication technologies, the ability to work with digitized content, the ability to master the safe use of digital technologies, communication skills and abilities.<sup>2</sup> Access to digital technologies of a certain minimum quality is one of the essential conditions. The development of digital literacy refers to practices, measures and learning opportunities that programmatically link a set of sub-competencies with questions of their meaning to an individual or group of people in solving problems in everyday personal or professional life. There is a metaphor about the digital divide between digital literate people and those who do not use digital technologies or have a low level of digital literacy.<sup>3</sup> People can belong to the group of digitally integrated or to the group of digitally excluded. However, digital inclusion does not necessarily mean success in society or a better quality of life. On the contrary, excessive use of information and communication technologies can cause various dependencies associated with frequent use of the Internet, health issues, impaired concentration, etc. The technologies experienced a significant qualitative change during the formation of Generation Y. According to the experts, this is an approximate range between the years 1980 and 1995.<sup>4</sup> The characteristics of Generation Y differ depending on the social and economic status of individual regions. In a broader sense, this cohort is characterized by a positive impact on communication, media and digital technologies. Children of generation Y had the opportunity to grow up in an environment where technology surrounded them in everyday life. The digital world had brought to their lives possibilities when previous generations were growing up at the level of fiction. While the previous generations accepted the technological and information boom slowly and carefully, generation Y became almost immediately accustomed to the digital elements that connect them to the world and represent a means of entertainment. However, in 2007, Generation Y was hit by the economic crisis, which has had a far-reaching impact on them to this day. Experts talk about possible long-term economic and social damage for this generation. Therefore, it is essential that the regions are also interested in and communicate to a sufficient extent to develop Generation Y's digital literacy as its inhabitants.

<sup>1</sup> See: ALAGU, A., THANUSKODI, S.: *Bibliometric Analysis of Digital Literacy Research Output: A Global Perspective*. USA, Nebraska : University of Nebraska, 2019, p. 6.; ŠUPŠAKOVÁ, B.: Media Education of Children and Youth as a Path to Media Literacy. In *Communication Today*, 2016, Vol. 7, No. 1, p. 32-50.

<sup>2</sup> American Press Institute: *How Millennials Get News: Inside the Habits of America's First Digital Generation*. [online]. [2021-02-20]. Available at: <<https://www.americanpressinstitute.org/publications/reports/survey-research/millennials-news/>>.

<sup>3</sup> See: CHAN, S. K. et al.: Digital Literacy Learning in Higher Education through Digital Storytelling Approach. In *Journal of International Education Research*, 2017, Vol. 13, No. 1, p. 12.; TRNICIC, D., VUKELIC, A. K.: Privacy on the Internet Concerning Generation Z in Bosnia and Herzegovina. In *Media Literacy and Academic Research*, 2021, Vol. 4, No. 1, p. 180-199.

<sup>4</sup> JEŽOVÁ, D.: Generácia Y: Mileniáli sú najvzdelanejšou generáciou. Stres je ich najväčším nepriateľom. In *Ateliér*, 2019, Vol. 15, No. 4, p. 19.

## 2. Theoretical Framework

Competences and their use by individuals are associated with the increasing demands of current society. The term competence is used in everyday life and competencies are in demand in public, so it is also referred to as a phenomenon. Kmet<sup>5</sup> points out these competencies in the context of training and preparation for the profession, which also referred to a person's ability to perform tasks. Turek shares the view that individual competencies will enable one to cope successfully with rapid changes in work, personal and social lives. A subset of competencies is critical competencies initiated and endorsed by the European Parliament and the Council of Europe in 2006.<sup>6</sup> They express a set of knowledge, skills, and attitudes appropriate to the individual that they need for their personal development, active citizenship, social inclusion, and employment.

Competence	Competence's meaning
<b>Communication in the mother tongue</b>	Interpretation of thoughts, feelings, the transmission of information (orally, in writing), communication within various social topics.
<b>Communication in foreign languages</b>	Productive and receptive skills in oral and written form as in communication in the mother tongue, the difference is in learning a foreign language and its use in practice.
<b>Mathematical competence and essential competencies in science and technology</b>	Includes math skills, mathematical operations in everyday life, explanation of natural and technical phenomena.
<b>Digital competence</b>	Be able to use multimedia technologies (content creation, sharing, editing, presentation, sorting and exchange of information).
<b>Learn to learn</b>	Application of new knowledge in real life, knowing how to solve problems at home and in society.
<b>Social and civic competences</b>	These are competencies that help the individual to participate effectively in social events
<b>Initiative and entrepreneurship</b>	Taking individual responsibility for oneself, addressing issues in the context of accepting and supporting changes brought about by external factors.
<b>Cultural awareness and expression</b>	Developing the ability to know how to appreciate the culture and appreciate its manifestations.

**TABLE 1:** Key competencies for lifelong learning within the European Reference Framework

Source: own processing, 2021

The importance of these critical competencies has increased since 2006.<sup>7</sup> These competencies bring one a certain degree of self-confidence, success in life and work situations. Therefore, it is essential not only to acquire the given competencies but also to develop them further.

With the gradual development, the use of information and communication technologies, as well as the continually expanding informatization and electronization of society, another concept began to emerge, in particular digital literacy, in addition to information literacy.<sup>8</sup> The rapid development of technology that has taken place in recent decades has significantly affected

<sup>5</sup> See: KMEŤ, P.: Klúčové kompetencie vo výchove a vzdelávaní – uplatnenie nových didaktických prístupov. In *Didaktika*, 2011, Vol. 2, No. 2, p. 22-25.

<sup>6</sup> *Klúčové kompetencie pre celoživotné vzdelávanie v rámci Európskeho referenčného rámca*. [online]. [2021-02-20]. Available at: <[https://ec.europa.eu/commission/presscorner/detail/sk/MEMO\\_10\\_199](https://ec.europa.eu/commission/presscorner/detail/sk/MEMO_10_199)>.

<sup>7</sup> *Main Statistical Findings*. [online]. [2021-02-20]. Available at: <[https://ec.europa.eu/eurostat/statistics-explained/index.php/Digital\\_economy\\_and\\_society\\_statistics\\_-\\_households\\_and\\_individuals#Main\\_statistical\\_findings](https://ec.europa.eu/eurostat/statistics-explained/index.php/Digital_economy_and_society_statistics_-_households_and_individuals#Main_statistical_findings)>.

<sup>8</sup> See: JORMAND, H. et al.: A Qualitative Study on People's Experiences of Covid-19 Media Literacy. In *Media Literacy and Academic Research*, 2021, Vol. 4, No. 1, p. 38-52.

all areas of human activity. According to several authors,<sup>9</sup> modern information technologies in some areas are replacing entire professions and in others, these changes are expected soon.

In 2010, a document was approved by the European Commission entitled “*Digital Agenda for Europe*.”<sup>10</sup> This document presents a strategy to support the digital economy until 2020. The strategy contains 7 priority areas that focus on creating a single digital market, interoperability, increasing the credibility and security of the Internet, faster access to the Internet, higher investment in research and development – improving digital literacy and inclusion and applying information and communication technologies to address the challenges facing society – climate change and an aging population. Adopting this strategy should revitalize the economy and build the foundations for a sustainable digital future for the younger generations.

The document Digital Citizenship,<sup>11</sup> which is part of the EU documents, mentions the importance of ICT and applications for digital literate users. Besides, digital literacy is required to effectively search, evaluate, use, and create information to achieve personal, social, professional and educational goals.

One of the critical competencies for lifelong learning is digital literacy. The definition of digital literacy is not coherent and established today because its subject is continually evolving. For the first time, the concept of digital literacy was defined by Gilster<sup>12</sup> in 1997 – “*the ability to understand and use information in various formats from a wide range of sources that are obtained or provided through a computer.*” Progress and developments in ICT are also reflected in definitions and perspectives on the issue of digital literacy. According to Velšic,<sup>13</sup> digital literacy includes the body of knowledge, skills and understanding needed to make appropriate, safe and productive use of digital technologies for learning and cognition, whether at work or in everyday life. Thus, it is a set of gradually built skills that make sense when using digital tools for their needs, cognition, expression or individuals’ personal development. Thanks to digital literacy, an individual can effectively solve everyday problems in a digital environment.

In 2020, nationwide representative research focused on the digital literacy of respondents older than 14 years was carried out. It turned out that the share of digital literates who have at least essential experience in mastering modern information technologies is currently about 83%. In recent years, the share of respondents who declare that they have experience working on laptops, tablets, or smartphones with various electronic services and communication technologies has increased. However, long-term mapping within the Digital Literacy<sup>14</sup> project in Slovakia draws attention to digital literacy in adapting to new trends in the field of information technology. While in 2015, 17% of those who found it difficult or somewhat challenging to work with ICT, in 2020, already account for 27%.

In this paper, we discuss the relationship between digital literacy and Generation Y. For our paper; the most appropriate definition is generation from a sociological point of view.<sup>15</sup> Thus, the generation represents a large, socially differentiated group of people born at about the same time, which is reflected in the formation of their attitudes, values, thinking and actions.

<sup>9</sup> See: FRAILLON, J. et al.: *International Computer and Information Literacy Study 2018: Assessment Framework*. Amsterdam : Springer, 2019; PORAT, E. et al.: Measuring Digital Literacies: Junior High-school Students’ Perceived Competencies versus Actual Performance. In *Computers & Education*, 2018, Vol. 12, No. 6, p. 23-26; CARETTERO, S. et al.: *DigComp 2.1: The Digital Competence Running Head: MEASURING DIGITAL LITERACY Framework for Citizens with Eight Proficiency Levels and Examples of Use*. Luxembourg : Publication Office of the European Union, 2017.

<sup>10</sup> *Digitálna agenda pre Európu*. [online]. [2021-02-20]. Available at: <[https://ec.europa.eu/commission/presscorner/detail/sk/MEMO\\_10\\_199](https://ec.europa.eu/commission/presscorner/detail/sk/MEMO_10_199)>.

<sup>11</sup> See: GRUSZCZYNSKA, A. et al.: Digital Futures in Teacher Education? Exploring Open Approaches Towards Digital Literacy. In *Journal of E-learning*, 2013, Vol. 11, No. 3, p. 193-206.

<sup>12</sup> GILSTER, P.: *Digital Literacy*. New York : Chichester, 1997, p. 43.

<sup>13</sup> VELŠIC, M.: *Digitálna gramotnosť na Slovensku 2011*. Bratislava : IVO, 2011, p. 7.

<sup>14</sup> VELŠIC, M.: *Digitálna gramotnosť na Slovensku 2020*. Bratislava : IVO, 2020, p. 12.

<sup>15</sup> TULGAN, B.: *Not Everyone Gets a Trophy – How to Manage Generation Y*. USA : Jossey-Bass, 2019, p. 47.

Generational awareness is based on attitudes and opinions that arise in response to a shared social environment. In the professional literature, we can find slight deviations in identifying the years of individual generations. However, more important are the characteristics and traits that characterize generations. According to Ericson,<sup>16</sup> determining the exact boundaries for Generation Y is still under discussion and reflection. Demographers are usually able to define a generation based on common traits, characteristics, and similar behaviour. If behaviour changes significantly, a new generation is defined. Dorsey<sup>17</sup> limited Generation Y in the group of people born between 1977 and 1995. Lipkin<sup>18</sup> identified Generation Y as the largest generation (73-75 million people), the size of which is close to the Baby Boomers generation and well above the number of Generation X. Given the young age of the youngest representatives of Generation Y, it is not yet possible to define precisely the period to which Generation Y belongs. However, according to several experts on this issue, Generation Y falls within the range of 1980-1995

Generation Y was used initially in the United States for a generation of young people who grew up in an environment saturated with communication and digital technologies.<sup>19</sup> With the onset of the recession and its impact on these young people, the term earned a different meaning; due to Generation Y's insufficient opportunities, it could become a lost generation. Luptáková<sup>20</sup> has an opposing opinion on this issue, claiming that Generation Y is a generation of heroes. She has a theory that the generations are part of four regularly recurring cycles globally, and the children of Generation Y grow up in the third cycle, which she calls "unravelling." According to historians, this is a period in which individualism thrives while institutions are weak.

The PrincetonOne<sup>21</sup> study states that this generation grew up in the world of the Internet and global society, brought up believing in their own strength, demands and belief that everything is feasible. Of all generations, Generation Y achieves the highest education and technological skills.

Research<sup>22</sup> suggests that generation Y can be described as very advanced in digital literacy. Information technologies are part of everyday life for this generation. From an early age, they are connected to technology and the Internet, so it is a matter of course to own a mobile phone, computer or tablet. Their culture is made up of modern technologies, media and the Internet. Using the Internet for this generation is not just for fun; on the contrary, it is used to learn, shop, communicate or create different communities.

The digital literacy of the representatives of Generation Y, perceived from the perspective of the inhabitants of a particular region, may be influenced by the region's action steps in this issue, says Alam<sup>23</sup> in one of his studies. The development of digital competencies with the support of the region's representatives is one of the topics discussed, based on the digital strategy of individual regions. The digital era of the 21st century has brought along new technologies, innovations and trends that are dynamically changing the world and affecting all life areas.

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<sup>16</sup> ERICSON, T.: *Plugged in: The Generation Y Guide to Thriving at Work*. Boston : Harvard Business Press, 2018, p. 32.

<sup>17</sup> DORSEY, J. R.: *Y-Size Your Business: How Gen Y Employees Can Save You Money and Grow Your Business*. USA : John Wiley&Sons, 2010, p. 81.

<sup>18</sup> LIPKIN, N. A., PERRYMORE, A. J.: *Y in the Workplace, Managing the "Me First" Generation*. USA : Career Press, 2019, p. 25.

<sup>19</sup> See: RAINER, T. S., RAINER, J.: *The Millennials: Connecting to America's Largest Generation*. USA : B&H Publishing Group, 2011, p. 50; ANDERSON, D.: U.S. High School Student's Social Media Use and Their Political Socialization. In *Communication Today*, 2020, Vol. 11, No 2, p. 166-174.

<sup>20</sup> LUPTÁKOVÁ, N., KRIŠKOVÁ, E.: *Generácia Y: Výskum*. Banská Bystrica : UMB, 2010, p. 18.

<sup>21</sup> HOBART, B.: *Success Begins with Diversity*. [online]. [2021-02-21]. Available at: <<https://princetonone.com/success-begins-with-diversity/>>.

<sup>22</sup> See: VRABEC, N.: *Mediálna výchova: teoretické východiská a trendy*. Trnava : FMK UCM v Trnave, 2015, p. 68; STANOVÁ, P.: Google generácia žije v online svete. In *IT lab: informačné technológie a knižnice*, 2016, Vol. 20, No. 4, p. 59-65; ŠRAMOVÁ, B.: Generácia Y v škole a v práci. In *Mládež a spoločnosť*, 2016, Vol. 12, No. 2, p. 24-31.

<sup>23</sup> ALAM, K. et al.: Assessing Regional Digital Competence: Digital Futures and Strategic Planning Implications. In *Journal of Rural Studies*, 2018, Vol. 60, No. 5, p. 60-69.

Informatization and digitization have changed how economic value is created, the structure and functioning of markets and, ultimately, how all relationships, both economic and social, are created and developed. The EU is working to build a European digital single market.<sup>24</sup> Such a market should enable the full use of digital technologies in society, create favourable conditions for digital networks and innovation, and ensure better access to digital goods and services. However, these tasks require that people be sufficiently digital literate for the given market conditions. The mentioned digital transformation in several areas at the regional level requires thorough communication of the region's competent representatives towards their inhabitants.

### 3. Methods

From January to February 2021, we conducted a marketing survey with a crucial focus on researching Generation Y's digital literacy in two regions. Two regions were selected for our survey – the Trenčín region (Slovak Republic) and the Zlín region (Czech Republic). We chose regions based on their related culture and location. Each of the regions is part of a different country, but at the same time, it forms cross-border regions. As part of the survey, we dealt with Generation Y's digital literacy in selected regions and communication of digital literacy by representatives of Generation Y.

The quantitative survey was conducted online in the form of inquiries based on a questionnaire. Part of our survey is to examine two variables, namely sex and learning new digital media, based on hypotheses. We statistically verified the established hypotheses using a contingency table and contingency coefficient calculations. In the article, we used scientific methods such as questioning, induction, deduction, analysis, synthesis, and data comparison. The questionnaire contained 6 closed and 3 identification questions within the solved problem. The analysis of individual items from the questionnaire is presented in the Results of this article. The Google Forms platform was used to distribute the questionnaire. In this survey, we work with the range of the years 1980-1995 of Generation Y's birth in both regions. Generation Y and thus the respondents of our survey are people aged 26-41 years. We used the following pattern to calculate a representative sample of respondents:

$$n = \frac{z_1 - \frac{\alpha^2}{2} * \pi * (1 - \pi)}{E^2}$$

where:  $\pi$  means the ratio of the occurrence of the observed character within the basic set;  $E$  is the maximum for an acceptable error interval;  $z$  means the quantile of the distribution function.

Since we do not know the ratio of the observed trait occurrence within the basic set, we conservatively determined the value as 0.5. The maximum acceptable error interval was set at 5% and the quantile of the distribution function was 1.96, which is equal to a 95% reliability level.

The minimum size of the selected set was 376 respondents for each region separately. The respondents' actual sample size within the Trenčín region was 390 respondents and within the Zlín region, 400 respondents (Table 2).

<sup>24</sup> *Stratégia digitálnej transformácie Slovenska 2030*. [online]. [2021-02-21]. Available at: <<https://itas.sk/wp-content/uploads/2019/05/Strategia-digitalnej-transformacie-Slovenska-2030.pdf>>.

		Trenčín region		Zlín region	
		N %		N %	
Gender	women	182	47%	212	53%
	men	208	53%	188	47%
Age	26 – 33	159	41%	203	51%
	34 – 41	231	59%	197	49%
Education	Primary school	164	42%	170	43%
	High school	144	37%	127	36%
	University	82	21%	103	26%

**TABLE 2:** Respondent’s of Trenčín and Zlín region demographic data

Source: own processing, 2021

Before starting our survey, we defined research questions:

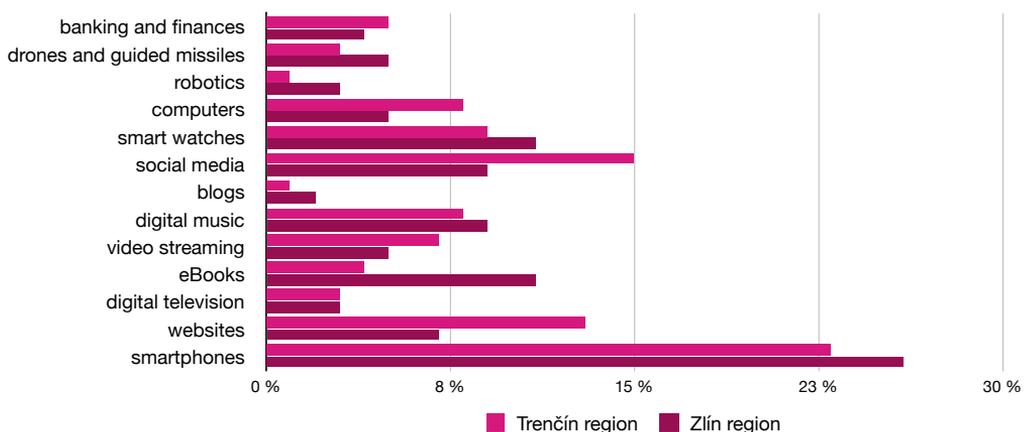
- **RQ 1** Do the representatives of the Trenčín and Zlín region communicate education in the field of digital literacy towards Generation Y?
- **RQ 2** Is the smartphone one of the most used digital media of Generation Y?
- **RQ 3** Does Generation Y consider it essential to learn about digital literacy in the latest technologies and innovations?

We also set hypotheses, which we statistically verify in the empirical part of this article using the contingency table and contingency coefficient calculations.

## 4. Results

In this part of the article, we present an analysis of the data obtained from our survey from both researched regions. We asked respondents about the digital media that Generation Y uses most often. Among the most frequent answers appeared a smartphone, websites, social media, ebooks, or a smartwatch. The most used digital media in the Trenčín region include smartphones (23%), social media (15%) and websites (14%). In the Zlín region, it is also a smartphone (26%), but unlike the Trenčín region, eBooks are in second place (11%) and smartwatches are in third place (11%). The least used digital media in both regions include blogs, robotics and digital television.

Which of the following digital media do you use most often?

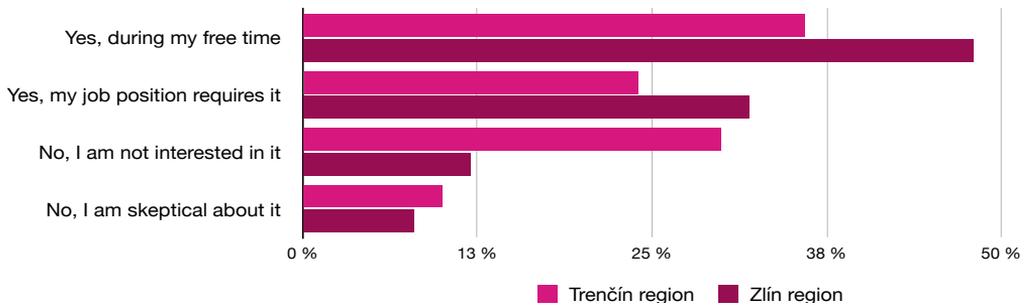


**FIGURE 1:** The most commonly used Y-generation digital media

Source: own processing, 2021

We found that Generation Y is one of the most skilled in using technology and communication equipment within the theoretical level. Therefore, we wanted to determine if Generation Y is looking for further education in digital skills in the new digital media. The majority of respondents within the Trenčín region (36%) and the Zlín region (49%) answered that they try to educate themselves in new digital media within their free time. The next largest group of respondents increased their digital literacy but as a result of their job position. Among the respondents were also those who are still skeptical about new digital media, which in our opinion is an interesting finding in connection with Generation Y. 30% of respondents in the Trenčín region are not at all interested in developing digital skills in the new digital media. In the Zlín region, it is only 12%.

### Are you trying to learn to use newest digital media?

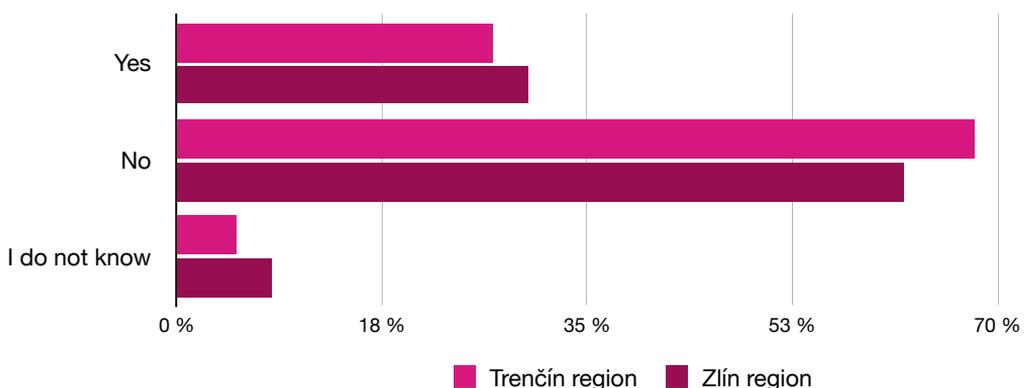


**FIGURE 2:** Generation Y's drive to learn new digital media

Source: own processing, 2021

For most respondents in both researched regions, the use of digital media is not considered an issue (Trenčín region – 62%, Zlín region – 68%). However, Generation Y has already encountered a problem that it had to solve as part of its digital media work. According to further research in our survey, this group of respondents was not discouraged by the issue encountered from continuing to use digital media further.

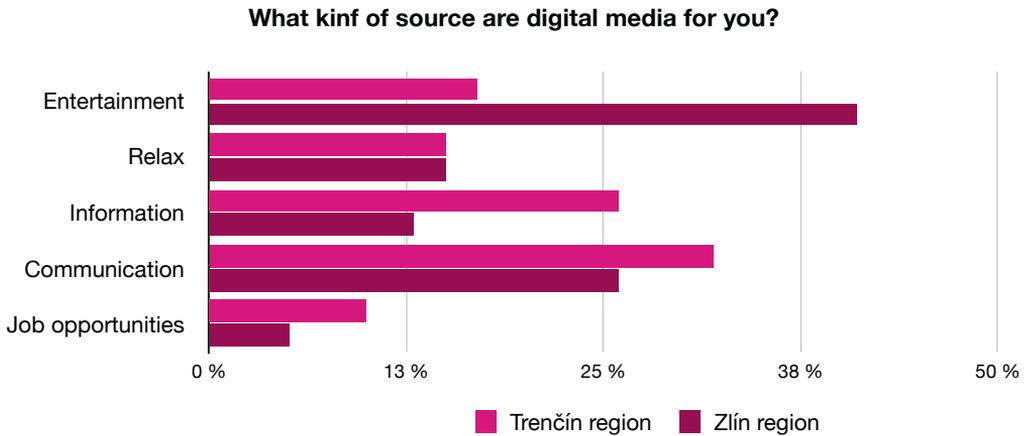
### Have you ever had a problem with using a digital media?



**FIGURE 3:** Generation Y digital media use

Source: own processing, 2021

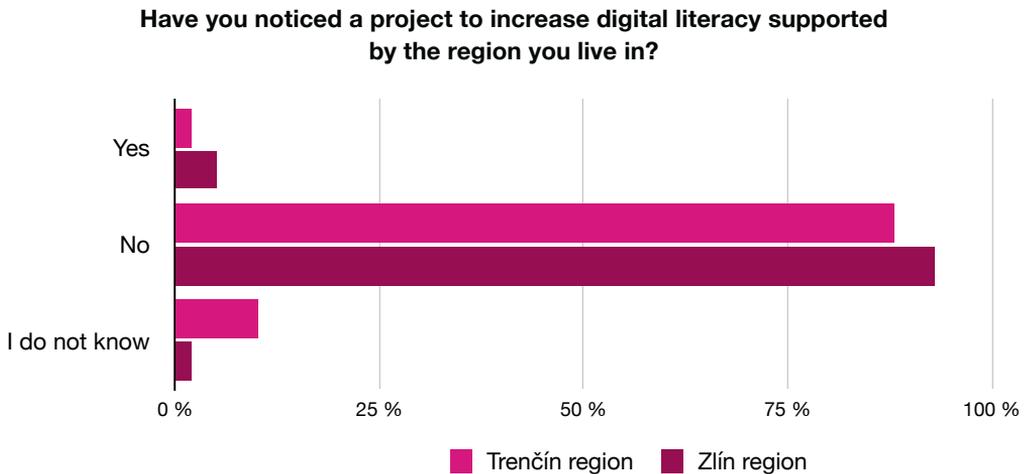
Generation Y's most common reason for using digital media in the Trenčín region is communication (31%). On the other hand, Generation Y in Trenčín searches for job opportunities the least on digital media (10%). In the Zlín region, Generation Y uses digital media mainly for entertainment (41%) and job opportunities are the least interesting for it (5%), as was the case in the Trenčín region.



**FIGURE 4:** What is the representation of digital medium for Generation Y?

Source: own processing, 2021

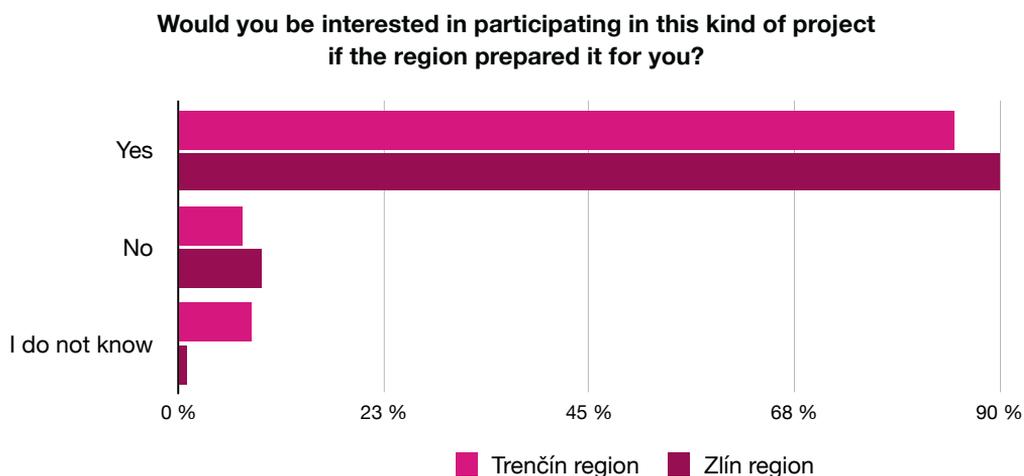
According to experts in regional development, the importance of developing digital literacy with digitalization has become crucial. Therefore, we wanted to determine whether the competent representatives in the researched regions took steps to increase digital literacy for Generation Y. The vast majority of Generation Y respondents did not notice any communication in their region from the region’s representatives concerning the development of digital literacy. Only about 6% of respondents answered that they had seen a project in their region that would address digital skills development.



**FIGURE 5:** A project supported by the region to increase Generation Y digital literacy

Source: own processing, 2021

Although, Generation Y is perceived as very technically and digitally skilled, it would be interested in increasing digital skills. In both the Trenčín and Zlín regions, approximately 90% of Generation Y representatives expressed interest in participating in this project.



**FIGURE 6:** Interest in participating in a project aimed at promoting Generation Y digital literacy

Source: own processing, 2021

Before starting our survey, we set research questions as well as hypotheses, the explanation and statistical verification of which are given below:

- RQ 1** Do the representatives of the Trenčín and Zlín region communicate education in the field of digital literacy towards Generation Y?

Thanks to our survey, we were able to determine whether the competent representatives of the Trenčín and Zlín region deal with Generation Y education in digital literacy. Analysis of the data from our survey revealed that the vast majority of Generation Y respondents (90%) did not notice any communication from representatives of the region they live in. Moreover, roughly the same respondents said that they would like to participate in this type of project if the region prepared it for them. Our findings from the analysis of survey data can be a stimulus for regions looking to increase Generation Y digital literacy.
- RQ 2** Is the smartphone one of the most used digital media of Generation Y?

According to our survey, respondents in Generation Y most often use a smartphone among other digital media. This finding applies to both Trenčín and Zlín regions. The use of a smartphone differs in the regions by the representation of respondents. In the Trenčín region, 23% of Generation Y respondents use a smartphone; in the Zlín region, it is approximately the same, 26%. The reason may also be that Generation Y uses social media for entertainment and communication with family or friends, which are the easiest to access through a smartphone.
- RQ 3** Does Generation Y consider it essential to learn about digital literacy in the latest technologies and innovations?

As mentioned in the survey results, Generation Y is interested in education in the latest digital media. However, its reasons differ, either from the point of view of the region or from the general interest point. Generation Y respondents from both surveyed regions are educated in the new digital media in their free time and thus take this education in a specific entertainment (Zlín region) and communication (Trenčín region).

## 4.1 Hypothesis testing

In our survey, we observed whether Generation Y is interested in education in the latest digital media. We classified our respondents by gender and researched whether there was a statistically significant relationship between the respondents' gender and digital media education (individually

in each region). All necessary data were recorded in MS Excel. Since the features whose dependence we examined are situated at different levels, we would call them contingency. We entered the results of our survey into the contingency table for Trenčín and Zlín regions, respectively. We calculated the expected values based on the following pattern:

$$o_{ij} = \frac{f_i^A * f_j^B}{n}$$

We determined the zero and alternative hypotheses for Trenčín and Zlín regions separately.

Trenčín region:

$H_0$ : There is no statistical relationship between gender and Generation Y education in new digital media.

$H_1$ : There is a statistical relationship between gender and Generation Y education in new digital media.

Zlín region:

$H_0$ : There is no statistical relationship between gender and Generation Y education in new digital media.

$H_1$ : There is a statistical relationship between gender and Generation Y education in new digital media.

Trenčín region					
Sex/learning new digital media	Yes, during my free time	Yes, my job position requires it	No, I am not interested in	No, I am sceptical about it	Total
Women	58 (63,93)	61 (52,73)	22 (19,13)	41 (46,20)	182
Men	79 (73,06)	52 (60,27)	19 (21,87)	58 (52,80)	208
Total	137	113	41	99	390
Zlín region					
Sex/learning new digital media	Yes, during my free time	Yes, my job position requires it	No, I am not interested in	No, I am sceptical about it	Total
Women	69 (62,01)	73 (71,55)	35 (43,46)	34 (34,98)	212
Men	48 (54,99)	62 (63,45)	47 (38,54)	32 (31,02)	188
Total	117	135	82	66	400

**TABLE 3:** Real and expected rates of respondent's sex and learning new digital media

Source: own processing, 2021

The set hypothesis about the dependence between sex/learning new digital media has not been confirmed in Trenčín and Zlín region. The test showed dependencies between the features listed in Table 3. If the tested criterion's value exceeds the critical value, then the tested hypothesis will be rejected at the significance level  $\alpha$ .

*Test results – Trenčín region:* value of test criterion = 6.789; calculated value of test criterion = 10.36572; the degree of statistical dependence calculated on the basis of the contingency coefficient  $C = 0.1469393374257814$ . According to the calculated value of the contingency coefficient, we can say that there is a zero degree of the bond between sex/learning new digital media.

*Test results – Zlín region:* value of test criterion = 8.283; calculated value of the test criterion = 36.12761; degree of statistical dependence calculated on the basis of the contingency coefficient  $C = 0.1510170585416725$ . According to the calculated value of the contingency coefficient, we can say that there is a zero degree of the bond between sex/learning new digital media.

## 5. Conclusion

Digital literacy is a critical ability combining a set of knowledge and skills that allow one to analyse and use their content to one's advantage. Findings of our marketing research have confirmed that Generation Y is interested in learning about new digital media. However, this interest is not statistically significant compared to the sex of Generation Y. In general, Generation Y is described as technologically and communicatively skilled, even when it comes to digital media. According to our survey, Generation Y is interested in projects that could support their digital literacy skills. Regions play an essential role in educating their citizens and providing them with opportunities for personal or professional growth. Today, the regions have the opportunity to educate individual generations so that they can pass on their knowledge to future generations. Due to various media, our world is becoming complex, although it might seem vice versa. Whether out of our comfort or ignorance, we sometimes let the media think for ourselves, even on significant issues. In this context, digital literacy is proving to be a useful but, above all, essential tool in one's life. Today's typical feature is the growing influence of various media, so it is essential to focus on developing competencies and digital literacy. It is necessary to develop such competencies that could help us understand digital media's function and thus form our own critical opinion and attitudes to individual content within digital media. Using media content wisely in the digital world for the benefit of generations should be one of the goals that regions should focus on.

Further attention to this topic has great potential in the possibilities of research. We find the comparison between cross-border regions (Slovak republic – Poland, Slovak republic – Ukraine, Slovak republic – Hungary or Slovak republic – Austria) and the perception of generation Y's digital literacy interesting for processing. A comparison between individual cross-border regions could reveal the digital literacy of generation Y. An interesting topic for further research could be the degree of involvement of regions in developing skills in Generation Y's digital literacy.

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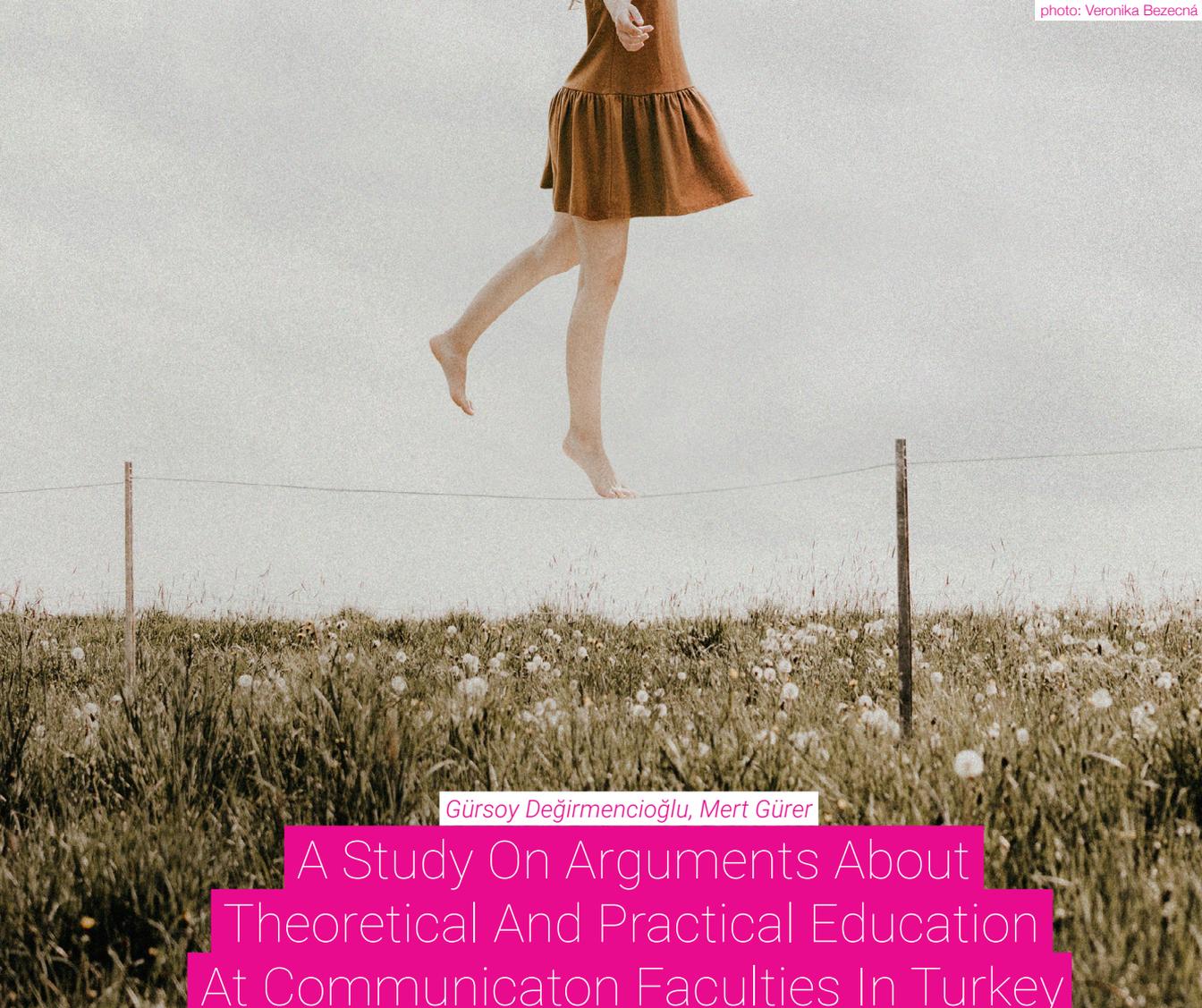
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*Gürsoy Değirmenciöğlü, Mert Gürer*

## A Study On Arguments About Theoretical And Practical Education At Communicaton Faculties In Turkey

### **ABSTRACT**

One of the issues that has been argued for many years is what the ratio of theoretical and practical classes should be in the curriculum of Communication Faculties in Turkey. Academic traditions, that communication faculties have, determine the content and the quality of communication education. In this context, disagreement arose between communication faculties and the media sector about whether the education is given to students should be theoretical or practical. This study aims to examine the historical development process of the State and Foundation communication faculties that have been increasing in number in Turkey since the 1990s. It also aims to reveal the problems that are experienced in communication education and the arguments about whether education should be theoretical or practical. These aims have been addressed by scanning the literature. The study has examined the lessons at communication faculties in Ankara, Istanbul and Izmir, which rank high in terms of socio-economic levels. The content analysis method was applied during the practical classes.

### **KEY WORDS**

Communication education in Turkey. Communication faculty. Theoretical and practical course contents.

# 1. Introduction

Academicians in Turkey have been arguing for many years about certain issues, such as promoting the quality of education given at Communication Faculties, and how the content should be formed. Academic traditions at universities and the background characteristics of a city's workforce resulting from the location of universities play a significant role in determining the content of the courses at Communication Faculties. Similarly to Ankara University Communication Faculty, which primarily determined its vision and mission in providing students with theoretical education, there are some other faculties giving theoretical and practical classes in a balanced way in Istanbul, which is located in the heart of the media sector. For this reason, there are some major disagreements between faculties with different academic traditions and the media sector about the quality of education given in the communication area. The media sector persistently states that there should be more practical classes in the curriculum. Managers at the media sector claim that students who graduate from Communication Faculties do not have sufficient experience in practical areas. They blame the contents of the classes taught to students at communication faculties for this situation. When this is evaluated regarding communication faculties in Turkey, it is observed that the curriculum was prepared with different ratios of practical and theoretical classes in general. Students that study in departments such as Journalism, Public Relations, Radio, Television and Cinema, Visual Communication and Advertising try to gain professional experience via practical units. Within these units, the students gain experience with issues such as writing news techniques, photography, using a camera, graphic page design, television or radio broadcasting. They aim to take their first steps in the media sector. However, the competitive structure of the media sector and employment problems make it difficult for most of these students to get jobs in the sector.

This study aims to examine the historical development process of communication education, the problems that are experienced in communication education, the expectations of the media sector, and the arguments about whether the education should be theoretical or practical. These aims have been addressed by scanning the Literature. In the methodological part, in which content analysis was applied, the contents of the lessons in State and Foundation communication faculties in Ankara, Istanbul and Izmir were analysed comparatively in the context of theoretical and practical lessons.

## 2. Historical Process of Communication Education in Turkey

It was observed that the oldest state universities, Ankara University and Istanbul University, play an important role in providing communication education in Turkey. However, communication education is not provided only at universities. Anatolian Communication Vocational Schools and some private academic foundations organise communication classes and courses to meet the need for the intermediate staff.<sup>1</sup>

The first initiative of journalism education in Turkey was started in 1947. Sedat Simavi, who was the chairman of the Journalists Association of the period, sent a letter to the Rectorate of Istanbul University and he requested the establishment of an institute for providing such an educational program at the university. After the demand was accepted, the Senate of the University decided to establish a journalism institute that affiliated to the Faculty of Economics in 1949.<sup>2</sup> "The Journalism Institution" was founded to give a two-year education under the Faculty of Economics in accordance with the rules taken by the Senate of Istanbul University in November 1949. Besides the academicians at the Faculty, well-known journalists gave classes at the Institute. Later, the education period was extended to three years. In the following years, the name of this institution

<sup>1</sup> TOKGÖZ, O.: Türkiye'de İletişim Eğitimi: Elli Yıllık Bir Geçmişin Değerlendirilmesi. In *Kültür ve İletişim*, 2003, Vol. 6, No. 1, p. 10.

<sup>2</sup> TOPUZ, H.: *100 Soruda Başlangıçtan Bugüne Türk Basın Tarihi*. İstanbul : Gerçek Yayınevi, 1996, p. 204.

was changed into “Istanbul University, School of Journalism and Public Relations”.<sup>3</sup> Tokgöz also says that Ankara Association of Journalists suggested a new school should be founded in the late 1960s because this institution had been studying media in the strict sense, so it was needed to found an educational foundation that would provide complete education, including mass media.<sup>4</sup> The Senate of Ankara University accepted the Legislation about opening “The School of Press” inside the Faculty of Political Sciences in 1964. The School opened its doors to education on 7<sup>th</sup> November 1965 after this ruling had been promulgated in the Official Journal.<sup>5</sup>

In addition, private journalism schools were opened with the adoption of the Law on The Private Education Institutions in 1965. Primarily, the first Private Journalism Higher School in Istanbul in 1966, after that The Başkent Private Journalism Higher School in Ankara and The Karataş Private Journalism Higher School in Izmir started to provide education in 1967.<sup>6</sup> Tılıç says that The Journalism and Communications Higher School in Ankara became a leading model for the public journalism schools which were later opened in other cities.<sup>7</sup>

The Istanbul Private Journalism School was the country’s first journalism school in this field. Tılıç says that the curriculum of this first journalism school was a combination of technical and practical knowledge of journalism and of general science courses. Tılıç also says that this tendency, which in the following years took the form of theoretical and practical courses, has continued in Turkish journalism schools even until today.<sup>8</sup>

It has been stated that communication education started to become institutionalised in Turkey in the 1960s, whereas in the USA and European countries the process started in the 1950s. In the following years, schools of press started to be founded inside Gazi University, Anadolu University, Marmara and Ege Universities.<sup>9</sup>

With the law enacted in September 1971, it was decided to nationalize private higher school. Within the framework of the law, the higher school in Istanbul affiliated to the Istanbul Academy of Economic and Commercial Sciences, the higher school in Ankara affiliated to the Ankara Academy of Economic and Commercial Sciences, and the higher school in Izmir affiliated to the Izmir Academy of Economic and Commercial Sciences. In addition, the Institute of Education with Television was established in the Eskişehir Academy of Economics and Commercial Sciences. This institute was transformed into the Cinema and Television Higher School in 1975 and the Departments of Communication Arts, Cinema and Television and Press and Broadcasting were established in the following years.<sup>10</sup>

In 1983, the situation of higher schools was reconsidered and the administration of some of the press and broadcasting higher schools in Ankara, Istanbul and Izmir was left to the rectorate of Ankara, Gazi, Ege, Istanbul and Marmara Universities. The departments related to communication within Anadolu University in Eskişehir also formed a “communication faculty”. With the latest change made in 1992, the name of these higher schools was changed to “Communication Faculties”.<sup>11</sup> The number of State Universities and Foundation Universities, which provide communication education, started to increase after the 1990s.<sup>12</sup>

<sup>3</sup> TOKGÖZ, O.: Türkiye’de İletişim Eğitimi: Elli Yıllık Bir Geçmişin Değerlendirilmesi. In *Kültür ve İletişim*, 2003, Vol. 6, No. 1, p. 14-15.

<sup>4</sup> Ibidem, p. 15.

<sup>5</sup> Ibidem, p. 16.

<sup>6</sup> TOPUZ, H.: *100 Soruda Başlangıçtan Bugüne Türk Basın Tarihi*. İstanbul : Gerçek Yayınevi, 1996, p. 205.

<sup>7</sup> TILIÇ, D. L.: The Turkish Journalism Education Landscape. In TERZİS, G.: *European Journalism Education*. Bristol and Chicago : Intellect, 2009, p. 334.

<sup>8</sup> Ibidem, p. 333-334.

<sup>9</sup> DAĞTAŞ, E., KAYMAS, S.: Türkiye’de İletişim Eğitimi Üzerine Öneriler. In *Kültür ve İletişim*, 1998, Vol. 1, No. 2, p. 94.

<sup>10</sup> TOPUZ, H.: *100 Soruda Başlangıçtan Bugüne Türk Basın Tarihi*. İstanbul : Gerçek Yayınevi, 1996, p. 206.

<sup>11</sup> Ibidem, p. 206.

<sup>12</sup> TOKGÖZ, O.: Türkiye’de İletişim Eğitimi: Elli Yıllık Bir Geçmişin Değerlendirilmesi. In *Kültür ve İletişim*, 2003, Vol. 6, No. 1, p. 11.

Communication education that started in Turkey directly as a result of demand from the communication sector conflicts with the sector today. The number of communication faculties has increased in recent years. Some of these faculties couldn't reach the quantity at the same speed as others. This situation directly affects the quality of the education. This applies not only to communication faculties, though. There are problems arising from not having enough theoretical education, insufficiency of practical classes, and the lack of physical opportunities. In addition, as the communication sector is a highly changeable and competitive environment, these deficiencies are easily recognised.<sup>13</sup>

### 3. The Problems in Communication Education and The Expectations of The Media

Dağtaş and Kaymas claim the USA agree that communication is a privileged and varied academic action in today's world.<sup>14</sup> They explain that the most important reason for it is the fact that the studies that have been done since the 1930s have reached an important level both as for quality and quantity. Dağtaş says that there were problems to employ the graduates from communication faculties to meet the need for an inexpensive workforce of the media sector. He also states that the more the number of towns converted into cities and the number of new universities rose, the more the number of communication faculties increased. Dağtaş says that it is necessary to overcome the hesitation towards the theory and practice in communication education without compromising the universal understanding in the curriculum. He also emphasises that the perception that the theory is already practical in itself shouldn't be ignored.<sup>15</sup>

It is observed that the communication education schools in Turkey are mostly for providing the media sector with workforce rather than contributing in the area themselves.<sup>16</sup> One of the essential issues argued at schools giving communication education and training is the concern about training the staff the sector requires. However, a compromise hasn't been reached on this yet because the profile for a communicator demanded by the media is not clearly defined.<sup>17</sup> It seems that forming and discussing collaboration between the school and the sector is a need for the students.<sup>18</sup>

There is a close relation between the education given at communication faculties and the media sector and media industry.<sup>19</sup> In accordance with this, it is seen that the media sector has some expectations from the communication faculties. The sector demands that students at these faculties should be more trained at practice level.

It is admitted by both the students and the graduates and the academicians that practical classes given at communication faculties are not enough for the graduates to work in the media sector without getting an extra training.<sup>20</sup> Lecturers with a critical perspective, who stay away from the media sector, also believe that practical education in communication faculties is not sufficient.

<sup>13</sup> CAN, S.: İletişim Eğitiminde Akademi ve Sektör Beklentileri Üzerine Bir Araştırma. In *Humanities Sciences (NWSAHS)*, 2018, Vol. 13, No. 3, p. 58.

<sup>14</sup> DAĞTAŞ, E., KAYMAS, S.: Türkiye'de İletişim Eğitimi Üzerine Öneriler. In *Kültür ve İletişim*, 1998, Vol. 1, No. 2, p. 99.

<sup>15</sup> DAĞTAŞ, E.: Üniversite Sanayi İşbirliği Perspektifinden Türkiye'deki İletişim Eğitimine İlişkin Bir Değerlendirme. In *Akdeniz Üniversitesi İletişim Fakültesi Dergisi*, 2011, No. 15, p. 45-46.

<sup>16</sup> DAĞTAŞ, E., KAYMAS, S.: Türkiye'de İletişim Eğitimi Üzerine Öneriler. In *Kültür ve İletişim*, 1998, Vol. 1, No. 2, p. 100.

<sup>17</sup> Ibidem, p. 102.

<sup>18</sup> YETKİNER, B.: Radyo, Televizyon ve Sinema Bölümlerinde Sinemayla İlgili Verilen Ders İçeriklerinin Araştırılması. In *İnif E-Dergi*, 2018, Vol. 3, No. 1, p. 84.

<sup>19</sup> Ibidem, p. 84.

<sup>20</sup> ŞEKER, M., ŞEKER, T.: İletişim Eğitiminde Temel Sorunlar ve Açmazlar. In *Akdeniz Üniversitesi İletişim Dergisi*, 2011, No. 15, p. 103.

There are a great number of practical classes in communication education, however, it varies from faculty to faculty. It is considered important that students take practical and vocational classes, especially after the first two years at the school. They are trained in such a way that they become familiar with the sector.<sup>21</sup> However, there are opinions that the practical classes given at communication faculties are insufficient and students are not ready for their professional lives when graduating. Faculties are criticised for some issues, such as the practical classes are few in number, they are conducted with a content that is not up-to-date, and there are not enough lecturers and technical infrastructure is insufficient.<sup>22</sup>

In the study by Çelik,<sup>23</sup> managers in the media state that the practical education that the graduates were given at faculties is quite limited. They generally say that theoretical education is difficult to apply in the field.

The media sector does not regard communication education as acceptable and therefore makes it difficult for communication faculty graduates to get employed in the sector, even though they approve of providing journalism and communication education. It is difficult to say that the sector defines the communicator profile clearly. However, it seems possible to say that the media sector has some attempts to take communication education under its control, but it cannot fulfill this wish because this education is at a college level.<sup>24</sup>

At this point, it becomes important to determine the ratio of practice and theory classes in the curricula of communication faculties. The faculties examined in this study are the ones in Istanbul, Ankara and Izmir and they all have different academic traditions. This plays an important role in their curricula and in determining the content of the classes.

The Communications Faculties in Turkey seek to combine both theory and practice education. However, the weight of theory or practice education changes from one faculty to another. For example, the students of the Communications Faculty of the Anadolu University in Eskisehir become more familiar with practice, especially in Radio and Television Journalism and the students of the Communications Faculty of Ankara University have more theory courses than the practical ones into their communication education and curriculum.<sup>25</sup>

In this context, the problem underlies in the fact that the media sector only demands “practitioner students” without considering the academic traditions of the faculties. That is why this demand coming from the media sector does not seem possible to be met. “Theoretical-empirical” dialectic is one of the basic dilemmas regarding communication education. Basic cultural and theoretical field classes form 60% and practical classes are at a lower level with 40%, and this is an obstacle for a communicator-candidate to be preferred as a qualified media worker.<sup>26</sup> Dağtaş and Kaymas say that the ratio of practical classes and basic cultural field classes should be 50%.<sup>27</sup> This way, communication faculties will act both in accordance with the notions required to be an academy and their graduates will have gained the required abilities and experience and they will be able to transfer this theoretical knowledge into practice.

There are two interlocutors in the employment of the graduates of communication faculties; the news media and television sector and the institutions providing communication education. It is observed that there are some deficiencies in communication education and the levels

<sup>21</sup> ŞEKER, M., ŞEKER, T.: İletişim Eğitiminde Temel Sorunlar ve Açmazlar. In *Akdeniz Üniversitesi İletişim Dergisi*, 2011, No. 15, p. 103.

<sup>22</sup> Ibidem, p. 105.

<sup>23</sup> ÇELİK, M. U.: Radyo, Televizyon ve Sinema Bölümü Özelinde İletişim Fakültelerindeki Eğitime İlişkin Bir İnceleme. In *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 2012, No. 1, p. 63.

<sup>24</sup> TOKGÖZ, O.: Türkiye’de İletişim Eğitimi: Elli Yıllık Bir Geçmişin Değerlendirilmesi. In *Kültür ve İletişim*, 2003, Vol. 6, No. 1, p. 19.

<sup>25</sup> TILIÇ, D. L.: The Turkish Journalism Education Landscape. In TERZİS, G. (ed.): *European Journalism Education*. Bristol and Chicago : Intellect, 2009, p. 337-338.

<sup>26</sup> DAĞTAŞ, E., KAYMAS, S.: Türkiye’de İletişim Eğitimi Üzerine Öneriler. In *Kültür ve İletişim*, 1998, Vol. 1, No. 2, p. 107.

<sup>27</sup> Ibidem, p. 107.

of the graduates. However, it is obvious that the problems regarding the employment of these graduates occur because of the attitudes of the media institutions. National and common media is getting commercialised day by day and the employment, like every issue, is considered on the profit axis.<sup>28</sup> The rapid quantitative increase in the communication education leads to problems regarding the quality of the education and the staff that will provide the education, as well as the problems in the employment.<sup>29</sup>

Having received communication education does not have a defining feature on the regulation of the working conditions in the media sector and using human resources in an effective way. Students that graduate from communication faculties have often been victims in recent years because of the increase of the monopolisation in the media sector. They cannot use their bargaining power to be employed in the sector in the context of capital/media/technology relations.<sup>30</sup> Öztürk says that the real purpose of communication education should be creating “the new intellectual”.<sup>31</sup> According to Öztürk, the position of this intellectual is the consciousness that life is built in a biased way, which brings theory and practice together, oscillates between abstract and concrete, can apply knowledge and draw theoretical generalizations from practices and experiences, looks crooked, questions life, criticizes and struggles to transform it when necessary. It must be at a stage where it realizes that even being neutral in itself means bias. Öztürk states that teachers need to evolve themselves first for the creation of this new intellectual.<sup>32</sup> When technological developments, too, are taken into consideration, it is understood that these changes affect the journalism education. It becomes clear how significant and urgent it is to make a critical evaluation on the predicted effect of change on current practices and the curriculum.<sup>33</sup>

Communication education is rapidly converged, as well as corporations, contents and professions in the media sector. Findings show that convergence is not a basic agenda in the arguments about communication education in Turkey. However, the idea of divergence based on the specialisation of departments is still valid.<sup>34</sup>

Ergeç says that international university networks and their partners are one of the solutions for creating a quality and up-to-date understanding of education. He claims that this will help strengthen the culture of peace and a mutual understanding. Ergeç states that encouraging a broad-based academic exchange and creating multi-cultural collaborations will contribute to communication education.<sup>35</sup>

<sup>28</sup> ŞEKER, M., ŞEKER, T.: İletişim Eğitiminde Temel Sorunlar ve Açmazlar. In *Akdeniz Üniversitesi İletişim Dergisi*, 2011, No. 15, p. 101.

<sup>29</sup> UZUN, R.: İstihdam Sorunu Bağlamında Türkiye’de İletişim Eğitimi ve Öğrenci Yerleştirme. In *İletişim Kuram ve Araştırma Dergisi*, 2007, No. 25, p. 133.

<sup>30</sup> ÇELİK, M. U.: Radyo, Televizyon ve Sinema Bölümü Özelinde İletişim Fakültelerindeki Eğitime İlişkin Bir İnceleme. In *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 2012, No. 1, p. 62.

<sup>31</sup> ÖZTÜRK, S.: İletişim Eğitiminin Hedefi: Yeni Bir Entellektüel Yaratmak. In *Akdeniz Üniversitesi İletişim Dergisi*, 2011, No. 15, p. 155.

<sup>32</sup> Ibidem, p. 155.

<sup>33</sup> BAYRAKTUTAN, G. et al: Gazetecilik Bölümü Öğrencilerinin Gözünden Yeni Medya Çağında Gazetecilik. In *Akdeniz Üniversitesi İletişim Dergisi*, 2018, No. 29, p. 226.

<sup>34</sup> ATABEK, Ü., ATABEK, G.: İletişim Eğitiminde Farklı Perspektifler: Öğrenciler, Akademisyenler ve Meslek Mensuplarının İletişim Eğitimi Hakkındaki Tutumları. In *İletişim Kuram ve Araştırma Dergisi*, 2014, No. 38, p. 158.

<sup>35</sup> ERGEÇ, E. N.: Uluslararası Yükseköğretim Trendleri Bağlamında İletişim Eğitimi Yeniden Düşünmek. In *Selçuk İletişim Dergisi*, 2014, Vol. 8, No. 2, p. 24.

## 4. Methodology and The Sampling of The Study

This study deals with the arguments about the theoretical and practical education in communication faculties in Turkey theoretically. In the study, a quantitative content analysis was applied for the practice course hours in the 4-year curriculum of the communication faculties in Istanbul, Ankara and Izmir, and departments at these faculties. The study aimed to comparatively examine the course-contents of the State and Foundation universities in these three cities. For this reason, the study did not only make a comparison of faculties, it also tried to consider all the departments and curricula at communication faculties and it wanted to reflect the results of the practical courses -obligatory or optional- in a numerical way. In this context, the study evaluated “the field”, “department”, or “university” optional courses, which are commonly included in the 4-year lesson plans of State universities. In addition, “all optional courses”, “art and humanities optional lessons” and “social sciences optional lessons” in the lesson plans of communication faculties of Foundation universities were analysed and the practical class hours of these lessons were evaluated within the total qualitative data.

The contents of the practical class-hours in the lesson plans were created by bringing together the 4-year lesson plan data or, in other words, 8-term period, which are published on the websites of the faculties under different names like “Curriculum”, “Education Program”.

In this context, some problems arose within the study to collect up-to-date data. As some communication faculties did not upload the revised versions of their curricula, this study included the ones regarding the years prior to the “2020-2021 Academic Years”. It can be said that these communication faculties did not upload their curricula because they had not made any changes in them, and thus did not need to upload them on their web pages.

The list of State and Foundation communication faculties that are in Ankara, Istanbul and Izmir was created first at arranging the quantitative-analysing process. It can be seen that departments, or head departments, started to be established in communication faculties under the names like “Media and Communication Studies”, “Media and Cultural Studies”, “Visual Arts” and “Humanities”. In this context, the sample of this study was determined only with faculties that were opened bearing the name “Communication Faculty”. It was found out in this study that there are 7 communication faculties in the State universities and 17 communication faculties in the Foundation universities, which are in Istanbul, Ankara, and Izmir. One of the reasons why these three cities were chosen to be the sample of this study is the fact that the first communication faculties were opened in these cities. Other reasons why these three cities were picked are the urbanization, or socio-economic level of these cities, and the fact that the media sector is more widely spread in these cities.

## 5. Findings

One of the most remarkable facts that was revealed in this study is that the departments that were called as “most known” were more common during the first years of these universities. In other words, these departments – “Journalism”, “Public Relations and Publicity”, “Radio, Television and Cinema” – are the most obvious basic departments at these faculties. Unlike these departments, it can be seen that education is given in the “Advertising” department in the Faculty of Communication in Ege University and the “Communication Undergraduate Program” in the Faculty of Communication in Galatasaray University. When the optional classes in communication faculties in State Universities were examined, it was observed that “university optional classes” are predominant besides “field” or “departmental optional classes”. However, it was seen that students at the Foundation universities are able to choose from a wide variety of optional classes in the curricula of almost all faculties, such as “Art and Humanities”, “All Optional Classes”, “Social Sciences” and “Optional Language Classes”.

University/Faculty	The Province	Department/Program	Practical Class Hours	Compulsory (Hour)	Optional (Hour)
Ankara Hacı Bayram Veli University Faculty of Communication	Ankara	Journalism	7	2	5
		Public Relations and Publicity	4	2	2
		Radio, Television and Cinema	5	2	3
Ankara University Faculty of Communication	Ankara	Journalism	325	2	323
		Public Relations and Publicity	323	2	321
		Radio, Television and Cinema	327	2	325
Ege University Faculty of Communication	İzmir	Journalism	7	-	7
		Public Relations and Publicity	60	18	42
		Radio, Television and Cinema	117	46	71
		Advertising	25	7	18
Galatasaray University Faculty of Communication	İstanbul	Communication Undergraduate Programme	210	120	90
Hacettepe University Faculty of Communication	Ankara	Communication Sciences Program	17	3	14
İstanbul University Faculty of Communication	İstanbul	Journalism	2	2	-
		Public Relations and Publicity	2	2	-
		Radio, Television and Cinema	22	18	4
Marmara University Faculty of Communication	İstanbul	Journalism	2	2	-
		Public Relations and Publicity	2	2	-
		Radio, Television and Cinema	2	2	-

**TABLE 1:** Practical class hours according to the 4-year Curriculum of the Communication Faculties of the State Universities (According to the weight in compulsory and practical courses)

Source: own processing, 2021

When the communication faculties in these three cities were evaluated among themselves, it was seen that the Communication Faculty in Ankara University is the one providing the students with the biggest number of optional practical classes. It was also observed that “Communication Undergraduate Program” in the Faculty of Communication in Galatasaray University comes second to provide the most practical classes. However, at this stage, when the weights of “practical classes” within the compulsory and optional classes were taken into consideration, it was found out that only 2 hours of practical classes are included in the compulsory classes in each department of Ankara University. Similarly, it was also seen that only 2 hours of practical classes are offered to students in compulsory classes in Ankara Hacı Bayram Veli and İstanbul and Marmara Universities. One of the most remarkable facts is that there are 18-hour practiceclasses only in “Radio, Cinema and Television” department in İstanbul University.

Another finding is that Communication Undergraduate Program in Galatasaray University stands out with 120-hours of practice classes within a 210-hour compulsory lesson plan. In Ege University, there are 18-hours of practice classes in “Public Relations and Publicity”. However, the “Radio, Television and Cinema” department comes second after Galatasaray University with 46-hours of practice classes in a compulsory classes program. It is a significant finding that there no practice classes in the compulsory classes program in the “Journalism” department at Ege University, but there are 7-hour practice classes in “University Optional Classes”.

When the communication faculties of Foundation universities in these three cities were evaluated among themselves, it was observed that they provide their students with education in a number of different departments. While the “Journalism” department continues to be inside Foundation Universities, it can be seen that a new department called “New Media and Journalism” has been opened in the Communication Faculties in Üsküdar and Yaşar Universities, together with the development in digital communication technologies, because the “new media” concept is becoming more and more common. It was also observed that a department and a program called “New Media and Communication” has been opened in the Communication Faculties of Fenerbahçe, İstanbul Arel, İstanbul Aydın, İstanbul Yeni Yüzyıl, İzmir Ekonomi, Medipol and Üsküdar Universities. In addition, it was seen that departments provide education only under the name of “New Media” in the Communication Faculties of Bahçeşehir, Beykent, and Kadir Has Universities.

When the names of departments and programmes of the communication faculties in Foundation Universities were examined, it was seen that communication education is provided at the departments like “Public Relations and Publicity” besides “Public Relations and Advertising” and it was also seen that, even though the name “Radio, Television and Cinema” is widely used, there are also some other names like “Cinema and Television”, “Television Journalism and Programming” and “Cinema and Digital Media”. “Advertising” was observed to be the most remarkable department independent from “Public Relations and Publicity” in Foundation Universities.

Foundation universities are opening new departments in the field of communication and media for their students in addition to optional practical classes. We see that communication education can be conducted in their departments and programs, such as “Cartoons and Animation”, “Digital Game Design”, “Photography and Video”, “Visual Art and Design”, “Communication and Design”, “Communication Design and Management”, “Advertising Design and Communication”, “The Media and Communication”, “Media and Communication Systems”, “The Media and Visual Arts”, “Performance Arts and Management” and “Art and Culture Management”.

University/Faculty	The Province	Department/Program	Practical Class Hours	Compulsory (Hour)	Optional (Hour)
Bahçeşehir University Faculty of Communication	İstanbul	Cartoons and Animation	58	46	12
		Photography	36	36	-
		Digital Game Design	40	40	-
		Communication and Design	46	46	-
		Public Relations and Publicity	8	8	-
		Advertising	18	18	-
		Cinema and Television	20	20	-
		New Media	26	26	-
Başkent University Faculty of Communication	Ankara	Public Relations and Publicity	-	-	-
		Communication and Designing Program	-	-	-
		Radio, Television and Cinema	-	-	-

Beykent University Faculty of Communication	İstanbul	Visual Communication	39	13	26
		Public Relations and Advertising	26	6	20
		Media and Communication	19	7	12
		Television Journalism and Programming	28	8	20
		New Media	30	10	20
Fenerbahçe University Faculty of Communication	İstanbul	Public Relations and Publicity	28	26	2
		Radio, Television and Cinema	46	44	2
		New Media and Communication	32	30	2
İbn Haldun University Faculty of Communication	İstanbul	Media and Communication Programme	112	38	74
İstanbul Arel University Faculty of Communication	İstanbul	Journalism	12	12	-
		Visual Communication Design	24	24	-
		Public Relations and Advertising	14	14	-
		Cinema and Television	18	18	-
		New Media and Communication	10	10	-
İstanbul Aydın University Faculty of Communication	İstanbul	Journalism	17	17	
		Public Relations and Publicity	11	7	4
		Visual Communication Design	49	25	24
		Radio, Television and Cinema	21	17	4
		Advertising	12	12	
		Television Journalism and Programming	17	15	2
		New Media and Communication	66	24	42
İstanbul Bilgi University Faculty of Communication	İstanbul	Photography and Video	127	4	123
		Visual Communication Design	-	-	119
		Digital Game Design	145	24	121
		Communication Design and Management	-	-	114
		Radio, Television and Cinema	127	4	123
		Advertising	119	3	116
		Performance Arts Management	160	10	150
		Art and Culture Management	125	4	121
İstanbul Ticaret University Faculty of Communication	İstanbul	Visual Communication Design	48	26	22
		Public Relations and Advertising	34	16	18
		Public Relations	24	12	12
		Media and Communication Systems	46	20	26
		Media and Communication	50	20	30
		Advertising	14	12	2

İstanbul Yeni Yüzyıl University Faculty of Communication	İstanbul	Public Relations and Advertising	49	32	17
		Visual Communication Design	90	50	40
		Radio, Television and Cinema	80	40	40
		New Media and Communication	60	34	26
İzmir Ekonomi University Faculty of Communication	İzmir	Public Relations and Advertising	46	22	24
		Cinema and Digital Media	77	54	23
		New Media and Communication	56	46	10
Kadir Has University Faculty of Communication	İstanbul	Visual Communication Design	214	58	156
		Public Relations and Publicity	164	54	110
		Radio, Television and Cinema	194	58	136
		Advertising	156	62	94
		New Media	160	50	110
Maltepe University Faculty of Communication	İstanbul	Journalism	56	36	20
		Visual Communication Design	90	60	30
		Public Relations and Publicity	64	46	18
		Radio, Television and Cinema	70	50	20
Medipol University Faculty of Communication	İstanbul	Journalism Program	41	17	24
		Media and Visual Arts Programming	92	25	67
		Radio, Television and Cinema Program	77	25	52
		New Media and Communication Program	68	14	54
Üsküdar University Faculty of Communication	İstanbul	Cartoons and Animation	58	30	28
		Journalism	28	28	-
		Visual Communication Design	160	36	124
		Public Relations and Publicity	56	34	22
		Radio, Television and Cinema	58	32	26
		Advertising	56	32	24
		New Media and Communication	28	28	-
		New Media and Journalism	66	28	38
Yaşar University Faculty of Communication	İzmir	Visual Communication Design	402	58	344
		Public Relations and Publicity	218	22	196
		Radio, Television and Cinema	348	28	320
		New Media and Journalism	394	50	344
Yeditepe University Faculty of Communication	İstanbul	Journalism	38	22	16
		Visual Communication Design	52	38	14
		Public Relations and Publicity	36	26	10
		Radio, Television and Cinema	34	22	14
		Design of Advertising and Communication	40	22	18

**TABLE 2** Practical class hours according to the 4-year Curriculum of the Communication Faculties of the State Universities (According to the weight in compulsory and practical courses)

Source: own processing, 2021

When the communication faculties in Foundation Universities were evaluated among themselves, The Faculty of Communication in Yaşar University, which is in Izmir, was observed to be the faculty providing the students with the most hours of optional practical classes. In our study, the total number of optional practical class hours of the four departments in this faculty was observed to be in the first three of all. Another finding is that this faculty provides its students with the total number of 402-hour of practical classes, both compulsory and optional, in the department of “Visual Art and Design”. It is noteworthy that there are a total of 394 hours of practical classes in the “New Media and Journalism” department; 348 in the “Radio, Television and Cinema” department; and 218 in the “Public Relations and Publicity” department.

When we studied the hours of practical classes, it was found that the Faculty of Communication in Kadir Has University comes second after Yaşar University. According to this data, it was counted that there are 214 practice hours in “Visual Art and Design”, 194 in “Radio, Television and Cinema”, 164 in “Public Relations and Publicity” and 160 hours in “The New Media”. In addition, it was also revealed that there is 160-hour practical education in the “Visual Art and Design” in the Faculty of Communication, Üsküdar University and 156 hours of practical classes in the “Advertising” department of the Communication Faculty, Kadir Has University. The figures close to these total practice class hours were determined in the departments of Faculty of Education at Istanbul Bilgi University. Other data from this university is as follows: 160 in “Performance Arts and Management”; 145 in “Digital Game Design”; 127 in both “Photography and Video” and “Radio, Television and Cinema”; 125 in “Art and Culture Management”; 119 in “Visual Art and Design” and “Advertising”; and 114 in the “Communication Design and Management” department. The reason why the number of practice class hours is high in the Communication Faculty in Istanbul Bilgi University is that 110 optional class hours opened at different faculties are provided to the students. It was seen that other optional classes are offered in the “Arts and Humanities”, “Social Sciences” and “Departmental Optional” classes list.

Among Foundation Universities, Istanbul University is followed by Ibn Haldun University with 112 class hours in the Media and Communication Program in the Communication Faculty. Another remarkable finding is that this faculty provides its students with 224 hours of optional language classes of many different languages.

Other findings are as follows: 92hours of practical classes in the department of “Media and Visual Arts Programme” at the Communication Faculty of Medipol University; 90-hour classes in the departments of “Visual Arts and Design” at the Communication Faculty of Maltepe University and Istanbul Yeni Yüzyıl University; and 80 hours of practical classes in the “Radio, Television and Cinema” department at the Communication Faculty of İstanbul Yeni Yüzyıl University. However, it was seen that no practical classes were put in the curricula of any of the departments at the Faculty of Communication in Baskent University.

When all the practice class hours were evaluated, it was seen that “Visual Art Design” departments at communication faculties in Foundation Universities offer their students an intensive class content. It was also seen that the weight of practical classes stands out in the curricula of the “Radio, Television and Cinema” departments and at the recently-opened departments of “New Media” and “New Media and Journalism”.

When the 4-year curricula of the communication faculties in the Foundation Universities was examined, it was observed that Advertising department in the Faculty of Communication in Kadir Has University comes first with 62 hours of practical classes that are offered within the compulsory classes. Marmara University comes second with 60hours of compulsory practical classes in “Visual Art Design” at the Communication Faculty. The Communication Faculty at Kadir Has University offers 58 hours of practical classes within their “Visual Art Design” and “Radio, Television and Cinema” departments, as well as the Yasar University’s Communication Faculty does withing their “Visual Art Design”. These faculties and departments are followed

by the “Public Relations and Publicity” in the Faculty of Communication in Kadir Has University and also by the “Cinema and Digital Media” department of the Faculty of Education at Izmir Economy University with 54 hours of practical classes. It was also observed that there are 50-hour practice classes within the compulsory courses in the curricula of “Visual Art Design” at the Communication Faculty of Istanbul Yeni Yüzyıl University; the “New Media” department at the Communication Faculty of Kadir Has University; the “Radio, Television and Cinema” department at the Communication Faculty of Maltepe University; and the “New Media and Journalism” department at the Communication Faculty of Yaşar University.

Considering the weight of practice class hours in compulsory courses, the faculties and departments that come to the fore in total practice class hours attract attention once more. It was determined that Advertising and Visual Communication Design in Kadir Has University and Maltepe University in Istanbul and Yasar University Communication Faculty in Izmir are at the top of the list.

## 6. Discussion and Conclusion

It has often been argued about what the weight of practical and theoretical education should be in the curricula of communication faculties in Turkey. When communication faculties are evaluated in general, there are faculties which claim that their mission is not to train students for the media sector, and the ones to give importance to practical education in their curricula, besides theoretical education. While determining the weight of practical and theoretical education, some factors should be taken into consideration, such as the province where the faculty is located; whether the city is close to the media sector; the academic fields for the academicians and lecturers and their proficiency levels; and whether there are units where students can gain practice.

The findings obtained by this study illustrate that, as for the weight of practical classes provided to students, the Foundation Universities outnumber the State Universities. It can be observed that there is a variety of practical classes, such as “University Optional”, “Art and Humanities” and “Social Sciences” besides compulsory classes in some Foundation Universities. In this context, it was determined that the theoretical education in communication faculties of State Universities is paid more attention to. It is sure that practical classes are not sufficient. However, the practical units and workshops at faculties offer the students a chance to gain experience. Thus, it becomes easier for them to transfer into the media sector after graduation.

When the departments were evaluated, it was observed that “Journalism”, “Public Relations and Publicity” and “Radio, Cinema and Television”, which are also called “the best known departments” come to the fore in the communication faculties of State Universities that were examined in this study. Apart from this, another remarkable fact is that the departments differ only in the Communication Faculties of Galatasaray and Hacettepe University with the “Communication” and “Communication Sciences” departments. In addition, “Advertising” comes to the fore in the Ege University besides these three most-known departments. In Ankara University’s Communication Faculty, “Radio, Cinema and Television” has the first place with 327 practice class hours, “Journalism” comes next with 325 hours and is followed by “Public Relations and Publicity” with 323 practice hours. However, it was determined that these three departments provide 2-hour practical classes within compulsory courses.

When the weight of practical classes within compulsory courses was taken into consideration, the result is that 120 hours out of 210 hours of practical classes are included in the compulsory courses in the “Communication Programme” in the Communication Faculty of Galatasaray University. However, 90 hours of practical classes are seen within the optional courses. In other words, the faculty offers the students approximately 57% of the practical

classes within the compulsory courses. While the “Radio, Television and Cinema” department at the Communication Faculty of Ege University provides 117-hour practical education, 46 hours out of this amount is given within the compulsory courses. The faculty provides 60 hours of practical classes in “Public Relations and Publicity”; and 25 hours in “Advertising”. There are 7 hours of practical classes in “Journalism”, but it is interesting that that none of these classes are included in the compulsory courses. At Istanbul University, Communication Faculty, 22 hours of practical classes are provided in “Radio, Cinema and Television”, out of which 18 hours are included within the compulsory courses. When the curricula of other universities were examined, it was observed that the number of practice class hours is extremely low.

When the departments at the communication faculties of Foundation Universities were examined, practice class hours are more intensive in compulsory and optional courses and they are more balanced among the departments. It deserves attention that within some departments, especially “Visual Art Design” and “Radio, Television and Cinema”, there are more practice class hours than within other departments.

It was observed that four departments of the Communication Faculty of Yasar University in Izmir are ranked among the first three regarding the number of practice class hours. In this faculty, 402 hours of practical classes in total are offered to students in the “Visual Art Design”; 394 hours in “The New Media and Journalism”; 348 hours in “Radio, Television and Cinema” and 218 hours in “Public Relations and Publicity”. This faculty is followed by the departments of the Communication Faculty of Kadir Has University. According to the study, the students are offered 214 hours of practical classes in the “Visual Art Design” department at this faculty; 194 hours in “Radio, Television and Cinema”; 164 hours in “Public Relations and Publicity” and 160 hours in “The New Media”.

It was also determined that there are 160 hours of practical classes in the “Visual Art Design” department at the Faculty of Communication of Üsküdar University and 156 hours in the “Advertising” department at the Faculty of Communication of Kadir Has University. It was observed that in the Faculty of Communication of Istanbul Bilgi University, the list of all optional classes includes 110 hours of practical classes and this situation has increased the number of practical classes at the Faculty. The findings from this Faculty are as follows: 160 hours of practical classes are in the “Performance Arts and Management” department”; 145 hours in “Digital Game Design”; 127 hours both in “Photography and Video” and “Radio, Television and Cinema”; 125 hours in “Art and Culture Management”; 119 hours in “Visual Art Design” and “Advertising”; 114 hours in “Communication Design and Management”.

When the weight of practical classes in the 4-year course plans was evaluated in general, it was observed that practice class hours are insufficient at the communication faculties of the State Universities that were examined in this study. It was also observed that practice class hours are not equally shared among the departments within the compulsory and optional courses. It deserves attention that practice class hours are more intensive in the curricula of the communication faculties of Foundation Universities, where there are varied newly-opened departments, and they are equally shared within the departments. Of course, it will not be sufficient to make an evaluation on practical education only by looking at the weight of course hours in the curricula. There are many factors to increase the importance of practical education, such as the communication faculties’ being close to the media sector or having practical units offering students a chance to gain practice. Therefore, it is really significant for the communication faculties of the State Universities to revise their curricula to solve this unbalanced distribution of theoretical and practical class hours.

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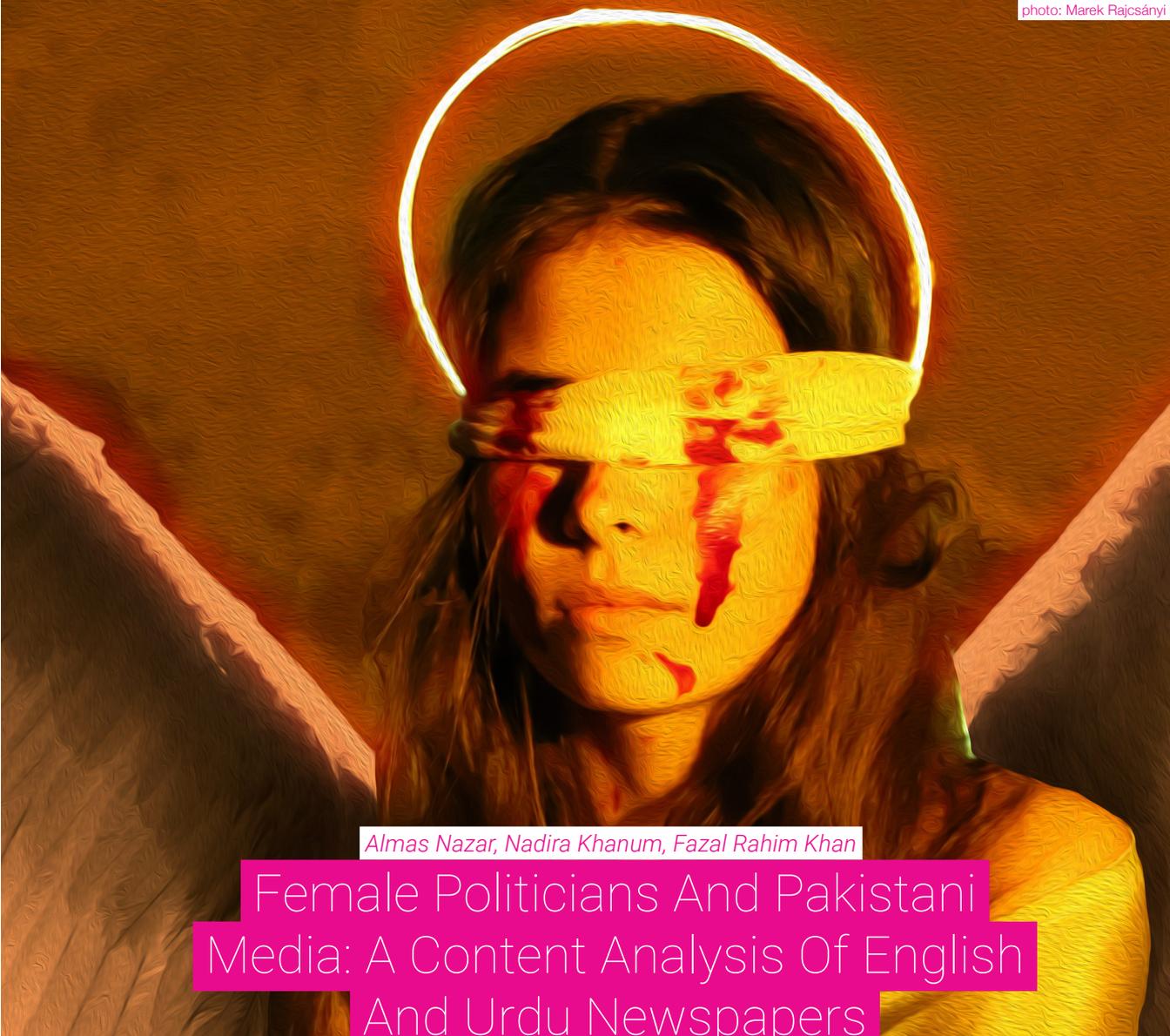
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Almas Nazar, Nadira Khanum, Fazal Rahim Khan

## Female Politicians And Pakistani Media: A Content Analysis Of English And Urdu Newspapers

### ABSTRACT

This study explores the framing of female politicians in the print media of Pakistan. Women cover over half of the population of Pakistan and with time they are actively participating in politics and have become increasingly visible in media as well. The study compares news stories in Urdu and English (*Jang/Dawn*) newspapers in terms of visibility, personalization, issue coverage and tone of story through quantitative content analysis over a time period of 6 months (1st June to 30th November 2019). The study concluded that female politicians receive less negative coverage in Pakistan as compared to western countries, where personal coverage is greater than issue based coverage. Comparative analysis of Urdu and English print newspapers showed that visibility and issue type vary in *Jang* and *Dawn* while personalization and tone of the story do not vary with the type of newspaper (*Jang/Dawn*).

### KEY WORDS

Framing. Female Politicians. Dawn. Jang. Content Analysis. Visibility. Personal Coverage. Issue Coverage. Tone of the Story.

# 1. Introduction

Ever since the beginning of the newspaper they have conveyed the latest happenings around the world to their readers, and with innovations in technology, the future of newspapers is very bright.<sup>1</sup> The newspaper is necessary to educate the citizens about what the government is doing, what their current measures and policies are, and what is the latest legislation approved by their representative for their benefits. This would allow voters to consider the political ethics of their leader and their stance on a specific issue<sup>2</sup>. Newspapers in Pakistan, just like all around the world, are an important communication tool. After independence, Pakistan started with very weak print media and very few guidelines and regulation but with time we saw the print media industry bloom and now it is one of the most reliable sources of information. Media and journalists have the power to mold the opinions of public and to show them reality through their eyes. They also have the power to change history through their reporting methods and to a large extent media is responsible for the image of females in society.

## 1.1 Role of Females in Worldwide Politics

Countries cannot progress if their women do not stand shoulder to shoulder with men, and as in every field the role of female politicians is also very important for successful government. Female voters in the USA received the right to cast their vote after the constitutional amendment in 1920. In the congress election of 2010 the women of America won 92 seats which are 17% of the total seats. They also won 17 seats in the senate which is also 17% of the total seats. If we look at the reason for lower numbers of female representation in US politics we find a number of reasons for that, the reasons are lower numbers of participation of female politicians, insufficient campaign funds for women to run for office and contesting against more powerful personalities like the presidential election between Hilary Clinton and Donald Trump.<sup>3</sup>

Female representation in politics is low but we cannot deny their decisive role in politics around the world. There are so many inspirational and strong female politicians around the world who play active roles in politics. One of the most prominent American female political figures is Hilary Clinton, who, when her husband Bill Clinton ran for the presidential election, served him as one of his advisors and as the first lady between 1993 and 2001 she was a prominent part of her husband's administration. Bill Clinton gave her the position as head of the task force on national health care. She was also the third women in US history to become the US Secretary of State in 2009.<sup>4</sup>

Indira Gandhi was the third prime minister and first female head of the state in India. She was the daughter of ex-prime minister of India Jawaharlal Nehru and after his death she became the head of the party and then was elected as the prime minister. She was the prime minister for the first time from 1966 to 1977 and then again from 1980 to 1984. She was assassinated by her own bodyguards.

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<sup>1</sup> See: KNIHOVÁ, L.: The Future of Newspapers: A Thrilling Encounter with Augmented Reality. In *Media Literacy and Academic Research*, 2018, Vol. 1, No. 2, p. 6-13.

<sup>2</sup> See more: RAHMAN, B.: Framing of Women in Politics: A Case of Pakistani Election 2013. In *Journal of Political Studies*, 2015, Vol. 22, No. 1, p. 335-350. [online]. Available at: <[http://pu.edu.pk/images/journal/pols/pdf-files/21-%20BUSHRA\\_22\\_2015.pdf](http://pu.edu.pk/images/journal/pols/pdf-files/21-%20BUSHRA_22_2015.pdf)>.

<sup>3</sup> See more: DEBER, R. B.: 'The Fault, Dear Brutus'. Women as Congressional Candidates in Pennsylvania. In *Journal of Politics*, 1982, Vol. 14, No. 4, p. 463-479. [online]. [2021-09-04]. Available at: <<http://www.jstor.org/stable/2130596>>.

<sup>4</sup> See more: DRUCKMAN, J. N.: On the Limits of Framing Effects: Who Can Frame? In *The Journal of Politics*, 2001, Vol. 63, p. 1041-1066. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/231993142\\_On\\_the\\_Limits\\_of\\_Framing\\_Effects\\_Who\\_Can\\_Frame](https://www.researchgate.net/publication/231993142_On_the_Limits_of_Framing_Effects_Who_Can_Frame)>.

Sheikh Hasina is the prime minister of Bangladesh. She is the daughter of former national leader of Bangladesh sheikh Mujibur Rehman who was the first president of Bangladesh after Bangladesh broke away from Pakistan. She was elected as prime minister twice, firstly from 1999 to 2001 and then from 2009 to the present. Just like Benazir she was also accused of involved in corruption and murder but she managed to get her prime ministerial seat back.

All the above personalities are related to power politicians and politicians that have family ties in politics, and they cannot do revolutionary work in their fields because they are somehow bound to carry forward their family name, but now time has changed and there are self-made female politicians emerging around the world. Margaret Thatcher and Teresa May in the UK, Angela Merkel in Germany, Julia Gillard in Australia, Helen Clark from New Zealand, or Sanna Marin, prime minister of Finland - she is the youngest prime minister of the world and she was elected as prime minister at the age of 34. All these female politicians established their careers independently without any family influence in politics. They are educated and have advanced degrees. Merkel has a Ph.D. in quantum chemistry. Some of them were actively participating in politics from a younger age or firstly gained experience and became financially independent and then started their political careers.<sup>5</sup>

All of these female politicians around the world are the symbol of a new era where women are not any less than men in any field of life, and the time has come when females should be represented honestly and equally in media as well.

## 1.2 Status of Female Politicians in Pakistan

Women's participation and their share of parliamentary and governmental offices vary under different political systems. From 1947 to 1954 women only acquired 3% of the total seats in parliament. During the second legislative assembly of 1955 to 1958 women politicians had zero representation. After the Zia ul Haq era, from 1978 to 1988, the shift in political structure also changed women's representation<sup>6</sup>.

By 1988 these three present quotas increased by 10% and women won 22 seats in the national assembly along with 5% of seats in the provincial assembly. In 1990 women's representation was 0.9% and in 1993 women's representation was 1.8% and by 1997 it was 2.8%. In 2000 for the first time under the military dictatorship women's quota for political participation increased by 33% at local government level which increased overall female participation in politics. In the 2002 elections 188 women contested the general election and 39 were elected. In the 2013 elections women won 70 out of 342 seats in the lower house and 17 out of 100 seats in the upper house. In the 2018 general elections 69 women were elected out of 342 seats<sup>6</sup>.

The chapter of basic rights of the general public of article 25 highlights the principles of women's equality in the Pakistani constitution. As time has passed women's role and participation have increased, political parties now also have women wings and women actively participate in political activities<sup>6</sup>.

In Pakistan we saw a steady increase of female politicians, Quaid e Azam Muhammad Ali Jinnah's younger sister Fatima Jinnah was one of the most passionate and renowned female politician in the history of Pakistan and she was given the title of "mother of the nation".

<sup>5</sup> SONG, J: *The Challenge for Asia's Female Politicians*. [online]. [2021-09-04]. Available at: <<https://www.lowyinstitute.org/publications/challenge-asias-female-politicians>>.

<sup>6</sup> AWAN, M. A.: *Political Participation of Women in Pakistan Historical and Political Dynamics Shaping the Structure of Politics for Women*. Frankfurt : Frankfurter Forschungszentrum Globaler Islam, 2018. No pagination. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/326262517\\_Political\\_Participation\\_of\\_Women\\_in\\_Pakistan\\_Historical\\_and\\_Political\\_Dynamics\\_Shaping\\_the\\_Structure\\_of\\_Politics\\_for\\_Women](https://www.researchgate.net/publication/326262517_Political_Participation_of_Women_in_Pakistan_Historical_and_Political_Dynamics_Shaping_the_Structure_of_Politics_for_Women)>.

In 1948 after independence two prominent female personalities emerged in Pakistani politics, Begum Shaista Ikram Ullah and Begum Jahan Ara Shah Nawaz. Both of them succeeded in achieving great levels of success for the females of Pakistan. They were focused in their work to do something for the women of Pakistan. They succeed in getting the Muslim Personal Law of Shariah passed which gave women the right to inherit property which also included agricultural property.

Pakistan is the first Muslim country to have a female prime minister - the late Benazir Bhutto. Female politicians not only took part in politics but also hold important positions and ministries like Law, Education, Foreign Affairs, Finance and Economics, Development, Science and Technology, and Culture.

The aim of this study is to not focus on any particular issue or personality but rather to analyse framing in newspaper content for female politicians from a Pakistani perspective. The research studied Pakistani English and Urdu daily newspapers (*Jang/Dawn*).

The Daily Jang is Pakistan's most celebrated and most extensively published Urdu newspaper, published in Lahore, Karachi, Rawalpindi, Quetta and London. It was started by Mir Khalil Ur Rehman in 1939. This was Pakistan's first newspaper that used computerized calligraphy in Urdu. Given its wide circulation, it has sustained its success and has been financially stable and has paid its workers decent wages. Jang became the first newspaper to launch weekly magazines on Fridays and all the newspapers started their weekly magazines on Friday afterwards. It is Pakistan's oldest and widely read publication, with over 8 million in daily readership from all socio-economic groups.

Dawn is a world-renowned English newspaper with an average circulation of 109,000. It was founded in 1941 by Quaid e Azam Muhammad Ali Jinnah. This was the official voice of the All India Muslim League under the guidance of Quaid e Azam Muhammad Ali Jinnah.

Pakistani English and Urdu newspapers both represent two distinct groups in Pakistani society, The English newspaper caters to the society's upper class who can read and understand English while Urdu newspapers cater to Pakistani society's lower to middle class people who enjoy reading Urdu newspapers. The audience of both newspapers is different which can lead to difference in the coverage of news. Analyzing newspapers in both languages and seeing how they have represented female politicians in their newspapers is therefore significant.

### 1.3 Framing Theory

With the emergence of media, researchers have discussed the content of media and its impact in their research studies over the past years. It was important to utilize these research studies to understand the various threads of work related to the subject area under discussion, focusing on framing whereby concentrating on the common frames used in newspaper reporting and print media while researching female politicians.

Framing theory, first presented by Goffman under the title of frame analysis in 1974 explained that frames are cognitive structures which include elements of organization that help, guide and understand the perception of reality.<sup>7</sup> Goffman's frame analysis provides the basis for the understanding and interpretation of frames through content analysis which has been lately adopted by many communication scholars.<sup>8</sup>

After Goffmann, Entman contributed greatly to the study of frames as he broke down framing theory into a workable system of analysis. Entman and later Lecheler, Schuck and De Vreese describe framing as choosing any element of fact and making it more perceivable, meaningful

<sup>7</sup> See more: GOFFMAN, E.: *Frame Analysis*. New York : Free Press, 1974.

<sup>8</sup> BLANKENSHIP, A.: *While the Nation Looked On: A Framing Analysis of Print News Media Coverage of Terri Schiavo's Final Days*. [Synopsis of Dissertation Thesis]. Lynchburg : Liberty University, 2011, p. 15-20. [online]. [2021-09-04]. Available at: <<http://digitalcommons.liberty.edu/cgi/viewcontent.cgi?article=1204&context=masters>>.

and unforgettable to the viewer through communicating text.<sup>9</sup> Literature on the framing of media showed that the technique of how an incident or person is framed can affect people's opinions of that incident or person. The effect on public understanding of these frames is called framing effect. People incline towards the facts conveyed to their attention by framing, and the approach with which media frames an incident represents audience understanding of the incident.<sup>10</sup> Framing bring the world's meaning into perspective, helping people make more sense of the world around them. Scholars suggested framing effects on an audience occur because people are not looking for extra information, but looking for answers from trustworthy sources.<sup>11</sup>

It's definitely crucial to see how media view women as political agents because media's depiction of women can affect the opinion of their voters and can damage their reputation. One of the reasons that we do not see women in legislation is their absence and negative portrayal in media.<sup>12</sup> There are several studies that proved that the perception of female and male candidates in the eyes of the voters is highly affected by the way they are shown in media.<sup>13</sup> It has been seen that female candidates were not given importance and coverage in media during election times and the focus of media is always on the male candidates.

## 1.4 Frames in Newspapers for Female Politicians

There are many stereotypical ways in which the media frames women. We can start by listing some of the most typical frameworks, which will be further analyzed in the following sections.

<sup>9</sup> See more: ENTMAN, R. M.: Framing: Towards Clarification of a Fractured Paradigm. In *Journal of Communication*, 1993, Vol. 43, No. 4, p. 51–58. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/209409849\\_Framing\\_Toward\\_Clarification\\_of\\_A\\_Fractured\\_Paradigm](https://www.researchgate.net/publication/209409849_Framing_Toward_Clarification_of_A_Fractured_Paradigm)>; LECHELER, S., SCHUCK, A. R. T., DE VREESE, C. H.: Dealing with Feelings: Positive and Negative Discrete Emotions as Mediators of Framing Effects. In *Communications: The European Journal of Communication Research*, Vol. 38, No. 2, p. 189-209. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/262802563\\_Dealing\\_with\\_feelings\\_Positive\\_and\\_negative\\_discrete\\_emotions\\_as\\_mediators\\_of\\_news\\_framing\\_effects](https://www.researchgate.net/publication/262802563_Dealing_with_feelings_Positive_and_negative_discrete_emotions_as_mediators_of_news_framing_effects)>.

<sup>10</sup> See more: SCHEUFELE, D. A.: "Agenda-Setting, Priming, and Framing Revisited: Another Look at Cognitive Effects of Political Communication". In WEI, R. (ed.): *Refining Milestone Mass Communications Theories for the 21st Century*. London : Routledge, 2016, p. 71-90.

<sup>11</sup> See: DRUCKMAN, J. N.: On the Limits of Framing Effects: Who Can Frame? In *The Journal of Politics*, 2001, Vol. 63, p. 1041-1066. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/231993142\\_On\\_the\\_Limits\\_of\\_Framing\\_Effects\\_Who\\_Can\\_Frame](https://www.researchgate.net/publication/231993142_On_the_Limits_of_Framing_Effects_Who_Can_Frame)>; HUSSAIN, M.: Frames for United Nations Climate Change Conference 2015 Comparison of Elite Dawn and Popular Jang Newspapers Evidence from Pakistan. In *Pakistan Social Sciences Review*, 2019, Vol. 3, p. 292-304. [online]. [2021-09-04]. Available at: <<https://psr.org.pk/issues/v3/1/frames-for-united-nations-climate-change-conference-2015-comparison-of-elite-dawn-and-popular-jang-newspapers-evidence-from-pakistan.pdf>>.

<sup>12</sup> GALLAGHER, M.: *Gender Settings: News Agendas for Media Monitoring and Advocacy*. London : Zed Books. [online]. [2021-09-04]. Available at: <[shorturl.at/lnLRW](http://shorturl.at/lnLRW)>.

<sup>13</sup> See: ADAY, S., DEVITT, J.: Style Over Substance: Newspaper Coverage of Elizabeth Dole's Presidential Bid. In *Harvard International Journal of Press/Politics*, 2001, Vol. 6, No. 2, p. 61-73. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/249809023\\_Style\\_Over\\_Substance\\_Newspaper\\_Coverage\\_of\\_Elizabeth\\_Dole%27s\\_Presidential\\_Bid](https://www.researchgate.net/publication/249809023_Style_Over_Substance_Newspaper_Coverage_of_Elizabeth_Dole%27s_Presidential_Bid)>; DAN, V., IORGOVEANU, A.: Still on The Beaten Path: How Gender Impacted the Coverage of Male and Female Romanian Candidates for European Office. In *The International Journal of Press/Politics*, 2013, Vol. 18, No. 2, p. 208-233. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/258138860\\_Still\\_On\\_the\\_Beaten\\_Path\\_How\\_Gender\\_Impactedthe\\_Coverage\\_of\\_Male\\_and\\_Female\\_Romanian\\_Candidates\\_for\\_European\\_Office?\\_sg=rDyKE\\_mtsoi\\_Vesxg56](https://www.researchgate.net/publication/258138860_Still_On_the_Beaten_Path_How_Gender_Impactedthe_Coverage_of_Male_and_Female_Romanian_Candidates_for_European_Office?_sg=rDyKE_mtsoi_Vesxg56)>; KAHN, K. F., GOLDENBERG, E.: Women Candidates in the News: An Examination of Gender Differences in U.S. Senate Campaigns. In *Public Opinion Quarterly*, 1991, Vol. 55, No. 2, p. 180-199. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/31177471\\_Women\\_Candidates\\_in\\_the\\_News\\_An\\_Examination\\_of\\_Gender\\_Differences\\_in\\_US\\_Senate\\_Campaign\\_Coverage](https://www.researchgate.net/publication/31177471_Women_Candidates_in_the_News_An_Examination_of_Gender_Differences_in_US_Senate_Campaign_Coverage)>; NICHOLE, M.: Emotional, Sensitive, and Unfit for Office? Gender Stereotype Activation and Support Female Candidates. In *Political Psychology*, 2014, Vol. 36, No. 6, p. 691-708. [online]. [2021-09-04]. Available at: <[https://onlinelibrary.wiley.com/doi/full/10.1111/pops.12186?casa\\_token=ge01TU5yKOsAAAAA%3A5vJgSx5uaiBDwKz6ZMOd51TzHc-G84jt4nTJmTj07Xgmwh33e-ti\\_YoKQ\\_t0gKV1mlzxExa1J4I0I3c](https://onlinelibrary.wiley.com/doi/full/10.1111/pops.12186?casa_token=ge01TU5yKOsAAAAA%3A5vJgSx5uaiBDwKz6ZMOd51TzHc-G84jt4nTJmTj07Xgmwh33e-ti_YoKQ_t0gKV1mlzxExa1J4I0I3c)>.

Firstly, the media gives overwhelming attention to women candidates' appearance, family status, personal life, and emotional attitudes. Ladley and Dabbous examined frames such as the issue of objectification in the news about the first female speaker in America Nancy Pelosi, and found that newspapers, instead of focusing on serious issues and problems, focus on superficial and personal issues like family, personal life, attire she wore or events that she organized.<sup>14</sup> If consumers of newspapers are more cultured about the discrimination that is present in media than they might be able to become more informed consumers and vote more responsibly for female political candidates.<sup>15</sup>

Secondly, while reporting on female politicians, instead of focusing on hard issues they focus on soft issues. Major and Coleman in their research found that journalists focus on soft issues like education and health care while reporting on female politicians and on hard issues like the military while reporting on male politicians.<sup>16</sup>

Another common frame which is analyzed in research is the visibility frame which is the placement and position of news stories in newspapers. Musarat<sup>17</sup> in her study on gender portrayal in Pakistani English print media conducted content analysis to analyze frames like visibility, location and space and found that the high frequency of news related to males showed their dominance in newspaper coverage. The study also showed that women had higher coverage in soft subjects such as entertainment and beauty while men were more visible in hard issues with their presence in entertainment articles being quite low, another interesting trend was observed in the study, which found that women were more visible in pictures than in articles, while men were more visible in articles. Rahman<sup>18</sup> researched framing of women in the 2013 election in Pakistan through content analysis and found that the coverage given to females in newspapers is minimal and English dailies coverage is greater in number and positive than Urdu dailies. Print media reporting on female politicians is low and most of their stories are published inside pages, their names were seldom mentioned nor are they in headlines, which makes them invisible.

Another way of framing in media is the tone of reporting, there can be positive or negative frames in news reporting which can affect the subject. Raza<sup>19</sup> in his research on the depiction of women in Pakistani print media did a comparative study of *Daily Dawn* and *Jang* and analyze six months' coverage of news stories, inspecting the amount of coverage and slanting of women's portrayal in the newspapers. The treatment of women was coded into positive, negative and neutral categories. The findings of the study showed that positive representation of female politicians about their traditional character was more evident in the *Dawn* newspaper and news stories about women's representation in different fields of life was positive in both newspapers.

<sup>14</sup> See: LADLEY, A, DABBOUS, Y.: A Spine of Steel and a Heart of Gold: Newspaper Coverage of the First Female Speaker of the House. In *Journal of Gender Studies*, 2010, Vol. 19, No. 2, p. 181-194. ISSN 1465-3869. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/249001925\\_A\\_spine\\_of\\_steel\\_and\\_a\\_heart\\_of\\_gold\\_Newspaper\\_coverage\\_of\\_the\\_first\\_female\\_Speaker\\_of\\_the\\_House](https://www.researchgate.net/publication/249001925_A_spine_of_steel_and_a_heart_of_gold_Newspaper_coverage_of_the_first_female_Speaker_of_the_House)>.

<sup>15</sup> MARTIN, M. K.: *Pantsuits and Public Opinion: An Analysis of Media Coverage of U.S. Female Political Candidates*. [Synopsis of Dissertation Thesis]. Glenside : Arcadia University, 2016, p. 45-50. [online]. [2021-09-04]. Available at: <[http://scholarworks.arcadia.edu/cgi/viewcontent.cgi?article=1019&context=senior\\_theses](http://scholarworks.arcadia.edu/cgi/viewcontent.cgi?article=1019&context=senior_theses)>.

<sup>16</sup> See: MAJOR, L. H., COLEMAN, R.: The Intersection of Race and Gender in Election Coverage: What Happens When the Candidates Don't Fit the Stereotypes? In *The Howard Journal of Communications*, 2008, Vol. 19, No. 4, p. 315-333. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/233214915\\_The\\_Intersection\\_of\\_Race\\_and\\_Gender\\_in\\_Election\\_Coverage\\_What\\_Happens\\_When\\_the\\_Candidates\\_Don%27t\\_Fit\\_the\\_Stereotypes](https://www.researchgate.net/publication/233214915_The_Intersection_of_Race_and_Gender_in_Election_Coverage_What_Happens_When_the_Candidates_Don%27t_Fit_the_Stereotypes)>.

<sup>17</sup> See: MUSARAT, Y.: Thespians in Print: Gender Portrayal in Pakistani English Print Media. In *Cogent Arts & Humanities*, 2019, Vol. 6, No. 1, p. 1-13. [online]. [2021-09-04]. Available at: <<https://www.tandfonline.com/doi/epub/10.1080/23311983.2019.1661647?needAccess=true>>.

<sup>18</sup> See: RAHMAN, B.: Framing of Women in Politics: A Case of Pakistani Election 2013. In *Journal of Political Studies*, 2015, Vol. 22, No. 1, p. 335-350. [online]. [2021-09-04]. Available at: <[http://pu.edu.pk/images/journal/pols/pdf-files/21-%20BUSHRA\\_22\\_2015.pdf](http://pu.edu.pk/images/journal/pols/pdf-files/21-%20BUSHRA_22_2015.pdf)>.

<sup>19</sup> See: RAZA, H.: The Depiction of Women in Pakistani Print Media: A Comparative Study of *Daily Dawn* and *Jang*. In *Pakistan Journal of History and Culture*, 2016, Vol. 37, p. 73-87. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/316464903\\_The\\_Depiction\\_of\\_Women\\_in\\_Pakistani\\_Print\\_Media\\_A\\_Comparative\\_Study\\_of\\_Daily\\_Dawn\\_and\\_Daily\\_Jang](https://www.researchgate.net/publication/316464903_The_Depiction_of_Women_in_Pakistani_Print_Media_A_Comparative_Study_of_Daily_Dawn_and_Daily_Jang)>.

Previous studies lead to findings that newspapers, instead of focusing on serious issues, give more importance to the personal lives of female politicians.<sup>20</sup> The bias of media towards female politicians framing also affects their image in front of people because people believe what they see in the media.

On the basis of prior studies, it was established that reporting on female politicians is gender biased all around the world. Newspapers use certain frames in their reporting and cover female politician's personal information more than their stance on issues; they receive different treatment in the news because of their gender. The current study analyzed framing of female politicians to see if they are framed differently in Pakistani newspapers or not.

## 2. Research Question/ Hypotheses

**RQ1.** Whether Jang & Dawn differ in the use of visibility, personal coverage, issue coverage (hard/soft) and tone of the story (positive vs. negative)?

**H1a.** Visibility differs in Jang and Dawn while reporting on female politicians.

**H1b.** Personal coverage differs in Dawn and Jang while reporting on female politicians.

**H1c.** Issue coverage differs in Dawn and Jang while reporting on female politicians.

**H1d.** Tone of the story differs in Jang and Dawn while reporting on female politicians.

## 3. Methodology

### 3.1 Procedure

For this study, quantitative content analysis has been adopted to investigate newspaper framing of female politicians in the leading newspapers (Jang, Dawn) of Pakistan. According to Hsieh and Shannon<sup>21</sup>, content analysis is the most recognized technique to demonstrate the content of media for the better understanding of content and to conclude effective and reliable results.

The sample comprised all news stories about female politicians by two leading newspapers of Pakistan; Jang/Dawn, starting from June 1<sup>st</sup>, 2018, until November 30<sup>th</sup>, 2019. The unit of analysis of the study includes all news stories in which female politicians have been highlighted whether in the title, paragraph or in the whole news story. To select the sample probability systematic sampling was followed according to the purpose and requirements of the study. Systematic sampling consists of selection of nth number (n=2) in the population to be in the sample.

The frames about female politicians by the leading newspapers of Pakistan have been categorized into the following four categories: (a) visibility (b) personalization (c) issue type (d) tone of the story. In order to verify the reliability of the coding sheet, an inter coder reliability test was carried out with a second person code of 10% (20) of the selected articles. Holsti's formula was used to calculate the reliability. The reliability of the coding sheet was 90% according to Holist's calculation.

<sup>20</sup> See more: LADLEY, A, DABBOUS, Y.: A Spine of Steel and a Heart of Gold: Newspaper Coverage of the First Female Speaker of the House. In *Journal of Gender Studies*, 2010, Vol. 19, No. 2, p. 181-194. ISSN 1465-3869. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/249001925\\_A\\_spine\\_of\\_steel\\_and\\_a\\_heart\\_of\\_gold\\_Newspaper\\_coverage\\_of\\_the\\_first\\_female\\_Speaker\\_of\\_the\\_House](https://www.researchgate.net/publication/249001925_A_spine_of_steel_and_a_heart_of_gold_Newspaper_coverage_of_the_first_female_Speaker_of_the_House)>.

<sup>21</sup> See: HSIEH, H. F., SHANNON, S. E.: Three Approaches to Qualitative Content Analysis. In *Qualitative Health Research*, 2005, Vol. 15, No. 9, p. 1277-1288. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/7561647\\_Three\\_Approaches\\_to\\_Qualitative\\_Content\\_Analysis](https://www.researchgate.net/publication/7561647_Three_Approaches_to_Qualitative_Content_Analysis)>.

## 3.2 Measures

### 3.2.1 Independent Variable

*Type of Newspapers:* For this study English and Urdu newspapers were selected. English newspapers cater for readers from the upper class who can read English so because there is a change in readership it is possible that the framing in both newspapers is also changed.

The selected Urdu newspaper was Jang (coded as 1) and the reason for selecting Jang is that it is the oldest and most extensively read newspaper in Pakistan with a daily readership of over 8 million across all socio- economic classes. The selected English newspaper Dawn (coded as 2) is an internationally known English newspaper with a daily circulation of 109,000.

### 3.2.2 Dependent Variables

*Visibility:* In the present study, the first area to be examined was visibility. By following Mercy's<sup>22</sup> definition closely, visibility defines the presence of female politicians in newspapers; in this study visibility is measured by the position and placement of female politicians' news in newspaper. Conceptually similar definitions of visibility were adopted by previous researchers<sup>23</sup> in their studies. In position, the researcher looked at on which page the story was published, position was coded as front page =4, city page =2, national page=3 and back pages=1. In placement the researcher looked in to prominent and secondary placement, prominent placement is if the story was placed on the top half of the page (coded as 2) and called it secondary placement if the story was on the second half of the page (coded as 1). Later visibility (position+ placement) was computed to test the hypothesis.

*Personalization:* In this study personalization is covering/ focusing on the personal matters/ lives of female politicians in news stories. According to Devitt<sup>24</sup>, newspaper readers are more likely to read about a female candidate's personality than their stance on policy issues. Borrowed from Devitt conceptualization, personalization included news mentioning female politician's appearance, marital status, children, age, gender and experience (coded as 1= mentioned, 0= not mentioned). Personalization was later computed to test the hypothesis.

*Issue Type:* Issue type in this study is the mentioning of female politicians in issue based news. Scholars like, Ladley and Dabbous<sup>25</sup> examined that when female candidates receive issue coverage the media tends to focus on soft issues more than hard issues. Adopted from Ladley, issue type in this study included two types of issues, firstly soft issues (issues related to health, education, environment, social issues, children and family) secondly hard issues (issues related to economy, defense, policy making, crime, democracy and government, international issues and sit ins/strikes). Soft issues were coded as 1, hard issues =2 and 0= no issue mentioned.

<sup>22</sup> See: MERCY, E.: Where Are the Women? Evaluating Visibility of Nigerian Female Politicians in News Media Space. In *Gender, Place & Culture*, 2017, Vol. 24, No. 1, p. 1-18. ISSN 0966-369X. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/320420851\\_Where\\_are\\_the\\_women\\_Evaluating\\_visibility\\_of\\_Nigerian\\_female\\_politicians\\_in\\_news\\_media\\_space](https://www.researchgate.net/publication/320420851_Where_are_the_women_Evaluating_visibility_of_Nigerian_female_politicians_in_news_media_space)>.

<sup>23</sup> See: MERCY, E.: Where Are the Women? Evaluating Visibility of Nigerian Female Politicians in News Media Space. In *Gender, Place & Culture*, 2017, Vol. 24, No. 1, p. 1-18. ISSN 0966-369X. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/320420851\\_Where\\_are\\_the\\_women\\_Evaluating\\_visibility\\_of\\_Nigerian\\_female\\_politicians\\_in\\_news\\_media\\_space](https://www.researchgate.net/publication/320420851_Where_are_the_women_Evaluating_visibility_of_Nigerian_female_politicians_in_news_media_space)>; MUSARAT, Y.: Thespians in Print: Gender Portrayal in Pakistani English Print Media. In *Cogent Arts & Humanities*, 2019, Vol. 6, No. 1, p. 1-13. [online]. [2021-09-04]. Available at: <<https://www.tandfonline.com/doi/epub/10.1080/23311983.2019.1661647?needAccess=true>>.

<sup>24</sup> See: DEVITT, J.: Framing Gender on the Campaign Trail: Female Gubernatorial Candidates and the Press. In *Journalism and Mass Communication Quarterly*, 2002, Vol. 79, No. 2, p. 445-463. ISSN 2161-430X. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/241655612\\_Framing\\_Gender\\_on\\_the\\_Campaign\\_Trail\\_Female\\_Gubernatorial\\_Candidates\\_and\\_the\\_Press](https://www.researchgate.net/publication/241655612_Framing_Gender_on_the_Campaign_Trail_Female_Gubernatorial_Candidates_and_the_Press)>.

<sup>25</sup> See: LADLEY, A, DABBOUS, Y.: A Spine of Steel and a Heart of Gold: Newspaper Coverage of the First Female Speaker of the House. In *Journal of Gender Studies*, 2010, Vol. 19, No. 2, p. 181-194. ISSN 1465-3869. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/249001925\\_A\\_spine\\_of\\_steel\\_and\\_a\\_heart\\_of\\_gold\\_Newspaper\\_coverage\\_of\\_the\\_first\\_female\\_Speaker\\_of\\_the\\_House](https://www.researchgate.net/publication/249001925_A_spine_of_steel_and_a_heart_of_gold_Newspaper_coverage_of_the_first_female_Speaker_of_the_House)>.

*Tone of Story:* Borrowed from Payne<sup>26</sup>, the last variable to be examined in this study is the tone of the story, which included positive (statement that gives a positive impression of the female politician's ability to handle the issue being discussed) negative (statement that gives a negative impression of the female politician's ability to handle the issue being discussed) and neutral tones. Researchers like Payne and Raza<sup>27</sup> concluded in their studies that media cover female politicians more negatively in handling any issue. Tone of story was coded as negative=1, neutral=2, positive=3.

### 3.3 Analysis

Data gathered by content analysis was analyzed by applying descriptive and inferential statistics from the Statistical Package for Social Sciences (SPSS) version 21. To test the hypotheses Independent t-test was applied and to further explain and support the tests cross tabs were used.

## 4. Results and Discussion

### 4.1 Descriptive

Data is based on six months (from June to November 2019) of news stories from *Jang/Dawn*. In the month of June, 39 news stories were collected (*Jang* 28, *Dawn* 11) in July 38 (19, 19) in August 34 (15, 19) in September 31(19, 12) in October 29 (17, 12) and in November 31 (19, 12). Out of the total of 202, the higher number of news stories (57.9%) were from the *Jang* newspaper while *Dawn* had 42.1% news stories as shown in table 1. Results of descriptive data show that the Urdu newspaper has a higher number of news stories as compared to the English newspaper. From the findings of descriptive data, it appears that Jang's policy is to publish more news stories related to female politicians.

	N	%
<i>Jang</i>	117	57.9
<i>Dawn</i>	85	42.1
Total	202	100.0

TABLE 1: Amount of Stories

Source: own processing, 2021

Hypothesis 1a postulated that "Visibility differs in Jang and Dawn while reporting on female politicians". To measure visibility, it was divided in to two parts, first is placement of the story and second is position of the story. The total numbers of stories presented in the upper/second half are presented in table 2, while stories positioned on back/city/national/front pages are presented in table 3. Variable was computed and independent sample t-test was applied to obtain the results.

<sup>26</sup> See: PAYNE, L.: *A Study of Newspaper Treatment of Male and Female Political Candidates*. [Synopsis of Dissertation Thesis]. Columbia : University of Missouri, 2009. 6 p. [online]. [2021-09-04]. Available at: <<https://www.proquest.com/docview/304939255?pq-origsite=gscholar&fromopenview=true>>.

<sup>27</sup> See: RAZA, H.: The Depiction of Women in Pakistani Print Media: A Comparative Study of Daily Dawn and Jang. In *Pakistan Journal of History and Culture*, 2016, Vol. 37, p. 73-87. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/316464903\\_The\\_Depiction\\_of\\_Women\\_in\\_Pakistani\\_Print\\_Media\\_A\\_Comparative\\_Study\\_of\\_Daily\\_Dawn\\_and\\_Daily\\_Jang](https://www.researchgate.net/publication/316464903_The_Depiction_of_Women_in_Pakistani_Print_Media_A_Comparative_Study_of_Daily_Dawn_and_Daily_Jang)>.

Type of Newspaper			
		<i>Jang</i>	<i>Dawn</i>
Visibility Placement	Second half	50.4%	35%
	Upper half	49.5	65
N		117	85

**TABLE 2:** Visibility Placement by Type of Newspaper

Source: own processing, 2021

Type of Newspaper			
		<i>Jang</i>	<i>Dawn</i>
Visibility Position	Back	37%	16.4%
	City	6	26
	National	7.6	27
	Front	49	36
N		117	85

*Jang* (M=4.27, SD=1.601) *Dawn* (M= 4.84, SD= 1.353);  $p= .008$

**TABLE 3:** Visibility Position by Type of Newspaper

Source: own processing, 2021

The findings indicated that Urdu Newspapers gave more coverage and prominence to women as compared to English newspapers in terms of position of the stories, as more stories were on front pages and female politicians were given the required space in Urdu newspapers. But in terms of placement the English newspaper published more stories on the upper half. Consistent with previous research<sup>28</sup> and the first hypothesis of this research, the results show that there is significant difference in the mean of *Jang* and *Dawn* and results are also significant at a chosen significant level which means that the visibility of female politicians varies with the type of newspaper, so the hypothesis 1a is accepted.

Hypothesis 1b postulated that “Personal coverage differs in Dawn and Jang while reporting on female politicians”. But the results indicated that there was less personalization in both newspapers regarding female politicians. As shown in Table 4, 84% of news stories had no personalization in *Jang* and 82% in *Dawn*. Most of the personalization in news stories was related to children and family.

Type of Newspaper			
<i>Personalization</i>	<i>Categories</i>	<i>Jang</i>	<i>Dawn</i>
Appearance	No	0%	0%
	Yes	0	1
Marital status	No	0	0
	Yes	0	1
Children and family	No	0	0
	Yes	7	8.2

<sup>28</sup> See: MERCY, E.: Where Are the Women? Evaluating Visibility of Nigerian Female Politicians in News Media Space. In *Gender, Place & Culture*, 2017, Vol. 24, No. 1, p. 1-18. ISSN 0966-369X. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/320420851\\_Where\\_are\\_the\\_women\\_Evaluating\\_visibility\\_of\\_Nigerian\\_female\\_politicians\\_in\\_news\\_media\\_space](https://www.researchgate.net/publication/320420851_Where_are_the_women_Evaluating_visibility_of_Nigerian_female_politicians_in_news_media_space)>; TAHSEEN, N.: Print Media's Projection of Female Electoral Candidates in General Elections of Pakistan: The Case of Punjab. In *Journal of Media Studies*, Vol. 33, No. 2, p. 17-39. ISSN 2309-9577. [online]. [2021-09-04]. Available at: <<http://journals.pu.edu.pk/journals/index.php/jms/article/viewFile/1960/729>>.

Age	No	0	0
	Yes	0.8	0
Gender	No	0	0
	yes	0.8	2.3
Experience	No	0	0
	yes	1.7	2.3
Other personalization	No	0	0
	yes	6	2.3
No personalization	No	16	17.6
	Yes	84	82
	N	117	85

Jang (M=.84, SD=.370) Dawn (M= .82, SD= .383);  $p= .793$ .

**TABLE 4.** Personalization by Type of Newspaper

Source: own processing, 2021

The findings for hypothesis 1b were inconsistent with previous research<sup>29</sup> as there was very little personalization regarding females in both newspapers. To test the hypothesis an independent sample t-test was applied and the outcomes show that female politicians were not personalized in Pakistani newspapers as they were in the western world. Females were not given special treatment nor were they set aside to be treated less seriously as females. However, personalization did not vary with the type of newspapers as there was no significant difference between the personalization of Jang and Dawn, and results are also not significant at a chosen significant level as  $p= .793$ . Hence hypothesis 1b is rejected.

Type of Newspaper				
Issue type	Categories	Jang	Dawn	Total
		N(%)	N(%)	N(%)
Soft	Education	0(0)	2(2.3)	2(1)
	Health	5(4.2)	13(15)	18(9)
	Environment	1(0.8)	3(3.5)	4(2)
	Social issues	4(3.4)	5(6)	9(4.4)
	Women and family	1(0.8)	0	1(0.4)
	Other soft issues	5(4.2)	6(7)	11(5)
	<b>Total</b>		<b>16(13.6)</b>	<b>29(34)</b>
Hard	Economy	4(3.4)	6(7)	10(5)
	Defense	4(3.4)	1(1)	5(2.4)
	Policy making	12(10.2)	10(12)	22(11)
	Crime	5(4.2)	0(0)	5(2.4)
	Democracy and Government	39(33.3)	20(23.5)	59(29)
	International	22(19)	8(9.4)	30(15)

<sup>29</sup> See: INSENGA, M.: An Analysis of the Representation of Female Members of the United Kingdom Parliament in the British Press. In *European Scientific Journal*, 2014, Vol. 2, p. 182-191. E-ISSN 1857-7431. [online]. [2021-09-04]. Available at: <<https://eujournal.org/index.php/esj/article/viewFile/4143/4079>>; PAYNE, L.: A Study of Newspaper Treatment of Male and Female Political Candidates. [Synopsis of Dissertation Thesis]. Columbia : University of Missouri, 2009. p. 6. [online]. [2021-09-04]. Available at: <<https://www.proquest.com/docview/304939255?pq-origsite=gscholar&fromopenview=true>>.

	Strikes/sit-ins	8(6.8)	7(8.2)	15(7.4)
	Other hard issues	4(3)	4(4.7)	8(4)
	<b>Total</b>	<b>98(83.7)</b>	<b>56(65)</b>	<b>154(76)</b>
	None	3(2.5)	0(0)	3(1.4)
<b>Total</b>		<b>117(58)</b>	<b>85(42)</b>	<b>202(100)</b>

*Jang* (M=1.81, S=.454) *Dawn* (M=1.66, SD=.477);  $p = .023$ .

**TABLE 5:** Type of Newspaper\* Issue Type

Source: own processing, 2021

Hypothesis 1c assumed that “Issue coverage differs in Dawn and Jang while reporting on female politicians”. The Jang newspaper has 13.6% of stories related to soft issues while Dawn has 34% soft news stories and the percent of hard news stories in both newspapers are (Jang=83.7, Dawn=65). Results show that in Dawn, crime (0), defense (1) and international (9.4) issues were not given less coverage than in Jang. Dawn has 2.3% of stories related to education while Jang does not have any stories on education, health issues were also discussed more in Dawn than Jang.

An independent sample t-test was conducted to test the hypothesis and to examine the variance in issues type with type of newspaper. These results indicate that issue type varies with the type of newspapers so the hypothesis was accepted. However, results of H1c were inconsistent with previous studies<sup>30</sup> as more stories were related to hard issues in both newspapers. This means that in Pakistani newspapers, female politicians are given coverage to talk about issues related to economy, defense or international politics, which is rarely seen in western newspapers.

Hypothesis 1d postulated that the “Tone of the story differs in Jang and Dawn while reporting on female politicians”. To test the hypothesis an independent t-test was applied and the results show that there is not much difference in the mean of Jang and Dawn which means that the tone of the story remains the same in Jang and Dawn and it does not vary with the type of newspaper, so hypothesis 1d is rejected.

Type of Newspaper			
		<i>Jang</i>	<i>Dawn</i>
Tone of the Story	Positive	60%	62%
	Neutral	23	27
	Negative	17	11
N		117	85

*Jang* (M=2.4, SD=.769) *Dawn* (M= 2.5, SD= .683);  $p = .389$ .

**TABLE 6:** Tone of the Story by Type of Newspaper

Source: own processing, 2021

However, from the findings it appears that in Pakistan the tone for the coverage of female politicians is more towards positive than negative but in comparison of Urdu and English newspapers, results are inconsistent with previous research by Raza<sup>31</sup> which suggested that the tone for female politicians is more positive in English than in Urdu newspapers.

<sup>30</sup> See: LADLEY, A., DABBOUS, Y.: A Spine of Steel and a Heart of Gold: Newspaper Coverage of the First Female Speaker of the House. In *Journal of Gender Studies*, 2010, Vol. 19, No. 2, p. 181-194. ISSN 1465-3869. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/249001925\\_A\\_spine\\_of\\_steel\\_and\\_a\\_heart\\_of\\_gold\\_Newspaper\\_coverage\\_of\\_the\\_first\\_female\\_Speaker\\_of\\_the\\_House](https://www.researchgate.net/publication/249001925_A_spine_of_steel_and_a_heart_of_gold_Newspaper_coverage_of_the_first_female_Speaker_of_the_House)>.

<sup>31</sup> See: RAZA, H.: The Depiction of Women in Pakistani Print Media: A Comparative Study of Daily Dawn and Jang. In *Pakistan Journal of History and Culture*, 2016, Vol. 37, p. 73-87. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/316464903\\_The\\_Depiction\\_of\\_Women\\_in\\_Pakistani\\_Print\\_Media\\_A\\_Comparative\\_Study\\_of\\_Daily\\_Dawn\\_and\\_Daily\\_Jang](https://www.researchgate.net/publication/316464903_The_Depiction_of_Women_in_Pakistani_Print_Media_A_Comparative_Study_of_Daily_Dawn_and_Daily_Jang)>.

## 5. Conclusion

Briefly, the results of the study revealed that, while women politicians in Pakistan are not framed as they are framed in the western world, where personalization was greater than issue coverage and negative frames were prominent,<sup>32</sup> but in Pakistani newspapers they were also not taken as seriously in the media because their news stories were less in number. Findings suggest that Pakistani woman politicians are not been framed as western women politicians are framed in their media. They had not experienced negative reporting where their clothes and personal life were addressed rather than their political skills<sup>33</sup>. In Pakistani newspapers hard issues were higher in number than soft issues and positive tone stories were higher in number than negative, it shows that they were taken more seriously as policy makers in the political sphere and their reference was not there only for their name or picture.<sup>34</sup> In the news stories, media did not give them the stereotypical treatment and are therefore not biased in their reporting. However, the number of stories related to female politicians was limited in number as only 202 news stories were found from the sample of six months, to convey their stance on every issue, it is important to give them more coverage and more stories on female politicians need to be published.

English newspapers need to give them more serious coverage as their hard issues were less in number than Urdu newspapers and the number of stories were also less than Urdu newspapers. Although there was more positive tone in both newspapers but the percentage falls in negative and neutral tone as well, which need to be considered because tone can make an impression in voter's minds. Even considering that, the point persists that the rise in the number of women in politics and the expanded representation of women in the political arena does not automatically mean that they are competent political women<sup>35</sup>. The numerous systemic and practical limitations of a patriarchal culture need to be modified at both human and social levels in order to recognize them as empowered women who are creative, articulate and capable of achieving goals. Political parties, along with other government bodies, need to give them with the space to better incorporate them into the democratic process. The media, either as the one accountable for making statements on women in politics or as a representation of the position of women in society, is required to look more seriously at this objective.

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<sup>32</sup> See more: INSENGA, M.: An Analysis of the Representation of Female Members of the United Kingdom Parliament in the British Press. In *European Scientific Journal*, 2014, Vol. 2, p. 182-191. E-ISSN 1857-7431. [online]. [2021-09-04]. Available at: <<https://eujournal.org/index.php/esj/article/viewFile/4143/4079>>.

<sup>33</sup> JENKINS, C.: *The More Things Change: Women, Politics and the Press in Australia*. Citeseer. [online]. [2021-09-04]. Available at: <<https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.85.146&rep=rep1&type=pdf>>.

<sup>34</sup> See: RAHMAN, B.: Framing of Women in Politics: A Case of Pakistani Election 2013. In *Journal of Political Studies*, 2015, Vol. 22, No. 1, p. 335-350. [online]. [2021-09-04]. Available at: <[http://pu.edu.pk/images/journal/pols/pdf-files/21-%20BUSHRA\\_22\\_2015.pdf](http://pu.edu.pk/images/journal/pols/pdf-files/21-%20BUSHRA_22_2015.pdf)>.

<sup>35</sup> See more: GIDENGIL, E., EVERITT, J.: Talking Tough: Gender and Reported Speech in Campaign News Coverage. In *Political Communication*, 2003, Vol. 20, No. 3, p. 209-232. [online]. [2021-09-04]. Available at: <[https://www.researchgate.net/publication/228907701\\_Working\\_Paper\\_Series\\_Talking\\_Tough\\_Gender\\_and\\_Reported\\_Speech\\_in\\_Campaign\\_News\\_Coverage?\\_sg=M9CUstP0Nd5f9xqNdrNWLjL9gRSei4Ff9jGSJFKWBvV6auvROWQ9cWexJz--XnYt4gf1QiQ1Py8CAB0](https://www.researchgate.net/publication/228907701_Working_Paper_Series_Talking_Tough_Gender_and_Reported_Speech_in_Campaign_News_Coverage?_sg=M9CUstP0Nd5f9xqNdrNWLjL9gRSei4Ff9jGSJFKWBvV6auvROWQ9cWexJz--XnYt4gf1QiQ1Py8CAB0)>.

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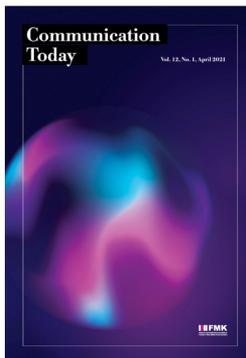
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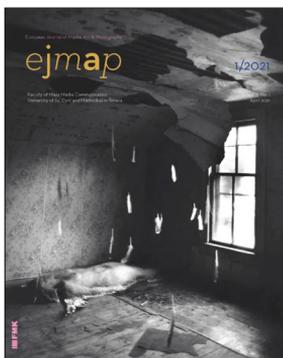
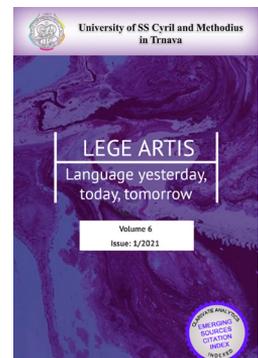
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