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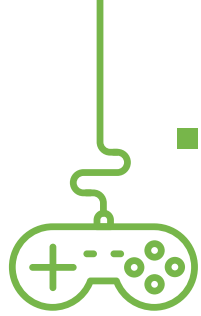

Acta Ludologica is a scientific journal in the field of games and digital games. The journal contains professional scientific reflections on digital games; it also offers academic discourses on games, especially media and digital competencies, creation, design, marketing, research, development, psychology, sociology, history and the future of digital games and game studies.

Acta Ludologica is a double-blind peer reviewed journal published twice a year. It focuses on theoretical studies, theoretical and empirical studies, research results and their implementation into practice, as well as professional publication and scientific reviews of digital games.

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Editorial

Industry 4.0 and the Creative Potential of Digital Games

We are witnessing a gradual, revolutionary change in all areas of society as a result of the new Industry 4.0 revolution. Critical voices are beginning to be heard, warning of the consequences of this techno-technological, digital revolution. They point, in particular, to the threat of unemployment and to the disappearance of many jobs. In the eyes of the critics, the digital technologies of the 21st century are becoming as much an enemy of the people as machines were for industrial workers at the beginning of the 19th century. They saw machines as an evil that was taking their jobs away from them.

Fortunately, there are voices that have a different view of the implications of and opportunities provided by the Industry 4.0 revolution. They see it as a challenge for major changes in the areas of education, retraining of the workforce, and ways of improving human life. Some professions are expected to disappear, but new ones are also expected to emerge. Experts predict that, in the near future, professionals with analytical skills will be particularly favoured on the labour market. These new jobs will require people who are flexible and able to learn, with sufficient creativity, digital skills and the ability to develop innovative programmes. It is now clear that digital games, in terms of their creative and educational potential, can significantly help to retrain the workforce in an enjoyable, entertaining and original way. They can be an indispensable means of maintaining and developing the creative intelligence of individuals. They can help those who have lost their jobs and are looking for a space for self-fulfilment and employment.

The fact is that the discourse of digital games is mainly associated with their entertainment function. Digital games are criticized by a part of the professional public from a purely elitist position, similar to the criticism of the culture industry by the Frankfurt School in the middle of the last century. Contemporary critics of entertainment media culture seek to question what is intrinsic to the human condition – play. Games, and even digital games, are associated in the general and professional public with entertainment, with passing the time, with something unproductive. In people's minds, play and gaming are associated with childhood, leisure, or festive occasions. After all, even J. Huizinga, the father of ludology, argues that play is without apparent utility, but it is one of the factors of human culture. Similarly, E. Fink refers to play. He argues that play represents the cosmos, order, the symbol of the world, the being of man. However, play in general, and digital play, must be seen as both an anthropological constant and the ontological essence of man. Indeed, any game requires the approach of human genius. The latter possesses creativity, imagination, and logic. It teaches us to be disciplined, to follow the rules and to take risks. From this aspect, a digital game can have several features, functions and benefits. It can be fascinating for the player with its fun, escapist possibilities. But it can also enrich a person with other functions, such as various opportunities for self-realisation, self-reflection, the acquisition of knowledge, logical thinking, skills or social contacts. In particular, its communicative, educational, enculturation and acculturation functions should be emphasised. This is despite the fact that R. Caillois argues that play is unproductive and does not create value or wealth. I express my conviction that the opposite is true.

What we are witnessing is that the digital game, as a sui generis phenomenon, has become productive, generating both wealth and value, and not only because it has become professionalised and commercialised. In addition to its entertainment and leisure functions, its other qualities and possibilities – educational – have also been highlighted in recent years. These were already recognised by Plato when he praised children's games. He saw them as a means of learning, a preparation for adult life. The Industry 4.0 revolution underlines this obvious benefit that the digital games sector brings. Digital play mirrors the social world and the relationships that exist between individuals, bringing obvious benefits to players and everyone involved.

The scholarly articles in this issue of our journal can also be read in the context of relationships and benefits. Nigel Robb and Bo Zhang are concerned with player experiences in a 2D digital game. Nele Van de Mosselaer and Stefano Caselli investigate the narrative effects and value of memory discrepancies in digital games. Christine Tomlinson analyses the factors of gender, centre, and persistence in the context of leisure and the complex state of digital games. Hugh Davies investigates the conspiracy phenomenon QAnon as an alternate reality game. An interestingly focused topic – games and sacrificial rites – is also offered by Renata E. Ntelia. And finally, Michal Kabát, Juraj Kovalčík and Alexandra Kukumbergová deal with the history of Czechoslovak tabletop role-playing games.

prof. PhDr. Hana Pravdová, PhD.
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Performance-Based Dynamic Difficulty Adjustment and Player Experience in a 2D Digital Game: A Controlled Experiment

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ABSTRACT:
Dynamic difficulty adjustment (DDA) in digital games involves altering the difficulty of a game based on real-time feedback from the player. Some approaches to DDA use measurements of player performance, such as success rate or score. Such performance-based DDA systems aim to provide a bespoke level of challenge to each player, so that the game is neither too hard nor too easy. Previous research on performance-based DDA shows that it is linked to better player performance but finds mixed results in terms of player experience (e.g., enjoyment). Also, while the concept of flow is regarded as an important aspect of digital game experience, little research has considered the effects of performance-based DDA on flow. We conducted an experiment on the effects of performance-based DDA on player performance, enjoyment, and experience of flow in a digital game. 221 participants played either the DDA version of the game, a control version (difficulty remained constant), or an incremental version (difficulty increased regardless of performance). Results show that the DDA group performed significantly better. However, there were no significant differences in terms of enjoyment or experience of flow.

KEY WORDS:
adaptive software, digital games, dynamic difficulty adjustment, flow, game balancing, performance.

Introduction

Most digital games involve some challenge for the player. Some games are generally easy, some are generally hard, and almost all games feature some change in the difficulty level over time; typically, games get harder the further the player progresses. In this paper, we refer to this traditional approach as 'incremental difficulty adjustment'. Furthermore, a diverse range of people (e.g., in terms of age, gender, motivations, and preferences) play games.[1] Taken together, these points begin to illustrate the complex challenges involved for the game designer when determining the difficulty of a game, to enhance the experience for a range of players. If the game is too easy, more skilled players may be bored; but if it is too hard, less skilled players may be frustrated.[2] It is likely that this applies regardless of the genre or intended purpose of the game. Whether it is a fast-paced action game intended to entertain, a puzzle game for mathematics education, a cognitive training game for children with cognitive impairments, or even a language-learning application with game-like features, it is obviously essential that players engage optimally with the software to ensure the desired outcome. As such, the level of challenge provided by a game is an important consideration.

Within this broad issue, one potential solution to some of these challenges lies in dynamic difficulty adjustment (DDA). DDA in digital games refers to any technique in which the difficulty of the game is altered during the game (or perhaps between games) in

1 PIERRE-LOUIS, S.: *2021 Essential Facts About the Video Game Industry*. 2021. [online]. [2022-05-13]. Available at: <https://www.theesa.com/wp-content/uploads/2021/08/2021-Essential-Facts-About-the-Video-Game-Industry-1.pdf>.

2 LEIKER, A. M. et al.: The Effects of Autonomous Difficulty Selection on Engagement, Motivation, and Learning in a Motion-Controlled Video Game Task. In *Human Movement Science*, 2016, Vol. 49, No. 5, p. 327.

response to some feedback about the player's experience.[3] The aim is to continuously tailor the difficulty of the game to each individual player. DDA has been featured in digital games since at least 1981.[4] The promise of DDA lies in the fact that the game designer does not need to pre-determine one specific difficulty curve (or even a range of pre-determined curves, as in games which let the player select, e.g., Easy, Medium, or Hard mode). Instead, the designer can effectively provide a range of possible difficulties which are dynamically selected for each individual player based on their experience of the game. Essentially, this provides a bespoke difficulty curve for each player.

Approaches to Dynamic Difficulty Adjustment

One important distinction when using DDA is based on the metric used to provide feedback for game adaptation. In this paper, we have so far (intentionally) characterised this feedback very broadly, as 'player experience'. In practice, player experience can be determined by various means. We can broadly categorise approaches to DDA in two ways, depending on whether they use players' in-game performance to provide the feedback (performance-based DDA), or use some information about the player's affective state (affective DDA). A combination of these approaches would of course also be possible.

Performance-based DDA involves measuring the player's performance in the game and adjusting the level of challenge provided accordingly. Previous research on performance-based approaches to DDA demonstrates the wide range of choice available in the design of such systems, both in terms of the indicator of player skill (i.e., the feedback), and the game features that are subsequently adjusted. Regarding the measurement of player skill, previous approaches have used, for example, the time taken to complete a task,[5] players' scores,[6] or, in more complex systems, multiple measurements may be combined and evaluated to determine the current state of the player.[7] Regarding the game features that are adjusted, these range from simple adjustments such as changing the speed and layout of the game[8] or changing the number and kind of objects a player must interact with,[9] to more complex systems which alter the behaviour or characteristics of

3 ZOHAIB, M.: Dynamic Difficulty Adjustment (DDA) in Computer Games: A Review. In *Advances in Human-Computer Interaction*, 2018, Vol. 11, No. 1, p. 2. [online]. [2022-05-13]. Available at: <https://www.hindawi.com/journals/ahci/2018/5681652/>.

4 ADAMS, E.: *The Designer's Notebook: Difficulty Modes and Dynamic Difficulty Adjustment*. Released on 14th May 2008. [online]. [2022-05-13]. Available at: <https://www.gamasutra.com/view/feature/132061/the_designers_notebook_.php>.

5 SHAREK, D., WIEBE, E.: Investigating Real-time Predictors of Engagement: Implications for Adaptive Videogames and Online Training. In *International Journal of Gaming and Computer-Mediated Simulations*, 2015, Vol. 7, No. 1, p. 26.

6 BATEMAN, S. et al.: Target Assistance for Subtly Balancing Competitive Play. In TAN, D. (ed.): *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. New York : ACM, 2011, p. 2358.

7 HUNICKE, R.: The Case for Dynamic Difficulty Adjustment in Games. In LEE, N. (ed.): *Proceedings of the 2005 ACM SIGCHI International Conference on Advances in Computer Entertainment Technology*. New York : ACM, 2005, p. 430-431.

8 ALEXANDER, J. T., SEAR, J., OIKONOMOU, A.: An Investigation of the Effects of Game Difficulty on Player Enjoyment. In *Entertainment Computing*, 2013, Vol. 4, No. 1, p. 55.

9 ROBB, N., WALLER, A., WOODCOCK, K. A.: Developing a Task Switching Training Game for Children with a Rare Genetic Syndrome Linked to Intellectual Disability. In *Simulation & Gaming*, 2019, Vol. 50, No. 2, p. 171.

computer-controlled enemy characters[10] or dynamically generate the layout of the game environment.[11]

Affective DDA refers to any approach which aims to use some feedback about the player's emotional state as the basis for the adaptivity. A growing body of research has investigated the feasibility of using psychophysiological measurement to provide an index of players' emotions during gameplay and adapt the game experience based on these measurements. Measures used include cardiovascular data (e.g., heart rate), electro-dermal activity (i.e., galvanic skin response, which is directly dependent on sweat-gland activity), electromyography (which measures muscle movements), and neuroimaging techniques. The latter category includes techniques such as electroencephalography and functional near-infrared spectroscopy; both of which use sensors attached to the head to provide real-time measurements of brain activity with a relatively high temporal resolution.[12] These techniques have been used to adapt game difficulty, for example, by increasing the speed of the game or decreasing the size of targets. In addition, some studies have used affective feedback to alter other features of a game not related to difficulty, such as lighting and audio effects. For a comprehensive review of research in this area and references for all examples discussed in this paragraph, see B. Bontchev.[13] One obvious disadvantage of affective-based DDA is the requirement for additional equipment (which is often large and expensive) to obtain the psychophysiological feedback. Therefore, affective DDA is most likely not yet suitable for widespread use in digital games. However, technological advances will undoubtedly address this issue. For example, preliminary work shows the potential of using machine learning techniques and a standard video camera for remote, non-contact detection of player emotions.[14] However, due to this current limitation of affective DDA, we will focus on performance-based DDA in the remainder of this paper.

Effects of Performance-Based Dynamic Difficulty Adjustment

Previous research has investigated the effects of using performance-based DDA on various aspects of the game playing experience. Several studies in this area have considered the relationship between DDA and player enjoyment. J. T. Alexander et al. used an experimental game to investigate how DDA compared with incremental difficulty adjustment.[15]

10 HUNICKE, R.: The Case for Dynamic Difficulty Adjustment in Games. In LEE, N. (ed.): *Proceedings of the 2005 ACM SIGCHI International Conference on Advances in Computer Entertainment Technology*. New York : ACM, 2005, p. 431.

11 SHAKER, N., YANNAKAKIS, G., TOGELIUS, J.: Towards Automatic Personalized Content Generation for Platform Games. In YOUNGBLOOD, G. M., BULITKO, V. (eds.): *Sixth Artificial Intelligence and Interactive Digital Entertainment Conference*. Burnaby : PKP Publishing Services, 2010, p. 65. [online]. [2022-05-13]. Available at: <https://ojs.aaai.org/index.php/AIIDE/article/view/12399>.

12 THIBAULT, R. T., LIFSHITZ, M., RAZ, A.: The Self-Regulating Brain and Neurofeedback: Experimental Science and Clinical Promise. In *Cortex*, 2016, Vol. 74, No. 1, p. 249.

13 For more information, see: BONTCHEV, B.: Adaptation in Affective Video Games: A Literature Review. In *Cybernetics and Information Technologies*, 2016, Vol. 16, No. 3, p. 3-34.

14 BEVILACQUA, F., ENGSTRÖM, H., BACKLUND, P.: Game-Calibrated and User-Tailored Remote Detection of Stress and Boredom in Games. In Sensors, 2019, Vol. 19, No. 13, p. 3. [online]. [2022-05-13]. Available at: <https://www.mdpi.com/1424-8220/19/13/2877/htm>.

15 ALEXANDER, J. T., SEAR, J., OIKONOMOU, A.: An Investigation of the Effects of Game Difficulty on Player Enjoyment. In *Entertainment Computing*, 2013, Vol. 4, No. 1, p. 53.

They found that, while casual gamers reported enjoying a simple 2D game more when the difficulty was dynamically adjusted according to their performance, experienced gamers (who made up most of the sample) enjoyed the game more when the difficulty was adjusted incrementally. This study also showed that players enjoyed the game more when the difficulty was tailored to their gaming experience (casual v experienced) rather than their performance.[16] However, in a sample of 90 players, only 19 were categorised as casual players. Furthermore, this classification was determined by the players' response to the question "are you a casual or experienced gamer?".[17] It is therefore difficult to determine how to understand the distinction between casual and experienced gamers as the classification criteria are not explicit.

A. Nagle et al. also found that performance-based DDA led to lower player enjoyment than an alternative system in which players could control the level of difficulty throughout the game themselves. They created a game in which players had to memorize a list of objects and locations, then find the objects and place them in the correct location. The difficulty of the game was determined by the number of objects (more is harder) and the number of times they could view the list of objects and location numbers (fewer is harder). However, while player enjoyment was lower with DDA, DDA was associated with better player performance. That is, when they allowed players to control the number of objects and number of times the list could be consulted, performance was significantly lower than when these values were automatically adjusted based on player performance.[18]

D. Sharek and E. Wiebe also showed that DDA was associated with better player performance.[19] Using an isometric puzzle game, they created over 100 different levels which were tested and ordered by difficulty. They had three difficulty conditions: DDA, in which more difficult levels were provided to players based primarily on measures of performance; incremental; and a choice condition, in which players were given the option to select a harder or easier level after each completed level. Players in the DDA condition showed significantly higher performance (indexed as reaching more difficult levels more quickly) than players in the other two conditions.[20] However, in a study by K. A. Orvis et al., no significant differences in performance or motivation were found between 4 groups,[21] playing versions of a game with either no difficulty adjustment, incremental difficulty adjustment, or adaptive adjustment (two versions, distinguished in terms of the starting difficulty, which was either easy or hard).[22] Other research on motivation finds similar negative results, with DDA not associated with significantly different levels of player motivation than incremental difficulty adjustment in a Spanish language education game.[23] However, in line with previous results showing increased performance, the authors showed that DDA led to significantly higher learning outcomes, which they attribute to a scaffolding effect wherein the reductions in difficulty (the "scaffold") are provided when students need support, then removed when students were ready to progress.

16 ALEXANDER, J. T., SEAR, J., OIKONOMOU, A.: An Investigation of the Effects of Game Difficulty on Player Enjoyment. In *Entertainment Computing*, 2013, Vol. 4, No. 1, p. 59-60.
17 Ibidem, p. 56.
18 NAGLE, A. et al.: The Effect of Different Difficulty Adaptation Strategies on Enjoyment and Performance in a Serious Game for Memory Training. In CLUA, E., VILAÇA, J. (eds.): *IEEE 3rd International Conference on Serious Games and Applications for Health*. Rio de Janeiro : IEEE, 2014, p. 127-132.
19 SHAREK, D., WIEBE, E.: Investigating Real-time Predictors of Engagement: Implications for Adaptive Videogames and Online Training. In *International Journal of Gaming and Computer-Mediated Simulations*, 2015, Vol. 7, No. 1, p. 20.
20 Ibidem, p. 25-28.
21 ORVIS, K. A., HORN, D. B., BELANICH, J.: The Roles of Task Difficulty and Prior Videogame Experience on Performance and Motivation in Instructional Videogames. In *Computers in Human Behavior*, 2008, Vol. 24, No. 5, p. 2424.
22 Ibidem, p. 2420.
23 SAMPAYO-VARGAS, S. et al.: The Effectiveness of Adaptive Difficulty Adjustments on Students' Motivation and Learning in an Educational Computer Game. In *Computers & Education*, 2013, Vol. 69, No. 10, p. 452.

D. Altimira et al. found that DDA increased player engagement in a digitally augmented game of table tennis. By projecting images onto a surface, they could increase or decrease the difficulty of the game (e.g., by altering the size of the virtual table projected onto the surface). They found that adjusting the difficulty in response to the score differentials between the two players (e.g., by making one player's half of the table smaller, thus making the game harder for the opposing player), was associated with significantly higher player engagement (self-report questionnaire) than no adjustment.[24] Preliminary results from by research by S. Xue et al. using DDA in a mobile game distributed via the Google Play Store and Apple App Store show that DDA increases player engagement over a longer period (4 months). This study is notable as it measures player engagement objectively, in terms of total time spent playing the game. The authors also note that using DDA had no effect on the amount of revenue generated from in-game transactions.[25]

D. Altimira et al. also highlight another potential application of DDA technology, in that they showed that using DDA significantly reduced the score differences between players, thus allowing less skilled players to be more competitive against more skilled players.[26] Other studies have successfully used DDA to reduce skill differentials between players of different abilities.[27] K. M. Gerling et al. created a rhythm game (i.e., in which players must perform steps in time with music) which could either be controlled by a dance mat (i.e., the player inputs the rhythm with their feet), buttons on a standard game controller, or a via a wheelchair input (wheelchair movements were captured by a motion sensor camera). Using various techniques, they produced adaptive versions of the game which allowed less-skilled able-bodied players to compete with more-skilled able-bodied players, and players with and without mobility disabilities to play the game together.[28] S. Bateman et al. also decreased performance differentials between players by providing adaptive targeting assistance in a simple shooting game.[29] DDA may therefore be important for enabling people with disabilities to play multiplayer games with those without disabilities.[30] DDA may also be one factor which can increase the effectiveness of rehabilitation games for people with disabilities, both in terms of making such games accessible and in terms of adapting the difficulty of the games to suit players of a wide range of abilities and provide an optimum level of challenge, which is shown to increase the effectiveness of such games.[31]

To summarise, previous research generally supports the idea that performance-based DDA can increase player performance, and that it can be used to reduce performance differentials between players of different abilities. Proposed applications of this

24 ALTIMIRA, D. et al.: Enhancing Player Engagement Through Game Balancing in Digitally Augmented Physical Games. In *International Journal of Human-Computer Studies*, 2017, Vol. 103, No. 7, p. 35-42.

25 XUE, S. et al.: Dynamic Difficulty Adjustment for Maximized Engagement in Digital Games. In BARRET, R., CUMMINGS, R. (eds.): *WWW '17 Companion: Proceedings of the 26th International Conference on World Wide Web Companion*. Geneva : International World Wide Web Conferences Steering Committee, 2017, p. 470.

26 ALTIMIRA, D. et al.: Enhancing Player Engagement Through Game Balancing in Digitally Augmented Physical Games. In *International Journal of Human-Computer Studies*, 2017, Vol. 103, No. 7, p. 43.

27 HWANG, S. et al.: How Game Balancing Affects Play: Player Adaptation in an Exergame for Children with Cerebral Palsy. In MIVAL, O. (ed.): *Proceedings of the 2017 Conference on Designing Interactive Systems*. New York : ACM, 2017, p. 704-705.

28 GERLING, K. M. et al.: Effects of Balancing for Physical Abilities on Player Performance, Experience and Self-Esteem in Exergames. In JONES, M., PALANQUE, P. (eds.): *Proceedings of the 32nd Annual ACM Conference on Human Factors in Computing Systems*. New York : ACM, 2014, p. 2203-2207.

29 BATEMAN, S. et al.: Target Assistance for Subtly Balancing Competitive Play. In TAN, D. (ed.): *Proceedings of the SIGCHI Conference on Human Factors in Computing System*. New York : ACM, 2011, p. 2363.

30 HERNANDEZ, H. A. et al.: Designing Action-Based Exergames for Children with Cerebral Palsy. In MACKAY, W. (ed.): *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. New York : ACM, 2013, p. 1269.

31 BARRETT, N. et al.: The Use and Effect of Video Game Design Theory in the Creation of Game-Based Systems for Upper Limb Stroke Rehabilitation. In *Journal of Rehabilitation and Assistive Technologies Engineering*, 2016, Vol. 3, No. 1, p. 7. [online]. [2022-05-13]. Available at: <https://journals.sagepub.com/doi/full/10.1177/2055668316643644>.

include making games more accessible or inclusive for people with disabilities, and, related to this, increasing the effectiveness of games for rehabilitation. However, in terms of player experience – i.e., engagement, enjoyment, and motivation – previous research provides mixed results on the effects of DDA.

Flow

Several issues relevant to DDA are captured in the concept of flow, which was first introduced by M. Csikszentmihalyi in the 1970s. During a flow state, an individual is completely focused on an activity; it is an enjoyable and fulfilling experience (an 'optimal' experience), often described colloquially as being in "the Zone".[32] Csikszentmihalyi identifies several characteristics of the flow state, including having clear goals, concentrating on the task at hand, feeling in control, and being engaged in a challenging activity requiring skill. Flow was originally modelled by M. Csikszentmihalyi as an optimal balance between anxiety and boredom; the zone in which one is challenged enough to not be bored, but skilled enough to not be anxious about one's performance.[33] Since M. Csikszentmihalyi's original work, a large body of research has further investigated and characterised flow, and some of this work has explicitly focused on digital games, which have been claimed to "possess ideal characteristics to create and maintain flow experiences in that the flow experience of video games is brought on when the skills of the player match the difficulty of the game".[34] The importance of the flow experience is shown by empirical research suggesting that flow is a source of digital games' appeal to players in the long-term, and the flow experience predicts players' intention to play games.[35] In educational games, flow has been used as a measure of game quality, and a small amount of research suggests that the experience of flow may be associated with the effectiveness of game-based learning.[36]

The notion of a balance between player skill and game difficulty shows the direct relevance of flow to performance-based DDA. If the aim of these approaches to DDA is to match the difficulty of a game to each unique player's skill level, then it seems likely that DDA could be used to achieve a balance between these two factors, and therefore encourage flow experiences. However, although theoretical discussions of flow feature in much research on DDA, few studies have investigated the relationship between difficulty adjustment and flow empirically.

In one such study, D. Ang and Mitchell showed that playing with incremental difficulty adjustment and with a version of DDA in which the player could control the difficulty were both associated with significantly different scores[37] (compared to no DDA) on several constructs of the Flow State Scale.[38] This included challenge-skill balance, which was greater when participants played a game with DDA. A second study by the same authors investigated how player experience (including experience of flow) was affected by

32 CHEN, J.: Flow in Games (And Everything Else). In *Communications of the ACM*, 2007, Vol. 50, No. 4, p. 31.
33 CSIKSZENTMIHALYI, M.: The Flow Experience and Its Significance for Human Psychology. In CSIKSZENTMIHALYI, M., CSIKSZENTMIHALYI, I. S. (eds.): *Optimal Experience: Psychological Studies of Flow in Consciousness*. Cambridge : Cambridge University Press, 1988, p. 30.
34 SHERRY, J. L.: Flow and Media Enjoyment. In *Communication Theory*, 2004, Vol. 14, No. 4, p. 340.
35 PERTTULA, A. et al.: Flow Experience in Game Based Learning – A Systematic Literature Review. In *International Journal of Serious Games*, 2017, Vol. 4, No. 1, p. 58.
36 Ibidem, p. 67-68.
37 ANG, D., MITCHELL, A.: Comparing Effects of Dynamic Difficulty Adjustment Systems on Video Game Experience. In SCHOUTEN, B., MARKOPOULOS, P., TOUPS, Z. (eds.): *Proceedings of the Annual Symposium on Computer-Human Interaction in Play*. New York : ACM, 2017, p. 321.
38 See also: JACKSON, S. A., MARSH, H.: Development and Validation of a Scale to Measure Optimal Experience: The Flow State Scale. In *Journal of Sport & Exercise Psychology*, 1996, Vol. 18, No. 1, p. 17-35.

changes in how and when players were able to adjust the difficulty of a game, although this study did not use a no-DDA control condition.[39] Most importantly, the DDA used in both these studies is not performance-based as discussed in this paper, in that players manually (and voluntarily) increased or decreased the difficulty during the game themselves, rather than have the difficulty automatically adjusted based on a measurement of player performance.

The Present Study

Our aim in this study was to investigate how a performance-based approach to DDA affects player performance, enjoyment, and experience of flow, using an experimental game created for this study. We conducted a controlled experiment with 3 groups, with each group playing a different version of the game. The independent variable was the way in which the difficulty of the game was adjusted, with 3 levels: (1) DDA, (2) incremental difficulty adjustment (in which the game gets progressively harder irrespective of player experience), and (3) no difficulty adjustment (control group). In the DDA version of the game, we used a simple algorithm to adjust the difficulty, and two measures of player performance provided the feedback upon which the adjustments were based. Our hypotheses were:

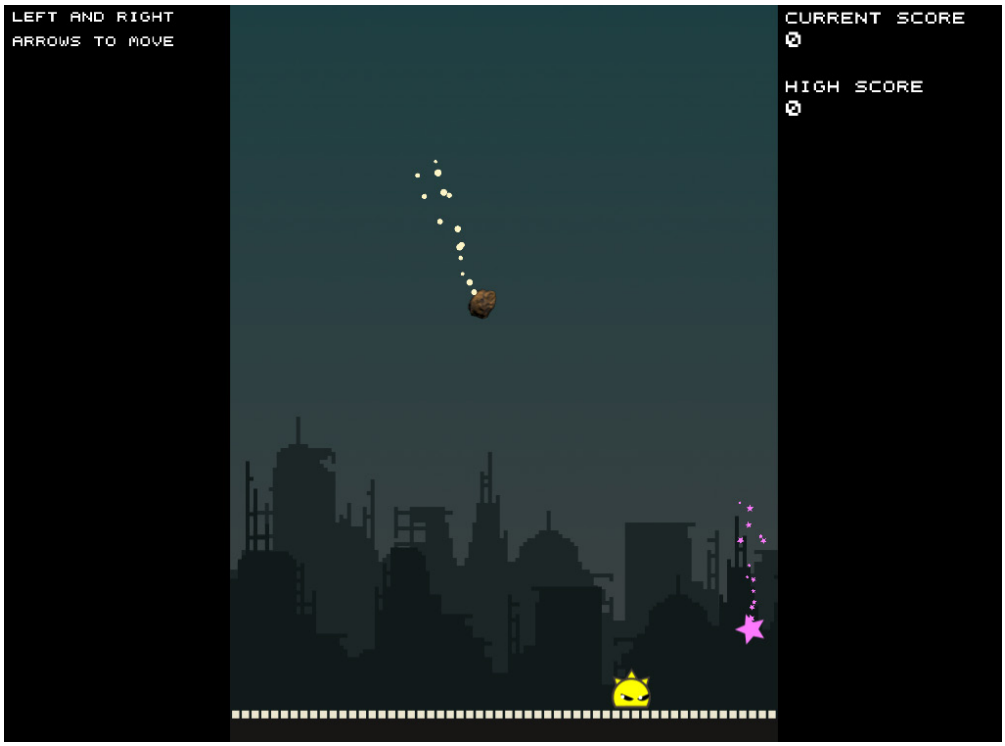
- H1: DDA will produce greater player performance than either incremental or no difficulty adjustment.
- H2: DDA will lead to greater experience of flow than either incremental or no difficulty adjustment.
- H3: DDA will lead to greater enjoyment than either incremental or no difficulty adjustment.

Methodology

To test our hypotheses, we designed and implemented a simple digital game called *Meteor Shower* (Picture 1). The object of the game is to avoid the meteors which continually fall from the top of the screen while catching the pink falling stars. The player controls the yellow character by moving left or right along the bottom of the screen (using the left and right directional arrows on the keyboard). The velocity of the meteors determines the difficulty of the game, with higher velocities making the game more difficult (i.e., the meteors are harder to avoid). The game consists of 20 levels, each lasting 45 seconds, with a short pause between each level. Players are awarded one point for each star they catch and lose a point each time a meteor hits the character. The score is reset to 0 at the end of each level. There are 8 falling stars to catch in each level (each falling 5 seconds apart), and so the maximum score available on any level is 8 (i.e., the player catches all stars and avoids all meteors). While the meteors and stars appear to the player to originate from random locations, the game in fact uses a seeded random number generator to ensure that the pattern of locations at which stars and meteors appear is the same for each player. When generated, stars fall in a straight line. Meteors move in a straight line

39 ANG, D., MITCHELL, A.: Representation and Frequency of Player Choice in Player-Oriented Dynamic Difficulty Adjustment Systems. In ARNEDO, J., NACKE, L. E. (eds.): *Proceedings of the Annual Symposium on Computer-Human Interaction in Play.* New York : ACM, 2019, p. 589.

from their point of origin to the location of the player-controlled character at the time the meteor was generated. This ensures that players always must move the character to avoid every meteor.



Picture 1: The experimental game, Meteor Shower
Source: own processing

Three versions of the game were created. The sole difference between each version is the way in which the difficulty (i.e., the velocity of the meteors) was adapted during gameplay. In the control version of the game, the velocity of the meteors remained constant at 800 throughout. In the incremental difficulty adjustment version of the game, the velocity of the meteors increased by 50 at the start of each new level. The velocity on level 1 was 200; the velocity on level 20 was 1150. Finally, the DDA version of the game used a simple algorithm to adapt the velocity of the meteors in response to measurements of player performance. The starting velocity on level 1 was 900. The possible velocity settings ranged from 200 to 1700, increasing in increments of 50. Due to an error in the programming, value 1200 was not used.

After every 5 seconds of gameplay, two separate measures of the player's current success rate were calculated. The first of these measured the player's success at avoiding meteors over the previous 5 seconds of play (success1 = (nM - nH)/nM, where nM is the number of meteors in the previous 5 seconds and nH is the number of times the player was hit by a meteor in the previous 5 seconds). The second measurement was the player's overall success rate based on their score and the potential maximum score possible at that point in the level (success2 = score/nS, where nS is the number of stars that have fallen so far in the level). If either of these success rates was less than the target success rate (1; see following paragraph), the current setting of the game was judged to be too hard for the player and the velocity was therefore decremented (e.g., if the velocity was 350 it was

reduced to 300), otherwise the current setting was judged to be too easy and the velocity was therefore incremented (e.g., if the velocity was 1400 it was increased to 1450. If the velocity was already at the lowest (200) or highest (1700) setting, no change was made.

Determining which value to use for the target success rate (i.e., the value at which the game was judged to be too easy), proved to be one of the most challenging design decisions in the development of the game, and we were unable to find previous research to guide this decision. Therefore, during the development process, we played versions of the game using success rates ranging from 0.75 (i.e., 75%) to 1 (i.e., 100%). We determined that the most satisfying experience was provided when we used a target success rate of 1 for both measures. Flow was measured using the Flow Short Scale which was first published in German[40] and later, in an English translation.[41] We used the online version of the scale[42] which has 14 items. Items 1-10 measure flow, items 11-13 measure anxiety, and item 14 measures perceived skill demands (challenge). In addition, demographic data (age, gender, frequency of digital game play) were collected.

During gameplay, each participant's score was recorded for levels 1-19. Due to a bug in the software (which we identified after running the experiment), the score for level 20 was not recorded. For the DDA group only, we also recorded the velocity of the meteors at 5 second intervals (i.e., each time the velocity was updated). This provided a measure of the difficulty of the game (higher velocity is more difficult), and a measure of the player's skill level (better players will reach higher velocities). Scores were recorded for all participants in the DDA group for 855 seconds of gameplay (i.e., not the full 15 minutes, due to a technical problem or bug, currently unidentified). We did not record velocity for the control group, as this remained constant throughout the game (800) or for the incremental group, as this increased on a predetermined scale with each level.

We conducted the experiment online using Amazon Mechanical Turk (MTurk). MTurk has been described as a "marketplace for work that requires human intelligence".[43] Users of the site are classified as "requesters" (who post tasks to the site) and "workers" (who complete these tasks in return for payment). Example tasks include completing surveys to provide feedback about a website, classifying images based on their content, or providing translations of short pieces of text. Typically, MTurk is appropriate for tasks which can be completed quickly, and for which many instances of the task must be completed. MTurk is now frequently used to conduct research in psychology[44] and it has been used in at least one previous study on the effects of DDA in digital games.[45]

However, several issues have been identified which may threaten the validity of data obtained from MTurk.[46] Some of these issues are not unique to MTurk. For example, the issue of selection bias, in the sense that MTurk workers choose the tasks they wish to complete, applies in any research wherein participants voluntarily opt to take part after

40 RHEINBERG, F., VOLLMEYER, R., ENGESER, S.: Die Erfassung des Flow-Erlebens. In STIENSMEIER-PELSTER, J., RHEINBERG, F. (eds.): *Diagnostik von Motivation und Selbstkonzept: Tests und Trends der pädagogisch-psychologischen Diagnostik – Band 2.* Göttingen : Hogrefe, 2003, p. 267-270.

41 ENGESER, S., RHEINBERG, F.: Flow, Performance and Moderators of Challenge-Skill Balance. In *Motivation and Emotion*, 2008, Vol. 32, No. 3, p. 170.

42 RHEINBERG, F.: *Flow Short Scale*. [online]. [2022-05-13]. Available at: <http://www.psych.uni-potsdam.de/people/rheinberg/messverfahren/fks1-e.html>.

43 ROUSE, S. V.: A Reliability Analysis of Mechanical Turk Data. In *Computers in Human Behavior*, 2015, Vol. 43, No. 2, p. 304.

44 CRUMP, M. J., McDONNELL, J. V., GURECKIS, T. M.: Evaluating Amazon's Mechanical Turk as a Tool for Experimental Behavioral Research. In *PLOS One*, 2013, Vol. 8, No. 3, p. 1. [online]. [2022-05-13]. Available at: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0057410>.

45 SHAREK, D., WIEBE, E.: Investigating Real-time Predictors of Engagement: Implications for Adaptive Videogames and Online Training. In *International Journal of Gaming and Computer-Mediated Simulations*, 2015, Vol. 7, No. 1, p. 27-28.

46 CHEUNG, J. H. et al.: Amazon Mechanical Turk in Organizational Psychology: An Evaluation and Practical Recommendations. In *Journal of Business and Psychology*, 2017, Vol. 32, No. 4, p. 349.

viewing, e.g., a poster or advertisement on social media. However, all participants in research conducted via MTurk will (obviously) have self-selected to become MTurk workers. Related to this, Cheung et al. note that samples obtained from MTurk may not be representative of the population of interest (e.g., all MTurk participants are internet users, which may not be appropriate for some studies).[47] On this issue, we make two observations. Firstly, we note that, in some respects, samples obtained from MTurk may be more diverse than samples obtained by traditional means. K. Casler et al. point out that most participants in psychological research are American college students; they showed that a sample of MTurk workers was significantly, desirably more diverse in terms of ethnicity, economic status, and age, than a sample of undergraduate students.[48] Secondly, we point out that the nature of our study – in which participants are required to play an online game remotely – dictates that participants would be required to have internet access and be reasonably computer literate whether recruited through MTurk or not.

Perhaps the most important concern with MTurk data is the possibility of participants answering questions without paying attention to the content (either fully, or at all, i.e., selecting random answers). However, steps can be taken to mitigate this risk.[49] Firstly, MTurk incorporates a rating system for workers, so that requesters can specify that only workers of a suitable quality can access their tasks. We will discuss this further in the Results section, where we describe how we used this system to specify that only workers of a certain quality could access our experiment. Secondly, items can be included in questionnaires to check for attentiveness (e.g., a multiple-choice item that states which option the respondent should select). Finally, it may also be possible to detect inattentive responses by analysing data gathered, although this would presumably depend on the nature of the data. The screening process we used to identify inattentive participants in the present study is described in the Results section.

The task was made available using MTurk's Survey Link template. This provides a link to an external website, where participants complete a task (typically a questionnaire) and receive a completion code. They then enter the completion code in MTurk to receive credit for completing the task. The default configuration of the Survey Link template allows each worker to only complete the task once. In our case, the survey link took participants to a site hosting the game. Which version of the game was loaded was determined randomly by the software. Participants pressed a button to start the game when they were ready. After 15 minutes of play, the game automatically ended, and participants were presented with a link to the webpage containing the questionnaire. When they submitted the questionnaire with all questions completed, the data were stored on a server, and a unique completion code was generated on the server and returned to participants. The completion code, a record of which version of the game they had played, and performance data automatically recorded during gameplay, were also stored on the server. Participants then entered the completion code in MTurk and were paid $0.99. All participants were paid, whether their data were included in the analysis or not.

Initially, we ran a pilot with 10 participants. By considering participants' performance data, it appeared that some participants did not actually play the game. It would be possible to merely let the game run for 15 minutes, then select random answers to the questions. To address this, we included two attention check items in the questionnaire. These

47 CHEUNG, J. H. et al.: Amazon Mechanical Turk in Organizational Psychology: An Evaluation and Practical Recommendations. In *Journal of Business and Psychology*, 2017, Vol. 32, No. 4, p. 349.

48 CASLER, K., BICKEL, L., HACKETT, E.: Separate but Equal? A Comparison of Participants and Data Gathered via Amazon's MTurk, Social Media, and Face-to-Face Behavioral Testing. In *Computers in Human Behavior*, 2013, Vol, 29, No. 6, p. 2158.

49 FLEISCHER, A., MEAD, A. D., HUANG, J.: Inattentive Responding in MTurk and Other Online Samples. In *Industrial and Organizational Psychology*, 2015, Vol. 8, No. 2, p. 199-200.

items stated that the participant should select option 7 ("very much") in the Likert-style scale. We also screened the data collected during the full experiment and removed data which appeared to show no engagement with the game (see Results). In addition, we decided to use MTurk's qualifications feature to ensure that the task was only available to workers who (1) had completed over 10000 tasks on MTurk; and (2) had an approval rate of 97% or higher.

Data were collected from 300 adults via MTurk; each randomly assigned to play either the control, DDA, or incremental versions of the game. Entries in which answers to either of the attention check questions were incorrect were removed. We also removed entries in which a score of zero was recorded for every level, as this suggested that the participants did not actually play the game, but merely let it run for the required time. Finally, we considered the velocity data recorded for participants in the DDA group and removed any entries in which the pattern of velocities across the levels suggested that participants had not actually played the game (i.e., when the velocity quickly decreased to 200 and did not rise above 250 for the remainder of the game). This left 221 participants (93 female) whose data were retained for analysis. Ages ranged from 20 years to 65 years, with a mean age of 36.51 years (std. deviation 9.73). There were 82 participants in the control group, 68 in the DDA group, and 71 in the incremental group.

Results

The 14-item online version of the Flow Short Scale was shown to have acceptable reliability (Cronbach's a = .834). Chi-square tests of homogeneity showed that the three groups did not significantly differ in terms of gender ($\chi 2(3) = 1.4$, $p = .497$), number of days per week spent playing digital games ($\chi 2(3) = 23.348$, $p = .055$), or age ($\chi 2(3) = 69.525$, $p = .902$).

To analyse group differences in terms of overall mean score (i.e., participants' mean score over 19 levels of play), we ran a Kruskal-Wallis H test. The distributions of overall mean score were not similar for all groups. The DDA group had a smaller range (2.89) and smaller interquartile range (.83) than both the control group (range = 7.32, interquartile range = 3.01) and incremental group (range = 7.74, interquartile range = 2.89) (see Graph 1). The median values increased from the incremental group (3.74) to the control group (4.61) to the DDA group (5.05). These differences in median values were statistically significantly different between the groups, $\chi 2(3) = 16.148$, $p < .0005$. Pairwise comparisons were then performed using Dunn's procedure with a Bonferroni correction for multiple comparisons. This analysis revealed statistically significant differences (adjusted p-values presented) in median values between the DDA group (mean rank = 135.31) and control group (mean rank = 106.91) ($p = .02$), and between the DDA group and incremental group (mean rank = 92.44) ($p < .0005$) groups, but not between the control group and the incremental group ($p = .488$).

We analysed the differences in scores between the three groups further by conducting one-way Welch ANOVAs on mean score per level (i.e., mean score for each group for each of 19 levels of play). A small number of outliers in the DDA group and Incremental group were not removed. Levene's test for equality of variances showed that the assumption of homogeneity of variances was violated in levels 4-19 (p-values ranging from .012 to <.0005). Scores were significantly different between the groups during levels 1, 3, 5, and levels 9-19. Games-Howell post hoc analyses revealed that the DDA group had higher mean scores than the control group in levels 3-19; these differences were significant

in levels 3, 5, and 9-19 (p-values ranging from .019 to <.0005). The DDA group also had significantly higher mean scores than the incremental group in levels 10-19 (p-values ranging from .013 to <.0005). The control group had significantly higher mean scores than the incremental group in levels 14-19 (p-values ranging from .014 to <.0005). These results are shown in Charts 2, 3 and 4.

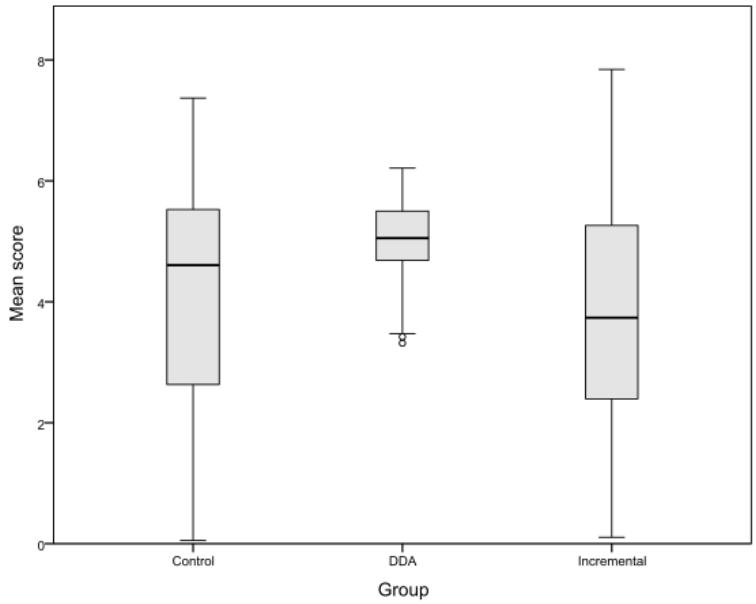


Chart 1: Boxplots of overall score for each of three groups – Control, Dynamic Difficulty Adjustment (DDA), and Incremental
Source: own processing

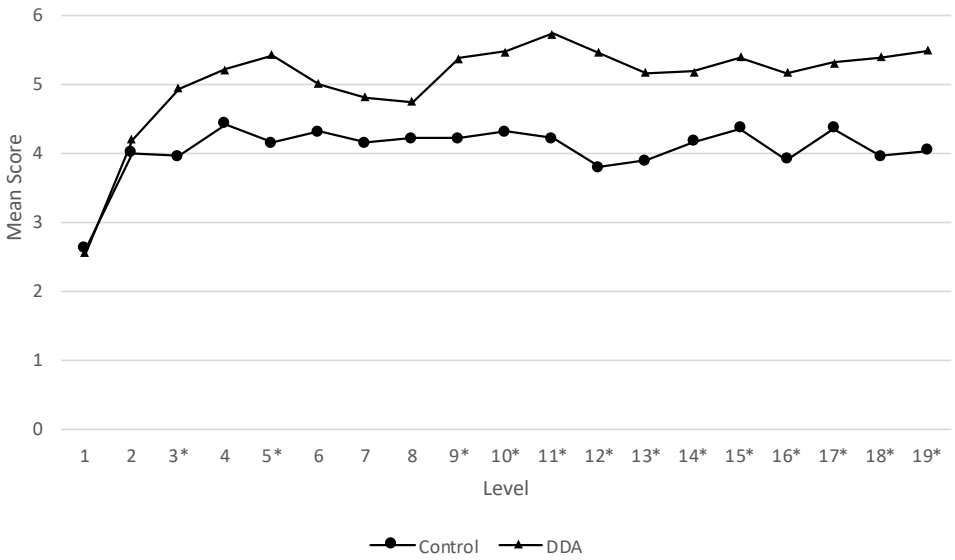


*Chart 2: A comparison of mean score per level for the Control and Dynamic Difficulty Adjustment (DDA) groups (significant differences are marked with a *)*
Source: own processing

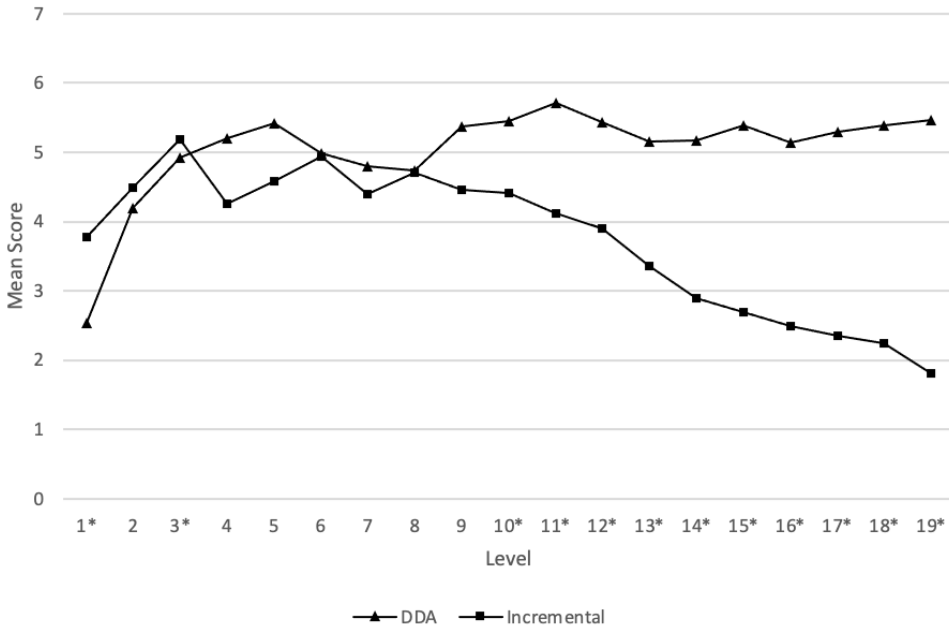


*Chart 3: A comparison of mean score per level for the Dynamic Difficulty Adjustment (DDA) and Incremental groups (significant differences are marked with a *)*
Source: own processing

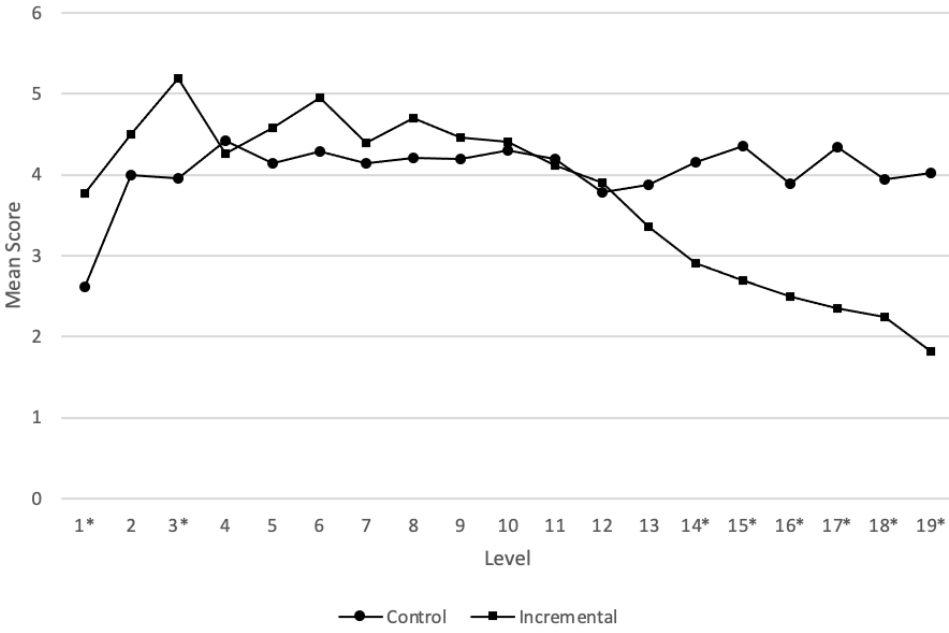


*Chart 4: A comparison of mean score per level for the Control and Incremental groups (significant differences are marked with a *)*
Source: own processing

For the DDA group, we analysed the velocity values, which indicates the difficulty of the game (higher velocity is more difficult). First, we considered the mean velocity across participants at each measurement point (5 seconds between each measurement, 171 measurements considered). Chart 4 shows how velocity ranged across participants over time. We considered the relationship between each participant's (DDA group only) overall mean velocity over 855 seconds of gameplay, and each participant's overall mean score across 19 levels, using Pearson's correlation test. The data were linear, overall mean score was normally distributed ($p > .05$), while overall mean velocity was not normally distributed ($p < .0005$). There was a strong positive correlation between overall mean score and overall velocity, $r(68) = .554$, $p < .0005$, with overall mean velocity explaining 31% of the variation in overall mean score. It means, as a higher velocity makes the game more difficult, and higher velocities are only achieved by players who perform better, velocity here can be used as an index of player performance.

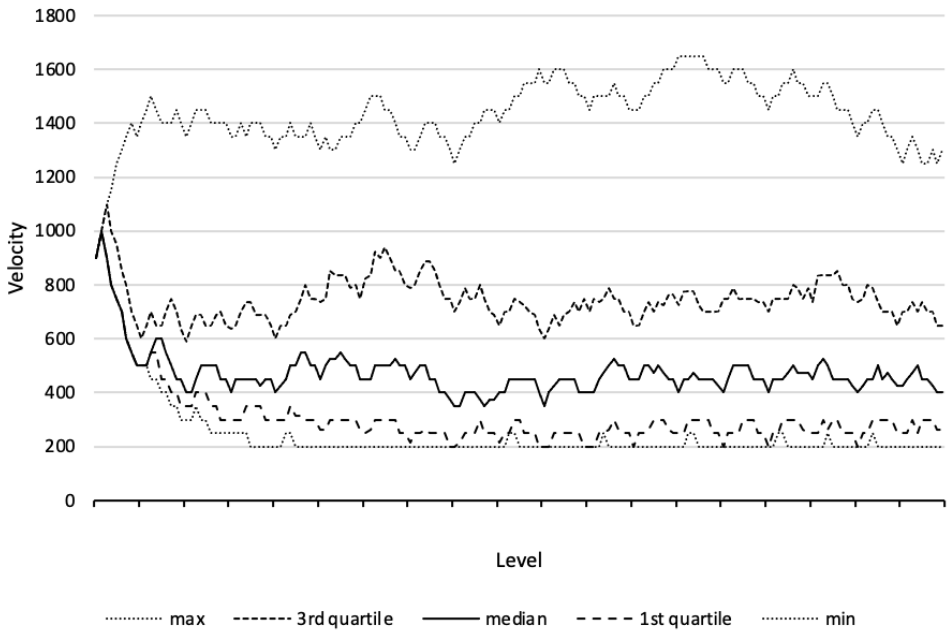


Chart 5: Range of meteor velocity per level for the Dynamic Difficulty Adjustment (DDA) group over 19 levels
Source: own processing

We also ran Kruskal-Wallis H tests to analyse differences between the groups in terms of the 3 factors of the Flow Short Scale, and the single-item for Enjoyment. In the case of Flow, the distributions were not similar for all groups (assessed by visual inspection of a box plot). The median values increased from the incremental group (4.9) to the DDA group (4.95), to the control group (5.3). These differences were not statistically significantly different between the groups, $\chi 2(3) = 4.087$, $p = .130$. In the case of Anxiety, the distributions were similar for all groups. The median values increased from the incremental group (3.67) to the control group (4.0) and DDA group (4.0). These differences were not statistically significantly different, $\chi 2(3) = 3.336$, $p = .189$. In the case of Challenge, the distributions were not similar for all groups and the median values were the same for all three groups (4.0). In the case of Enjoyment, the distributions were not similar for all groups. The median values increased from the incremental group (5.0) to the control group (6.0) and the DDA group (6.0). These differences were not statistically significantly different, $\chi 2(3) = 3.628$, $p = .163$.

We also considered relationships between flow, anxiety, challenge, enjoyment, and overall mean score across all three groups. Flow was positively correlated with Anxiety ($r(221) = .462$, $p < .0005$), Challenge ($r(221) = .476$, $p < .0005$), and Enjoyment ($r(221) = .675$, $p < .0005$), Anxiety was positively correlated with Challenge ($r(221) = .531$, $p < .0005$) and Enjoyment ($r(221) = .511$, $p < .0005$), and Challenge was positively correlated with Enjoyment ($r(221) = .501$, $p < .0005$). Overall mean score was significantly negatively correlated with Challenge ($r(221) = -.181$, $p = .007$).

In the case of hypothesis H1 – that DDA will produce greater player performance than either incremental or no difficulty adjustment – we are able to reject the null hypothesis. However, for H2 and H3, we are unable to reject the null hypotheses. That is, we cannot reject the hypotheses that there is no difference between DDA, incremental difficulty adjustment, and the control group in terms of either player experience of flow or player enjoyment.

Discussion and Conclusion

The research presented here investigated dynamic difficulty adjustment in a digital game, with the adjustment based on feedback about the player's performance. We found that this type of difficulty adjustment led to greater overall player performance over approximately 15 minutes of play, than either incremental difficulty adjustment or a no-adjustment control group. In addition, the range of performance in the DDA group was smaller than the other groups, and overall performance in the DDA group correlated with overall mean difficulty across 15 minutes of play. In line with previous research, our results suggest that performance-based DDA is suitable for reducing skill differentials between players. This provides further evidence of the suitability of this relatively simple approach to DDA in facilitating competitive and or collaborative play between players with different skill levels. We believe that this approach could therefore be used to increase the accessibility of digital games for people with disabilities.

It is also interesting to note that the players in the DDA group showed a wide range of abilities, as indexed by the range of difficulty settings recorded during the experiment (Figure 4). However, the overall mean performance of this group increased more than both the control and incremental groups, with significant differences in mean performance in most levels of the game between the DDA and other groups. It is therefore possible, in line with the results of Sampayo-Vargas et al.[50] that DDA provides a scaffold to players of a range of abilities, by making the game easier when their performance drops; this scaffold is then removed when their performance increases.

Our results show no significant differences between the three conditions on all the self-reported measures of player experience (flow, enjoyment, challenge, and anxiety). Previous research on performance-based DDA has found mixed results on self-report measures of player experience such as enjoyment, engagement, motivation, and challenge. There are several possible explanations for this. Firstly, it may be the case that performance-based approaches to DDA have less or no effect on self-reported player experience than affective approaches. This is feasible, as several studies have found that player perceptions of gameplay experience are related to factors other than player skill or performance, such as whether the users are experienced or casual players of digital

50 SAMPAYO-VARGAS, S. et al.: The Effectiveness of Adaptive Difficulty Adjustments on Students' Motivation and Learning in an Educational Computer Game. In *Computers & Education*, 2013, Vol. 69, No. 10, p. 459-460.

games,[51] their motivations to play games, their personality, or gameplay preferences.[52] If the aim of DDA is to increase players' positive perception of the gameplay experience, then affective approaches to DDA may be more useful. Secondly, within performance-based DDA approaches, there is a large range of factors which could influence player experience. In this study, we used simple measures of player performance to alter a single variable affecting game difficulty. There are many other factors we could have chosen. In addition, we could have provided a different range of difficulty settings (e.g., with larger or smaller increments), used a different target success rate, adapted the difficulty more or less frequently, and so on. These adjustments could lead to different results, and future research should consider, not just the difference between adaptive and non-adaptive difficulty adjustment, but also differences between alternative approaches to DDA. Thirdly, as discussed in the Methods section, self-report data obtained from MTurk may be less reliable than data obtained from traditional sources. While we included attention-check items to identify participants who were potentially selecting random answers to the questions, found high reliability for our questionnaire, and found expected correlations between flow, anxiety, challenge, and enjoyment, we did not use any other techniques to identify participants who were not engaged with the questionnaire. For example, it has been suggested that MTurk data can be made more reliable by explicitly asking participants if they answered the questions genuinely and assuring them that they will still be paid if they admit they did not.[53] Note that this limitation is somewhat mitigated in this study as we removed responses from participants whose performance data indicated that they had not engaged with the game. However, it is still feasible that some participants engaged with the game and read the questions but still provided unreliable data simply by not providing considered answers.

This study makes several contributions to research on dynamic difficulty adjustment in digital games. Our results show that performance-based dynamic difficulty adjustment can be used to increase player performance and reduce performance differentials in a 2D digital game. We also demonstrate the feasibility and limitations of conducting digital games research using an experimental game via Amazon Mechanical Turk. We make recommendations for future research to further investigate the effects of dynamic difficulty adjustment on enjoyment and experience of flow (for which we found non-significant results), such as using different feedback measures (including affective feedback), adjusting different game variables, and implementing additional steps to ensure the reliability of data gathered by player self-report.

BIBLIOGRAPHY

ADAMS, E.: *The Designer's Notebook: Difficulty Modes and Dynamic Difficulty Adjustment*. Released on 14th May 2008. [online]. [2022-05-13]. Available at: <https://www.gamasutra.com/view/feature/132061/the_designers_notebook_.php>.

ALEXANDER, J. T., SEAR, J., OIKONOMOU, A.: An Investigation of the Effects of Game Difficulty on Player Enjoyment. In *Entertainment Computing*, 2013, Vol. 4, No. 1, p. 53-62. ISSN 1875-9521.

ALTIMIRA, D. et al.: Enhancing Player Engagement Through Game Balancing in Digitally Augmented Physical Games. In *International Journal of Human-Computer Studies*, 2017, Vol. 103, No. 7, p. 35-47. ISSN 1071-5819.

51 ALEXANDER, J. T., SEAR, J., OIKONOMOU, A.: An Investigation of the Effects of Game Difficulty on Player Enjoyment. In *Entertainment Computing*, 2013, Vol. 4, No. 1, p. 61.

52 KARPINSKYJ, S., ZAMBETTA, F., CAVEDON, L.: Video Game Personalisation Techniques: A Comprehensive Survey. In *Entertainment Computing*, 2014, Vol. 5, No. 4, p. 212-213.

53 ROUSE, S. V.: A Reliability Analysis of Mechanical Turk Data. In *Computers in Human Behavior*, 2015, Vol. 43, No. 2, p. 306-307.

ANG, D., MITCHELL, A.: Comparing Effects of Dynamic Difficulty Adjustment Systems on Video Game Experience. In SCHOUTEN, B., MARKOPOULOS, P., TOUPS, Z. (eds.): *Proceedings of the Annual Symposium on Computer-Human Interaction in Play*. New York : ACM, 2017, p. 317-327.
ANG, D., MITCHELL, A.: Representation and Frequency of Player Choice in Player-Oriented Dynamic Difficulty Adjustment Systems. In ARNEDO, J., NACKE, L. E. (eds.): *Proceedings of the Annual Symposium on Computer-Human Interaction in Play*. New York : ACM, 2019, p. 589-600.
BARRETT, N. et al.: The Use and Effect of Video Game Design Theory in the Creation of Game-Based Systems for Upper Limb Stroke Rehabilitation. In *Journal of Rehabilitation and Assistive Technologies Engineering*, 2016, Vol. 3, No. 1, p. 1-16. ISSN 2055-6683. [online]. [2022-05-13]. Available at: <https://journals.sagepub.com/doi/full/10.1177/2055668316643644>.
BATEMAN, S. et al.: Target Assistance for Subtly Balancing Competitive Play. In TAN, D. (ed.): *Proceedings of the SIGCHI Conference on Human Factors in Computing System*. New York : ACM, 2011, p. 2355-2364.
BEVILACQUA, F., ENGSTRÖM, H., BACKLUND, P.: Game-Calibrated and User-Tailored Remote Detection of Stress and Boredom in Games. In *Sensors*, 2019, Vol. 19, No. 13, p. 1-43. ISSN 1424-8220. [online]. [2022-05-13]. Available at: <https://www.mdpi.com/1424-8220/19/13/2877/htm>.
BONTCHEV, B.: Adaptation in Affective Video Games: A Literature Review. In *Cybernetics and Information Technologies*, 2016, Vol. 16, No. 3, p. 3-34. ISSN 1311-9702.
CASLER, K., BICKEL, L., HACKETT, E.: Separate but Equal? A Comparison of Participants and Data Gathered via Amazon's MTurk, Social Media, and Face-to-Face Behavioral Testing. In *Computers in Human Behavior*, 2013, Vol, 29, No. 6, p. 2156-2160. ISSN 0747-5632.
CRUMP, M. J., McDONNELL, J. V., GURECKIS, T. M.: Evaluating Amazon's Mechanical Turk as a Tool for Experimental Behavioral Research. In *PLOS One*, 2013, Vol. 8, No. 3, p. 1-18. ISSN 1932-6203. [online]. [2022-05-13]. Available at: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0057410>.
CSIKSZENTMIHALYI, M.: The Flow Experience and Its Significance for Human Psychology. In CSIKSZENTMIHALYI, M., CSIKSZENTMIHALYI, I. S. (eds.): *Optimal Experience: Psychological Studies of Flow in Consciousness*. Cambridge : Cambridge University Press, 1988, p. 15-35.
ENGESER, S., RHEINBERG, F.: Flow, Performance and Moderators of Challenge-Skill Balance. In *Motivation and Emotion*, 2008, Vol. 32, No. 3, p. 158-172. ISSN 0146-7239.
FLEISCHER, A., MEAD, A. D., HUANG, J.: Inattentive Responding in MTurk and Other Online Samples. In *Industrial and Organizational Psychology*, 2015, Vol. 8, No. 2, p. 196-202. ISSN 1754-9426.
GERLING, K. M. et al.: Effects of Balancing for Physical Abilities on Player Performance, Experience and Self-Esteem in Exergames. In JONES, M., PALANQUE, P. (eds.): *Proceedings of the 32nd Annual ACM Conference on Human Factors in Computing Systems*. New York : ACM, 2014, p. 2201-2210.
HERNANDEZ, H. A. et al.: Designing Action-Based Exergames for Children with Cerebral Palsy. In MACKAY, W. (ed.): *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. New York : ACM, 2013, p. 1261-1270.
HUNICKE, R.: The Case for Dynamic Difficulty Adjustment in Games. In LEE, N. (ed.): *Proceedings of the 2005 ACM SIGCHI International Conference on Advances in Computer Entertainment Technology*. New York : ACM, 2005, p. 429-433.
HWANG, S. et al.: How Game Balancing Affects Play: Player Adaptation in an Exergame for Children with Cerebral Palsy. In MIVAL, O. (ed.): *Proceedings of the 2017 Conference on Designing Interactive Systems*. New York : ACM, 2017, p. 699-710.
CHEN, J.: Flow in Games (And Everything Else). In *Communications of the ACM*, 2007, Vol. 50, No. 4, p. 31-34. ISSN 0001-0782.
CHEUNG, J. H. et al.: Amazon Mechanical Turk in Organizational Psychology: An Evaluation and Practical Recommendations. In *Journal of Business and Psychology,* 2017, Vol. 32, No. 4, p. 347-361. ISSN 0889-3268.

JACKSON, S. A., MARSH, H.: Development and Validation of a Scale to Measure Optimal Experience: The Flow State Scale. In *Journal of Sport & Exercise Psychology*, 1996, Vol. 18, No. 1, p. 17-35. ISSN 0895-2779.
KARPINSKYJ, S., ZAMBETTA, F., CAVEDON, L.: Video Game Personalisation Techniques: A Comprehensive Survey. In *Entertainment Computing*, 2014, Vol. 5, No. 4, p. 211-218. ISSN 1875-9521.
LEIKER, A. M., et al.: The Effects of Autonomous Difficulty Selection on Engagement, Motivation, and Learning in a Motion-Controlled Video Game Task. In *Human Movement Science*, 2016, Vol. 49, No. 5, p. 326-335. ISSN 0167-9457.
NAGLE, A. et al.: The Effect of Different Difficulty Adaptation Strategies on Enjoyment and Performance in a Serious Game for Memory Training. In CLUA, E., VILAÇA, J. (eds.): *IEEE 3rd International Conference on Serious Games and Applications for Health*. Rio de Janeiro : IEEE, 2014, p. 127-134.
ORVIS, K. A., HORN, D. B., BELANICH, J.: The Roles of Task Difficulty and Prior Videogame Experience on Performance and Motivation in Instructional Videogames. In *Computers in Human Behavior*, 2008, Vol. 24, No. 5, p. 2415-2433. ISSN 0747-5632.
PERTTULA, A. et al.: Flow Experience in Game Based Learning – A Systematic Literature Review. In *International Journal of Serious Games*, 2017, Vol. 4, No. 1, p. 57-72. ISSN 2384-8766.
PIERRE-LOUIS, S.: *2021 Essential Facts About the Video Game Industry*. 2021. [online]. [2022-05-13]. Available at: <https://www.theesa.com/wp-content/uploads/2021/08/2021-Essential-Facts-About-the-Video-Game-Industry-1.pdf>.
RHEINBERG, F.: *Flow Short Scale*. [online]. [2022-05-13]. Available at: <http://www.psych.uni-potsdam.de/people/rheinberg/messverfahren/fks1-e.html>.
RHEINBERG, F., VOLLMEYER, R., ENGESER, S.: Die Erfassung des Flow-Erlebens. In STIENSMEIER-PELSTER, J., RHEINBERG, F. (eds.): *Diagnostik von Motivation und Selbstkonzept: Tests und Trends der pädagogisch-psychologischen Diagnostik – Band 2.* Göttingen : Hogrefe, 2003, p. 261-279.
ROBB, N., WALLER, A., WOODCOCK, K. A.: Developing a Task Switching Training Game for Children with a Rare Genetic Syndrome Linked to Intellectual Disability. In *Simulation & Gaming*, 2019, Vol. 50, No. 2, p. 160-179. ISSN 1046-8781.
ROUSE, S. V.: A Reliability Analysis of Mechanical Turk Data. In *Computers in Human Behavior*, 2015, Vol. 43, No. 2, p. 304-307. ISSN 0747-5632.
SAMPAYO-VARGAS, S. et al..: The Effectiveness of Adaptive Difficulty Adjustments on Students' Motivation and Learning in an Educational Computer Game. In *Computers & Education*, 2013, Vol. 69, No. 10, p. 452-462. ISSN 0360-1315.
SHAKER, N., YANNAKAKIS, G., TOGELIUS, J.: Towards Automatic Personalized Content Generation for Platform Games. In YOUNGBLOOD, G. M., BULITKO, V. (eds.): *Sixth Artificial Intelligence and Interactive Digital Entertainment Conference*. Burnaby : PKP Publishing Services, 2010, p. 63-68. [online]. [2022-05-13]. Available at: <https://ojs.aaai.org/index.php/AIIDE/article/view/12399>.
SHAREK, D., WIEBE, E.: Investigating Real-time Predictors of Engagement: Implications for Adaptive Videogames and Online Training. In *International Journal of Gaming and Computer-Mediated Simulations*, 2015, Vol. 7, No. 1, p. 20-37. ISSN 1942-3888.
SHERRY, J. L.: Flow and Media Enjoyment. In *Communication Theory*, 2004, Vol. 14, No. 4, p. 328-347. ISSN 1050-3293.
THIBAULT, R. T., LIFSHITZ, M., RAZ, A.: The Self-Regulating Brain and Neurofeedback: Experimental Science and Clinical Promise. In *Cortex*, 2016, Vol. 74, No. 1, p. 247-261. ISSN 0010-9452.
XUE, S. et al.: Dynamic Difficulty Adjustment for Maximized Engagement in Digital Games. In BARRET, R., CUMMINGS, R. (eds.): *WWW '17 Companion: Proceedings of the 26th International Conference on World Wide Web Companion*. Geneva : International World Wide Web Conferences Steering Committee, 2017, p. 465-471.
ZOHAIB, M.: Dynamic Difficulty Adjustment (DDA) in Computer Games: A Review. In *Advances in Human-Computer Interaction*, 2018, Vol. 11, No. 1, p. 1-12. ISSN 1687-5907. [online]. [2022-05-13]. Available at: <https://www.hindawi.com/journals/ahci/2018/5681652/>.

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The Narrative Effects and Value of Memory Discrepancies in Digital Games

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ABSTRACT:
This paper discusses the aesthetic relevance of divergences between player and avatar memories in the context of digital gameplay. Drawing from a Waltonian framework and the notion of the virtual subject, we discern three kinds of memory that are involved in digital gameplay: the avatar's represented memory, the player's actual memory, and the memory about the gameworld the player pretends to have when taking on the avatar's position within the gameworld. Many gameplay situations cause these different kinds of memories to diverge and misalign with one another. When players die and must repeat parts of games, for example, they have memories about the gameworld that are rooted in their previous playthrough, but to which their avatar cannot or should not have access. Several game scholars have noted how such divergences cause narrative conflicts, create inconsistencies within the fictional world, or can even have detrimental effects on players' enjoyment of the game. In this paper, however, we draw from gameplay examples to show how the unique structure of memory in play can also engender unique and valuable narrative experiences. Indeed, we argue that discrepancies between player and avatar memory can be, and often are, used in games as unique narrative devices to create suspense, surprise, or other aesthetically relevant effects.

KEY WORDS:
avatar, dramatic irony, fiction, imagination, memory, narration, paradox of suspense, virtual subject.

K. L. Walton on Epistemic Engagements with Fiction

When describing the complexities of appreciators' responses to representational works of art, K. L. Walton writes that there is a common misconception regarding appreciators' epistemic engagement with narratives: "Critics are often interested in relations between 'what we (the readers) know' and 'what characters know': sometimes we know what characters do not; sometimes they know what we do not; sometimes we share their knowledge and their ignorance. This way of describing the situation is a considerable oversimplification. 'What readers know' is ambiguous [...] between what they 'know' qua participants in their games of make-believe and what they know qua observers of a fictional world [...]".[1]

K. L. Walton here emphasizes that the appreciation of representational works involves engaging with them in two ways. First of all, appreciators of representational works are observers. They observe a representational work, such as a painting, novel, play, or film, from their specific perspective in the real world and can gather what the work is supposed to represent based on its perceptual characteristics. Secondly, appreciators are participants in the work. In their interpretation and appreciation, they are caught up in the story, imaginatively enter the world that is represented in the work, and fictionally experience

1 WALTON, K. L.: *Mimesis as Make-Believe: On the Foundations of the Representational Arts.* Cambridge, MA : Harvard University Press, 1990, p. 270.

it from within.[2] K. L. Walton writes that the appreciator's perspective is thus a dual one: "[h]e observes fictional worlds as well as living in them; he discovers what is fictional as well as fictionally learning about and responding to characters and their situations".[3] Because the appreciation of a representational work is characterized by such a duality, K. L. Walton argues that there are three kinds of epistemological states[4] that play a role in responses to this work:

1. the epistemological states of the represented characters;
2. the appreciators' actual, own epistemological states;
3. the epistemological states appreciators fictionally adopt when imaginatively interacting with the fictional world.

The relation between these three different kinds of epistemological states raises questions that are especially interesting to philosophical and narratological analyses of (our engagement with) representational works. As K. L. Walton writes, critics often focus on the differences between (1) and (2). They are interested, for example, in the phenomenon of *dramatic irony,* referring to situations in which the audience of a fiction knows more about the fictional situation than the characters do.[5] Indeed, many stories hinge on the suspense created by such discrepancies between the audience's knowledge about the fictional events and the characters' false beliefs or fallible memories about those same events.[6] Take, for example, the nerve-wracking scene in *Romeo and Juliet,* in which Romeo takes his own life because he falsely believes Juliet has died, while the audience, at that point, knows she has not.

Questions relating to the differences between (2) and (3), however, have often been overlooked in criticisms and analyses of stories according to K. L. Walton. These questions have to do with the relation between what fiction appreciators' actually believe about works of fiction, and what they fictionally believe or imagine while engaging with the worlds represented in these works. A viewer of a horror movie can, for example, be so caught up in the movie that they (fictionally) believes the monster depicted within it to be dangerous and terrifying (3), while also being (actually) convinced about the excellent acting qualities of the person portraying this monster (2). This dual stance towards representational works raises a lot of questions. We could ask, for example, to what extent appreciators' actual epistemic states are integrated into their participation in the fiction, to what extent they are left out of it, and what roles these states play in generating the narrative.[7] "Even if one's actual epistemological states do not influence those one fictionally enjoys",

2 WALTON, K. L.: *Mimesis as Make-Believe: On the Foundations of the Representational Arts.* Cambridge, MA : Harvard University Press, 1990, p. 273.

3 Ibidem, p. 273-274.

4 Remark by the authors: With 'epistemological states', K. L. Walton denotes what is usually called 'epistemic states'. They are internal or mental states that have to do with knowledge, such as "certainty, verisimilitude, doubt; convincement, conviction and persuasion; and confidence, security and the feeling of familiarity".; RIGO-LEMINI, M.: Epistemic Schemes and Epistemic States. A Study of Mathematics Convincement in Elementary School Classes. In *Educational Studies in Mathematics,* 2013, Vol. 84, No. 1, p. 73.; Remark by the authors: Walton himself mentions knowing, believing, suspecting, conjecturing, as well as suspense and surprise.; WALTON, K. L.: *Mimesis as Make-Believe: On the Foundations of the Representational Arts*. Cambridge, MA : Harvard University Press, 1990, p. 263.

5 GOLDIE, P.: Dramatic Irony, Narrative, and the External Perspective. In *Royal Institute of Philosophy Supplements,* 2007, Vol. 60, No. 1, p. 72.

6 See also: RYAN, J. et al.: Toward Characters Who Observe, Tell, Misremember, and Lie. In JHALA, A., STURTEVANT, N. (eds.): *Proceedings of the Eleventh AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment*. Santa Cruz : AAAI Press, 2015, p. 56-62.

7 WALTON, K. L.: *Mimesis as Make-Believe: On the Foundations of the Representational Arts*. Cambridge, MA : Harvard University Press, 1990, p. 270.

K. L. Walton writes, "the counterpoint between the two, the respects in which they do and do not correspond, and how this changes over time, can be significant".[8]

K. L. Walton distinguishes several problems and paradoxes that are related to discrepancies between (2) and (3).[9] One of these is the problem of suspense: how can appreciators of a work of fiction still feel suspense when *re*-experiencing this work?[10] As the feeling of suspense is supposed to be elicited by a sense of mystery and not-knowing, a re-experience of a work can hardly still evoke it in the same way. Why would someone still feel as much suspense when Romeo finds the apparently dead Juliet, for example, if they already know perfectly well that Romeo will think that Juliet is dead and kill himself? K. L. Walton here discerns a significant and possibly problematic divergence between what the appreciator, as someone who is caught up in the story, *fictionally* knows (3), and what they, as someone who reflects on the story from the outside, know *about the fiction* (2) based on previous experiences of it.[11]

In this paper, we want to take up the challenging questions raised by such divergences, with a focus on memory in digital gameplay. Some of the above-mentioned questions, such as the one about suspense, become especially pressing when looking at the notion of memory within the appreciation of interactive works of fiction such as videogames. We believe there to be two reasons for this. First of all, videogames, unlike non-interactive fictions, *explicitly* mandate their players to be participants in the fiction, and to take on a specific role within the world they present. This role is, moreover, often fleshed out to the point of being a full-fledged and pre-existing fictional figure: the so-called avatar, which has a memory and history of its own. Secondly, due to many videogames being challenges as well as fictional narratives, players can *fail* at them and often have to repeat parts of a game which they remember from playing it the first time. This means that players' actions often cause discrepancies between the memories videogame avatars are represented to have, the memories players actually have, and the memories players adopt during gameplay, while taking on the role of a subject within the gameworld. Therefore, both phenomena like dramatic irony, which are caused by discrepancies between (1) and (2), and problems specific to fiction appreciation and suspense, caused by discrepancies between (2) and (3), seem to be especially relevant research subjects when it comes to the digital game experience.

In the following paragraphs, we investigate these memory divergences in more detail. For this purpose, we will first clarify players' participation in fictional gameworlds and specify the three kinds of memory that are at work in digital gameplay. Secondly, we will describe the complications this structure of memory in gameplay causes, focusing on problems concerning fictional coherency and player enjoyment that are caused by replaying (parts of) games. Some game scholars[12] have identified game mechanics and strategies that can be used to sidestep these problems by avoiding discrepancies between avatar and player memory altogether. In this paper, instead, we argue that an explicit divergence between avatar and player memory can also be valuable, as a narrative device that elicits surprise, suspense, or other aesthetically relevant effects.

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8 WALTON, K. L.: *Mimesis as Make-Believe: On the Foundations of the Representational Arts*. Cambridge, MA : Harvard University Press, 1990, p. 270.

9 Ibidem, p. 255-270.

10 FROME, J., SMUTS, A.: Helpless Spectators: Generating Suspense in Videogames and Film. In *TEXT Technology*, 2004, Vol. 13, No. 1, p. 18-19.

11 WALTON, K. L.: *Mimesis as Make-Believe: On the Foundations of the Representational Arts*. Cambridge, MA : Harvard University Press, 1990, p. 259.

12 See: IGARZÁBAL, F. A.: *Time and Space in Video Games: A Cognitive-Formalist Approach*. Bielefeld : Verlag, 2019.; CASELLI, S.: Thrown into the World. Transformative Aesthetics of Avatars' In-Game Awakenings. In LATYPOVA, A., OCHERETYANY, K. (eds.): *Proceedings of the 13th International Philosophy of Computer Games Conference (PCG2019).* Saint Petersburg : Saint Petersburg State University, 2019, p. 1-15.

Participation in Digital Gameworlds

Although the importance K. L. Walton ascribes to participation in representational works such as novels, paintings, and movies is often deemed to be exaggerated,[13] what he says about the dual role of the appreciator as an observer and a participant seems especially relevant for players of digital games.[14] As S. Gualeni and D. Vella write, players' engagement with games inherently has a double perspectival structure: they simultaneously inhabit a subjective standpoint that is internal to the gameworld and their own subjective standpoint as an individual external to this gameworld.[15]

We will use S. Gualeni and D. Vella's term 'virtual subject' to refer to the entity that players inhabit by adopting subjective standpoints internal to gameworlds. This term is rooted in discussions within existential philosophy and phenomenology regarding subjectivity and the self and is closely related to ideas such as M. M. Kania's 'self-avatar'[16] or U. Willhelmson's 'game ego'.[17] We will use 'virtual subject' to denote "the player's self, merged with the already-given perspective of the avatar she is expected to internalize",[18] i.e., a hybrid subject that differs from both players and avatars. A player's engagement with a gameworld consists in the development of an in-game subjectivity, or rather an 'I-in-the-gameworld', which "the player crystallizes through engaging with the gameworld by means of the playable figure".[19] Such a subjectivity is developed and constrained by both the actual world of the player (as well as their background and actual epistemic states) and the gameworld of the avatar (as well as its rules and fictional characteristics, and the avatar's perspective on it), and gets structured through the player's embodiment in the playable figure.[20] The subjectivity taken on in digital gameplay can thus be defined as "a complex amalgam of avatar[s] and player[s]".[21] This highlights how players, from a phenomenological perspective, are neither entirely external (as mere observers) nor entirely internal (as their avatars are) to the gameworlds they act within.

As such, even though K. L. Walton never discussed digital games in *Mimesis,* his distinction between the appreciator as an observer and the appreciator as a participant is especially relevant in the game experience. The three kinds of epistemic states that Walton deemed important within fiction appreciation are possibly even more obviously

13 CURRIE, G.: *Image and Mind: Film, Philosophy and Cognitive Science*. Cambridge : Cambridge University Press, 1995, p. 179.

14 For more information, see: BATEMAN, C.: *Imaginary Games*. Winchester : John Hunt Publishing, 2011.; TAVINOR, G.: *The Art of Videogames*. Malden : Wiley- Blackwell, 2009.; VAN DE MOSSELAER, N.: Fictionally Flipping Tetrominoes? Defining the Fictionality of a Videogame Player's Actions. In *Journal of the Philosophy of Games*, 2018, Vol. 1, No. 1, p. 3. [online]. [2022-02-22]. Available at: <https://journals.uio.no/JPG/article/view/6035>.

15 GUALENI, S., VELLA, D.: *Virtual Existentialism. Meaning and Subjectivity in Virtual Worlds.* Basingstoke : Palgrave, 2020, p. 12.

16 For example, see: KANIA, M. M.: *Perspectives of the Avatar: Sketching the Existential Aesthetics of Digital Games*. Wroclaw : University of Lower Silesia Press, 2017.

17 For more information, see: WILHELMSSON, U.: Game Ego Presence in Video and Computer Games. In LEINO, O., WIRMAN, H., FERNANDEZ, A. (eds.): *Extending Experiences. Structure, Analysis and Design of Computer Game Player Experience.* Rovaniemi : Lapland University Press, 2008, p. 58-72.

18 KANIA, M. M.: *Perspectives of the Avatar*: *Sketching the Existential Aesthetics of Digital Games*. Wroclaw : University of Lower Silesia Press, 2017, p. 65.

19 VELLA, D.: *The Ludic Subject and the Ludic Self: Investigating the 'I-in-the-Gameworld'*. [Dissertation Thesis]. Copenhagen : IT University of Copenhagen, 2015, p. 22.

20 VELLA, D., GUALENI, S.: Virtual Subjectivity: Existence and Projectuality in Virtual Worlds. In *Techné: Research in Philosophy and Technology*, 2019, Vol. 23, No. 2, p. 119-120. [online]. [2022-02-22]. Available at: <https://doi.org/10.5840/techne201951499>.

21 KOEHNE, B., BIETZ, M. J., REDMILES, D.: Identity Design in Virtual Worlds. In DITTRICH, Y. et al. (eds.): *End-User Development: 4th International Symposium, IS-EUD 2013*. Copenhagen : Springer, 2013, p. 65.

discernible within the digital game experience. This experience is shaped by the represented epistemic states fictional game characters (most significantly, the avatar) are represented as having, the actual epistemic states of the player, and the epistemic states of the virtual subject that is formed during play. As we discussed in this section, the latter epistemic states are significantly influenced by the two former categories: what the virtual subject believes, aspires to, and suspects is significantly influenced by what the player actually knows and what the avatar is represented to know. This, however, also means that discrepancies between the avatar's and the actual player's epistemic states are especially problematic, as they could make for a fictionally incoherent, ambiguous, or even self-contradicting virtual subjectivity. In the next sections, we focus on what this might mean for the specific epistemic state of *memory* within digital gameplay.

Three Kinds of Memory in Play

To begin with, we may clarify what we mean by 'memory' and how different kinds of memory could be gathered under the umbrella-category of 'epistemic state' used by K. L. Walton. By focusing on 'epistemic' memory we will direct our attention at individual forms of memory. With this, we would like to put our emphasis on subjective user experience and narrative devices. To do so means to momentarily 'extract' individual memory performances from the continuum of cultural memory only for analytical purposes, and not to deliberately 'exclude' sociocultural influences on individual remembering.[22] Such influences will nonetheless be implicitly at the centre of our enquiry, such as for 'memory play' within gaming communities or for the importance of sociocultural frameworks within the formation of individual semantic memory. At the same time, our choice to focus on fictional and narrative aspects and implications of gameworlds limits our field of enquiry to conscious forms of remembering,[23] excluding unintentional and bodily memory

22 Remark by the authors: It is worth noting that the very existence of a 'pre-cultural' individual memory is questioned within memory studies. Individual memory is often referred to as the organic actualization of collective frameworks of memory (cultural memory at the individual and collective level – see: ERLL, A.: Cultural Memory Studies: An Introduction. In ERLL, A., NÜNNING, A. (eds.): *Media and Cultural Memory.* New York, NY : Walter de Gruyter, 2008, p. 1-19.; ERLL, A.: *Memory in Culture.* Basingstoke : Palgrave Macmillan, 2011.).

23 Remark by the authors: Our present usage of 'memory' entails both episodic and semantic memory. By following E. Tulving (for more information, see: TULVING, E.: Episodic and Semantic Memory. In TULVING, E., DONALDSON, W. (eds.): *Organization of Memory.* New York, NY : Academic Press, 1972, p. 381-403.), we may phrase the distinction as between 'remembering' and 'knowing'. The former refers to something that is located in a certain past. Episodic memory entails a sense of time; a connection to the self; and autonoetic consciousness: E. Tulving calls this capacity 'chronosthesia' (TULVING, E.: Chronosthesia: Conscious Awareness of Subjective Time. In STUSS, D. T., KNIGHT, R. T. (eds.): *Principles of Frontal Lobe Function.* Oxford : Oxford University Press, 2002, p. 311.), as it consists in a full-fledged mental time travel backwards. Semantic memory, i.e., 'knowing', refers instead to the general world knowledge (concepts, ideas, facts, meanings) that individuals gather during their lives. Semantic memory lies at the basis of how we can apply prior knowledge to novel concepts or state of things (for more information, see: SAUMIER, D., CHERTKOW, H.: Semantic Memory. In *Current Science*, 2002, Vol. 2, No. 6, p. 516-522.). By observing 'knowing' as semantic memory and vice versa, we imply that 'to know that X' in a way coincides with 'to remember that X'. Again, this implication is intended for operational purposes only, as it entails a simplification of the matter at hand (both from the perspective of cognitive sciences and epistemology). At the same time, we will exclude from or enquiry the linguistic anomalism or 'remembering' itself – "linguistic evidence indicates that while 'think' and 'know' are indeed universal human concepts, 'remember' is not" (WIERZBICKA, A.: Is 'Remember' a Universal Human Concept? 'Memory' and Culture. In AMBERBER, M. (ed.): *The Language of Memory in a Crosslinguistic Perspective.* Philadelphia, PA : John Benjamins Publishing, 2007, p. 38.); "'remembering' is shared by certain languages and unknown to others" (Ibidem, p. 14).

performances, i.e., body memory.[24] For the rest of the paper, the modifier 'individual' will remain implicit for brevity.

Based on this understanding of memory, we suggest applying K. L. Walton's distinction between the different epistemic states that are at play in the fiction experience to memory in digital gameplay as follows:

a) Fictional/represented memory of the avatars

With this memory kind, we refer to the avatars' memory as represented in the game, i.e., as part of the fictional content of the in-game narrative. Avatars' memory can be implicitly referenced, e.g., when player-characters talk, write, or read about their own memories; it can be explicitly represented, e.g., in flashback cutscenes or dreams; or it can become accessible to players, e.g., when in-game characters visit their own memories, or those of others, as playable levels of the game (see for example *Code Vein*[25]).

b) Actual/performed memory of the players

With this, we refer to what players remember about the gameworld in question as external observers. This memory can be categorized as belonging to the types of knowledge that P. Howell refers to as "extraludic knowledge", gathered outside of the gameworld that is being experienced, "transludic knowledge", gathered across multiple and separated, other gameworlds, and "intraludic knowledge", gathered from within the specific gameworld that is being experienced.[26] In the context of this paper, we could talk about extraludic, transludic, and intraludic memories. These kinds of memory are performed by actual players, who draw from the things they remember about the gameworld as an artefact to build expectations towards and beliefs about this world. These actual memories are themselves situated outside of the fictional gameworld in question. Players remember what has occurred in the gameworld and what their own avatar has done, regardless of these events having fictionally occurred in a different playthrough, having been witnessed in the game's trailer, or having been reset because the avatar died and respawned afterwards. As external observers, players might remember where the useful items are hidden, in which locations the game is prone to crashing, and in which spots they can securely save their progress. They can make predictions about the game's fictional or mechanical content based upon their own, actual history with the game.

c) Virtual/imaginative memory of the virtual subjects

With this, we refer to what players imaginatively remember as involved participants within the gameworld. This kind of memory only becomes relevant when players take on a role in the fictional gameworld. If (A) is a memory that gets depicted as part of the fictional content of a virtual world and (B) is an actual memory that gets performed by human beings, then this third category refers to the memory players imaginatively perform when taking on a virtual subjectivity within a gameworld. This memory category is somewhat problematic from an epistemological perspective, as it belongs to the virtual subject, which is amid the two domains of the fictional world and the actual world. The memories that guide the virtual subject's behaviour within a gameworld depend at the same time on the fictional memories the avatar is represented to have, and on the actual memories

24 For more information, see: FUCHS, T.: Body Memory and the Unconscious. In LOHMAR, D., BRUDZINSKA, J. (eds.): *Founding Psychoanalysis Phenomenologically*. Dordrecht : Springer, 2012, p. 69-82.

25 BANDAI NAMCO: *Code Vein*. [digital game]. Tokyo : Bandai Namco Entertainment, 2019.

26 HOWELL, P.: *A Theoretical Framework of Ludic Knowledge: A Case Study in Disruption and Cognitive Engagement*. Paper presented at the 10th International Philosophy of Computer Games Conference. Malta, presented on 2nd November 2016.

the player has (concerning both the gameworld in question and their surrounding, actual world). The memory of the virtual subject thus only emerges from the agency the player enacts through their proxy within the gameworld. When players take on a fictional role, they tend to behave as if they actually remember something of which they, in reality, know that it only *fictionally* took place. We can talk of the player having a 'memory-like imagining': the player imaginatively remembers certain states of affairs, based on their projecting into the situation of someone within the fictional world, and interacting with this world from the internal perspective of the virtual subject. In videogames, this kind of 'projection' is often very specifically guided by the representation of an avatar, as the figure the player is *mandated* to imaginatively identify with. In this paper, we argue that, by imaginatively projecting into the situation of the avatar who remembers R, the player is mandated to have the memory-like imagining that R.[27]

This latter kind of memory is thus centred within the virtual subject: players (who have memories about the fictional world) take on the role of avatars (who have their represented memory) and construct virtual subjects based on their engagement with the game, integrating both their own and their avatar's memory about the gameworld. As S. Caselli writes: "players play with the memory of a new, hybrid, virtual subject rather than with the memory of their own avatars" and "these virtual subjects simply deviate both from avatars and from players".[28] This leaves us with interesting problems to investigate: namely, the narrative and experiential problems that are caused when the played memory of the virtual subject is constructed based on diverging or even contradicting memories about the gameworld held by the avatar and the actual player. Throughout the rest of this paper, we will focus on how the divergence of (A) and (B) can prompt the construction of an unstable or inconsistent (C).

Memory Discrepancies, Fictional Incoherence, and the Problem of Suspense

S. Poole claims that "there can be no dramatic irony in videogames, because dramatic irony depends on a knowledge differential between spectator and protagonist – yet in a videogame the player is both spectator and protagonist at once".[29] This claim ignores the inherent duality of the player's virtual subject position as being influenced both by the avatar's represented memory and the actual memory of the player themselves. Indeed, instead of claiming that there can be no knowledge differential because the player takes on a virtual subject position of being at once spectator and protagonist, we want to reverse the argument here. We want to discuss how the virtual subject itself is often a complicated, schizophrenic figure, because of the differences in memory between the two perspectives integrated within it.

27 Remark by the authors: We can here draw a parallel with how G. Currie and I. Ravenscroft define "imaginative beliefs" and "imaginative desires". According to them, "I imaginatively project into the situation of one who believes P and desires Q when I have the belief-like imagining that P and the desire-like imagining that Q". CURRIE, G., RAVENSCROFT, I.: *Recreative Minds: Imagination in Philosophy and Psychology*. Oxford : Oxford University Press, 2002, p. 22.

28 CASELLI, S.: Thrown into the World. Transformative Aesthetics of Avatars' In-Game Awakenings. In LATYPOVA, A., OCHERETYANY, K. (eds.): *Proceedings of the 13th International Philosophy of Computer Games Conference (PCG2019).* Saint Petersburg : Saint Petersburg State University, 2019, p. 9.

29 POOLE, S.: *Trigger Happy: Videogames and the Entertainment Revolution*. New York, NY : Arcade Publishing, 2004, p. 81.

A. Suduiko describes a specific kind of fictional incoherence that is caused by this schizophrenia of the virtual subject. He describes a game situation in which a player meets a dangerous in-game monster that was lurking behind a corner and dies when fighting it. Afterwards, this player carefully avoids said corner. This raises the question of why the avatar, fictionally, acted the way he did. As A. Suduiko writes, "in any given videogame narrative, many of the avatar's actions are inexplicable if we appeal only to the avatar's beliefs, desires, and knowledge".[30] The actions undertaken in this example can only be explained by referring to the memories the actual player has, but those memories are not at all supposed to be part of the fiction. One could say this problem is caused by the fact that games consist, at the same time, of a set of rules and a fictional world,[31] which both ask for a different kind of engagement. Gameplay-wise, the relevant memory is the player's (B), and changing tactics against the monster seems to be the obvious choice if one wants to win. Fiction-wise, on the other hand, the relevant memory is the avatar's (A), and as the avatar has no memory of the monster, they have no fictional reason to change tactics. This inconsistency in the fictional game narrative also raises an interesting normative problem for the player: what are they *supposed* to imagine in this situation? Should not the players roleplay their avatars, and pretend not to know about the monster, feigning ignorance, and so engage in the make-believe game that the videogame mandates?[32] Or is, conversely, such an imaginative identification of the player with the avatar made impossible because of the difference in relevant memories both have?

In any case, S. Poole was wrong when he claimed that there can be no knowledge differential between the player-as-a-spectator and the player-as-a-protagonist. Yet, we acknowledge that the existence of such a differential in digital gameplay is not sufficient for dramatic irony to occur. As H. Wood points out, dramatic irony only works when the spectator knows more than the protagonist 'and can do nothing about what will happen'.[33] As shown in the above example, a knowledge differential between avatar and player in games instead often leads to the player changing the fate of the avatar based on their remembering the avatar's previous demise. Moreover, making the player powerless to intervene in the avatar's fate even though they remember what will happen will likely not create the suspense that is characteristic of dramatic irony, but rather be "dramatically dissatisfying" for the player.[34] The kind of knowledge differential that arises when players remember things about a gameworld of which their avatars have no memory thus fails to elicit suspense in the way that the narrative device of dramatic irony is supposed to do. Even worse, it gives rise to the problem of suspense mentioned earlier in this paper. The growing knowledge the player, but not the avatar, has about the gameworld often actively stands in the way of any prolonged suspenseful experience.

Unsurprisingly, game designers are also aware of this suspense problem. In an interview about *Outer Wilds*[35], for example, the designers of this game can be heard saying that they want to make a specific horror section in the game more suspenseful by making it easier.[36] The designers realized that players were failing this section too often,

30 SUDUIKO, A. G.: The Role of the Player in Video-Game Fictions. In *Journal of the Philosophy of Games*, 2018, Vol. 1, No. 1, p. 6.

31 For more information, see: JUUL, J.: *Half-Real: Videogames Between Real Rules and Fictional Worlds*. Cambridge, MA : MIT Press, 2005.

32 WALTON, K. L.: *Mimesis as Make-Believe: On the Foundations of the Representational Arts*. Cambridge, MA : Harvard University Press, 1990, p. 261.

33 WOOD, H.: Dynamic Syuzhets: Writing and Design Methods for Playable Stories. In NUNES, N., OAKLEY, I., NISI, V. (eds.): *Interactive Storytelling: 10th International Conference on Interactive Digital Storytelling*. Madeira : Springer International Publishing, 2017, p. 34.

34 Ibidem.

35 MOBIUS DIGITAL: *Outer Wilds*. [digital game]. West Hollywood, CA : Annapurna Interactive, 2019.

36 *Outer Wilds Developers Break Down Echoes of the Eye | Noclip Podcast #49*. Released on 19th November 2021. [online]. [2022-05-14]. Available at: <https://www.youtube.com/watch?v=tz8Sw6X-knM>.

thus having to repeat it multiple times and losing every feeling of horror and suspense because they started effortlessly remembering the enemy positions and the locations where jump scares occurred. Making the horrific monsters easier to avoid would thus, somewhat counter-intuitively, be likely to make encounters with these enemies more suspenseful, simply because players would be in a position that is more similar to that which their avatar is fictionally represented to be in: not remembering the movements of the monsters, and being shocked by every encounter.

In conclusion, rather than an application of the narrative device of dramatic irony, the knowledge advantage of the player over the avatar seems to be an undesirable and unintentional, but almost unavoidable, by-product of interactive, digital gameplay. As discussed, a discrepancy between what the player remembers as an observer, and what they (are supposed to) fictionally remember as a participator/protagonist can be detrimental not only to the consistency of fictional game narratives, but also to the player's identification with the avatar, and the suspense they are supposed to feel when playing. It should thus be no surprise that game designers and game scholars alike have reflected on ways to avoid these memory discrepancies and their effects.

Ways to Avoid Memory Discrepancies

One way to solve the problems described above would be to quite literally erase any trace of fictional or represented in-game memories. In his paper *Thrown into the world: Transformative aesthetics of avatars' in-game awakenings*, S. Caselli describes how many narrative, single player digital games make use of the trope of the amnesiac hero to facilitate users' engagement with game worlds: "The introduction of amnesiac avatars facilitates the first liminal phase of engagement with the virtual world and narratives: eliminating the memory of the playable figure, game narratives provide the player with an 'extended facticity' (in Sartrean terms) that is much [easier] to familiarize with, at least lightened by the whole significant baggage of experiences of the main character".[37]

S. Caselli describes how many games represent amnesiac avatars that have just as much (namely none) previous knowledge about the gameworld as the player does. Because of their memory loss, he writes, "all of these avatars expressly come into the world as innocent and unprepared as the players do – they both experience the same 'thrownness', feeling 'abandoned' in the world".[38] This set-up not only facilitates the player's identification with the avatar, but also narratively embeds the learning process the player has to go through when starting to engage with this game as a learning process the amnesiac hero also has to go through. In his chapter on the hallmark 'Groundhog Day Effect' in digital games, F. A. Igarzábal describes another five strategies to assure that avatar and player memory are fictionally similar or at least narratively compatible with one another.[39] First of all, F. A. Igarzábal mentions how the activity of 'respawning' can be integrated in the game's fiction so that it does not cause a discrepancy between player and avatar

37 CASELLI, S.: Thrown into the World. Transformative Aesthetics of Avatars' In-Game Awakenings. In LATYPOVA, A., OCHERETYANY, K. (eds.): *Proceedings of the 13th International Philosophy of Computer Games Conference (PCG2019)*. Saint Petersburg : Saint Petersburg State University, 2019, p. 8.

38 Ibidem, p. 12.

39 IGARZÁBAL, F. A.: *Time and Space in Video Games: A Cognitive-Formalist Approach*. Bielefeld : Verlag, 2019, p. 115-138.

memory. In *BioShock*[40], for example, the player-character is reconstructed by a so-called 'Vita Machine' upon death. Similarly, Outer Wilds features a machine that restores the player-character's memories every time they die and come back to life. This means the player-character fictionally retains their memories from before they died, just like the player does. Secondly, and similarly, death itself can become an official part of a game's fiction, so that it no longer causes a discrepancy in the player's and the avatar's memories about the gameworld. In *Shadow of Mordor*[41], for example, the player-character Talion is immortal within the game's fictional story. Thus, when his health-bar depletes, the gameworld does not reset to an earlier state, but Talion instead merely passes out and is revived again. The revived Talion, as well as his in-game enemies, and the actual player, afterwards remember that Talion temporarily lost consciousness or apparently 'died'. Thirdly, F. A. Igarzábal discusses games like *Life is Strange*[42] and *Braid*[43], which allow players to rewind time after failures, thus avoiding the game-over state and the narrative contradictions that come with it. Whenever this feature is used, both the avatar and the player re-experience certain events within the gameworld while remembering what will or might happen based on previous, now-rewound experiences. Fourthly, games can negate the memory or knowledge gap between player and avatar by offering strategies to gather information that are available to both the player and the avatar. *Batman: Arkham Asylum*[44], for example, features the so-called 'Detective Mode', which allows Batman (and the player) to look through walls and observe enemy positions. This makes it unproblematic if the player knows the exact locations of enemies when replaying certain levels, as this information is easily available to Batman as well. And lastly, F. A. Igarzábal points out that some games make it hard or impossible to replay (parts of) the game, for example through a permadeath mechanic. He especially refers to games that combine a permadeath mechanic with procedural level generation such as *The Binding Of Isaac: Rebirth*[45]. When dying in such games, one does not return to an earlier state of the gameworld, but rather has to start in a newly generated world, the lay-out and enemy placements of which can neither be remembered by the player, nor the player-character.[46]

S. Caselli and F. A. Igarzábal both describe how game designers can address and mitigate the memory discrepancies that cause narrative contradictions or unsuspenseful gameplay. Both of them describe game mechanics or strategies that make sure players and their avatars have more or less equal knowledge or memories about the gameworld, thus making the construed memory of the virtual subject less problematic. Yet, even with these strategies, memory discrepancies are bound to happen. Not only can players replay entire games, but they can also gather information about games based on having played a previous game in the same series, by hearing about other players' experiences of a game, by reading guides, or by watching trailers and Let's Plays. In those cases, players often know or remember more about the gameworld than their avatar does.

40 2K BOSTON: *BioShock*. [digital game]. Novato, CA : 2K Games, 2007.
41 MONOLITH PRODUCTIONS: *Middle-Earth: Shadow of Mordor.* [digital game]. Burbank, CA : Warner Bros. Interactive Entertainment, 2014.
42 DONTNOD ENTERTAINMENT: *Life is Strange*. [digital game]. Tokyo : Square Enix, 2015.
43 BLOW, J.: *Braid*. [digital game]. Austin, TX : Number None, 2008.
44 ROCKSTEADY STUDIOS: *Batman: Arkham Asylum*. [digital game]. Burbank, CA : Warner Bros. Interactive Entertainment, Eidos Interactive, 2009.
45 NICALIS: *The Binding of Isaac: Rebirth*. [digital game]. Santa Ana, CA : Nicalis, 2017.
46 Remark by the authors: Interestingly, as S. Gualeni and D. Vella write, "a 'permadeath condition' does not necessarily need to be mechanically enforced by the game's affordances, but can also be a quality of the game experience that is self-imposed by players". This means that players themselves can actively avoid potential narrative contradictions caused by their avatar's death in certain games by implementing the permadeath condition themselves.; GUALENI, S., VELLA, D.: *Virtual Existentialism. Meaning and Subjectivity in Virtual Worlds.* Basingstoke : Palgrave, 2020, p. 20.

We have discussed how such discrepancies can cause problems for the digital game experience. In the next paragraph, however, we will describe how divergences between player and avatar memory can also be used as narrative devices to make games more interesting or suspenseful. Instead of treating such discrepancies as problematic and describing how they can be avoided by game designers, we will describe games that acknowledge and use these differences to create unique effects within the game experience.

Conflicting Memories as Narrative Devices

As K. L. Walton says, a fiction experience can be significantly influenced by the ways in which the epistemic states of the appreciator-as-an-observer do or do not correspond with those of the appreciator-as-a-participant.[47] Regarding the experience of digital games, a very similar kind of influence can be recognized in situations where the memories of the actual player diverge from those of the represented avatar. In the next sections, we will discuss three ways in which the digital game experience can be made more interesting by the deliberate creation or acknowledgement of such memory discrepancies. More specifically, we will discuss games that use these memory discrepancies as narrative devices that, similarly to the device of dramatic irony, are supposed to elicit aesthetically valuable, often emotional, responses in players.

Meta-Fictionally Acknowledging Fictionally Inconsistent Memories

First of all, some games acknowledge the memory gap between the player and the avatar in a metafictional way, with the intent of provoking desirable emotional responses in players. These games give up on trying to make their fictional world a coherent and consistent one altogether, instead explicitly emphasizing or capitalizing on the fictional inconsistencies caused by the player's extra-fictional memories about this gameworld as a digital artefact.

The Stanley Parable[48] is an example of a game that turns the memory-related problems mentioned before into opportunities for comedy. At one point in this game, the player has to input a code to open a secret passageway. The player can find the right password by waiting for the game's Narrator to mention it. However, when players on subsequent playthroughs type in the correct password without waiting for the Narrator to reveal it, likely when hunting for the game's speedrun achievement, the Narrator becomes cross with them. Remarking that Stanley seems to be in too much of a rush to hear him out, the Narrator makes the player lose precious time (and probably the chance to win the speedrun) by forcing them to listen to some new age music before they can continue through

47 WALTON, K. L.: *Mimesis as Make-Believe: On the Foundations of the Representational Arts*. Cambridge, MA : Harvard University Press, 1990, p. 270.

48 GALACTIC CAFE: *The Stanley Parable*. [digital game]. Austin, TX : Galactic Cafe, 2011.

the secret passageway. In this case, instead of trying to avoid a contradiction between the player-as-an-observer and the player-as-a-participant in the fiction, the game acknowledges the absurdity of the fictionally inconsistent game situation, comically punishing the speedrunning player for making use of a memory they should not fictionally have.[49]

Besides humorous effects, the acknowledgement or introduction of extra-fictional memories in gameworlds also often elicits a sense of the digital sublime. We borrow the term from T. Betts, who links it to "games that appear boundless and autonomous".[50] These games thus often elude the player's control and represent fictional worlds the boundaries of which cannot be clearly discerned. This idea of the digital sublime is relevant to the present paper as gameworlds can feature extra-fictional elements, especially extra-fictional memories, to give the idea that their fictional boundaries are widely extended beyond what players expect.[51] Games such as *Undertale*[52] feature dialogues in which non-playable characters show that they remember what the player has been doing during previous runs of the game, even if the player thought that data to be deleted or overwritten. While this game does invite you to reset the fictional world and replay the story, it at the same time questions the very possibility of having a different subsequent playthrough, as some characters will keep reminding you of what you have done in previous ones. Such a paradoxical clash between the apparently extra-fictional memories characters have and the fictional memories they are supposed to have is usually well received and widely discussed by communities of players. Indeed, this phenomenon can be seen as a kind of metalepsis in digital games that heightens the player's emotional involvement in the fictional world.[53] We find another renowned example of such a process in *Metal Gear Solid*[54], in which characters such as Psycho Mantis astonish and overtake players by referring to their actual, non-fictional memories about other games (made possible by the game reading what other games have been saved on the currently inserted memory card).

Eliciting the digital sublime can also lead to another fruitful effect of the clash between different kinds of memory in gameworlds, i.e., the experience of horror. Many plot twists in recent horror games such as *Doki Doki Literature Club!*[55] or *Inscryption*[56] capitalize on the player's and the game console's actual memories to scare players and make them feel less comfortable.[57] In Doki Doki, in-game character Monika takes control of the game by manipulating, moving, and erasing its saved data (the digital, actual memory of the software), thus embodying the most frightening and effective horror aspect of the game. Inscryption, similar to Undertale, threatens instead to erase data that players have saved on their computers (both previous saved states of the game and other installed software that is unrelated to the game), leveraging the vulnerability of erasable digital memories.

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49 For a more in-depth discussion of how the duality of players during gameplay can be used for comic purposes, see: VAN DE MOSSELAER, N.: Comedy and the Dual Position of the Player. In BONELLO RUTTER GIAPPONE, K., MAJKOWSKI, T. Z., ŠVELCH, J. (eds.): *Video Games and Comedy*. Cham : Palgrave, 2022, p. 35-52.

50 BETTS, T.: *An Investigation of the Digital Sublime in Video Game Production*. [Dissertation Thesis]. Huddersfield : University of Huddersfield, 2014, p. 2.

51 For more information, see: SHINKLE, E.: Videogames and the Digital Sublime. In KARATZOGIANNI A., KUNTSMAN A. (eds.): *Digital Cultures and the Politics of Emotion*. London : Palgrave Macmillan, 2012, p. 94-108.

52 FOX, T.: *Undertale*. [digital game]. Manchester, New Hampshire : T. Fox, 2015.

53 WASZKIEWICZ, A.: 'Together They Are Twofold': Player-Avatar Relationship Beyond the Fourth Wall. In *Journal of Games Criticism*, 2020, Vol. 4, No. 1, p. 15. [online]. [2022-02-22]. Available at: <http://gamescriticism.org/s/Waszkiewicz-4-1.pdf>.

54 KONAMI COMPUTER ENTERTAINMENT JAPAN: *Metal Gear Solid*. [digital game]. Tokyo : Konami, 1998.

55 TEAM SALVATO: *Doki Doki Literature Club!*. [digital game]. New Jersey : Team Salvato, 2017.

56 DANIEL MULLINS GAMES: *Inscryption*. [digital game]. Austin, TX : Devolver Digital, 2021.

57 VAN DE MOSSELAER, N.: Only a Game? Player Misery Across Game Boundaries. In *Journal of the Philosophy of Sport*, 2019, Vol. 46, No. 2, p. 204.

Subverting the Player's Memory Advantage

Secondly, the memories the player (but not the avatar) has can be explicitly subverted by changing the game's events upon replaying them, thus re-creating suspense and surprise because players' expectations are explicitly broken. This effect can be achieved by designing player choices in a peculiarly adaptive way, by making subsequent playthroughs unpredictable, or through so-called "memory play". An example of adaptive choice design can be found in *inFAMOUS*[58]. At one point in this game, the player is given the option to either save six doctors or to save Trish, the player-character's girlfriend. When the player chooses to save Trish, however, the main antagonist reveals that Trish was actually disguised as one of the six doctors who the player left to die. Yet, if the player redoes this level out of regret and saves the doctors instead, they find out that, this time around, Trish was not disguised as one of the doctors and thus still died. In this case, the player's memory about the antagonist's trap was rendered useless, causing a peculiar kind of interactive, dramatic irony: knowing perfectly well what will happen to Trish, the player is powerless to save her, as her fate is sealed regardless of the choice made by the oblivious player-character.

A similar strategy of adjusting gameplay can be applied on a larger scale: not just pertaining to the replaying of particular scenes or levels, but to a repeating of entire games. *Nier: Automata*[59], for example, is a game that is designed to be played multiple times. Differently from other games that favour subsequent playthroughs, however, the plot and world of Nier: Automata significantly change from one playthrough to another. In this sense, by replaying the game and expecting certain events to follow a specific order (making use of what Howell calls intraludic knowledge), users find themselves dealing with something entirely different from the previous iterations. Even major narrative events change over multiple playthroughs, and players can engage with new challenges, enemies, and aspects of the plot. While avatars are unaware of this, players notice (extra-fictionally) that the game is subverting previous narratives. Thus, although memory discrepancies between player and avatar are not as such avoided, these discrepancies at least become interesting to players, who are invited to reflect, in each different iteration of the story, on the different memories they and their avatars have. The outcome is a deliberately schizophrenic virtual subject, which metafictionally exists on the boundary of the actual and the fictional world, with interesting emotional and/or narrative effects as a result.

Some games achieve a similar effect by taking advantage of players' transludic memories through so-called "memory play". With this term, S. Arnold-de Simine points out "a wide range of open-ended iterations of playful and creative meaning-making"[60] that is usually favoured by texts that invite their appreciators "to respond in an ongoing open game of creative reading"[61] based on previous texts from a same series, or franchise. This can be found in *Final Fantasy VII Remake*[62]. Despite expecting it to be a straight port of the original PSX game, fans found out that the plot of the game derailed from the original, taking an entirely different route. In the remake, the designers even added a new type of enemy that appears whenever the game events stray from the original storyline: the Whispers.

58 SUCKER PUNCH PRODUCTIONS: *InFAMOUS*. [digital game]. San Mateo, CA : Sony Computer Entertainment, 2009.
59 PLATINUMGAMES: *Nier: Automata*. [digital game]. Tokyo : Square Enix, 2017.
60 ARNOLD-DE SIMINE, S.: Beyond Trauma? Memories of Joi/y and Memory Play in Blade Runner 2049. In *Memory Studies*, 2019, Vol. 12, No. 1, p. 64.
61 Ibidem, p. 69.
62 SQUARE ENIX: *Final Fantasy VII Remake*. [digital game]. Tokyo : Square Enix, 2020.

Players' surprise about these changes was further reinforced by some specific in-game characters appearing to know the events that occurred in the original game and metafictionally commenting that they would like to repeat the plot exactly as it was. In this sense, Final Fantasy VII Remake combines strategies for making the players' fictionally inconsistent memories interesting: by straying from what the player expects based on their extra-fictional memories, and by metafictionally commenting on these extra-fictional memories.

In both this and the previous examples, the player's memory advantage over their avatars is undone, as forms of extra-fictional "memory play" that built upon previous playthroughs or previous games mislead users, subverting their expectations and leading to new fictional horizons. This can happen quite literally: at the end of Final Fantasy VII Remake, for example, the main characters defeat the Whispers and step into a brand new gameworld.

Reversing the Memory Advantage

Usually, memory-related problems in digital games have to do with players having memories they, as participants in the fiction, should not have. However, the memory advantage players usually have over their avatars can also be reversed by giving the avatar memories the player only finds out about through playing the game. In the games discussed in this section, the in-game avatars have fictional memories the player does not have, thus rendering the player's virtual subject-role fictionally incomplete and making the overarching game narrative one that advances through a step-by-step discovery of the fictional memories of the avatar.

Digital games that feature stories of revenge, such as *God of War*[63] or *Disgaea 5: Alliance of Vengeance*[64], often revolve around such a gradual discovery of the main characters' pasts. In both games, players do not know what motivates their player-characters pursuit of revenge until advancing through the story far enough. The characters' quest for vengeance thus unfolds in parallel with the players' quest to learn about the reasons that prompted it: this may lead to significant narrative climaxes, in which the culmination of current events can finally be related to events in the characters' memories (often experienced through playable flashbacks).

This strategy of letting the player discover fictional memories is especially effective in combination with game narratives that start *in medias res.* At the start of *Persona 5*[65], for example, players neither know why the main character is being interrogated as a criminal nor why he has been expelled from his former school. In fact, the entire game is a long playable flashback that is supposed to gradually reduce the memory discrepancy between the protagonist and the player. However, the more cryptic and convoluted the plot becomes, the more astonishing and baffling these memory discrepancies feel, and thus the more captivating the game narrative is in terms of suspense and engagement. By similarly omitting the memories and the past of the main character, *Hollow Knight*[66] revolves around the ambiguity of the protagonist's will and choices, emphasized by the impossibility for players to access its memories and its thoughts. The playable introduction

63 SANTA MONICA STUDIO: *God of War*. [digital game]. San Mateo, CA : Sony Computer Entertainment, 2005.
64 NIPPON ICHI SOFTWARE: *Disgaea 5: Alliance of Vengeance*. [digital game]. Kakamigahara : Nippon Ichi Software, 2015.
65 P-STUDIO: *Persona 5*. [digital game]. Tokyo : Atlus, 2016.
66 TEAM CHERRY: *Hollow Knight*. [digital game]. Adelaide : Team Cherry, 2017.

of *Pathologic 2*[67] also puts players in the shoes of an avatar that seems to know much more than they do. In this game, players have to choose dialogue options without even knowing the events on which the claims of their avatars are based. Note that in games like this, fictional inconsistencies thus abound and players often have a hard time identifying with the mysterious avatar and constructing a coherent virtual subjectivity. Instead of being problematic, however, these phenomena are here used in a narratively interesting way, bringing back suspense through the avatar's memory advantage, and turning the player's game experience into a quest for closing the memory gap.

Conclusion

In this paper, we distinguished between three kinds of memory that are at work within digital gameplay: the represented memory of the avatar, the actual memory of the player, and the imaginative memory of the virtual subject. We focused on ways in which these divergences can be used to make the game experience more interesting or exciting. By meta-fictionally acknowledging memory discrepancies, making the player's memory advantage useless, or giving this advantage to the player-character instead, the schizophrenia or incoherence of virtual subjects, which is often an unintentional by-product of gameplay, can be turned into a deliberate narrative device. We discussed how this device can be used to elicit fun, horror, or an experience of the sublime, to favour memory play and community interaction, or to estrange players from the character they supposedly inhabit and invite them to piece together this character's memories.

Undoubtedly, much more can be said about the importance of memory discrepancies to the game experience. Indeed, as Walton already hinted, when it comes to the experiential and narrative effects of the memories the player has as an observer and a participator, "the variety of possibilities and their subtlety and complexity are boggling".[68] This initial exploration of the subject thus leaves many possibilities for further research, including in-depth comparisons between the role of memories in experiences of interactive and non-interactive works of fiction, investigations of how memories are prescribed to players through the figure of the implied player,[69] and examinations of cases where the boundaries between fictional and actual memory are blurred to the point of being indistinguishable.

BIBLIOGRAPHY

2K BOSTON: *BioShock*. [digital game]. Novato, CA : 2K Games, 2007.

AARSETH, E.: I Fought the Law: Transgressive Play and the Implied Player. In AKIRA, B. (ed.): *Proceedings of the 2007 DiGRA International Conference: Situated Play*. Tokyo : DiGRA, 2007, p. 130-133.

ARNOLD-DE SIMINE, S.: Beyond Trauma? Memories of Joi/y and Memory Play in Blade Runner 2049. In *Memory Studies*, 2019, Vol. 12, No. 1, p. 61-73. ISSN 1750-6980.

BANDAI NAMCO: *Code Vein.* [digital game]. Tokyo : Bandai Namco Entertainment, 2019.

BATEMAN, C.: *Imaginary Games.* Winchester : John Hunt Publishing, 2011.

BETTS, T.: *An Investigation of the Digital Sublime in Video Game Production*. [Dissertation Thesis]. Huddersfield : University of Huddersfield, 2014.

67 ICE-PICK LODGE: *Pathologic 2*. [digital game]. Bellevue, WA : tinyBuild, 2019.

68 WALTON, K. L.: *Mimesis as Make-Believe: On the Foundations of the Representational Arts*. Cambridge, MA : Harvard University Press, 1990, p. 271.

69 See also: AARSETH, E.: I Fought the Law: Transgressive Play and the Implied Player. In AKIRA, B. (ed.): *Proceedings of the 2007 DiGRA International Conference: Situated Play*. Tokyo : DiGRA, 2007, p. 130-133.

BLOW, J.: *Braid.* [digital game]. Austin, TX : Number None, 2008.
CASELLI, S.: Thrown into the World. Transformative Aesthetics of Avatars' In-Game Awakenings. In LATYPOVA, A., OCHERETYANY, K. (eds.): *Proceedings of the 13th International Philosophy of Computer Games Conference (PCG2019).* Saint Petersburg : Saint Petersburg State University, 2019, p. 1-15.
CURRIE, G.: *Image and Mind: Film, Philosophy and Cognitive Science*. Cambridge : Cambridge University Press, 1995.
CURRIE, G., RAVENSCROFT, I.: *Recreative Minds: Imagination in Philosophy and Psychology*. Oxford : Oxford University Press, 2002.
DANIEL MULLINS GAMES: *Inscryption.* [digital game]. Austin, TX : Devolver Digital, 2021.
DONTNOD ENTERTAINMENT: *Life is Strange.* [digital game]. Tokyo : Square Enix, 2015.
ERLL, A.: Cultural Memory Studies: An Introduction. In ERLL, A., NÜNNING, A. (eds.): *Media and Cultural Memory.* New York, NY : Walter de Gruyter, 2008, p. 1-19.
ERLL, A.: *Memory in Culture*. Basingstoke : Palgrave Macmillan, 2011.
FOX, T.: *Undertale.* [digital game]. Manchester, New Hampshire : T. Fox, 2015.
FROME, J., SMUTS, A.: Helpless Spectators: Generating Suspense in Videogames and Film. In *TEXT Technology,* 2004, Vol. 13, No. 1, p. 13-34. ISSN 1496-0966.
FUCHS, T.: Body Memory and the Unconscious. In LOHMAR, D., BRUDZINSKA, J. (eds.): *Founding Psychoanalysis Phenomenologically*. Dordrecht : Springer, 2012, p. 69-82.
GALACTIC CAFE: *The Stanley Parable.* [digital game]. Austin, TX : Galactic Cafe, 2011.
GOLDIE, P.: Dramatic Irony, Narrative, and the External Perspective. In *Royal Institute of Philosophy Supplements,* 2007, Vol. 60, No. 1, p. 69-84. ISSN 1358-2461.
GUALENI, S., VELLA, D.: *Virtual Existentialism. Meaning and Subjectivity in Virtual Worlds.* Basingstoke : Palgrave, 2020.
HOWELL, P.: *A Theoretical Framework of Ludic Knowledge: A Case Study in Disruption and Cognitive Engagement.* Paper presented at the 10th International Philosophy of Computer Games Conference. Malta, presented on 2nd November 2016.
ICE-PICK LODGE: *Pathologic 2.* [digital game]. Bellevue, WA : tinyBuild, 2019.
IGARZÁBAL, F. A.: *Time and Space in Video Games: A Cognitive-Formalist Approach.* Bielefeld : Verlag, 2019.
JUUL, J.: *Half-Real: Videogames Between Real Rules and Fictional Worlds.* Cambridge, MA : MIT Press, 2005.
KANIA, M. M.: *Perspectives of the Avatar: Sketching the Existential Aesthetics of Digital Games*. Wroclaw : University of Lower Silesia Press, 2017.
KOEHNE, B., BIETZ, M. J., REDMILES, D.: Identity Design in Virtual Worlds. In DITTRICH, Y. et al. (eds.): *End-User Development: 4th International Symposium, IS-EUD 2013*. Copenhagen : Springer, 2013, p. 56-71.
KONAMI COMPUTER ENTERTAINMENT JAPAN: *Metal Gear Solid.* [digital game]. Tokyo : Konami, 1998.
MOBIUS DIGITAL: *Outer Wilds.* [digital game]. West Hollywood, CA : Annapurna Interactive, 2019.
MONOLITH PRODUCTIONS: *Middle-Earth: Shadow of Mordor.* [digital game]. Burbank, CA : Warner Bros. Interactive Entertainment, 2014.
NICALIS: *The Binding of Isaac: Rebirth.* [digital game]. Santa Ana, CA : Nicalis, 2017.
NIPPON ICHI SOFTWARE: *Disgaea 5: Alliance of Vengeance.* [digital game]. Kakamigahara : Nippon Ichi Software, 2015.
Outer Wilds Developers Break Down Echoes of the Eye | Noclip Podcast #49. Released on 19th November 2021. [online]. [2022-05-14]. Available at: <https://www.youtube.com/watch?v=tz8Sw6X-knM>.
P-STUDIO: *Persona 5.* [digital game]. Tokyo : Atlus, 2016.
PLATINUMGAMES: *Nier: Automata.* [digital game]. Tokyo : Square Enix, 2017.
POOLE, S.: *Trigger Happy: Videogames and the Entertainment Revolution*. New York, NY : Arcade Publishing, 2004.
RIGO-LEMINI, M.: Epistemic Schemes and Epistemic States. A Study of Mathematics Convincement in Elementary School Classes. In *Educational Studies in Mathematics,* 2013, Vol. 84, No. 1, p. 71-91. ISSN 0013-1954.

ROCKSTEADY STUDIOS: *Batman: Arkham Asylum.* [digital game]. Burbank, CA : Warner Bros. Interactive Entertainment, Eidos Interactive, 2009.
RYAN, J. et al.: Toward Characters Who Observe, Tell, Misremember, and Lie. In JHALA, A., STURTEVANT, N. (eds.): *Proceedings of the Eleventh AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment.* Santa Cruz : AAAI Press, 2015, p. 56-62.
SANTA MONICA STUDIO: *God of War.* [digital game]. San Mateo, CA : Sony Computer Entertainment, 2005.
SAUMIER, D., CHERTKOW, H.: Semantic Memory. In *Current Science*, 2002, Vol. 2, No. 6, p. 516-522. ISSN 0011-3891.
SHINKLE, E.: Videogames and the Digital Sublime. In KARATZOGIANNI A., KUNTSMAN A. (eds.): *Digital Cultures and the Politics of Emotion.* London : Palgrave Macmillan, 2012, p. 94-108.
SQUARE ENIX: *Final Fantasy VII Remake.* [digital game]. Tokyo : Square Enix, 2020.
SUCKER PUNCH PRODUCTIONS: *InFAMOUS.* [digital game]. San Mateo, CA : Sony Computer Entertainment, 2009.
SUDUIKO, A. G.: The Role of the Player in Video-Game Fictions. In *Journal of the Philosophy of Games,* 2018, Vol. 1, No. 1, p. 1-17. ISSN 2535-4388.
TAVINOR, G.: *The Art of Videogames.* Malden : Wiley-Blackwell, 2009.
TEAM CHERRY: *Hollow Knight.* [digital game]. Adelaide : Team Cherry, 2017.
TEAM SALVATO: *Doki Doki Literature Club!*. [digital game]. New Jersey : Team Salvato, 2017.
TULVING, E.: Episodic and Semantic Memory. In TULVING, E., DONALDSON, W. (eds.): *Organization of Memory*. New York, NY : Academic Press, 1972, p. 381-403.
TULVING, E.: Chronosthesia: Conscious Awareness of Subjective Time. In STUSS, D. T., KNIGHT, R. T. (eds.): *Principles of Frontal Lobe Function*. Oxford : Oxford University Press, 2002, p. 311-325.
VAN DE MOSSELAER, N.: Comedy and the Dual Position of the Player. In BONELLO RUTTER GIAPPONE, K., MAJKOWSKI, T. Z., ŠVELCH, J. (eds.): *Video Games and Comedy*. Cham : Palgrave, 2022, p. 35-52.
VAN DE MOSSELAER, N.: Fictionally Flipping Tetrominoes? Defining the Fictionality of a Videogame Player's Actions. In *Journal of the Philosophy of Games*, 2018, Vol. 1, No. 1, p. 1-12. ISSN 2535-4388. [online]. [2022-02-22]. Available at: <https://journals.uio.no/JPG/article/view/6035>.
VAN DE MOSSELAER, N.: Only a Game? Player Misery Across Game Boundaries. In *Journal of the Philosophy of Sport*, 2019, Vol. 46, No. 2, p. 191-207. ISSN 0094-8705.
VELLA, D.: *The Ludic Subject and the Ludic Self: Investigating the 'I-in-the-Gameworld'*. [Dissertation Thesis]. Copenhagen : IT University of Copenhagen, 2015.
VELLA, D., GUALENI, S.: Virtual Subjectivity: Existence and Projectuality in Virtual Worlds. In *Techné: Research in Philosophy and Technology,* 2019, Vol. 23, No. 2, p. 115-136. ISSN 2691-5928. [online]. [2022-02-22]. Available at: <https://doi.org/10.5840/techne201951499>.
WALTON, K. L.: *Mimesis as Make-Believe: On the Foundations of the Representational Arts*. Cambridge, MA : Harvard University Press, 1990.
WASZKIEWICZ, A.: 'Together They Are Twofold': Player-Avatar Relationship Beyond the Fourth Wall. In *Journal of Games Criticism*, 2020, Vol. 4, No. 1, p. 1-21. ISSN 2374-202X. [online]. [2022-02-22]. Available at: <http://gamescriticism.org/s/Waszkiewicz-4-1.pdf>.
WIERZBICKA, A.: Is 'Remember' a Universal Human Concept? 'Memory' and Culture. In AMBERBER, M. (ed.): *The Language of Memory in a Crosslinguistic Perspective*. Philadelphia, PA : John Benjamins Publishing, 2007, p. 13-39.
WILHELMSSON, U.: Game Ego Presence in Video and Computer Games. In LEINO, O., WIRMAN, H., FERNANDEZ, A. (eds.): *Extending Experiences. Structure, Analysis and Design of Computer Game Player Experience.* Rovaniemi : Lapland University Press, 2008, p. 58-72.
WOOD, H.: Dynamic Syuzhets: Writing and Design Methods for Playable Stories. In NUNES, N., OAKLEY, I., NISI, V. (eds.): *Interactive Storytelling: 10th International Conference on Interactive Digital Storytelling*. Madeira : Springer International Publishing, 2017, p. 24-37.

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Gender, Stress, Satisfaction, and Persistence: The Complex State of Digital Games as Leisure

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ABSTRACT:
Digital games have long been investigated for links to negative influences, but they exert a range of impacts on players. A variety of factors can contribute to stressful experiences in play, including game content, player interactions, and gender. This project uses qualitative methods to better understand how players experience and perceive these stressors and why they persist despite them. There are a surprising number of ways that players' experiences align in spite of gender. Players encounter stress with both design and social experiences, are inclined to "rage quit" if stressors are substantial enough, and are increasingly averse to toxic communities. However, there are also gender-specific experiences. Men are much more concerned with the skillsets of other players, while women worry about their own performance. Further, these experiences of stress complicate our understandings of distress and eustress, with players less motivated by stressors than they are by the anticipated future relief from distress.

KEY WORDS:
digital games, gender, persistence, qualitative, stress.

Introduction

Digital games have received attention for their potential negative outcomes, whether through the possibility of causing aggression[1] or determining and ranking the most stressful games.[2] Digital game content can also be a source of stress[3] and multiplayer experiences often include targeted toxicity.[4] However, digital games offer potential benefits as well, including helping players manage stress.[5] The topic of emotional experiences among players of digital games is an area that can be better understood in terms of why players persist in play despite stressors and how gender influences these experiences. This qualitative project aims to illuminate these factors and explores gender in terms of its influence on player perceptions, experiences, and reasons to continue with the hobby. Ultimately, while players report feeling stress and frustration, regardless of gender, some sources and experiences differ. Somewhat surprisingly, many of the coping mechanisms found among women[6] are shared by men to avoid stressful community experiences. Sources of pride from play are also very similar regardless of gender, supporting previous work on achievement[7] and illuminating players' perceptions of stress in gaming.

1 HASAN, Y., BÈGUE, L., BUSHMAN, B. J.: Violent Video Games Stress People Out and Make Them More Aggressive. In *Aggressive Behavior*, 2012, Vol. 39, No. 1, p. 68-69.
2 See: COSTELLO, F.: *Study: Most Stressful Video Games to Play.* Released on 11th September 2020. [online]. [2022-05-11]. Available at: <https://www.bonusfinder.com/about-us/blog/most-stressful-video-games-to-play>.
3 For more information, see: HASAN, Y.: Violent Video Games Increase Voice Stress: An Experimental Study. In *Psychology of Popular Media Culture*, 2017, Vol. 6, No. 1, p. 74-81.
4 COTE, A. C.: "I Can Defend Myself": Women's Strategies for Coping with Harassment While Gaming Online. In *Games and Culture*, 2017, Vol. 12, No. 2, p. 137-138.; See also: GRAY, K. L.: Intersecting Oppressions and Online Communities: Examining the Experiences of Women of Color in Xbox Live. In *Information, Communication & Society*, 2012, Vol. 15, No. 3, p. 419-426.
5 WHITBOURNE, S. K., ELLENBERG, S., AKIMOTO, K.: Reasons for Playing Casual Video Games and Perceived Benefits Among Adults 18 to 80 Years Old. In *Cyberpsychology, Behavior, and Social Networking*, 2013, Vol. 16, No.12, p. 893-894.
6 COTE, A. C.: "I Can Defend Myself": Women's Strategies for Coping with Harassment While Gaming Online. In *Games and Culture*, 2017, Vol. 12, No. 2, p. 143-149.
7 TAYLOR, T. L.: Multiple Pleasures: Women and Online Gaming. In *Convergence*, 2003, Vol. 9, No. 1, p. 27-31.

1. An Overview of Stress

Stress takes many different forms in response to experienced or perceived risks to safety.[8] Due to impacts on health and well-being, stress is often studied for potential negative consequences. Negative forms of stress, or distress,[9] include possible influences on memory function[10] as well as potentially prompting the development of mental and physical health ailments.[11] Stress, however, is not a unidimensional experience and influence. Eustress – a positive response to stressors[12] – can produce beneficial outcomes,[13] including improving life satisfaction.[14] Eustress and its definition can be variable, but in this project it will be understood as a generally positive emotional response to stressors, which can include feeling motivated.[15]

2. Emotional Influences of and Experiences with Digital Games

Digital games have been documented as providing emotional benefits to players.[16] Players experience stress reduction in both casual[17] and multiplayer digital games.[18] Other potential benefits include improving coping skills, even through more violent content.[19] Socially, players develop senses of community[20] and gaming with others allows players to create, reinforce, and foster social bonds.[21]

Outside of the possible benefits, however, there has been an academic emphasis on pathological play.[22] Even in cases where players hope to reduce distress, they may overuse or become reliant on digital games.[23] Additionally, despite stress reduction, both violence and horror elements in digital games can also cause stress reactions in terms of heart rate, blood pressure, and the production of stress-related hormones.[24] Alongside the possible benefits

8 LUPIEN, S. J. et al.: The Effects of Stress and Stress Hormones on Human Cognition: Implications for The Field of Brain and Cognition. In *Brain and Cognition*, 2007, Vol. 65, No. 3, p. 230-231.

9 KUPRIYANOV, R., ZHDANOV, R.: The Eustress Concept: Problems and Outlooks. In *World Journal of Medical Sciences*, 2014, Vol. 11, No. 2, p. 179.

10 LUPIEN, S. J. et al.: The Effects of Stress and Stress Hormones on Human Cognition: Implications for The Field of Brain and Cognition. In *Brain and Cognition*, 2007, Vol. 65, No. 3, p. 229-231.

11 COHEN, S., JANICKI-DEVERTS, D., MILLER, G. E.: Psychological Stress and Disease. In *Jama*, 2007, Vol. 298, No.14, p. 1686-1687.

12 PINHEIRO, A., PATTA, E., ZAGGIA, J.: Gamification to Expand Awareness About Stress and Its Impacts Within Companies: Gamification Eustress and Distress. In SORT, A., MUÑOZ, J., CORTIZO, J. C. (eds.): *Proceedings of the 2nd International Workshop on Gamification in Health; gHealth'15*. Barcelona : CEUR-WS, 2015, p. 26.

13 KUPRIYANOV, R., ZHDANOV, R.: The Eustress Concept: Problems and Outlooks. In *World Journal of Medical Sciences*, 2014, Vol. 11, No. 2, p. 179-182.

14 O'SULLIVAN, G.: The Relationship Between Hope, Eustress, Self-Efficacy, and Life Satisfaction Among Undergraduates. In *Social Indicators Research,* 2011, Vol. 101, No. 1, p. 163-166.

15 KUPRIYANOV, R., ZHDANOV, R.: The Eustress Concept: Problems and Outlooks. In *World Journal of Medical Sciences*, 2014, Vol. 11, No. 2, p. 182.

16 RUSSONIELLO, C. V., O'BRIEN, K., PARKS, J. M.: The Effectiveness of Casual Video Games in Improving Mood and Decreasing Stress. In *Journal of CyberTherapy & Rehabilitation*, 2009, Vol. 2, No. 1, p. 63.

17 Ibidem, p. 56.

18 MIHAN, R. et al.: Safer with a Partner: Exploring the Emotional Consequences of Multiplayer Video Gaming. In *Computers in Human Behavior*, 2015, Vol. 44, No. 3, p. 302-303.

19 VELLA, K., JOHNSON, D., HIDES, L.: Positively Playful: When Videogames Lead to Player Wellbeing. In NACKE, L. E., HARRIGAN, K., RANDALL, N. (eds.): *Gamification '13: Proceedings of the First International Conference on Gameful Design, Research, and Applications*. New York, NY : ACM, 2013, p. 100-102.; VILLANI, D. et al.: Videogames for Emotion Regulation: A Systematic Review. In *Games for Health Journal*, 2018, Vol. 7, No. 2, p. 94-97.

20 WANG, R., WU, M.: Catch Them All: Exploring the Psychological Impact of Playing Pokémon Go. In *Journal of Communication Technology*, 2020, Vol. 3, No. 1, p. 64.

21 VILLANI, D. et al.: Videogames for Emotion Regulation: A Systematic Review. In *Games for Health Journal*, 2018, Vol. 7, No. 2, p. 94-97.

22 VELLA, K., JOHNSON, D., HIDES, L.: Positively Playful: When Videogames Lead to Player Wellbeing. In NACKE, L. E., HARRIGAN, K., RANDALL, N. (eds.): *Gamification '13: Proceedings of the First International Conference on Gameful Design, Research, and Applications.* New York, NY : ACM, 2013, p. 99.

23 PLANTE, C. N. et al.: Video Games as Coping Mechanisms in The Etiology of Video Game Addiction. In *Psychology of Popular Media Culture*, 2019, Vol. 8, No. 4, p. 385.

24 HASAN, Y., BÈGUE, L., BUSHMAN, B. J.: Violent Video Games Stress People Out and Make Them More Aggressive. In *Aggressive Behavior*, 2012, Vol. 39, No. 1, p. 65-66.

of social play, highly competitive multiplayer gaming can promote distress while reducing the eustress from defeating an in-game challenge.[25] Additionally, given the harassment that can occur based on player gender[26] or intersections between gender and race,[27] players may need to take precautions. For example, it is common for women to play with people that they already know[28] or to hide their gender[29] as protective methods to avoid hostility.

3. Cultural and Contextual Aspects of Gender

Gender may influence stress experiences in gaming beyond hostile interactions due to cultural influences. For example, boys and men are expected to express less emotion[30] outside of stereotypical anger[31] and women tend to express anger as sadness or depression.[32] Women also often have more general stress, different sources of stress, and different coping strategies compared to men.[33] Cultural understandings of gender also affect perceptions of skills, abilities, and competence.[34] These ideas can lead to women viewing themselves as having less ability in culturally masculine contexts.[35] Consequently, women who excel will often sort themselves out of contribution or advancement in many fields, particularly due to issues of imposter syndrome and being overlooked by male colleagues.[36] In gaming, gender impacts player inclinations[37] and behaviours. While stress relief[38] and seeking challenge[39] are shared motivations, there is a continuing association of the hobby with men and boys.[40] There are also conflicting ideas about why people play. Men may desire more achievement-oriented play, while women may seek social play.[41] Yet in other studies, gender has little influence on motivations in massively multiplayer online (MMO) games.[42]

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25 SNODGRASS, J. G. et al.: Culture and the Jitters: Guild Affiliation and Online Gaming Eustress/Distress. In *Ethos*, 2016, Vol. 44, No. 1, p. 68-70.

26 COTE, A. C.: "I Can Defend Myself": Women's Strategies for Coping with Harassment While Gaming Online. In *Games and Culture*, 2017, Vol. 12, No. 2, p. 150-152.

27 GRAY, K. L.: Intersecting Oppressions and Online Communities: Examining the Experiences of Women of Color in Xbox Live. In *Information, Communication & Society*, 2012, Vol. 15, No. 3, p. 417.

28 YEE, N.: Maps of Digital Desires: Exploring the Topography of Gender and Play in Online Games. In KAFAI, Y. B. et al. (eds.): *Beyond Barbie and Mortal Kombat: New Perspectives on Gender and Gaming*. Cambridge, MA : MIT Press, 2008, p. 86-88.

29 COTE, A. C.: "I Can Defend Myself": Women's Strategies for Coping with Harassment While Gaming Online. In *Games and Culture*, 2017, Vol. 12, No. 2, p. 144-146.

30 KANE, E. W.: "No Way My Boys Are Going to Be Like That!" Parents' Responses to Children's Gender Nonconformity. In *Gender & Society*, 2006, Vol. 20, No. 2, p. 161-162.

31 BRODY, L. R., HALL, J. A.: Gender, Emotion, and Socialization. In CHRISLER, J., McCREARY, D. (eds.): *Handbook of Gender Research in Psychology*. New York, NY : Springer, 2010, p. 431.

32 DE COSTER, S., CORNELL ZITO, R.: Gender and General Strain Theory: The Gendering of Emotional Experiences and Expressions. In *Journal of Contemporary Criminal Justice*, 2010, Vol. 26, No. 2, p. 226.

33 MATUD, M. P.: Gender Differences in Stress and Coping Styles. In *Personality and Individual Differences*, 2004, Vol. 37, No. 7, p. 1408-1412.

34 BIAN, L., LESLIEAND, S.-J., CIMPIAN, A.: Gender Stereotypes about Intellectual Ability Emerge Early and Influence Children's Interests. In *Science*, 2017, Vol. 355, No. 6323, p. 390.

35 FLANAGAN, J.: Gender and the Workplace: The Impact of Stereotype Threat on Self-Assessment of Management Skills of Female Business Students. In *Advancing Women in Leadership Journal*, 2015, Vol. 35, No. 1, p. 169.

36 For more information, see: CULVER, L. P.: The Rise of Self Sidelining. In *Women's Rights Law Reporter*, 2018, Vol. 39, No. 3-4, p. 173-219.

37 LUCAS, K., SHERRY, J. L.: Sex Differences in Video Game Play: A Communication-Based Explanation. In *Communication Research*, 2004, Vol. 31, No. 5, p. 513-519.

38 TOMLINSON, C.: Building a Gamer: Player Preferences and Motivations Across Gender and Genre. In NAKAMURA, A. (ed.): *Proceedings of the 2019 DiGRA International Conference: Game, Play and the Emerging Ludo-Mix*. Kyoto : Digital Games Research Association, 2019, p. 6-9.

39 LUCAS, K., SHERRY, J. L.: Sex Differences in Video Game Play: A Communication-Based Explanation. In *Communication Research*, 2004, Vol. 31, No. 5, p. 514.

40 CHESS, S., EVANS, N. J., BAINES, J. J.: What Does a Gamer Look Like? Video Games, Advertising, and Diversity. In *Television & New Media*, 2017, Vol. 18, No. 1, p. 37-38.

41 YEE, N.: The Psychology of Massively Multi-User Online Role-Playing Games: Motivations, Emotional Investment, Relationships, and Problematic Usage. In SCHROEDER, R., AXELSSON, A. (eds.): *Avatars at Work and Play: Collaboration and Interaction in Shared Virtual Environments*. London : Springer-Verlag, 2006, p. 14.

42 YEE, N.: Maps of Digital Desires: Exploring the Topography of Gender and Play in Online Games. In KAFAI, Y. B. et al. (eds.): *Beyond Barbie and Mortal Kombat: New Perspectives on Gender and Gaming*. Cambridge, MA : MIT Press, 2008, p. 90-92.

These spaces also emphasize masculine rules of interaction,[43] which may, in part, cause the aggression that can arise in response to violent digital games.[44] This may relate to studies noting lower levels of stress for boys, but increased anxiety for girls in digital game play.[45] Further, women experience more hostility in online play[46] and stereotypes about gender and digital games can become obstacles for women.[47]

Data and Methods

Data for this project was collected through 54 interviews and 2,000 online forum posts and their comments. Online forum data was included to check interview responses against a broader sample of player experiences. Interviewees were recruited online and through network sampling to ensure that they were actively involved in the gaming community. Only three interview participants – those recruited from the online forums – used forums as part of their gaming experience. Because the project is qualitative and concerned with player discussions and framing, there is not a quantitative component or an emphasis on the percentage of discussions that feature stress. In general, however, discussions of stress and frustration were common across online forums, but women-oriented forums had proportionally more daily discussion of these topics and focused on multiplayer stressors more often. Additionally, amounts of responses and posts can be approximated as follows: many are 40-60%, most are over 60%, and a majority is over 80%.

Qualitative coding was conducted both during and after data collection to illuminate patterns and themes. Interviews were recorded and transcribed to facilitate this process and Dedoose software was used to further code interviews for themes and patterns related to stressors. For online forum data, notes and coding were completed through a word processing program. Interview participants have been given pseudonyms, quotations from interviewees have been slightly reworded for clarity (e.g., removing "um"). Additionally, the names of the forums have been concealed and quotations from online posts have been deidentified and slightly reworded while keeping their meaning to protect privacy.

This project investigates stress among digital game players, including influences of gender and reasons to continue playing. Interview respondents had varied interests, from casual mobile games to first person shooters (FPS), with the most commonly shared genres being role-playing games (RPGs), strategy, and adventure games. It is difficult to discern any potential patterns in individual players in the forum data, but posts tended to emphasize FPS, MMOs, RPGs, action, and action-adventure games. This was similar for general and women-focused forums, although the latter discussed fewer FPS and more indie (from smaller studios) games. Interview data was collected through one- to two-hour

43 TAYLOR, T. L.: *Raising the Stakes: E-Sports and the Professionalization of Computer Gaming*. Cambridge, MA : MIT Press, 2012, p. 113-118.

44 See: THOMAS, K. D., LEVENT, R. F.: Does the Endorsement of Traditional Masculinity Ideology Moderate the Relationship Between Exposure to Violent Video Games and Aggression?. In *The Journal of Men's Studies*, 2012, Vol. 20, No. 1, p. 47-56.

45 OHANNESSIAN, C. M.: Video Game Play and Anxiety During Late Adolescence: The Moderating Effects of Gender and Social Context. In *Journal of Affective Disorders*, 2018, Vol. 226, No. 2, p. 218-219.

46 GRAY, K. L.: Intersecting Oppressions and Online Communities: Examining the Experiences of Women of Color in Xbox Live. In *Information, Communication & Society*, 2012, Vol. 15, No. 3, p. 425-426.; COTE, A. C.: "I Can Defend Myself": Women's Strategies for Coping with Harassment While Gaming Online. In *Games and Culture*, 2017, Vol. 12, No. 2, p. 151-152.

47 SALTER, A., BLODGETT, B.: Hypermasculinity & Dickwolves: The Contentious Role of Women in the New Gaming Public. In *Journal of Broadcasting & Electronic Media*, 2012, Vol. 56, No. 3, p. 411-414.; TAYLOR, T. L.: *Raising the Stakes: E-Sports and the Professionalization of Computer Gaming*. Cambridge, MA : MIT Press, 2012, p. 123-128.

conversations with respondents in six countries. This took place over video chat or phone and used semi-structured questions to allow for a deeper exploration of individual experiences. The interviews were open-ended and allowed for broader discussion and follow-up questions during the conversation. Players were asked directly about their preferences, experiences, and backgrounds. In terms of stress, questions addressed encounters with multiplayer play, frustrating moments, and instances of pride with video games.

Of the 54 respondents, 31 were women. The majority of the sample lived across the United States (39), while others resided in Canada (4), Australia (3), Japan (2), South Korea (1), and Brazil (1). Although the majority of the sample is from Western countries, online cultures – including those tied to gaming – tend to be shared internationally.[48] Interview participants were all adults, with an age range between 22 and 38 years old. All of the players in the sample had similar starting points with the hobby, habits, preferences, and playtimes for games. Their playtimes had a large span, with a predictable zero to 40 hours of weekly gameplay reported, but with an average of about 15 weekly hours of gameplay without a gendered trend. Discussions of sources of stress, frustration, and persistence were similar for players, regardless of typical time spent playing.

Interview findings were explored further in five online forums, which were observed during live conversation and also searched for specific terms to find relevant conversations. These targeted searches were based on findings in the interviews and included terms like gender, guild, stress, frustration, proud, and community. Two of the five forums were very large (one with over one million subscribers and the other with over 700,000) and understood as having more men using them. Three were expressly aimed at a larger proportion of women and were much smaller. The largest of these forums had approximately 35,000 members, while the two smaller and least active forums had fewer than 10,000. The two smallest women-focused forums were also much less active and were thus observed less frequently for live conversations.

Observations spanned approximately three months, with at least two weekly observations for less active forums and one daily observation for more active forums. Posts and their top 100 comments were analyzed. In observations of active discussions, the top 25 most active posts were assessed. This resulted in approximately 525 posts for each of the most active forums and approximately 125 unique posts for the two less active women-oriented forums. Targeted searches resulted in more forum posts and comments, following the same pattern of looking at the top 25 most highly supported archived conversations and the top 100 most supported comments within those posts.

Findings

Players encounter stressors from many sources and generally share reactions to frustrating elements of a game's mechanics or team dynamics. Gender influences sources of team-related stressors in gaming, likely due to the cultural elements discussed above. While experiences with distress are common, it is important to note that players have a variety of very similar reasons for persisting in play, although their framing differs from typical understandings of eustress.

48 See also: SALTER, A., BLODGETT, B.: Hypermasculinity & Dickwolves: The Contentious Role of Women in the New Gaming Public. In *Journal of Broadcasting & Electronic Media*, 2012, Vol. 56, No. 3, p. 401-416.

Gender and Gaming Stress

Players share many sources of stress, but gender can influence how players contextualize them. In interviews, men acknowledge stressful experiences less quickly than women in the sample and are more likely to react with anger. Social aspects of games become stressful for different reasons and to different degrees as well. All players view multiplayer experiences as stressful in some way – even when playing with an established group – because of actual, perceived, or anticipated issues with scheduling, skills, harassment, or toxicity in gaming. Men and women are often on opposite sides of this issue, however, with men concerned about their teammates' skills and women concerned about their own.

a) Discussing and Perceiving Stress

While users of online forums are more deliberate with their assessments of stress, subtle gender differences arise in interviews. Women are immediately prepared with stories about gaming stress, while men are more likely to hedge their experiences. As one example of this, at first Kyle could not think of any instances of stressful or frustrating gaming moments. He initially recognized stress and aggression in friends, but not in himself. When discussing his favourite game, however, the relationship becomes more complicated: "Stressful... not really. I mean, if you... with regards, like if I'm playing specific games, sometimes it can be, but for the most part video games are always supposed to be meant for... as an escape from something, as opposed to an escape to something. So... like, as much, as stressful a... like... I find real life, meatspace, to be a lot more stressful than video games. If I'm not having fun when I'm playing a video game, I just won't play it. Unless, of course, I'm playing Dark Souls, in which case, you're just a glutton for punishment when you're playing Dark Souls."

This reaction may stem from discomfort around the idea of games being stressful, as players in both samples discuss concerns about how friends and family view digital games, but it may also be the result of gendered expectations around emotion discussed above. This is expressed by many of the men in the sample, but is not conveyed by women. There is also an attempt to spin the experience as more positive in a way that is less about motivational eustress and more centred on seeking the negative emotions that come along with punishing games. Contrastingly, most of the women readily list stressful items in their gaming experience and their causes. As one example, Lilly mentions in an interview: "[...] If I make the mistake of going on too high of a difficulty level or, when I was playing Last of Us, that was incredibly stressful and that was the only game that I never actually finished... so, most of the tension comes from when I decide I'm going to play a survival type game. I think it's just not being able to punch out the target while having to actually stealth and be clever... I don't necessarily like not having the option... to beat the problem to death. I'm a very aggressive player."

Lilly's response also highlights a unique coping strategy mentioned by several of the women in the interview and forum samples: handing off the controller to someone else, typically a man who is also their significant other. This reflects an intersection in previous research on gender, social play, and coping with distress.[49] Women in both samples pri-

49 For more information, see: YEE, N.: The Psychology of Massively Multi-User Online Role-Playing Games: Motivations, Emotional Investment, Relationships, and Problematic Usage. In SCHROEDER, R., AXELSSON, A. (eds.): *Avatars at Work and Play: Collaboration and Interaction in Shared Virtual Environments*. London : Springer-Verlag, 2006, p. 187-207.; COTE, A. C.: "I Can Defend Myself": Women's Strategies for Coping with Harassment While Gaming Online. In *Games and Culture*, 2017, Vol. 12, No. 2, p. 136-155.

marily highlighted this behaviour as a response to distress linked to horror games. These tactics aside, however, women are much more forthcoming and ready to engage with the concept of stressful gaming in interviews. The men in the sample are also more comfortable contextualizing their gaming distress as anger and as a past problem, while women identify continuing emotional reactions to games. James reflects this pattern, stating that he has moved beyond becoming enraged, can recognize the behaviour in himself, and will ultimately step away from a game if necessary. With a similar pattern to other men, including Kyle, James recalls: "I wouldn't say stressful. I'm pretty good... well, I guess I would say stressful. I definitely... I used to have slight anger issues, I would say, and video games could rapidly bring those out in me. I used to be really bad at losing my temper at a video game... I would be in my bedroom screaming at my TV... I've gotten a lot better about it now that when a game is like... I can feel like my blood pressure rising, I'll turn the game off and go about my business. If I get to the point in a game where I feel like it's more of a chore to play than it is actually fun to play, then I just quit playing."

Men experience more hesitation to acknowledge and discuss their stressors before further reflecting on their experiences. In some ways, dealing with the emotional aspects of stress and frustration is not as immediately recognizable for many of these respondents. There is, at first, a denial or hesitation to frame their gaming activities or personalities in a negative way. This begins to break down as the participants continue to talk about and recall their experiences, but is an interesting trend and departure from the immediacy with which women in the sample are comparatively able to categorize these issues.

b) Social is Stressful

Gender also affects the stress surrounding social play. While the majority of the interview sample and many online posts address these issues, men and women focus on different elements of multiplayer stressors. Men and forums with more men reported as users are much more focused on competitive games and team members lacking skill. Having to rely on and work with others introduces additional non-game stressors. For Gareth, this is particularly true of massive online battle arena games (MOBAs). He mentions: "[...] you basically have to try to work with others to try and defeat the other team, but, mind my language here, but holy shit does that make me rage. I get so angry. My wife can attest to that, honestly, it's just infuriating dealing with it. That's coming back to, like I said, competitive experiences where others, you know, may not be playing the game in a way you want them to and then you might lose a match and you were so close to winning, etc. So, I would say that competitive gaming experiences, I don't want to say bring out the worst in me, but certainly bring out a lot of frustration [...]." Despite rare instances of men – about five in total – in interviews noting concerns about their own skill, it is much more common for these discussions to focus on relying on others. Concerns about skill dragging the team down, having to monitor other players, and accounts of witnessing teammates angrily react to less skilled players during games are the most common areas of focus for social stressors among men and users in the general online forums.

For women, social concerns focus on self-assessments and worries about being critiqued. In many cases, this is noted as a perceived threat, rather than an experienced one, reflecting work in other areas on gender and self-assessment.[50] A potential lack of skill may let their team down. These players simultaneously recognize their gaming groups as being generally supportive and understanding, yet fear what might happen if they

50 FLANAGAN, J.: Gender and The Workplace: The Impact of Stereotype Threat on Self-Assessment of Management Skills of Female Business Students. In *Advancing Women in Leadership Journal*, 2015, Vol. 35, No. 1, p. 169.; CULVER, L. P.: The Rise of Self Sidelining. In *Women's Rights Law Reporter*, 2018, Vol. 39, No. 3-4, p. 186-193.

do not perform well. Unfortunately, the protective measures taken by many women[51] are not always successful. Some of these women have seen or have had direct experiences with open expressions of disappointment, even in cases of playing with friends, which reinforced these apprehensions. For Eva: "Yeah, people are mean. People are so mean and they're so judgmental and I get so stressed out. Whether it's a more cooperative or more competitive game, I feel like people judge me or if it's a cooperative game, I'm gonna be letting my team down. Like when I was playing the MMO, that caused me a lot of stress. Like I cried real tears over really dumb stuff." These respondents are aware of being subjected to potentially harsher scrutiny than some of their gaming peers. This excess pressure can also reach the point where women have physical reactions to these stressors in ways that do not come up for men. Many women report crying, feeling sick, or becoming so anxious that they would avoid scheduling with their teams.

Along with these fears, they also discuss the spectres of skill and the 'girl gamer'. Most of the women interviewed, and the vast majority of online posters in the women-oriented forums, are acutely aware of differences in perception based on gender. This only adds to anxieties and stress, particularly when playing with mostly men. June remembers: "So... I have this... this sense of like. I don't want to embarrass myself. And there is a degree to which, because of the whole, 'girl gamer' like stereotype, I feel like this extra pressure. Where if I want to play a game and I'm not even good at that game, it'll reflect badly on girl gamers in general. Who are almost always like... well, no, it's been getting a lot better, but like who, traditionally, have not been taken seriously and considered unskilled or basically not real gamers. And so, I don't want to reflect badly on the community of female gamers who are just individually sucking, when I know there are plenty of individual female gamers who don't."

This concern over being a representative for all women – and being assessed differently for skill – is felt acutely by women across the sample. They recognize that stereotyping and a community that is still largely resistant to or unaware of their presence, leads to their actions being viewed with more scrutiny. These conversations are also pervasive in online discussions. As one forum user notes in response to a shared article on one of the less active forums: "I can't really look at the issue of skill outside of being female. If I'm not skilled at a game, I'm probably going to be mocked for being bad, but I'm also going to be proving people right about women being bad at games. I don't play competitively anymore because I don't want to be really good and less than 'really good' is just going to be seen as reinforcing the stereotype. I can do more with my time than force myself to deal with that anxiety." While men are primarily concerned about how their overall team will be harmed by a lack of skill in their teammates, women are consistently aware of and worried about their own performance, whether this is in preparation for or confirmed by their experience. These different perspectives on skill make sense in the broader context of gaming. Women, seen as outsiders, are much more likely to be judged harshly for their performance.

Tired of Toxic Cultures

Despite differences in skill-related distress, players share an increasingly critical view of hostility in gaming. For the majority of players across the samples, increasing toxicity and pressures around play beyond those resulting from playing as part of a team have become burdensome to the point of feeling exhausting. James explains: "I dislike that

51 COTE, A. C.: "I Can Defend Myself": Women's Strategies for Coping with Harassment While Gaming Online. In *Games and Culture*, 2017, Vol. 12, No. 2, p. 149-150.

people seem to think that because they're on the internet, they can just say and do, mostly say, whatever they want to somebody. They just have this idea in their head that because they're on the other side of a TV, 1,000 miles from people, that they can say racist, sexist, homophobic comments to people because there are no repercussions to it. It gives them this big sense of security... because I don't know who they actually are." A major takeaway from both interviews and online posts is that players are largely tired of encountering toxicity, even if they do not belong to the groups being targeted. There is some level of resignation, with some forum users commenting that this is part of the culture and it can only be expected at this point. Many players in both samples also express frustration with a lack of effective means to combat this, although they desire solutions to this trend.

Perhaps the most surprising finding, though, is that these experiences have led to men using many of the coping strategies observed in women playing games.[52] Women often anticipate harassment or hostility before playing a game. Despite the common knowledge of generally toxic gaming communities, men do not necessarily enter these spaces with the same expectation, in part due to the focus on women being the most likely target. In fact, the majority of the men in interviews discuss toxicity directly in terms of marginalized communities. After enough encounters with ambient hostilities or those directed at players other than themselves, however, men begin to employ avoidant and protective techniques as well. They will mute other players, avoid certain genres, eschew specific games, and only play with friends. As Blake notes: "Yeah, usually it's the community. Like if the community is really bad, then it puts a lot of stress on to you. Especially if they're flamers or trolls, but a lot of games now have a muting system, like how to ignore them, so it's not as bad if you know how to do that stuff."

Toxic encounters are not passively accepted as part of the experience. Players find ways to limit toxicity, although for men this comes much later after seeing a saturation of these effects. Women discuss going into the playing experience expecting harassment if their gender is revealed, including Regina who notes being belittled by a male player in a multiplayer zombie survival game, but men do not have similar discussions of anticipating being targets. For Paul, who stopped playing *League of Legends*[53] due to toxic interactions: "Yeah, they're just... the smallest mistake... you know, there's never an assumption that there's a reason or a valid reason for someone not being good at a game. It's always just the jump to conclusion is, 'Well you just suck and you're the worst person ever and you should probably just get off the internet and kill yourself.' It's difficult to find people who are more moderate in terms of their temperament. 'Cause for a game that's social... it doesn't lend itself well to making players feel like they want to play." Although the majority of the men in the sample are less concerned about their own skill, Paul's circumstances highlight an experience shared by many more – having to step away from a game due to the environment associated with it. Players do not frame these as enjoyable decisions, but necessary ones. For the approaches to coping that allow players to continue playing a game with a toxic community, there is a sadness and a frustration associated with these choices, as players feel that these solutions often also negatively impact their play experience.

Forum users also repeatedly lament the loss of a prior gaming culture. Many players mention that they miss gaming experiences less tarnished by harassment and when protective measures did not need to be taken. There are also doubts about how companies approach these problems, with users feeling that reporting is not effective enough and completely removing chat options is too restrictive. One user suggests: "I know that companies take chat out because it can become toxic, but don't you miss being able to be social

52 COTE, A. C.: "I Can Defend Myself": Women's Strategies for Coping with Harassment While Gaming Online. In *Games and Culture*, 2017, Vol. 12, No. 2, p. 149-150.

53 RIOT GAMES: *League of Legends*. [digital game]. Los Angeles, CA : Riot Games, 2009.

in games? There should be an option to shut chat off or block specific people, but I'm annoyed by games that cut communication out. When you can't add personal comments, you lose a sense of friendship. How did trolls force developers to turn off chat permanently? It really makes it hard to feel like a community." Most players appreciate and desire social play absent of the issues of toxicity that have become routine. There is also a growing dissatisfaction with company solutions to these problems and an increasing trend in men feeling inhibited in their play by hostilities in gaming culture. The problem of toxic gaming communities, while disproportionately targeted at women and people of colour, is something that wears on players generally and influences their decisions and activities.

Stress and Persistence

Outside of player reactions to multiplayer situations and toxicity in play, stressors often arise from design elements of games. 'Rage quitting' is frequently discussed in interviews and online forum posts to the point that it has become something of a meme and a shared understanding of gaming. Despite the possibility of anger boiling over for players, however, they also find reasons to continue with the hobby, even returning to games that caused them emotional distress.

a) Bugs, Confusion, and Rage Quitting

Digital game design can cause distress and frustration among players. In interviews, design issues and unclear expectations are the most frequently mentioned and shared aspect of frustration during play. Players focus on glitches, bugs, lag, bad narratives, unclear guidance, and controls that are not intuitive. These issues are often discussed in the context of 'rage quitting'. Ultimately, games that present too many of these barriers to enjoyment can cause frustration to overflow for players. In these cases, the game can become defined as a 'waste of time'. For Todd, he specifies a very recent experience with these issues: "And I guess, actually, this is a great example from two nights ago... there's this game called The Crew, which is a racing game that was available for free and I got very frustrated with the design because it was very obtuse. It was hard to tell what you were supposed to do, it was too many options. It was just a poorly designed game, so I just put it down. Even though it was free, I was like, I'm not gonna waste any more time with this." While players also note discomfort with their chosen hobby often being socially defined as a waste of time, frustrating design presents a qualifying criterion for players to determine that nothing of value will come from a game. Completely walking away from a game never to return is less common among interview participants, which will be discussed further below, but temporarily quitting due to these issues is reported by nearly all players. In some cases, players note distinct issues with experiences of anger in these situations as well.

While rage quitting is one potential reaction, players also report outbursts and, less commonly, breaking objects. These manifestations of stress are reported by both men and women who were interviewed, but this is also a common theme of jokes in the gaming community. Without asking players directly about rage quitting, they developed responses that incorporated the cultural term. Regina notes that it is an especially common experience for her. When asked if she has ever encountered anything stressful, she illustrates the association between these experiences quickly: "Mmm... like when I rage quit? Yeah, many many times. I've rage quit so many times. In fact, I've never even completed Crusader Kings II because I rage quit so many times. I rage quit on Dragon Age, I rage quit on Mass Effect... especially, especially Mass Effect 1, kills me. Yeah, I rage quit on pretty much every single game I've played."

Rage quitting is framed as a means of avoiding more serious emotional reactions and potentially reaching the point of breaking items over frustration and stress with game stories, mechanics, or difficulty. Players can walk away before becoming overwhelmed. Several players – both men and women – do note that they are not always quick enough to avoid this, however. It should be mentioned that nearly all players conveyed that they can recognize their limits, but Ben recalls: "There are a lot of examples. The very first one that comes to mind, though, is Final Fantasy X, there is a section toward the end of the game where in order to get the character's strongest weapons, you have to do these races on chocobos, which are a fictional bird in the game. And the controls are exceptionally bad and the design of the race is exceptionally bad. A lot of it is completely based on random factors that are out of the player's control and I failed at that over and over and over and over. Probably for a couple of hours. And it was frustrating and it wasn't fun and I may have ended up breaking a controller over it." Specifically breaking things is not often reported in interviews or forum discussions, but there is an awareness that becoming too frustrated or stressed due to a digital game can lead to these outcomes. When players reach heights of frustration or even rage quit, this is often a temporary measure and, even in cases where players do break something in response to stress, they tend to go back to the game.

b) Persistence

Despite the stressful and frustrating elements of gaming, players find reasons to persist. Players frame their experiences after getting through frustration in positive ways, but this frequently does not reflect the concept of eustress. Rather than being motivated by the stress itself, players emphasize the relief that they experience after getting through the stressors discussed above as worth the pain. The way that players frame the reasons for why they continue to play is often less tangible than previous research implies. Rather than specifically noting measurable accomplishments, the primary motivating factor cited by players is proving the ability to overcome challenges. The second most common reason is more measurable but is also highly individualized. In the context of their own defined goals, the drive to complete a game is another reason to push through distress. This kind of completionism is not a desire to earn all achievements, which can become an intrinsic motivating factor for players,[54] but instead is centred on seeing the end of the story. This is true for men and women in both solo and team-based play.

As one example of overcoming challenges, Eva – who recounted a great deal of stress over having her skill judged above – recalls in her team play of Final Fantasy XIV: " [...] there was this really hard raid boss and we probably tried it 20 or 30 times and we finally got it perfect. Like it was the most beautiful playthrough ever and one of my friends put it on the internet and I watched the video over and over again because I was so proud of myself because we tried it so many times and it was so hard." Players mention what they can put into the game, provide for the team, and how it feels to "pull their own weight" as their primary sources of pride and satisfaction. Some players discuss this in the context of feeling like they have outsmarted the developers by being able to move beyond the challenges presented to them, but most other players focus on proving their ability to themselves or succeeding as a unit.

Not every accomplishment is linked to overcoming difficult challenges, however. Simply finishing the game and seeing a story through is often enough to motivate players. Players are satisfied with their experience if they have not felt the need to walk away, encountered rage-inducing game issues, and are able to wrap up the intended gameplay.

54 See: CRUZ, C. et al.: The Need to Achieve: Players' Perceptions and Uses of Extrinsic Meta-Game Reward Systems for Video Game Consoles. In *Computers in Human Behavior*, 2017, Vol. 71, No. 6, p. 516-524.

As Taylor, someone who feels like she experiences more frustration with games than most players, discusses: "I'm kind of notorious for starting a game and never finishing it... But I was pretty proud of myself when I finished Oxenfree, which is a) a console game, so I had to be in one spot doing it, and b) I finished it from beginning to end. Like I didn't stop at all. And I know it's a short game, it's like a 4-hour game, but that's still pretty impressive for me. I don't usually spend that kind of time all in one blitz on a video game. You know? That's just not what I do. So, it was like really cool to be like, 'Man, that was a really fun game and I like finished it all, I did it'." Players set their own expectations for completing a game. More men are inclined to say that they want to complete a game on the hardest setting, but players also focus on things like putting in over 100 hours, completing every achievement or challenge, or simply being able to finish a main story. Although the individual goals differ, being able to complete major objectives is widely shared among players and provides a strong sense of accomplishment.

This sheds light on why players persist despite the many stressors that they face with digital games. The sense of pride is an element that keeps players coming back. As Cam puts it: "I feel at home and comfortable doing it, even though it's stressful. Because once I have accomplished it, I feel like, 'Oh, I'm actually doing pretty well, I'm not bad,' you know? I guess it kind of goes with the learning as well. If you have a question posed to you and you don't know what the answer is, and there's no answer online, there's two ways you can do it. You can either completely ignore it or you can try to really struggle and figure it out and I think I'm usually on that struggling path in the first place, so, I guess that relationship really helps bring me back toward gaming." Ultimately, the ability to overcome challenges, prove that one can do something, and see the story through to the end provide the motivation to persist. Feeling the need to prove skill and overcome the challenge, even in solo games, is considered important for nearly all players. In some ways, this relates to the idea of eustress, but this is dependent on the types of obstacles players are overcoming. In the case of extreme distress, the motivation comes from making the distress end, rather than from a motivating eustress experience.

While the sense of pride can frequently save a stressful or frustrating gaming experience and provide players with purpose, this drive may also push players to their limits with stress. In most cases, players will continue to push through games that cause distress and discomfort, but there are few instances where they deem a game or situation beyond improvement. In circumstances where players permanently quit a game, there is not enough satisfaction that can be gained on the other side of distress to balance the negative aspects. This is truer for women and those in the women-centred forums than it is for men or general forum discussions. Lilly illustrates this, saying: "I'm not the kind of person who will just generally... like make herself hate her life for a video game. I'm pretty sure if I'm not... I just wanna have fun. And I thought I'd start having fun, but when I didn't, I was like, okay fine, I'll throw in the towel." It is worth noting that some men mention that there comes a time to give up on a bad game, but they are more likely to persist beyond reaching more stressful levels of play. Steven's perspective reflects a tendency to hope that fun *can* be found in the game, in spite of distress: "If I'm playing a game, I liked some aspect of it to begin with, but if I reach a challenging part or I don't know what to do, it gets frustrating. But the game has a potential to be fun, so I want to get passed the dumb part to the fun part. And I don't want to feel like I lost the game. So those things make me stubborn enough to keep trying."

Players who attempt to push through more substantial stress recognize the distress caused by their play, but also acknowledge that they hope that overcoming these obstacles will provide some kind of reward for their efforts. Continuing to play a game that is not enjoyable defeats the purpose of playing in the first place for many players, but there are

a variety of motivating factors to keep players working on a game. Often, players do not see value in continuing to play a game that does not result in – or suggest the possibility of – satisfaction, pride, or a sense of accomplishment despite distress and frustration. If the experience is too stressful and there does not appear to be any ultimate advantage to completing the game, they will not be able to reap the rewards that keep them coming back.

Conclusion

Stress is complex, from how people process it individually to cultural influences on sources of and reactions to stress. While research on stress frequently focuses on distress,[55] eustress can promote positive feelings and motivate people to achieve.[56] When it comes to stress in digital games, however, the picture is further complicated. This project adds more context to the body of work investigating digital games and experiences of stress by highlighting players' framing of their experiences. While many projects have considered physiological aspects of stress in gaming,[57] fewer have addressed perceptual and experiential elements beyond implied stressors in multiplayer situations, especially for women.[58] In this study, players have complicated relationships with digital games and experiences of distress. While players find many of the same stressors in their play, the shared distress over social play departs at a critical juncture. While women have been noted as playing for social reasons[59] and also having remarkably similar motivations in digital game play to men,[60] men have more opportunities for rewarding social play.

This may also be linked to culturally gendered perceptions of skill,[61] with women players more critical of their own play and men worrying about the performance of others. Regardless of the gendering present in these discussions, ambient hostilities in multiplayer engagement have begun to wear on players overall, causing more men to use the approaches noted among women to avoid toxic gaming behaviour.[62] This study also elucidates a pervasive issue for women – protective measures may not always be effective and women in the sample were often still targets of hostility even among players they knew.

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55 KUPRIYANOV, R., ZHDANOV, R.: The Eustress Concept: Problems and Outlooks. In *World Journal of Medical Sciences*, 2014, Vol. 11, No. 2, p. 179.; LUPIEN, S. J. et al.: The Effects of Stress and Stress Hormones on Human Cognition: Implications for the Field of Brain and Cognition. In *Brain and Cognition*, 2007, Vol. 65, No. 3, p. 209.

56 KUPRIYANOV, R., ZHDANOV, R.: The Eustress Concept: Problems and Outlooks. In *World Journal of Medical Sciences*, 2014, Vol. 11, No. 2, p. 180-181.; PINHEIRO, A., PATTA, E., ZAGGIA, J.: Gamification to Expand Awareness About Stress and Its Impacts Within Companies: Gamification Eustress and Distress. In SORT, A., MUÑOZ, J., CORTIZO, J. C. (eds.): *Proceedings of the 2nd International Workshop on Gamification in Health; gHealth'15*. Barcelona : CEUR-WS, 2015, p. 22-23.

57 RUSSONIELLO, C. V., O'BRIEN, K., PARKS, J. M.: The Effectiveness of Casual Video Games in Improving Mood and Decreasing Stress. In *Journal of CyberTherapy & Rehabilitation*, 2009, Vol. 2, No. 1, p. 57-63.

58 For example, see: COTE, A. C.: "I Can Defend Myself": Women's Strategies for Coping with Harassment While Gaming Online. In *Games and Culture*, 2017, Vol. 12, No. 2, p. 136-155.; GRAY, K. L.: Intersecting Oppressions and Online Communities: Examining the Experiences of Women of Color in Xbox Live. In *Information, Communication & Society*, 2012, Vol. 15, No. 3, p. 411-428.

59 YEE, N.: The Psychology of Massively Multi-User Online Role-Playing Games: Motivations, Emotional Investment, Relationships, and Problematic Usage. In SCHROEDER, R., AXELSSON, A. (eds.): *Avatars at Work and Play: Collaboration and Interaction in Shared Virtual Environments*. London : Springer-Verlag, 2006, p. 14.

60 YEE, N.: Maps of Digital Desires: Exploring the Topography of Gender and Play in Online Games. In KAFAI, Y. B. et al. (eds.): *Beyond Barbie and Mortal Kombat: New Perspectives on Gender and Gaming*. Cambridge, MA : MIT Press, 2008, p. 90-92.

61 BIAN, L., LESLIEAND, S.-J., CIMPIAN, A.: Gender Stereotypes about Intellectual Ability Emerge Early and Influence Children's Interests. In *Science*, 2017, Vol. 355, No. 6323, p. 390.

62 COTE, A. C.: "I Can Defend Myself": Women's Strategies for Coping with Harassment While Gaming Online. In *Games and Culture*, 2017, Vol. 12, No. 2, p. 149-150.

These experiences are also important for developers to consider and note as more players become uncomfortable with hostilities in online gaming and opt to avoid certain genres or types of play. There are other surprising shared perceptions and experiences as well. Emotionally, although men are more likely to hedge their discussions on stress in gaming and frame their stress as anger,[63] players also have some unexpected similarities. The experience of rage quitting is well-known and shared across gender and there is a tendency to associate stress and frustration with this concept. Further, gender has little impact on why players push through these experiences. Players note that overcoming challenges, proving oneself, and seeing the end of the story are motivators and frame these outcomes as worth the cost of distress.

This perspective does not always appear to illustrate a eustress-like experience, however. Rather than stressors providing positive emotional reactions and motivation[64] to complete a game, players push through distress for the relief of no longer feeling it and reaping the perceived possible rewards available to them by completing their in-game objectives. There are experienced rewards that are remarkably similar for players regardless of gender, but these can sometimes only be achieved after the player passes through distress. Digital games provide an array of experiences for players, which extend to their perceptions and discussions of stress in the context of their hobby. Although there are some notable differences between what women and men define as stressful, the similarities offered by these players present a fruitful path for potential future inquiry.

BIBLIOGRAPHY

BIAN, L., LESLIEAND, S.-J., CIMPIAN, A.: Gender Stereotypes about Intellectual Ability Emerge Early and Influence Children's Interests. In *Science*, 2017, Vol. 355, No. 6323, p. 389-391. ISSN 0036-8075.

BRODY, L. R., HALL, J. A.: Gender, Emotion, and Socialization. In CHRISLER, J., McCREARY, D. (eds.): *Handbook of Gender Research in Psychology*. New York, NY : Springer, 2010, p. 429-454.

COHEN, S., JANICKI-DEVERTS, D., MILLER, G. E.: Psychological Stress and Disease. In *Jama*, 2007, Vol. 298, No. 14, p. 1685-1687. ISSN 1538-3598.

COSTELLO, F.: *Study: Most Stressful Video Games to Play*. Released on 11th September 2020. [online]. [2022-05-11]. Available at: <https://www.bonusfinder.com/about-us/blog/most-stressful-video-games-to-play>.

COTE, A. C.: "I Can Defend Myself": Women's Strategies for Coping with Harassment While Gaming Online. In *Games and Culture*, 2017, Vol. 12, No. 2, p. 136-155. ISSN 1555-4120.

CRUZ, C. et al.: The Need to Achieve: Players' Perceptions and Uses of Extrinsic Meta-Game Reward Systems for Video Game Consoles. In *Computers in Human Behavior*, 2017, Vol. 71, No. 6, p. 516-524. ISSN 0747-5632.

CULVER, L. P.: The Rise of Self Sidelining. In *Women's Rights Law Reporter*, 2018, Vol. 39, No. 3-4, p. 173-219. ISSN 1942-6755.

DE COSTER, S., CORNELL ZITO, R.: Gender and General Strain Theory: The Gendering of Emotional Experiences and Expressions. In *Journal of Contemporary Criminal Justice*, 2010, Vol. 26, No. 2, p. 224-245. ISSN 1043-9862.

FLANAGAN, J.: Gender and The Workplace: The Impact of Stereotype Threat on Self-Assessment of Management Skills of Female Business Students. In *Advancing Women in Leadership Journal*, 2015, Vol. 35, No. 1, p. 166-171. ISSN 1093-7099.

63 BRODY, L. R., HALL, J. A.: Gender, Emotion, and Socialization. In CHRISLER, J., McCREARY, D. (eds.): *Handbook of Gender Research in Psychology*. New York, NY : Springer, 2010, p. 431.

64 KUPRIYANOV, R., ZHDANOV, R.: The Eustress Concept: Problems and Outlooks. In *World Journal of Medical Sciences*, 2014, Vol. 11, No. 2, p. 180-181.; SNODGRASS, J. G. et al.: Culture and the Jitters: Guild Affiliation and Online Gaming Eustress/Distress. In *Ethos*, 2016, Vol. 44, No. 1, p. 68-70.

GRAY, K. L.: Intersecting Oppressions and Online Communities: Examining the Experiences of Women of Color in Xbox Live. In *Information, Communication & Society*, 2012, Vol. 15, No. 3, p. 411-428. ISSN 1369-118X.
HASAN, Y.: Violent Video Games Increase Voice Stress: An Experimental Study. In *Psychology of Popular Media Culture*, 2017, Vol. 6, No. 1, p. 74-81. ISSN 2160-4142.
HASAN, Y., BÈGUE, L., BUSHMAN, B. J.: Violent Video Games Stress People Out and Make Them More Aggressive. In *Aggressive Behavior*, 2012, Vol. 39, No. 1, p. 64-70. ISSN 1098-2337.
CHESS, S., EVANS, N. J., BAINES, J. J.: What Does a Gamer Look Like? Video Games, Advertising, and Diversity. In *Television & New Media*, 2017, Vol. 18, No. 1, p. 37-57. ISSN 1527-4764.
KANE, E. W.: "No Way My Boys Are Going to Be Like That!" Parents' Responses to Children's Gender Nonconformity. In *Gender & Society*, 2006, Vol. 20, No. 2, p. 149-176. ISSN 1552-3977.
KUPRIYANOV, R., ZHDANOV, R.: The Eustress Concept: Problems and Outlooks. In *World Journal of Medical Sciences*, 2014, Vol. 11, No. 2, p. 179-185. ISSN 2330-1341.
LUCAS, K., SHERRY, J. L.: Sex Differences in Video Game Play: A Communication-Based Explanation. In *Communication Research*, 2004, Vol. 31, No. 5, p. 499-523. ISSN 1552-3810.
LUPIEN, S. J. et al.: The Effects of Stress and Stress Hormones on Human Cognition: Implications for The Field of Brain and Cognition. In *Brain and Cognition*, 2007, Vol. 65, No. 3, p. 209-237. ISSN 0278-2626.
MATUD, M. P.: Gender Differences in Stress and Coping Styles. In *Personality and Individual Differences*, 2004, Vol. 37, No. 7, p. 1401-1415. ISSN 0191-8869.
MIHAN, R. et al.: Safer with a Partner: Exploring the Emotional Consequences of Multiplayer Video Gaming. In *Computers in Human Behavior*, 2015, Vol. 44, No. 3, p. 299-304. ISSN 0747-5632.
OHANNESSIAN, C. M.: Video Game Play and Anxiety During Late Adolescence: The Moderating Effects of Gender and Social Context. In *Journal of Affective Disorders*, 2018, Vol. 226, No. 2, p. 216-219. ISSN 0165-0327.
O'SULLIVAN, G.: The Relationship Between Hope, Eustress, Self-Efficacy, and Life Satisfaction Among Undergraduates. In *Social Indicators Research,* 2011, Vol. 101, No. 1, p. 155-172. ISSN 1573-0921.
PINHEIRO, A., PATTA, E., ZAGGIA, J.: Gamification to Expand Awareness About Stress and Its Impacts Within Companies: Gamification Eustress and Distress. In SORT, A., MUÑOZ, J., CORTIZO, J. C. (eds.): *Proceedings of the 2nd International Workshop on Gamification in Health; gHealth'15*. Barcelona : CEUR-WS, 2015, p. 22-31.
PLANTE, C. N. et al.: Video Games as Coping Mechanisms in The Etiology of Video Game Addiction. In *Psychology of Popular Media Culture*, 2019, Vol. 8, No. 4, p. 385-394. ISSN 2160-4142.
RIOT GAMES: *League of Legends*. [digital game]. Los Angeles, CA : Riot Games, 2009.
RUSSONIELLO, C. V., O'BRIEN, K., PARKS, J. M.: The Effectiveness of Casual Video Games in Improving Mood and Decreasing Stress. In *Journal of CyberTherapy & Rehabilitation*, 2009, Vol. 2, No. 1, p. 53-66. ISSN 1784-9934.
SALTER, A., BLODGETT, B.: Hypermasculinity & Dickwolves: The Contentious Role of Women in the New Gaming Public. In *Journal of Broadcasting & Electronic Media*, 2012, Vol. 56, No. 3, p. 401-416. ISSN 1550-6878.
SNODGRASS, J. G. et al.: Culture and the Jitters: Guild Affiliation and Online Gaming Eustress/Distress. In *Ethos*, 2016, Vol. 44, No. 1, p. 50-78. ISSN 1548-1352.
TAYLOR, T. L.: Multiple Pleasures: Women and Online Gaming. In *Convergence*, 2003, Vol. 9, No. 1, p. 21-46. ISSN 1748-7382.
TAYLOR, T. L.: *Raising the Stakes: E-Sports and the Professionalization of Computer Gaming*. Cambridge, MA : MIT Press, 2012.
THOMAS, K. D., LEVENT, R. F.: Does the Endorsement of Traditional Masculinity Ideology Moderate the Relationship Between Exposure to Violent Video Games and Aggression?. In *The Journal of Men's Studies*, 2012, Vol. 20, No. 1, p. 47-56. ISSN 1933-0251.

TOMLINSON, C.: Building a Gamer: Player Preferences and Motivations Across Gender and Genre. In NAKAMURA, A. (ed.): *Proceedings of the 2019 DiGRA International Conference: Game, Play and the Emerging Ludo-Mix*. Kyoto : Digital Games Research Association, 2019, p. 1-12.
VELLA, K., JOHNSON, D., HIDES, L.: Positively Playful: When Videogames Lead to Player Wellbeing. In NACKE, L. E., HARRIGAN, K., RANDALL, N. (eds.): *Gamification '13: Proceedings of the First International Conference on Gameful Design, Research, and Applications.* New York, NY : ACM, 2013, p. 99-102.
VILLANI, D. et al.: Videogames for Emotion Regulation: A Systematic Review. In *Games for Health Journal*, 2018, Vol. 7, No. 2, p. 85-99. ISSN 2161-7856.
WANG, R., WU, M.: Catch Them All: Exploring the Psychological Impact of Playing Pokémon Go. In *Journal of Communication Technology*, 2020, Vol. 3, No. 1, p. 53-72. ISSN 2694-3883.
WHITBOURNE, S. K., ELLENBERG, S., AKIMOTO, K.: Reasons for Playing Casual Video Games and Perceived Benefits Among Adults 18 to 80 Years Old. In *Cyberpsychology, Behavior, and Social Networking*, 2013, Vol. 16, No.12, p. 892-897. ISSN 2152-2715.
YEE, N.: Maps of Digital Desires: Exploring the Topography of Gender and Play in Online Games. In KAFAI, Y. B. et al. (eds.): *Beyond Barbie and Mortal Kombat: New Perspectives on Gender and Gaming*. Cambridge, MA : MIT Press, 2008, p. 83-96.
YEE, N.: The Psychology of Massively Multi-User Online Role-Playing Games: Motivations, Emotional Investment, Relationships, and Problematic Usage. In SCHROEDER, R., AXELSSON, A. (eds.): *Avatars at Work and Play: Collaboration and Interaction in Shared Virtual Environments*. London : Springer-Verlag, 2006, p. 187-207.

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The Gamification of Conspiracy: QAnon as Alternate Reality Game

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ABSTRACT:
This article takes a ludological approach to QAnon and investigates the conspiracy phenomenon as an Alternate Reality Game. Drawing extensively on media reportage of QAnon and reviewing its discussion in the domains of digital culture, media scholarship and game studies, connections between the QAnon conspiracy movement and digital game rhetorics in far-right online spaces are highlighted, with attention to the notions of Gamification and Dark Play. Exploring the intersection of digital game cultures, online conspiracy movements and political extremism, this paper invites scholarly attention to various aspects of QAnon from the fields of games studies and play studies. With the QAnon phenomenon highlighting the significant political impact and import of games culture, this paper shows that the field of ludology has much to offer a range of researchers in interpreting the motivations and meanings of the online communities from which QAnon emerged.

KEY WORDS:
alt-right, alternate reality games, conspiracy, dark play, game studies, post truth, QAnon.

Introduction

QAnon emerged in 2017 as an internet conspiracy theory that evolved into a political movement that attracted many on the American right. Revealing the game mechanics and modes of play that propel QAnon's rise, popularity and engagement, this paper argues that QAnon began as an Alternate Reality Game, and that its playability accounts for some of its affective appeal. As others have already outlined, not only does QAnon resemble an Alternate Reality Game, but the phenomenon both exhibits and invites numerous of modes of ludic interaction, such as Live Action Role Play, Cruel Play, and Dark Play. Through reviews of the existent literature and digital ethnography into internet spaces, this paper seeks to highlight the correspondences between QAnon, Alternate Reality Games, and other elements of online games vernacular and calls for future research into the socio-political impact of participatory conspiracies, far-right politics, and the elements of games and play found within them.

A key question that arises in exploring the emergence and development of QAnon is intentionality. Was it constructed as a political movement, or did it evolve to become one? Lacking certainty as to who authored the Q posts, intentions cannot be accurately divined. However, in analysing the structure and mechanics of QAnon, this paper will outline how it represents a powerful instance of 'gamification', defined as: "using game design elements in non-gaming contexts".[1] The process of gamification often involves applying points systems, levels, and progress bars to non-game activities, but can also comprise implementing ludic narratives, player experiences of flow, or progression to make non-game scenarios appear game-like. The resulting effect should ideally see players navigate through gamified content unhindered by a lack of skill or knowledge. The goal of gamification is to reframe an otherwise uninteresting cause, product, or experience into the affective register of games, thereby rendering it more appealing to a user, thus,

1 DETERDING, S. et al.: Gamification: Using Game-Design Elements in Non-Gaming Contexts. In TAN, D. (ed.): *CHI EA '11: CHI '11 Extended Abstracts on Human Factors in Computing Systems*. New York, NY : ACM, 2011, p. 2425.

inspiring their engagement. In the case of QAnon, the purpose of gamification is to attract and radicalize potential supporters, to challenge progressive ideologies and institutions, and to normalise far-right conspiracies into mainstream political discourse.[2] As such, QAnon might stand as a vivid example of what N. Mahnič has termed 'gamified politics' as a cure for political disenchantment and alienation.[3]

In the growing body of research seeking to understand QAnon, the phenomenon has been studied through multiple and varied academic perspectives. These include QAnon's role in the spread of disinformation,[4] its popularity amongst religious groups,[5] its likeness to a cult,[6] its evolution into a political campaign,[7] its significant risks as an online hate community,[8] a tool for radicalisation,[9] and a terrorist threat.[10] Indeed, much of the literature concerning QAnon explores the toxicity of the movement and the malicious forces propelling it. With that ground well covered, this body of research instead gives focus to its ludic dimensions with particular attention to its origins and status as an Alternate Reality Game, hereafter ARG's. By taking a ludic approach to QAnon, we can trace the game mechanics and playful practices propelling its toxic sentiments, cultures, and actions, and understand how these elements can be projected into broader culture both off and online.

Methodology

Both QAnon and ARGs originate in online spaces. This fieldwork recognises online domains as social, political and cultural spaces[11] in which virtual identities are formed,[12] and meaningful communities are constructed, often with a sense of purpose and belonging.[13] Following in the methodological footsteps of A. Markham, this body

2 DE ZEEUW, D. et al.: Tracing Normiefication. In *First Monday*, 2020, Vol. 25, No. 11. [online]. [2022-05-22]. Available at: <https://doi.org/10.5210/fm.v25i11.10643>.

3 For more information, see: MAHNIČ, N.: Gamification of Politics: Start a New Game. In *Teorija in Praksa,* 2014, Vol. 51, No. 1, p. 143-161.

4 HANNAH, M.: QAnon and the Information Dark Age. In *First Monday*, 2021, Vol. 26, No. 2. [online]. [2021-08-06]. Available at: <https://dx.doi.org/10.5210/fm.v26i2.10868>.

5 PRINISKI, J. H., McCLAY, M., HOLYOAK, K. J.: Rise of QAnon: A Mental Model of Good and Evil Stews in an Echochamber. In FITCH, T. et al. (eds.): *Proceedings of the 43rd Annual Meeting of the Cognitive Science Society: Comparative Cognition–Animal Minds*. Vienna : Vienna Cognitive Science Hub, 2021, p. 1757-1758.

6 ROTHSCHILD, M.: *The Storm Is Upon Us: How QAnon Became a Movement, Cult, and Conspiracy Theory of Everything*. London : Octopus, 2021, p. 60.

7 MARGULIES, B.: *Even If It Wanted to, the Republican Party Can't Stop the Spread of QAnon Conspiracies and Candidates which Support Them.* Released on 8th October 2020. [online]. [2022-05-22]. Available at: <https://blogs.lse.ac.uk/usappblog/2020/10/08/even-if-it-wanted-to-the-republican-party-cant-stop-the-spread-of-qanon-conspiracies-and-candidates-which-support-them/>.; ANWAR, A. et al.: Analyzing QAnon on Twitter in Context of US Elections 2020: Analysis of User Messages and Profiles Using VADER and BERT Topic Modeling. In LEE, J., PEREIRA, G. V., HWANG, S. (eds.): *DG.O'21: DG.O2021: The 22nd Annual International Conference on Digital Government Research*. New York, NY : ACM, p. 82.

8 See also: BLOOM, M., MOSKALENKO, S.: *Pastels and Pedophiles: Inside the Mind of QAnon*. Bloomington, IN : Stanford University Press, 2021.

9 For more information, see: BELLAICHE, J.: QAnon: A Rising Threat to Democracy?. In *The Journal of Intelligence, Conflict, and Warfare*, 2021, Vol. 3, No. 3, p. 162-167.; CRAWFORD, B., KEEN, F.: The Hanau Terrorist Attack: How Race Hate and Conspiracy Theories Are Fueling Global Far-Right Violence. In *CTC Sentinel*, 2020, Vol. 13, No. 3, p. 1-8.

10 DICKSON, E. J.: *The FBI Declared QAnon a Domestic Terrorism Threat — and Conspiracy Theorists Are Psyched*. Released on 2nd August 2019. [online]. [2022-05-22]. Available at: <https://www.rollingstone.com/culture/culture-features/qanon-domestic-terrorism-threat-conspiracy-theory-866288/>.

11 See: MARKHAM, A.: *Life Online: Researching Real Experience in Virtual Space*. Lanham, MD : AltaMira, 1998.

12 For example, see: TURKLE, S.: *Life on the Screen: Identity in the Age of the Internet*. New York, NY : Touchstone, 1997.

13 JONES, S., KUCKER, S.: Computer, the Internet and Virtual Cultures. In LULL, J. (ed.): *Culture in the Internet Communication Age.* London : Routledge, 2001, p. 216.

of research approaches the internet as both a research tool and a site of fieldwork.[14] In exploring the diverse communities that participate in ARGs and QAnon, I do so with the understanding that not all participants of either recognise the nature or motivations of the gamified experiences that they engage with. These often-immersive experiences deliberately hide their ludic status and seek to blur distinctions between reality and fiction. The very ontology of these phenomena is shifting and uncertain.

QAnon is inherently nebulous. It forms and reforms, evolving and adapting according to the desires of its makers and participants. Like a Rorschach blot, what one perceives when viewing QAnon reveals more about the viewer than the thing itself. As observed by M. Rothschild in his study of QAnon, "Cult experts tend to see Q as a cult. Game experts tend to see Q as a game. Cybersecurity experts tend to see Q as a cybersecurity issue. But Q believers see it as a plan to save the world".[15] Not surprisingly, as a games researcher working at the intersection of games, politics, and religion, I cannot help but to approach the complexity of QAnon through a ludic lens. However, I argue this approach is crucial to correctly fathom QAnon's origins, tactics, complexity, and popularity. The mechanical architectures of games and subversive practices of play offer a crucial theoretical framework to understand how conspiracy games like QAnon move from the margins to the mainstream.

This research project began in 2018. Identifying similarities between QAnon and ARGs at that time, I began reviewing QAnon literature and participant comments online. This included Q drops and their interpretation, discussion of QAnon on Twitter and Facebook, the reportage of QAnon in numerous media outlets, and the gradual emergence of academic scholarship into the QAnon phenomenon. My findings are based upon these online texts, and are supported by scholarship in Game Studies with attention to ARGs, gamification, participatory cultures, and dark play. Additionally, I drew on the body of research in the field of Media Studies, Religious Studies, Social and Political Theory, and Conspiracy Culture exploring QAnon in term of online harassment, alt-right politics, terrorism and hate speech. As a result, much of what follows appears as a review of the existent literature.

It must be said at the outset, this paper is not unique in comparing QAnon to ARGs. Numerous media articles, commentators, and game designers cited within have already made this comparison. Yet, there has been atmosphere of reticence to reduce the seriousness of QAnon as being game-like, or as somehow playful. In popular discourse, both play and games are frequently framed as purely childhood activities, enjoyable pastimes, and practices of social, emotional, and physical fulfilment. In uncritically focusing on these aspects alone, the darker sides of play are overlooked.[16] As A. Trammell has reflected, play is not always consensual or constructive – it can equally take on tyrannical and traumatic dimensions.[17] Play is neither inherently good nor bad.

Conversely, there also exists a media tendency to demonise digital games and the cultures that surround them. Such perspectives prove deeply unhelpful as they scapegoat digital games with false generalisations while failing to deal with the real issues at hand. The individuals and communities that engage with digital games are vast and diverse.

14 MARKHAM, A.: Internet Communication as a Tool for Qualitative Research. In SILVERMAN, D. (ed.): *Qualitative research: Theory, Methods, and Practice.* London : SAGE Publishing, 2004, p. 95-119.

15 ROTHSCHILD, M.: *The Storm Is Upon Us: How QAnon Became a Movement, Cult, and Conspiracy Theory of Everything*. London : Octopus, 2021, p. 185.

16 For more information, see: OSGOOD, J., SAKR, M., DE RIJKE, V.: Dark Play in Digital Playscapes. In *Contemporary Issues in Early Childhood*, 2017, Vol. 18, No. 2, p. 109-113.; GRIESHABER, S., McARDLE, F.: *The Trouble with Play*. Maidenhead : Open University Press, 2010.

17 TRAMMELL, A.: Torture, Play, and the Black Experience. In *GAME: The Italian Journal of Game Studies*, 2020, Vol. 9, No. 1, p. 36.

To equate games or their players as either inherently positive or negative is to misunderstand them altogether. There are few totalising things that can be said about games and play, other than that the people who engage in them knowingly and willingly, tend to enjoy doing so.

Whether announced or otherwise, people who engage in conspiracy theories also tend to enjoy doing so. Conspiracies draw on the taboo, the arcane and the occult, often reframing repugnant concepts and poisonous ideologies into mysteries that pique the psyche. Conspiracy fantasies along the lines that powerful elites control governments and the population through high finance and technological manipulation have enjoyed popular appeal for centuries. In numerous cases, such conspiracies been revealed as more than theories alone. Both conspiracies and games tend to bleed into reality. The affective dimensions of these two compelling activities are found at the heart of QAnon.

QAnon

QAnon is a conspiracy theory and political movement. Centred in the US but with proponents internationally, QAnon followers interpret the cryptic online forum messages of an anonymous poster known as 'Q'. Q claims knowledge of a secret cabal of powerful paedophiles and Satanic sex traffickers embedded in the highest levels of global governance. The Q posts began appearing in the 4chan forum in 2017, an online niche renowned for offensive content, but by 2019 the gamified conspiracy had evolved into mainstream internet discourse, leading to increasing numbers of people wholly believing in Q's claims, and their incredulity ultimately ballooned into a real-world political movement in the US and elsewhere. The implausibility of the QAnon conspiracy narrative, and the ease with which it could be disproven did not prevent millions from falling beneath its spell. As such, the QAnon phenomenon presents an instance of a mass delusion worthy of study.

Uniquely, QAnon is not a single conspiracy theory but rather a vast and elaborate mosaic of conspiracy theories. It presents an instance of what M. Barkun has defined as a "super-conspiracy theory"[18] into which a rich spectrum of past, present, and emerging conspiracy theories, and their followers, can be conveniently folded. QAnon draws generously from traditional conspiracy tropes but also remains inclusive of novel paranoid fantasies that have flourished within internet culture.[19] The internet provides a wide variety of epistemic sources and alternate knowledge claims allowing the suspicions of individuals to be confirmed, and outlandish interpretations to "welded into Grand Unified Theories of Everything".[20] QAnon summons, shapes and emboldens this sense of agency, entreating its exponents to "Do The Research" – thereby tailoring the meanings of the QAnon conspiracy theory for oneself. In this way, participation in QAnon closely resembles the co-creative engagement of an ARG.

18 BARKUN, M.: *A Culture of Conspiracy: Apocalyptic Visions in Contemporary America*. Berkeley, CA : University of California Press, 2006, p. 100.

19 CHIA, A. et al.: "Everything is Connected": Networked Conspirituality in New Age Media. In CLARK, L. S. et al. (eds.): *AoIR, The 22nd Annual Conference of the Association of Internet Researchers*. Chicago, IL : *AoIR*, 2021, p. 7-8. [online]. [2022-05-22]. Available at: <https://spir.aoir.org/ojs/index.php/spir/article/view/12093/10485>.

20 KNIGHT, P.: *Conspiracy Culture: From Kennedy to the X-Files*. New York, NY : Routledge, 2000, p. 204.

Alternate Reality Games

ARG's are a form of immersive internet-based mystery that invite online research, narrative speculation, community building, and collective problem-solving.[21] Originating in early online culture at the turn of the millennium, and utilising the real world as a platform, ARG involve clues, puzzles, narrative elements, and opportunities for play across the internet as well as across everyday media and locations.[22] ARGs are essentially epic scale story puzzles that take advantage of the distributed, networked and community building capabilities of the internet.[23] Media theorist H. Jenkins describes ARGs as "stories that unfold across multiple media platforms, with each medium making distinctive contributions to our understanding of the world".[24] For both ARGs and QAnon, the internet serves as the "central binding medium" providing both the technological platform and connective thinking from which each have grown.[25] Straddling offline and online spaces, both ARGs and QAnon appear all encompassing, unsettling distinctions between reality and fiction. As explored by ARG pioneer D. Szulborski, one of the central goals of an ARG is to disguise the fact that it is a game at all.[26] The aim is to provoke in the player a state of epistemological uncertainty in which reality itself falls into question. In this way, QAnon and ARGs both operate on the same affective register.

The experience of playing an ARG is highly immersive. Play typically begins with the discovery of an interesting or unusual clue (an online video or an out-of-place image, object or text) that invites investigation and leads to further clues and connections.[27] In the established terminology of ARGs, these initial connective elements are known as 'trailheads' or 'rabbit holes'.[28] Individuals who go down one of these 'rabbit holes' and enter the game world, proceed by following 'breadcrumbs', (morsels of narrative) or by discovering 'dead drops', (hidden caches of information). By excavating clues and working to uncover the ludic narrative, participants inevitably encounter fellow players caught on the same journey of discovery. Working together, they form communities to solve the puzzles they encounter.

ARGs favour collective and collaborative detective work to progress through the story, each participant contributing with their own skills and expertise.[29] These skills might include programming, translation, or esoteric knowledge but may also involve more subjective aptitudes such as speculation, interpretation and 'apophenia' also called 'patternicity' – the intuitive tendency to find meaningful patterns in random noise, often where no patterns exist whatsoever.[30] As noted by H. Davies and V. Dziekan, these "paranoid

21 ÖRNEBRING, H.: Alternate Reality Gaming and Convergence Culture: The Case of Alias. In *International Journal of Cultural Studies,* 2007, Vol. 10, No. 4, p. 445.

22 DAVIES, H.: Towards an Ethics of Alternate Reality Games. In *Digital Studies/le Champ Numérique*, 2017, Vol. 6, No. 3. [online]. [2022-05-22]. Available at: <https://www.digitalstudies.org/article/id/7306/>.

23 Ibidem.

24 JENKINS, H.: *Convergence Culture: Where Old and New Media Collide*. New York, NY : New York University Press, 2006, p. 95.

25 HARING, P. S.: *How Alternate Reality Gaming Changes Reality.* [Master Thesis]. Amsterdam : Vrije University Amsterdam, 2011, p. 13. [online]. [2022-05-22]. Available at: <http://www.priscillaharing.info/wp-content/uploads/2011/09/How-ARG-changes-reality_Masterthesis_Priscilla_Haring.pdf>.

26 SZULBORSKI, D.: *This Is Not a Game: A Guide to Alternate Reality Gaming.* New York, NY : New-Fiction Publishing, 2005, p. 1-16.

27 For more information, see: VEALE, K.: *Gaming the Dynamics of Online Harassment*. Cham : Palgrave Macmillan, 2020.

28 SZULBORSKI, D.: *This Is Not a Game: A Guide to Alternate Reality Gaming.* New York, NY : New-Fiction Publishing, 2005, p. 47-56.

29 VEALE, K.: *Gaming the Dynamics of Online Harassment*. Cham : Palgrave Macmillan, 2020, p. 50.

30 SHERMER, M.: *Patternicity: Finding Meaningful Patterns in Meaningless Noise*. Released on 1st December 2008. [online]. [2022-05-23]. Available at: <https://www.scientificamerican.com/article/patternicity-finding-meaningful-patterns/>.

hermeneutics are integral to the enigmatic quality of ARGs".[31] Players are encouraged to embrace coincidence to such a degree that any serendipitous occurrence can be being interpreted as part of the game. Along similar lines, M. Montola et al. suggest that "players become paranoid, suspecting that everything relates to a game".[32] Thus, while ARGs encourage discovery, meaning-making and epiphany, these games also intentionally dissolve the line between reality and fiction such that game and quotidian reality become indistinguishable. This is precisely how a phenomenon like QAnon can have begun as a game and then spun out of epistemological control.

Clearly, there are inherent dangers of such liminal play. To ameliorate this, ARGs incorporate a kind of safety guard to let players now that what they are experiencing is a game.[33] This is achieved through a rhetorical disavowal known as the TINAG rhetoric, whereby, through the course of play, the game will announce 'This Is Not a Game' (TINAG). This meta-communicative double-speak signals to experienced ARG players 'this *is* actually a game' without breaking camouflage and thereby highlighting the playfully subversive tone.[34] Although ARG's deliberately seek to conceal or disguise the frame of the game, they generally do so to immerse players, not to deceive them. This is the very purpose of the TINAG rhetoric. It represents a good faith relationship between ARG makers and players that has stood for past two decades.[35] Such declarations were also repeatedly made by the online poster known as Q:

"Everything has meaning.
This is not a game.
Learn to play the game."[36]

But the TINAG rhetorical disavowal is not universally recognised. Situations arise whereby externalised participants, spectators and others without the knowledge or context of ARGs, misrecognise the fictional nature of the game taking place. As a result, in-game elements inevitably become mistaken with actual reality, a situation known as "Dark Play" whereby "intentional confusion or concealment of the frame 'this is play'"[37] leaves some players unaware that they are participating in a game.[38] Dark Play revels in deception and malice echoing what B. Sutton-Smith has previously termed 'cruel play', such as

31 DAVIES, H., DZIEKAN, V.: Paranoia at Play: The Darkest Puzzle and the Elegant Turbulence of Alternate Reality Games. In SCOTT, J. (ed.): *Transdiscourse 2*. Berlin, Boston, MA : De Gruyter, 2016, p. 205.

32 MONTOLA, M., STENROS, J., WAERN, A.: *Pervasive Games Theory and Design*. Burlington, MA : CRC Press, 2009, p. 123.

33 DAVIES, H.: Towards an Ethics of Alternate Reality Games. In *Digital Studies/le Champ Numérique*, 2017, Vol. 6, No. 3. [online]. [2022-05-22]. Available at: <https://www.digitalstudies.org/article/id/7306/>.

34 For more information, see: McGONIGAL, J.: 'This Is Not a Game': Immersive Aesthetics and Collective Play. In MILES, A. (ed.): *MelbourneDAC : 5th International Digital Arts & Culture Conference*. Melbourne : RMIT University, 2003, p. 3-4. [online]. [2022-05-22]. Available at: <https://janemcgonigal.files.wordpress.com/2010/12/mcgonigal-jane-this-is-not-a-game.pdf>.

35 JANES, S.: *Alternate Reality Games: Promotion and Participatory Culture*. Abingdon, New York, NY : Routledge, 2019, p. 16.

36 Remark by the author: The journalist collective Bellingcat has catalogued all of the almost 5000 Qdrops. The stated declaration was a response to a thread no. 592934. See: *Q Research Board*. Released on 9th March 2018. [online]. [2022-05-23]. Available at: <https://archive.ph/mTxtf>.

37 SCHECHNER, R.: *The Future of Ritual: Writings on Culture and Performance*. London, New York, NY : Routledge, 1993, p. 38.

38 For more information, see: MONTOLA, M.: *On the Edge of the Magic Circle: Understanding Role-Playing and Pervasive Games*. [Dissertation Thesis]. Tampere : University of Tampere, 2012. [online]. [2022-05-23]. Available at: <https://trepo.tuni.fi/bitstream/handle/10024/66937/978-951-44-8864-1.pdf?sequence=1&isAllowed=y>.; STENROS, J.: In Defence of a Magic Circle: Understanding Role-Playing and Pervasive Games. In KOSKIMAA, R., SUOMINEN, J. (eds.): *DiGRA Nordic '12: Proceedings of 2012 International DiGRA Nordic Conference*. Tampere : DiGRA, 2012, p. 1-19. [online]. [2022-05-23]. Available at: <http://www.digra.org/wp-content/uploads/digital-library/12168.43543.pdf>.; LINDEROTH, J., MORTENSEN, T. E.: *Dark Play: The Aesthetics of Controversial Playfulness*. New York, NY : Routledge, 2015.

the playful taunts of a bully.[39] Within Dark Play, deceived nonplayers become "essential for the playing to continue".[40] These modes of non-consensual and pernicious play create a safe space for abusers to operate while allowing them to fall back on the alibi of 'I was just playing'. Although these malicious forms of play have not been the historical domain of ARGs, more recently K. Veale has given sustained attention to how "alternate reality games and online harassment...overlap in the way their communities learn both social and technological 'rules,' in order to manipulate them as part of 'playing the game'".[41] Following K. Veale, QAnon appears to be an instance of dark play within a malicious ARG.

Political Game

ARGs have existed for over twenty years and have been used to promote ideas, products and services, or have existed purely for art or entertainment.[42] The specific type of ARG that QAnon presents is unique. While the Q-drops and the narrative fragments they deliver may have begun as an ARG, the experience and its player following appears to have been hijacked for political ends. Berkowitz remarks that the QAnon movement that swept across the United States and elsewhere is almost pure political propaganda[43] and is "[n]either advertising a product, an art project, or an exercise in entertainment". Instead, according to Berkowitz, QAnon constitutes a deliberately crafted experience designed to play on existing discontents and to further lead people "to distrust mainstream media, politicians, and medicine, including COVID-19 vaccination campaigns. It also leads them to antisemitic and racist beliefs".[44] D. Morrison furthers this point showing that QAnon's fervent promotion of a political candidate in Donald Trump renders it "functionally indistinguishable from a professional campaign".[45] D. Morrison draws focus to the "curious specificity" of QAnon's policy agenda – of "attacking the Global Engagement Center – a new body devoted to fighting Russian meddling in elections" and its partially successful goal of convincing millions of people that Donald Trump is "quite literally God's Gift".[46]

QAnon's support of Trump is not simply literal and tactical, but conceptual and strategic. More than lionising Trump in its conspiracy narrative, the social, cultural, and political polarization that QAnon creates, ultimately works in his favour becoming precisely the kind of subversive parapolitics that it purports to oppose. These insights have led some to regard QAnon as entirely political propaganda, a Trump cult, or an attempt to erode democracy. Conspirituality researcher M. Remski casts doubt on the idea that Q is a structured propaganda campaign from any single individual or agency, but instead is "much more akin to a very large, online, ARG with ever morphing rules, objective, and tactics".[47]

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39 See also: SUTTON-SMITH, B.: *The Ambiguity of Play*. Cambridge, MA : Harvard University Press, 1997.

40 SCHECHNER, R.: *The Future of Ritual: Writings on Culture and Performance.* London, New York, NY : Routledge, 1993, p. 38.

41 VEALE, K.: *Gaming the Dynamics of Online Harassment*. Cham : Palgrave Macmillan, 2020, p. 70.

42 JANES, S.: *Alternate Reality Games: Promotion and Participatory Culture*. Abingdon, New York, NY : Routledge, 2019, p. 25-27.

43 BERKOWITZ, R.: *A Game Designer's Analysis of QAnon. Playing with reality*. Released on 30th September 2020. [online]. [2022-05-22]. Available at: <https://medium.com/curiouserinstitute/a-game-designers-analysis-of-qanon-580972548be5>.

44 Ibidem.

45 MORRISON, D.: *Memetic Warfare: The Gamification of Conspiracy Theories, How the Targeted Propaganda of QAnon Weaponised COVID-19.* Released on 24th November 2020. [online]. [2022-05-22]. Available at: <https://bylinetimes.com/2020/11/24/memetic-warfare-how-the-targeted-propaganda-of-qanon-weaponised-covid-19/>.

46 Ibidem.

47 BERES, D. et al.: *55: Games Against Humanity (W/C. Thi Nguyen)*. Released on 10th June 2021. [online]. [2022-05-23]. Available at: <https://conspirituality.net/philosophy/55-games-against-humanity-w-c-thi-nguyen/>.

Likewise, writer K. Daly observes that QAnon echoes multiple immersive game genres, combining them to become an "all-encompassing" and "highly addictive experience".[48] G. Boucher speculates QAnon to be a "crowd sourced conspiracy montage", one that strongly resembles an online fan community, an ARG or a LARP.[49] It seems likely, as speculated in the C. Hoback documentary *Q: Into the Storm*[50], that the phenomenon was repeatedly hijacked by multiple individuals at various times, each shaping the games narrative to their own interests and purposes.

In this way, and as proposed at the outset this paper, it is likely that QAnon may simultaneously be many different things at once: a political campaign, a religious cult, a community, and a game. Its inherent malleability serves to fulfil a variety of purposes and needs. While some appear to be interacting with QAnon with an ironic disposition of play, others appear earnest. Complicating matters further, intents change, becoming sincere, ironic and interchangeable, depending on knowledge and setting. As discussed, and unpacked below, it appears likely that QAnon began as an irreverent game within a reactionary context but was then mistaken for and ultimately shaped into an actual political movement. This argument is made based on the far-right context from which QAnon emerged, but with attention to how the phenomenon evolved to become amorphous and co-creative, offering many different things to many different people.

The Pre-History of QAnon

The context from which QAnon emerged is crucial. As previous scholarship has extensively explored, QAnon, broadly speaking, grew out of the *Gamergate* movement of 2014.[51] Gamergate was a conspiracy theory among a community of predominantly white male digital gamers fearing that a progressive agenda had hijacked digital-gaming culture. This conspiracy theory was in fact true in so much as the pre-2010 discourse of digital game marketing that predominantly targeted white males had become disrupted. Increasingly, diverse players demographics became recognised as major consumer demographics of digital-gaming culture and the industry moved to cater to them. Recognising this shift, many white male gamers felt marginalised from consumer choices they believed were theirs alone. Some of these individuals reacted violently against the diversification of game markets and culture, and what they perceived as the growing 'political correctness' of digital games.[52] As articulated by S. Gomez, this reaction "marked the declaration of the online culture wars and the radicalisation of white men against what they perceive as a threat to the apolitical experience of their "just-for-fun" games".[53]

Throughout 2014, Gamergate festered across the internet, deploying a spectrum of assaults from playful rhetoric's to extreme tactics. Virtual threats became actualised

48 DALY, K.: *How Qanon Works Like a Video Game to Hook People.* Released on 18th August 2020. [online]. [2022-05-23]. Available at: <https://www.axios.com/2020/08/18/qanon-video-game>.

49 SHARPE, M. et al.: *(Con)spirituality Colloquium – Keynote Panel 5: Conspirituality, QAnon and the Far Right, Part 1.* Released on 9th April 2021. [online]. [2022-05-23]. Available at: <https://www.youtube.com/watch?v=qozrAXdIUOY>.

50 HOBACK, C. (Director): *Q: Into the Storm (series)*. [VOD]. Los Angeles : HBO Max, 2021.

51 KAMOLA, I.: QAnon and the Digital Lumpenproletariat. In *New Political Science*, 2021, Vol. 43, No. 2, p. 232-233.; MENDOZA III, F. G.: The End of the World According to Q. In *PANDION: The Osprey Journal of Research and Ideas*, 2021, Vol. 2, No. 1, p. 6-8.

52 RICHARDSON, I., HJORTH, L., DAVIES, H.: *Understanding Games and Games Culture*. London : SAGE Publishing, 2021, p. 59-60.

53 GOMEZ, S.: It Was All Fun and Games: Gamifying Behavioural Control. In RAMBUKKANA, N. (ed.): *Intersectional Automations: Robotics, AI, Algorithms, and Equity*. London : Lexington Books, 2021, p. 66.

leading to violence in the real-world.[54] Ultimately, those assembled beneath the hashtag Gamergate were expelled from numerous online spaces including 4chan. Those who identified as 'Gamergaters' took refuge within the anonymous and unregulated digital enclaves of 4chan and 8chan.

The 4chan site from which later 8chan evolved was already notorious for its gallows humour, grotesque content, and bigoted memes. The reactionary diaspora on 8chan took 4chan's ghoulish irreverence to a new level. Celebrations of racism and extremist incitements to violence were the currency of exchange. The journalist collective Bellingcat has mapped the toxicity of 4chan and 8chan,[55] while Tuters has emphasised their role in shaping QAnon's xenophobic themes and conspiracy rhetoric. T. Thibault explores the semiotic cultures of 4chan and 8chan where every interaction "is oriented to jokes, irony, or complicity", yet the subtext is seldom made explicit.[56] Instead, complicity is taken for granted, rendering the irony or humour impossible for an external viewer or participant to correctly interpret. Within 4chan or 8chan, any comment or concept is, by-default, demarcated as ironic or 'in-game'.

The most outlandish behaviours on both 4chan and 8chan took place in the pol/', forums, short for 'politically incorrect'. Renowned for their white supremacist, misogynistic, paedophilic and transphobic content,[57] but also for its use of digital game vernacular, the pol/ forums cultivated darkly playful, and conspiracy infused politics. The cultural and political contours of QAnon were fully incubated on /pol/ well before Q began posting.[58]

4Chan ARGs and the Emergence of Q

Q was not the first ARG to appear on 4chan. Throughout 2016 and 2017, several similar games featuring secret government officials leaking secrets appeared on the /pol/ message board. These ARGs, now widely understood as precursors to QAnon included *HighlevelAnon*, *FBI-Anon*, *CIA-Anon*, *Meganon*, and *White House Insider Anon*,[59] each operating as prototypes for the QAnon ARG to come. As ARG designer J. Stewardson attests, those engaging with these precursor QAnon experiences knew they weren't real, but they were fun to interact with. When in October 2017, a series of posts appeared on 4chan under the ominous username 'Q', it was clear to the community that QAnon was another

54 KIM, A.: *Gamifying Terror—the Alt-Right's Video Game Infiltration*. Released on 25th February 2021. [online]. [2022-05-24]. Available at: <http://uchicagogate.com/articles/2021/2/25/gamifying-terror-alt-rights-video-game-infiltration/>.

55 *The Making of QAnon: A Crowdsourced Conspiracy*. Released on 7th January 2021. [online]. [2022-05-24]. Available at: <https://www.bellingcat.com/news/americas/2021/01/07/the-making-of-qanon-a-crowdsourced-conspiracy/>.

56 THIBAULT, T.: Trolls, Hackers, Anons Conspiracy Theories in the Peripheries of the Web. In LEONE, M. (ed.): *Lexia. Rivista di semiotica, 23–24 Complotto*. Turin : University of Turin, 2016, p. 392.

57 For more information, see: BAELE, S., BRACE, L., COAN, T.: Variations on a Theme? Comparing 4chan, 8kun, and Other chans' Far-Right "/pol" Boards. In *Perspectives on Terrorism,* 2021, Vol. 15, No. 1, p. 65-80.

58 *The Making of QAnon: A Crowdsourced Conspiracy*. Released on 7th January 2021. [online]. [2022-05-24]. Available at: <https://www.bellingcat.com/news/americas/2021/01/07/the-making-of-qanon-a-crowdsourced-conspiracy/>.

59 BEENE, S., GREER, K.: A Call to Action for Librarians: Countering Conspiracy Theories in the Age of QAnon. In *Journal of Academic Librarianship*, 2021, Vol. 47, No. 1, p. 1. [online]. [2022-05-22]. Available at: <https://www.researchgate.net/publication/346970558_A_Call_to_action_for_librarians_Countering_conspiracy_theories_in_the_age_of_QAnon>.; ZADROZNY, B., COLLINS, B.: *How Three Conspiracy Theorists Took 'Q' and Sparked Qanon*. Released on 14th August 2018. [online]. [2022-05-24]. Available at: <https://www.nbcnews.com/tech/tech-news/how-three-conspiracy-theorists-took-q-sparked-qanon-n900531>.

conspiracy ARG within the forum. As with previous 'Anon-style' games, it featured a White House insider offering high level information leaks, but this time with 'Q level security clearance' providing a name for the game.[60]

The secretive government agent named 'Q' posted to the /pol board providing enigmatic narrative elements in a clipped prose that provided more questions than answers thereby provoking participation and interpretation. According to the game narrative, 'Q' worked directly with US president Donald Trump in a battle against deep state Satan-worshipping paedophiles that had overtaken the government.[61] Q promoted the idea that ordinary people 'Doing The Research' would result in a 'Great Awakening', a collective enlightenment about the corruption of existing power systems. This enlightenment would fuel 'a Storm' – a day of reckoning that would lead to mass arrests and the total overthrow of corrupt governments and deep state elites. For the first month of its existence, QAnon remained just another unremarkable game in the *'Anon'* genre upon the 4chan boards.

This remained the case until November 2017, when two 4chan moderators – taking Q at its word to bring about a "Great Awakening" – reached out to YouTube influencers in a deliberate and co-ordinated effort to promote QAnon to a much larger audience.[62] Taking advantage of QAnons "game-like quality", over the next several months, they would work to make QAnon more "user-friendly", setting up a series of videos, a Reddit community, a detailed cosmology and even a lucrative business based on the 4chan posts of 'Q'.[63] QAnon was extensively discussed and promoted through already successful online venues and began filtering through Facebook networks where older users – lacking the frame-of-reference and the subcultural literacy to comprehend the phenomenon's gameness – took it as real. QAnon had broken out of its game space.

Over the first six months of 2018, QAnon exploded in popularity. Q Reddit Boards gathered 30,000 members,[64] most of which had no idea of Q as part of an elaborate internet game. Reddit soon closed the Q message boards owing to incitements of violence that were posted, but the QAnon game had already transitioned to mainstream internet spaces such as Twitter, YouTube and Facebook, infecting pre-existing groups and good faith operators with its lurid conspiracies passed off as fact. J. Klein has uncovered how makers and players from the ARG community were also being channelled into QAnon spaces[65] suggesting that not all participants were unaware of its status as a game. M. Tuters posits that the intention behind popularising and mainstreaming QAnon was twofold: it cleansed the racist, misogynist, or otherwise bigoted QAnon content associated from its 4chan origins, while also bringing a new audience of "normies" into extreme right online venues and agendas.

60 Remark by the author: 'Q Clearance' is actually a Department of Energy term and has no relation to security clearance in the White House.

61 ZADROZNY, B., COLLINS, B.: *How Three Conspiracy Theorists Took 'Q' and Sparked Qanon*. Released on 14th August 2018. [online]. [2022-05-24]. Available at: <https://www.nbcnews.com/tech/tech-news/how-three-conspiracy-theorists-took-q-sparked-qanon-n900531>.; DE ZEEUW, D. et al.: Tracing Normiefication. In *First Monday*, 2020, Vol. 25, No. 11. [online]. [2022-05-22]. Available at: <https://doi.org/10.5210/fm.v25i11.10643>.

62 ZADROZNY, B., COLLINS, B.: *How Three Conspiracy Theorists Took 'Q' and Sparked Qanon*. Released on 14th August 2018. [online]. [2022-05-24]. Available at: <https://www.nbcnews.com/tech/tech-news/how-three-conspiracy-theorists-took-q-sparked-qanon-n900531>.

63 Ibidem.

64 BEENE, S., GREER, K.: A Call to Action for Librarians: Countering Conspiracy Theories in the Age of QAnon. In *Journal of Academic Librarianship*, 2021, Vol. 47, No. 1, p. 1. [online]. [2022-05-22]. Available at: <https://www.researchgate.net/publication/346970558_A_Call_to_action_for_librarians_Countering_conspiracy_theories_in_the_age_of_QAnon>.

65 KLEIN, J.: *How This Obscure, Blockchain-Based Site Built a Playground for QAnon to Run Rampant on*. Released on 28th October 2021. [online]. [2021-10-28]. Available at: <https://www.dailydot.com/debug/qanon-steemit/>.

M. Tuters meticulously charts the appearance of the Q drops that began on 4chan, transitioned to 8chan,[66] then, following the revocation of 8chan's hosting due to the site's association with the 2019 Christchurch mass shooting, began appearing on 8chan's successor 8kun.[67] However, by this stage, most QAnon followers were not adhering to the Q drops, but instead were following different versions of the Q narrative as formed and reformed by various so-called 'bakers' – QAnon evangelists, interpreters and players that decoded the innuendo of the Q drops for consumption by a mass audience. Each of these bakers, through their subjective interpretation of the Q drops, becomes a co-creator of the QAnon plot, as well as a promotor through disseminating their messages across thousands of Q podcasts and YouTube channels.[68]

By 2019, the efforts of QAnon evangelists to push the game narrative were no longer needed. Recommendation engines of social media algorithms were doing it for them. Millions of people had become caught-up in the lure and momentum of the internet juggernaut that QAnon had come to represent. Online QAnon communities surged with discussions as to which Hollywood actors, business magnates, medical experts, and democratic politicians lived sinister double lives as satanic paedophiles.

Alternate Realities and Political Games

QAnon is not the first instance of a 4chan conspiracy fiction spilling into reality. The incident known as 'Pizzagate', a key thematic precursor to QAnon, represents another well-known example. Pizzagate is a conspiracy theory that emerged in the lead-up to Donald Trump's 2016 election win. The debunked theory originating in 4chan alleged involvement of high-level democrats in a child sex and smuggling ring from the basement of a pizza restaurant. To those familiar with 4chan culture, Pizzagate was always recognised as a joke.[69] It would have remained as such had it not escaped its 4chan context to be swallowed whole as truth by many in the mainstream. Pizzagate should have been easily recognisable as fantasy, debunked by basic facts and common sense. But as correctly noted by D. Beran, "in a post-fact world, in which conspiracy was more fun and useful than reality", Pizzagate went viral and was widely misperceived as real.[70] Further destabilising reality and fiction in mediated environments was D. Trump's formation of 'alternative facts' in 2017. This saw Internet fringe theories embraced at the highest level of US government. Alternative realities had gone mainstream.

Although D. Trump never fully endorsed QAnon, he frequently retweeted QAnon adherents; refused to condemn the conspiracy theory; and praised its followers for their support.[71] J. Tollefson points to debate in the conspiracy-theory research community over whether Trump had channelled people into QAnon, or whether he just emboldened

66 TUTERS, M.: *The Birth of QAnon: On How 4chan Invents a Conspiracy Theory*. Released on 9th July 2020. [online]. [2022-05-24]. Available at: <https://oilab.eu/the-birth-of-qanon-on-how-4chan-invents-a-conspiracy-theory/>.

67 GLASER, A.: *Where 8channers Went After 8chan.* Released on 11th November 2019. [online]. [2022-05-24]. Available at: <https://slate.com/technology/2019/11/8chan-8kun-white-supremacists-telegram-discord-facebook.html>.

68 ZUCKERMAN, E.: QAnon and the Emergence of the Unreal. In *Journal of Design and Science*, 2019, Vol. 7, No. 6. [online]. [2022-05-25]. Available at: <https://jods.mitpress.mit.edu/pub/tliexqdu/release/4>.

69 BERAN, D.: *It Came From Something Awful: How A Toxic Troll Army Accidentally Memed Donald Trump into Office.* New York, NY : All Points Books, 2019, p. 219-221.

70 Ibidem, p. 219.

71 TOLLEFSON, J.: Tracking QAnon: How Trump Turned Conspiracy-Theory Research Upside Down. In *Nature*, 2021, Vol. 590, No. 7845, p. 192-193.

its believers. Eitherway, QAnon created a co-creative interplay between right-wing media and their audiences to playfully concoct false narratives. As noted by internet researcher K. Starbird: "Social media becomes a testing ground for ideas that then gain momentum and are often picked up by conservative media outlets such as Fox News".[72] The result was an ironic yet extremist rhetoric across a nebulous cultural milieu of establishment conservative media and far-right digital spaces. The success of QAnon, deliberate or otherwise, was in mobilizing Trump's political base – and radicalizing the broader Republican Party.[73]

QAnon as ARG

For the many observers in the international community of ARG designers, makers, and players, multiple elements of QAnon were deeply familiar. Several prominent ARG designers spoke out about QAnon, warning of its dangers. R. Berkowitz, a maker of ARGs and interactive theatre, states "When I saw QAnon, I knew exactly what it was and what it was doing. I had seen it before. I had almost built it before".[74] R. Berkowitz draws attention to QAnon's use of ARG nomenclature and techniques such as 'rabbit holes', 'trail heads', 'drops', 'breadcrumbs', 'puzzles', and the encouragement of apophenic hermeneutics filtered through a growing online community to solve them. Seasoned transmedia artist, writer, and ARG creator J. Matheny notes the close resemblance of QAnon to ARGs, claiming that some ARG players had already appeared in recent conspiracy movements, including Gamergate, Pizzagate, and QAnon. For J. Matheny, QAnon emerges at the confluence of political religious fundamentalism, toxic gaming communities and conspiracy culture forming what he terms "dark ARGs".[75]

Prominent ARG pioneers D. Hon and A. Hon have done much to elucidate the analogies between ARGs and QAnon.[76] Like R. Berkowitz and J. Matheny, A. Hon professes having felt a "shock of recognition" at witnessing the emergence of QAnon, stating the experience was, from the outset "behaving precisely like an alternate reality game".[77] Likewise, for ARG veteran designer J. Stewartson, the parallels were clear. J. Stewartson identifies QAnon as near identical to *Live Action Role-Playing games* (LARPs) – ARG like experiences where players perform as in-game characters in the real world. J. Stewartson theorises that anyone familiar with LARPs "will recognise the gaming elements of QAnon".[78] Author, Daniel Morrison, also identifies uncanny similarities between QAnon and other online political LARPs, concluding "when we look under the hood [QAnon] is essentially an elaborate game.[79]

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72 TOLLEFSON, J.: Tracking QAnon: How Trump Turned Conspiracy-Theory Research Upside Down. In *Nature*, 2021, Vol. 590, No. 7845, p. 193.

73 Ibidem.

74 BERKOWITZ, R.: *A Game Designer's Analysis of QAnon. Playing with reality.* Released on 30th September 2020. [online]. [2022-05-22]. Available at: <https://medium.com/curiouserinstitute/a-game-designers-analysis-of-qanon-580972548be5>.

75 MATHENY, J.: *ARG Pioneer Joseph Matheny on the Counterculture's Hijacking from Corporatization to QAnon.* Released on 5th August 2019. [online]. [2022-05-23]. Available at: <https://parallaxviews.podbean.com/e/ep92/>.

76 HON, A.: *What ARGs Can Teach Us About QAnon.* Released on 2nd August 2020. [online]. [2022-05-24]. Available at: <https://mssv.net/2020/08/02/what-args-can-teach-us-about-qanon>.; HON, D.: *QAnon looks like an alternate reality game*. Released on 3rd May 2019. [online]. [2020-08-06]. Available at: <https://danhon.substack.com/p/qanon-looks-like-an-alternate-reality>.

77 HON, A.: *What ARGs Can Teach Us About QAnon.* Released on 2nd August 2020. [online]. [2022-05-24]. Available at: <https://mssv.net/2020/08/02/what-args-can-teach-us-about-qanon>.

78 KAMINSKA, I.: *Is QAnon a Game Gone Wrong? | FT Film*. Released on 16th October 2020. [online]. [2022-05-24]. Available at: <https://www.youtube.com/watch?v=-4vb6UWhf3o>.

79 MORRISON, D.: *Memetic Warfare: The Gamification of Conspiracy Theories, How the Targeted Propaganda of QAnon Weaponised COVID-19.* Released on 24th November 2020. [online]. [2022-05-22]. Available at: <https://bylinetimes.com/2020/11/24/memetic-warfare-how-the-targeted-propaganda-of-qanon-weaponised-covid-19/>.

Even for scholars well outside of the ARG development community, resonant comparisons were made. D. De Zeeuw and colleagues note that within the 4chan forums from which QAnon emerged, the notion of 'Live Action Role Play' is detached from its game origins instead coming to denote the ironic trolling of 'playing' at politics.[80] M. Tuters has likewise shown that self-identified 'anons' within the chans professed to be merely 'LARPing'[81] while A. Vogelgesang suggests that "[i]n QAnon one can find elements of both LARPs and ARGs combining to create a new form".[82] For Philosopher G. Boucher, the affinities of QAnon to an ARG or LARP are not only uncanny, but are likely genetic and certainly structural.[83]

Participatory Conspiracies and Far-Right Games

Whether QAnon was designed for this purpose or evolved into it remains contested. But undeniably, the politics and tactics found in QAnon represent an ongoing effort by reactionary groups to tap into the aesthetics and communities of digital games to popularise extremist agendas. A. Kamenetz reports on the right-wing hate groups priming digital game players by echoing into the nationalist overtones and racist undercurrents present in militarised games they play.[84] T. Bart argues that the extremist communities within 4chan and 8chan often make use of game-like elements, memetic warfare and other vernacular practices to create a breeding ground of dangerous digital extremism.[85] M. Condis identifies the rhetorical strategies of neo-Nazis who target online gamers for recruitment by attempting to reconfigure their beliefs, desires, and fears grooming them into a white supremacist worldview.[86] In these ways, QAnon demonstrates how the transgressive appeal of games culture has been weaponized and gamified to promote what Parham has articulated as "toxic fandom".[87] Game communities represent recruitment domains for far-right political movements by honing the rhetoric of the digital game vernacular of disenchanted white males.[88]

Yet the game does not appeal directly to learning participants alone. The playful mode of forensic fandom that QAnon promotes enables a kind of crowd sourced conspiracy theory,[89] attracting people who, according to one former QAnon follower become 'united by

80 DE ZEEUW, D. et al.: Tracing Normiefication. In *First Monday*, 2020, Vol. 25, No. 11. [online]. [2022-05-22]. Available at: <https://doi.org/10.5210/fm.v25i11.10643>.

81 TUTERS, M.: LARPing & Liberal Tears: Irony, Belief and Idiocy in the Deep Vernacular Web. In FIELITZ, M., THURSTON, N. (eds.): *Post-Digital Cultures of the Far Right: Online Actions and Offline Consequences in Europe and the US*. Bielefeld : Verlag, 2019, p. 37-41.

82 *News: This Is Not a Game at MMF MMF MMXXII*. Released on 20th March 2022. [online]. [2022-05-30]. Available at: <https://milanmachinimafestival.org/blog/2022/3/20/news-this-is-not-a-game-at-mmf-mmf-mmxxii>.

83 SHARPE, M. et al.: *(Con)spirituality Colloquium – Keynote Panel 5: Conspirituality, QAnon and the Far Right, Part 1*. Released on 9th April 2021. [online]. [2022-05-23]. Available at: <https://www.youtube.com/watch?v=qozrAXdIUOY>.

84 KAMENETZ, A.: *Right-Wing Hate Groups Are Recruiting Video Gamers*. Released on 5th November 2018. [online]. [2022-05-25]. Available at: <https://www.npr.org/2018/11/05/660642531/right-wing-hate-groups-are-recruiting-video-gamers>.

85 BART, T.: *The Gamification of 'Lone Wolf' Terrorism on 4chan and 8chan.* Released on 21st January 2021. [online]. [2022-05-25]. Available at: <https://oilab.eu/the-gamification-of-lone-wolf-terrorism-on-4chan-and-8chan/>.

86 See: CONDIS, M.: Hateful Games: Why White Supremacist Recruiters Target Gamers. In REYMAN, J., SPARBY, E. M. (eds.): *Digital Ethics*. London, New York, NY : Routledge 2019, p. 143-159.

87 PARHAM, J.: *The Ultimate Toxic Fandom Lives in Trumpworld.* Released on 23rd July 2018. [online]. [2022-05-23]. Available at: <https://www.wired.com/story/trump-fandom/>.

88 WILSON, J.: *Hiding in Plain Sight: How the 'Alt-Right' Is Weaponizing Irony to Spread Fascism.* Released on 23rd May 2017. [online]. [2022-05-25]. Available at: <http://www.theguardian.com/technology/2017/may/23/alt-right-online-humor-as-a-weapon-facism>.

89 MITTELL, J.: *Forensic Fandom and the Drillable Text.* [online]. [2022-05-23]. Available at: <https://spreadablemedia.org/essays/mittell/index.html#.YOgcXS0Roac>.

a shared culture of distrust toward institutions and a do-it-yourself approach to conspiracy theories".[90] Moreover, not all those engaged with QAnon were politically disenfranchised or conspiracists. A. Chang's analysis of QAnon enthusiasts on Reddit found that "most participants are relatively casual conspiracy theorists that participated for the fun of the immersive game and the community".[91] For the QAnon Anonymous podcast, this gamified conspiracy is best understood as a fan fiction – as "an improvisational game" within the genre of "decentralized storytelling" the in which players compete, "looking for an interpretation that will go viral within the QAnon community".[92] In this way, QAnon bakers and adherents are simply robust fan communities similar to other transmedia franchises such as *Star Wars*, the *Marvel Universe* or *Harry Potter*. Along similar lines, G. Boucher compares QAnon to fan communities in which membership hinges on worthy interpretation of the canonical text, a shared activity that rewards participants with feelings of agency, belonging and well-being. Because QAnon's cosmology is so supple, varied, and diffuse, it is easily shaped into whatever individuals desire it to be without destabilising the broad narrative. In this way, QAnon taps into contemporary consumption practices and logics within the online world.

A driving appeal of QAnon is the of collaboration between strangers to unpick the mystery of a conspiracy. Within the field of ARGs these dynamic communities of discovery are referred to "collective detectives"[93] – individuals assembled to cooperatively decode puzzles, contribute theories, or speculate solutions. In findings that are applicable to both ARGs and QAnon, S. Janes identifies the emergence of ARGs as evidence that content makers were developing tactics for responding to higher demands for audience agency and narrative complexity.[94] S. Aupers has similarly shown how conspiracy theorists in online environments are, in essence "(inter)active audiences involved in the decoding of mass media texts to, simultaneously, produce their theories".[95] Author W. Kirn identifies Q as having mastered the narrative logic of on the internet: "The audience for internet narratives doesn't want to read, it wants to write. It doesn't want answers provided; it wants to search for them." As noted by E. Zucherman, Q's literary style doesn't provide answers but questions. Like an ARG, it compels participants to fill in the narrative blanks in a co-creative process.[96]

The emergence of ARGs at the turn of the millennium occurred against a backdrop of paradigm shifts in the entertainment industry that saw prosumers, hackers, modders and DIY content makers, become central to the nature of networked information and entertainment.[97] Once a fringe phenomenon, QAnon signals the mainstreaming of the ARG form. This participatory shift has not only seen fan cultures become central to the production and consumption of fictional texts, but more broadly, government agencies, news services, and other hegemonies of 'factual' information have become superseded by participatory elements such as the so-named wisdom of crowds, the hivemind, and

90 JADEJA, J., CARRIER, A.: *I Left QAnon in 2018. But I'm Still Not Free*. Released on 12th November 2021. [online]. [2022-05-24]. Available at: <https://www.politico.com/news/magazine/2021/12/11/q-anon-movement-former-believer-523972>.

91 CHANG, A.: *We Analyzed Every Qanon Post on Reddit: Here's Who QAnon Supporters Actually Are*. Released on 8th August 2018. [online]. [2022-05-23]. Available at: <https://www.vox.com/2018/8/8/17657800/qanon-reddit-conspiracy-data>.

92 *Episode 66: CICADA 3301*. Released on 17th November 2019. [online]. [2022-05-24]. Available at: <https://www.stitcher.com/show/qanon-anonymous/episode/episode-66-cicada-3301-65329983>.

93 WATSON, J.: Games Beyond the ARG. In GARCIA, A., NIEMEYER, G. (eds).: *Alternate Reality Games and the Cusp of Digital Gameplay*. London : Bloomsbury Publishing, 2017, p. 193.

94 JANES, S.: *Alternate Reality Games: Promotion and Participatory Culture*. Abingdon, New York, NY : Routledge, 2019, p. 18.

95 AUPERS, S.: Decoding Mass Media/Encoding Conspiracy Theory. In BUTTER, M., KNIGHT, P. (eds.): *Routledge Handbook of Conspiracy Theories*. Abingdon : Routledge, 2020, p. 470.

96 ZUCKERMAN, E.: QAnon and the Emergence of the Unreal. In *Journal of Design and Science*, 2019, Vol. 7, No. 6. [online]. [2022-05-25]. Available at: <https://jods.mitpress.mit.edu/pub/tliexqdu/release/4>.

97 For more information, see: JOHNSON, M.: Deep Play and Dark Play in Contemporary Cinema. In *New Review of Film and Television Studies,* 2019, Vol. 17, No. 4, p. 405-422.

citizen journalism. The aesthetics and structure of ARGs is reflected in the nonlinear networked logics and fragmented sensemaking that H. Jenkins has analysed as 'convergence culture'.[98] Although these participatory paradigms have afforded unprecedented levels of audience agency, they also destabilised consensus notions of reality.

Conclusion

The January 6th, 2021, QAnon adherents stormed the US capital, destroying federal offices and clashing with security. For a moment, the incident teetered as a historical hinge point from which vastly alternate realities are possible to imagine. The attack on the capital resulted in six deaths and brought the dangerous potential of QAnon into sharp relief. In the wake of these events, the need to interrogate QAnon and its appeal from multiple perspectives became all too clear.

Tracing the evolution of QAnon from an obscure ARG from the deep vernacular web to its ultimate manifestation as a mainstream political movement, this paper has highlighted the social and political impact and import of games culture to QAnon's emergence and spread. As detailed here, QAnon was extensively shaped and moulded through communities of participation and promotion, becoming different things to many people. Yet its ludic provenance and mechanics evidence its enduring status as an elaborate game. Researchers will benefit from approaching it as such in several ways. The study of ARGs and other aspects of popular games culture may offer insights into the appeal and spread of similar future gamified experiences, providing possibilities for countering their impacts. Former QAnon adherents might also find affinities in the experiences of ARG participants recovering from immersion in game worlds.[99] Such anecdotes can be found in ARG designer and researcher J. McGonigal's discussion of the lingering effects of ARGs".[100] Finally, comprehending the ludic origins and context of QAnon brings to the fore questions concerning the ethics of fake news, conspiracy theories and alternative facts masquerading as either reality or immersive mediated experiences. Such questions invite the development of new frameworks for critiquing gamified phenomena, especially within propagandic political contexts.

Having connected QAnon to the domain of games and play, it is important to clarify that its popularity exceeds simple immersion in a game narrative. The mass delusion QAnon provoked occurs against a broader backdrop of disenchantment with mainstream belief systems, politics, and reality. QAnon afforded participants more than ludic engagement but provided affective sensations of involvement in a quasi-religious community. Moreover, QAnon was conjured and shaped by multiple competing and opportunistic forces: online trolling, alt-right recruitment, political opportunism, recommendation algorithms, the social media rewarding of polarisation, each propelled by nihilistic politics, predatory capitalism, cultic rhetoric and modes of play.

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98 For more information, see: JENKINS, H.: *Convergence Culture: Where Old and New Media Collide*. London, New York, NY : New York University Press, 2006.

99 Remark by the author: M. Rothschild's *The Storm Is Upon Us* includes a chapter on how to rescue your loved ones from their immersion in QAnon conspiratorial thinking while M. Bloom and S. Moskalenko's *Pastels and Paedophiles: Inside the Mind of QAnon* devotes a chapter to recovery titled *Life After Q*. Within the Reddit community of *QAnon Casualties,* former participants post stories of returning to reality in order to assist others on the same journey. Meanwhile, the *ReQovery* forum supports ex-QAnon believers return to their lives. See: ROTHSCHILD, M.: *The Storm Is Upon Us: How QAnon Became a Movement, Cult, and Conspiracy Theory of Everything*. London : Octopus, 2021.

100 McGONIGAL, J.: 'ThisIsNotaGame': ImmersiveAestheticsandCollectivePlay. In MILES, A. (ed.): *MelbourneDAC: 5th International Digital Arts & Culture Conference*. Melbourne : RMIT University, 2003, p. 3-4. [online]. [2022-05-22]. Available at: <https://janemcgonigal.files.wordpress.com/2010/12/mcgonigal-jane-this-is-not-a-game.pdf>.

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BIBLIOGRAPHY

ANWAR, A. et al.: Analyzing QAnon on Twitter in Context of US Elections 2020: Analysis of User Messages and Profiles Using VADER and BERT Topic Modeling. In LEE, J., PEREIRA, G. V., HWANG, S. (eds.): *DG.O'21: DG.O2021: The 22nd Annual International Conference on Digital Government Research*. New York, NY : ACM, p. 82-88.

AUPERS, S.: Decoding Mass Media/Encoding Conspiracy Theory. In BUTTER, M., KNIGHT, P. (eds.): *Routledge Handbook of Conspiracy Theories*. Abingdon : Routledge, 2020, p. 469-482.

BAELE, S., BRACE, L., COAN, T.: Variations on a Theme? Comparing 4chan, 8kun, and Other chans' Far-Right "/pol" Boards. In *Perspectives on Terrorism,* 2021, Vol. 15, No. 1, p. 65-80. ISSN 2334-3745.

BARKUN, M.: *A Culture of Conspiracy: Apocalyptic Visions in Contemporary America*. Berkeley, CA : University of California Press, 2006.

BART, T.: *The Gamification of 'Lone Wolf' Terrorism on 4chan and 8chan.* Released on 21st January 2021. [online]. [2022-05-25]. Available at: <https://oilab.eu/the-gamification-of-lone-wolf-terrorism-on-4chan-and-8chan/>.

BEENE, S., GREER, K.: A Call to Action for Librarians: Countering Conspiracy Theories in the Age of QAnon. In *Journal of Academic Librarianship*, 2021, Vol. 47, No. 1, p. 1-8. ISSN 0099-1333. [online]. [2022-05-22]. Available at: <https://www.researchgate.net/publication/346970558_A_Call_to_action_for_librarians_Countering_conspiracy_theories_in_the_age_of_QAnon>.

BELLAICHE, J.: QAnon: A Rising Threat to Democracy?. In *The Journal of Intelligence, Conflict, and Warfare*, 2021, Vol. 3, No. 3, p. 162-167. ISSN 2561-8229.

BERAN, D.: *It Came From Something Awful: How a Toxic Troll Army Accidentally Memed Donald Trump into Office.* New York, NY : All Points Books, 2019.

BERES, D. et al.: *55: Games Against Humanity (W/C. Thi Nguyen)*. Released on 10th June 2021. [online]. [2022-05-23]. Available at: <https://conspirituality.net/philosophy/55-games-against-humanity-w-c-thi-nguyen/>.

BERKOWITZ, R.: *A Game Designer's Analysis of QAnon. Playing with reality.* Released on 30th September 2020. [online]. [2022-05-22]. Available at: <https://medium.com/curiouserinstitute/a-game-designers-analysis-of-qanon-580972548be5>.

BLOOM, M., MOSKALENKO, S.: *Pastels and Pedophiles: Inside the Mind of QAnon*. Bloomington, IN : Stanford University Press, 2021.

CONDIS, M.: Hateful Games: Why White Supremacist Recruiters Target Gamers. In REYMAN, J., SPARBY, E. M. (eds.): *Digital Ethics*. London, New York, NY : Routledge 2019, p. 143-159.

CRAWFORD, B., KEEN, F.: The Hanau Terrorist Attack: How Race Hate and Conspiracy Theories Are Fueling Global Far-Right Violence. In *CTC Sentinel*, 2020, Vol. 13, No. 3, p. 1-8. ISSN N/A.

DALY, K.: *How Qanon Works Like a Video Game to Hook People.* Released on 18th August 2020. [online]. [2022-05-23]. Available at: <https://www.axios.com/2020/08/18/qanon-video-game>.

DAVIES, H.: Towards an Ethics of Alternate Reality Games. In *Digital Studies/le Champ Numérique*, 2017, Vol. 6, No. 3. ISSN 1918-3666. [online]. [2022-05-22]. Available at: <https://www.digitalstudies.org/article/id/7306/>.

DAVIES, H., DZIEKAN, V.: Paranoia at Play: The Darkest Puzzle and the Elegant Turbulence of Alternate Reality Games. In SCOTT, J. (ed.): *Transdiscourse 2*. Berlin, Boston, MA : De Gruyter, 2016, p. 201-216.

DE ZEEUW, D. et al.: Tracing Normiefication. In *First Monday*, 2020, Vol. 25, No. 11. ISSN 1396-0466. [online]. [2022-05-22]. Available at: <https://doi.org/10.5210/fm.v25i11.10643>.

DETERDING, S. et al.: Gamification: Using Game-Design Elements in Non-Gaming Contexts. In TAN, D. (ed.): *CHI EA '11: CHI '11 Extended Abstracts on Human Factors in Computing Systems*. New York, NY : ACM, 2011, p. 2425-2428.

DICKSON, E. J.: *The FBI Declared QAnon a Domestic Terrorism Threat — and Conspiracy Theorists Are Psyched*. Released on 2nd August 2019. [online]. [2022-05-22]. Available at: <https://www.rollingstone.com/culture/culture-features/qanon-domestic-terrorism-threat-conspiracy-theory-866288/>.
Episode 66: CICADA 3301. Released on 17th November 2019. [online]. [2022-05-24]. Available at: <https://www.stitcher.com/show/qanon-anonymous/episode/episode-66-cicada-3301-65329983>.
GLASER, A.: *Where 8channers Went After 8chan.* Released on 11th November 2019. [online]. [2022-05-24]. Available at: <https://slate.com/technology/2019/11/8chan-8kun-white-supremacists-telegram-discord-facebook.html>.
GOMEZ, S.: It Was All Fun and Games: Gamifying Behavioural Control. In RAMBUKKANA, N. (ed.): *Intersectional Automations: Robotics, AI, Algorithms, and Equity*. London : Lexington Books, 2021, p. 59-76.
GRIESHABER, S., McARDLE, F.: *The Trouble with Play*. Maidenhead : Open University Press, 2010.
HANNAH, M.: QAnon and the Information Dark Age. In *First Monday*, 2021, Vol. 26, No. 2. ISSN 1396-0466. [online]. [2021-08-06]. Available at: <https://dx.doi.org/10.5210/fm.v26i2.10868>.
HARING, P. S.: *How Alternate Reality Gaming Changes Reality.* [Master Thesis]. Amsterdam : Vrije University Amsterdam, 2011. [online]. [2022-05-22]. Available at: <http://www.priscillaharing.info/wp-content/uploads/2011/09/How-ARG-changes-reality_Masterthesis_Priscilla_Haring.pdf>.
HOBACK, C. (Director): *Q: Into the Storm (series)*. [VOD]. Los Angeles : HBO Max, 2021.
HON, A.: *What ARGs Can Teach Us About QAnon.* Released on 2nd August 2020. [online]. [2022-05-24]. Available at: <https://mssv.net/2020/08/02/what-args-can-teach-us-about-qanon>.
HON, D.: *QAnon looks like an alternate reality game*. Released on 3rd May 2019. [online]. [2020-08-06]. Available at: <https://danhon.substack.com/p/qanon-looks-like-an-alternate-reality>.
CHANG, A.: *We Analyzed Every Qanon Post on Reddit: Here's Who QAnon Supporters Actually Are*. Released on 8th August 2018. [online]. [2022-05-23]. Available at: <https://www.vox.com/2018/8/8/17657800/qanon-reddit-conspiracy-data>.
CHIA, A. et al.: "Everything is Connected": Networked Conspirituality in New Age Media. In CLARK, L. S. et al. (eds.): *AoIR, The 22nd Annual Conference of the Association of Internet Researchers*. Chicago, IL : *AoIR*, 2021, p. 1-16. [online]. [2022-05-22]. Available at: <https://spir.aoir.org/ojs/index.php/spir/article/view/12093/10485>.
JADEJA, J., CARRIER, A.: *I Left QAnon in 2018. But I'm Still Not Free*. Released on 12th November 2021. [online]. [2022-05-24]. Available at: <https://www.politico.com/news/magazine/2021/12/11/q-anon-movement-former-believer-523972>.
JANES, S.: *Alternate Reality Games: Promotion and Participatory Culture*. Abingdon, New York, NY : Routledge, 2019.
JENKINS, H.: *Convergence Culture: Where Old and New Media Collide*. New York, NY : New York University Press, 2008.
JOHNSON, M.: Deep Play and Dark Play in Contemporary Cinema. In *New Review of Film and Television Studies,* 2019, Vol. 17, No. 4, p. 405-422. ISSN 1740-0309.
JONES, S., KUCKER, S.: Computer, the Internet and Virtual Cultures. In LULL, J. (ed.): *Culture in the Internet Communication Age.* London : Routledge, 2001, p. 212-225.
KAMENETZ, A.: *Right-Wing Hate Groups Are Recruiting Video Gamers*. Released on 5th November 2018. [online]. [2022-05-25]. Available at: <https://www.npr.org/2018/11/05/660642531/right-wing-hate-groups-are-recruiting-video-gamers>.
KAMINSKA, I.: *Is QAnon a Game Gone Wrong?* | *FT Film*. Released on 16th October 2020. [online]. [2022-05-24]. Available at: <https://www.youtube.com/watch?v=-4vb6UWhf3o>.
KAMOLA, I.: QAnon and the Digital Lumpenproletariat. In *New Political Science*, 2021, Vol. 43, No. 2, p. 231-234. ISSN 0739-3148.
KIM, A.: *Gamifying Terror—the Alt-Right's Video Game Infiltration*. Released on 25th February 2021. [online]. [2022-05-24]. Available at: <http://uchicagogate.com/articles/2021/2/25/gamifying-terror-alt-rights-video-game-infiltration/>.

KLEIN, J.: *How This Obscure, Blockchain-Based Site Built a Playground for QAnon to Run Rampant on*. Released on 28th October 2021. [online]. [2021-10-28]. Available at: <https://www.dailydot.com/debug/qanon-steemit/>.
KNIGHT, P.: *Conspiracy Culture: From Kennedy to the X-Files*. New York, NY : Routledge, 2000.
LINDEROTH, J., MORTENSEN, T. E.: *Dark Play: The Aesthetics of Controversial Playfulness*. New York, NY : Routledge, 2015.
MAHNIČ, N.: Gamification of Politics: Start a New Game. In *Teorija in Praksa,* 2014, Vol. 51, No. 1, p. 143-161. ISSN 0040-3598.
MARGULIES, B.: *Even If It Wanted to, the Republican Party Can't Stop the Spread of QAnon Conspiracies and Candidates which Support Them.* Released on 8th October 2020. [online]. [2022-05-22]. Available at: <https://blogs.lse.ac.uk/usappblog/2020/10/08/even-if-it-wanted-to-the-republican-party-cant-stop-the-spread-of-qanon-conspiracies-and-candidates-which-support-them/>.
MARKHAM, A.: Internet Communication as a Tool for Qualitative Research. In SILVERMAN, D. (ed.): *Qualitative Research: Theory, Methods, and Practice.* London : SAGE Publishing, 2004, p. 95-124.
MARKHAM, A.: *Life Online: Researching Real Experience in Virtual Space*. Lanham, MD : AltaMira, 1998.
MATHENY, J.: *ARG Pioneer Joseph Matheny on the Counterculture's Hijacking from Corporatization to QAnon*. Released on 5th August 2019. [online]. [2022-05-23]. Available at: <https://parallaxviews.podbean.com/e/ep92/>.
McGONIGAL, J.: 'This Is Not a Game': Immersive Aesthetics and Collective Play. In MILES, A. (ed.): *MelbourneDAC : 5th International Digital Arts & Culture Conference*. Melbourne : RMIT University, 2003, p. 1-10. [online]. [2022-05-22]. Available at: <https://janemcgonigal.files.wordpress.com/2010/12/mcgonigal-jane-this-is-not-a-game.pdf>.
MENDOZA III, F. G.: The End of the World According to Q. In *PANDION: The Osprey Journal of Research and Ideas*, 2021, Vol. 2, No. 1, p. 1-15. ISSN 2767-2859.
MITTELL, J.: *Forensic Fandom and the Drillable Text.* [online]. [2022-05-23]. Available at: <https://spreadablemedia.org/essays/mittell/index.html#.YOgcXS0Roac>.
MONTOLA, M.: *On the Edge of the Magic Circle: Understanding Role-Playing and Pervasive Games*. [Dissertation Thesis]. Tampere : University of Tampere, 2012. [online]. [2022-05-23]. Available at: <https://trepo.tuni.fi/bitstream/handle/10024/66937/978-951-44-8864-1.pdf?sequence=1&isAllowed=y>.
MONTOLA, M., STENROS, J., WAERN, A.: *Pervasive Games Theory and Design*. Burlington, MA : CRC Press, 2009.
MORRISON, D.: *Memetic Warfare: The Gamification of Conspiracy Theories, How the Targeted Propaganda of QAnon Weaponised COVID-19.* Released on 24th November 2020. [online]. [2022-05-22]. Available at: <https://bylinetimes.com/2020/11/24/memetic-warfare-how-the-targeted-propaganda-of-qanon-weaponised-covid-19/>.
News: This Is Not a Game at MMF MMF MMXXII. Released on 20th March 2022. [online]. [2022-05-30]. Available at: <https://milanmachinimafestival.org/blog/2022/3/20/news-this-is-not-a-game-at-mmf-mmf-mmxxii>.
OSGOOD, J., SAKR, M., DE RIJKE, V.: Dark Play in Digital Playscapes. In *Contemporary Issues in Early Childhood*, 2017, Vol. 18, No. 2, p. 109-113. ISSN 1463-9491.
ÖRNEBRING, H.: Alternate Reality Gaming and Convergence Culture: The Case of Alias. In *International Journal of Cultural Studies,* 2007, Vol. 10, No. 4, p. 445-462. ISSN 1367-8779.
PARHAM, J.: *The Ultimate Toxic Fandom Lives in Trumpworld.* Released on 23rd July 2018. [online]. [2022-05-23]. Available at: <https://www.wired.com/story/trump-fandom/>.
PRINISKI, J. H., McCLAY, M., HOLYOAK, K. J.: Rise of QAnon: A Mental Model of Good and Evil Stews in an Echochamber. In FITCH, T. et al. (eds.): *Proceedings of the 43rd Annual Meeting of the Cognitive Science Society: Comparative Cognition–Animal Minds*. Vienna : Vienna Cognitive Science Hub, 2021, p. 1753-1759.

Q Research Board. Released on 9th March 2018. [online]. [2022-05-23]. Available at: <https://archive.ph/mTxtf>.
RICHARDSON, I., HJORTH, L., DAVIES, H.: *Understanding Games and Games Culture*. London : SAGE Publishing, 2021.
ROTHSCHILD, M.: *The Storm Is Upon Us: How QAnon Became a Movement, Cult, and Conspiracy Theory of Everything*. London : Octopus, 2021.
SHARPE, M. et al.: *(Con)spirituality Colloquium – Keynote Panel 5: Conspirituality, QAnon and the Far Right, Part 1.* Released on 9th April 2021. [online]. [2022-05-23]. Available at: <https://www.youtube.com/watch?v=qozrAXdIUOY>.
SHERMER, M.: *Patternicity: Finding Meaningful Patterns in Meaningless Noise*. Released on 1st December 2008. [online]. [2022-05-23]. Available at: <https://www.scientificamerican.com/article/patternicity-finding-meaningful-patterns/>.
SCHECHNER, R.: *The Future of Ritual: Writings on Culture and Performance.* London, New York, NY : Routledge, 1993.
STENROS, J.: In Defence of a Magic Circle: Understanding Role-Playing and Pervasive Games. In KOSKIMAA, R., SUOMINEN, J. (eds.): *DiGRA Nordic '12: Proceedings of 2012 International DiGRA Nordic Conference.* Tampere : DiGRA, 2012, p. 1-19. [online]. [2022-05-23]. Available at: <http://www.digra.org/wp-content/uploads/digital-library/12168.43543.pdf>.
SUTTON-SMITH, B.: *The Ambiguity of Play*. Cambridge, MA : Harvard University Press, 1997.
SZULBORSKI, D.: *This Is Not a Game: A Guide to Alternate Reality Gaming.* New York, NY : New-Fiction Publishing, 2005.
The Making of QAnon: A Crowdsourced Conspiracy. Released on 7th January 2021. [online]. [2022-05-24]. Available at: <https://www.bellingcat.com/news/americas/2021/01/07/the-making-of-qanon-a-crowdsourced-conspiracy/>.
THIBAULT, T.: Trolls, Hackers, Anons Conspiracy Theories in the Peripheries of the Web. In LEONE, M. (ed.): *Lexia. Rivista di semiotica, 23–24 Complotto*. Turin : University of Turin, 2016, p. 387-408.
TOLLEFSON, J.: Tracking QAnon: How Trump Turned Conspiracy-Theory Research Upside Down. In *Nature*, 2021, Vol. 590, No. 7845, p. 192-193. ISSN 0028-0836.
TRAMMELL, A.: Torture, Play, and the Black Experience. In *GAME: The Italian Journal of Game Studies*, 2020, Vol. 9, No. 1, p. 33-49. ISSN 2280-7705.
TURKLE, S.: *Life on the Screen: Identity in the Age of the Internet*. New York, NY : Touchstone, 1997.
TUTERS, M.: LARPing & Liberal Tears: Irony, Belief and Idiocy in the Deep Vernacular Web. In FIELITZ, M., THURSTON, N. (eds.): *Post-Digital Cultures of the Far Right: Online Actions and Offline Consequences in Europe and the US*. Bielefeld : Verlag, 2019, p. 37-48.
TUTERS, M.: *The Birth of QAnon: On How 4chan Invents a Conspiracy Theory*. Released on 9th July 2020. [online]. [2022-05-24]. Available at: <https://oilab.eu/the-birth-of-qanon-on-how-4chan-invents-a-conspiracy-theory/>.
VEALE, K.: *Gaming the Dynamics of Online Harassment*. Cham : Palgrave Macmillan, 2020.
WATSON, J.: Games Beyond the ARG. In GARCIA, A., NIEMEYER, G. (eds).: *Alternate Reality Games and the Cusp of Digital Gameplay*. London : Bloomsbury Publishing, 2017, p. 187-210.
WILSON, J.: *Hiding in Plain Sight: How the 'Alt-Right' Is Weaponizing Irony to Spread Fascism.* Released on 23rd May 2017. [online]. [2022-05-25]. Available at: <http://www.theguardian.com/technology/2017/may/23/alt-right-online-humor-as-a-weapon-facism>.
ZADROZNY, B., COLLINS, B.: *How Three Conspiracy Theorists Took 'Q' and Sparked Qanon*. Released on 14th August 2018. [online]. [2022-05-24]. Available at: <https://www.nbcnews.com/tech/tech-news/how-three-conspiracy-theorists-took-q-sparked-qanon-n900531>.
ZUCKERMAN, E.: QAnon and the Emergence of the Unreal. In *Journal of Design and Science*, 2019, Vol. 7, No. 6. ISSN 2470-475X. [online]. [2022-05-25]. Available at: <https://jods.mitpress.mit.edu/pub/tliexqdu/release/4>.

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Fortnite as Bildungsspiel? Battle Royale Games and Sacrificial Rites

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Renata E. Ntelia as of January 2022 has successfully defended her PhD and has been awarded the doctorate title from the Institute of Digital Games, University of Malta. Her research pertains to love in games as experience and representation. She has presented at international conferences such as CounterText, CEEGS, PoCG, DiGRA, and FDG. She had published book chapters and journal articles, including a chapter titled "In the Mood for Love: Embodiment and Intentionality in NPCs" in *Love and Electronic Affection: A Design Primer* published by Routledge Creative Media and the Arts, and a journal article named "How Damsels Love: The Transgressive Pleasure of Romance" in New Horizons in English Studies in October 2021. Her research interests include feminist phenomenology, affect theory, comparative narratology, and thanatology. She is a lecturer of games within the School of Computer Science, University of Lincoln. She also designs games and playful experiences.

ABSTRACT:

This article examines the online multi-player game Fortnite: Battle Royale as a modern-day representation of sacrificial rites. It is argued that Fortnite: Battle Royale constitutes a simulation of a sacrificial rite due to its gameplay mechanics. In the game, the players need to kill each other off and come out victorious. As such, the players need to recognise themselves in opposition to others, exterminate those others, and sacrifice their innocence in the process. As conceptualised by R. Girard, this experience of a sacrificial rite constitutes a form of social education and conditioning. Such experiences are predominantly represented in the genre of Bildungsroman: coming-of-age stories that concern a literal or metaphorical rite of passage from childhood to adulthood. In Fortnite: Battle Royale, the psychological effect of this conditioning is amplified due to the medium-specific affordance of having the player as both the spectator and the spectacle of the sacrifice; namely, the player watches themselves being offered as a sacrifice while trying to overcome the trial. In this regard, Fortnite: Battle Royale follows and expands on the tradition of the Bildungsroman establishing a new take on the genre that is thereby termed Bildungsspiel – a coming-of-age game.

KEY WORDS:

battle royale games, Bildungsroman, Fortnite, mimetic desire, René Girard, sacrificial rites, spectacle.

"But there are much worse games to play."
- Suzanne Collins

Introduction

Fortnite[1] is an online multiplayer game developed by Epic Games. With 350 million registered players across the globe, it has been called one of the most prominent,[2] if not the most prominent,[3] games of our time. Fortnite was first released in July 2017 as PvE (player versus environment): players worked in teams to build forts and fend off hordes of husks, zombie-like creatures. Two months later (September 2017), its so-called *Battle Royale* (BR) mode

1 EPIC GAMES: *Fortnite: Battle Royale*. [digital game]. Cary, NC : Epic Games, 2017.

2 ANDERSON, K. E.: Getting Acquainted with Social Networks and Apps: Figuring Out Fortnite in (Hopefully) Less Than a Fortnight. In *Library Hi Tech News*, 2019, Vol. 36, No. 9, p. 11.; KING, R., DE LA HERA, T.: Fortnite Streamers as Influencers: A Study on Gamers' Perceptions. In *The Computer Games Journal*, 2020, Vol. 9, No. 4, p. 349.; TSUKAYAMA, H.: *Everything You Need to Know about Fortnite and Why It's so Popular.* Released on 3rd April 2018. [online]. [2022-01-18]. Available at: <https://www.washingtonpost.com/news/the-switch/wp/2018/04/03/everything-you-need-to-know-about-fortnite-and-why-its-so-popular/>.; MAKUCH, E.: *Fortnite: Battle Royale Has Hit 10 Million Players in Two Weeks*. Released on 12th October 2017. [online]. [2022-01-18]. Available at: <https://www.gamespot.com/articles/fortnite-battle-royale-has-hit-10-million-players-/1100-6454008/>.

3 FELDMAN, B.: *The Most Important Video Game on the Planet: How Fortnite Became the Instagram of Video Games*. Released on 9th July 2018. [online]. [2022-01-18]. Available at: <https://nymag.com/intelligencer/2018/07/how-fortnite-became-the-most-popular-video-game-on-earth.html>.; MARLATT, R.: Capitalizing on the Craze of Fortnite: Toward a Conceptual Framework for Understanding How Gamers Construct Communities of Practice. In *Journal of Education*, 2020, Vol. 200, No. 1, p. 3-4.

was published and its popularity skyrocketed.[4] In *Fortnite: Battle Royale* (FBR), one hundred players are flown via a 'battle bus' to an island where they have to fight each other alone or in teams of up to four players until only one player or team remains standing. The map of the island is divided into a playable area, a safe zone, and the 'Storm', a magnetic field that causes considerable damage to the players. As the match progresses, the safe zone decreases and the Storm, together with the damage it inflicts on the players, increases. Even though a large part of the gameplay is devoted to searching and scavenging for resources and building defensive constructions, the game mechanics eventually force player versus player combat.

The similarities with popular series concerning death-matches between contestants, most tellingly *Battle Royale*[5] by K. Takami and *The Hunger Games*[6] series by S. Collins, are not coincidental. In The Hunger Games, 16-year-old Katniss Everdeen enters a government-organised death-match, in which two tributes from each of the 12 districts of the story's dystopian society compete to the death until only one survives. Similarly, in Battle Royale, every year a dystopian society plagued by unemployment and social unrest condemns a class of school students to participate in a three-day competition, in which they have to kill each other until there is only one survivor. The first of the most professed applications of this concept to a game was *Minecraft: Hunger Games*[7] mode, which was directly inspired by the homonymous book series. This mode served, in turn, as an inspiration for FBR.[8] Equally, FBR follows closely the successful example of *PlayerUnknown's Battlegrounds*[9] (PUBG) – a BR game drawing from the aforementioned Battle Royale book.[10]

In this article, FBR's player experience is examined in its capacity as a Bildungsartefact. Bildung is conceptualised as a matter of social education and conditioning. It is argued that BR games, FBR in particular, provide social conditioning through playing. This argument is supported by contextualising FBR in the long tradition of sacrificial rites and positioning its prominence within the concept of rites of passage as spectacles. It is posited that FBR can be perceived as a coming-of-age experience akin to those presented in the genre of the Bildungsroman, examples of which are the books mentioned above. Since FBR is a game, the term Bildungsspiel is proposed: a coming-of-age game that redefines this literary genre with medium-specific affordances. There is no intention to attribute Fortnite's appeal or ascribe its experience to a single facet. The popularity of FBR is to a large extent due to its being free to play and available across many platforms as well as to its facilitating socialising in a controlled environment.[11] There is no arguing of a unanimous

4 MARLATT, R.: Capitalizing on the Craze of Fortnite: Toward a Conceptual Framework for Understanding How Gamers Construct Communities of Practice. In *Journal of Education*, 2020, Vol. 200, No. 1, p. 3-4.; Remark by the author: The mode's popularity has been so immense that other companies later published BR games or included BR modes in their well-established franchises, like *Call of Duty: Warzone* (INFINITY WARD: *Call of Duty: Warzone*. [digital game]. Santa Monica, CA : Activision, 2020.) and *Battlefield V: Firestorm* (CRITERION GAMES: *Battlefield V: Firestorm*. [digital game]. Redwood City, CA : Electronic Arts, 2019.).

5 TAKAMI, K.: *Battle Royale: The Novel*. Los Angeles, CA : Tokyopop, 1999.

6 COLLINS, S.: *The Hunger Games (series)*. New York, NY : Scholastic, 2008-2010.

7 MOJANG STUDIOS: *Minecraft*. [digital game]. Stockholm : Mojang Studios, 2011.

8 CARTER, M. et al.: Situating the Appeal of Fortnite Within Children's Changing Play Cultures. In *Games and Culture*, 2020, Vol. 15, No. 4, p. 461.

9 PUBG CORPORATION: *PlayerUnknown's Battlegrounds*. [digital game]. Seongnam : PUBG Corporation, 2017.

10 FELDMAN, B.: *The Most Important Video Game on the Planet: How Fortnite Became the Instagram of Video Games*. Released on 9th July 2018. [online]. [2022-01-18]. Available at: <https://nymag.com/intelligencer/2018/07/how-fortnite-became-the-most-popular-video-game-on-earth.html>.

11 ANDERSON, K. E.: Getting Acquainted with Social Networks and Apps: Figuring Out Fortnite in (Hopefully) Less Than a Fortnight. In *Library Hi Tech News*, 2019, Vol. 36, No. 9, p. 13.; CARTER, M. et al.: Situating the Appeal of Fortnite Within Children's Changing Play Cultures. In *Games and Culture*, 2020, Vol. 15, No. 4, p. 457-466.; FELDMAN, B.: *The Most Important Video Game on the Planet: How Fortnite Became the Instagram of Video Games*. Released on 9th July 2018. [online]. [2022-01-18]. Available at: <https://nymag.com/intelligencer/2018/07/how-fortnite-became-the-most-popular-video-game-on-earth.html>.; KING, R., DE LA HERA, T.: Fortnite Streamers as Influencers: A Study on Gamers' Perceptions. In *The Computer Games Journal*, 2020, Vol. 9, No. 4, p. 350-352.

experience or playstyle of Fortnite, either. The article specifically looks at FBR in its capacity as a Bildungsartefact by arguing that it constitutes a re-enactment of the long tradition of sacrificial rites. It is argued that FBR is a medium-specific example of a universal social practice[12] that far surpasses the experience of a single game while, at the same time, inadvertently or not, informing it.

Bildungsspiel, a Genre

BR games are already considered a separate genre due to their mechanics. G. Choi and M. Kim have argued that BR mechanics facilitate a unique game experience focused on survival and PvP combat, which discerns them from other genres.[13] Here, a cultural aspect is assigned to the BR genre, which, as argued, further explains its uniqueness and popularity. By contextualising BR games within the frame of sacrificial rites and Bildungsromane, the game experience is better understood and more thoroughly analysed. While BR games do not contain a storyline of ritualistic sacrifice, as do the coming-of-age stories that inspired them, it is contended that the game experience constitutes in itself a re-enactment of sacrificial rites. The players need not be told to act as if they participate in a sacrificial rite as part of an embedded narrative.[14] The fact that they have to kill each other to survive and come out victorious comprises the most basic premise of a rite of passage. Sacrificial rites and their representations are preoccupied with themes of mortality, social coexistence, and the passage to adulthood, as the aforementioned books show. BR mechanics, and specifically the connection between killing and making a spectacle out of it, simulate the intrinsic to sacrificial rites dialectic relationship between violent death and society. This inundates the game experience with cultural significance that far surpasses the personal.

This becomes more pertinent if one notes Fortnite users being versatile in terms of country of origin, gender, and age[15] notwithstanding, the game is mostly popular among children and teenagers,[16] with players 8-17 amounting to 45 per cent of the audience.[17] As M. Carter et al. contend: "Fortnite is best understood as a phenomenon at the point of intersection between the contemporary ecology of digital game cultures and contemporary

12 Remark by the author: The popularity of the Netflix series *Squid Game* is yet another example of this perseverance, see: HWANG, D.-H. (Created by): *Squid Game (series)*. [VOD]. Los Gatos, CA : Netflix, 2021.

13 CHOI, G., KIM, M.: Battle Royale Game: In Search of a New Game Genre. In *International Journal of Culture Technology*, 2018, Vol. 2, No. 2, p. 5.

14 WEI, H.: Embedded Narrative in Game Design. In KAPRALOS, B., HOGUE, A., XU, S. (eds.): *Futureplay '10: Proceedings of the International Academic Conference on the Future of Game Design and Technology*. New York : ACM, 2010, p. 247. [online]. [2022-01-18]. Available at: <https://doi.org/10.1145/1920778.1920818>.

15 PARKIN, S.: *How Fortnite Conquered the World.* Released on 27th May 2018. [online]. [2022-01-18]. Available at: <https://www.theguardian.com/games/2018/may/27/fortnite-conquered-the-world-video-game-teenagers-parents>.

16 STUART, K.: *Fortnite: A Parents' Guide to the Most Popular Video Game in Schools.* Released on 7th March 2018. [online]. [2022-01-18]. Available at: <https://www.theguardian.com/games/2018/mar/07/fortnite-battle-royale-parents-guide-video-game-multiplayer-shooter>.; KULMAN, R.: *600,000 Minutes of Fortnite? Why Kids Get Hooked: Why Do kids Want to Play Fortnite Nonstop?.* Released on 7th March 2019. [online]. [2022-01-18]. Available at: <https://www.psychologytoday.com/us/blog/screen-play/201903/600000-minutes-fortnite-why-kids-get-hooked>.; PAUMGARTEN, N.: *How Fortnite Captured Teens' Hearts and Minds: The Craze for the Third-Person Shooter Game Has Elements of Beatlemania, the Opioid Crisis, and Eating Tide Pods*. Released on 14th May 2018. [online]. [2022-01-18]. Available at: <https://www.newyorker.com/magazine/2018/05/21/how-fortnite-captured-teens-hearts-and-minds>.; CLEMENT, J.: *Fortnite: Statistics and Facts*. Released on 27th May 2021. [online]. [2022-01-18]. Available at: <https://www.statista.com/topics/5847/fortnite/#dossierKeyfigures>.

17 CLEMENT, J.: *Fortnite: Statistics and Facts*. Released on 27th May 2021. [online]. [2022-01-18]. Available at: <https://www.statista.com/topics/5847/fortnite/#dossierKeyfigures>.

cultures of childhood, as young people move from one stage of childhood to another".[18] The fact that Fortnite's audience is made up to a large extent by children and teenagers makes its experience of sacrifice more apt to that of a coming-of-age game – or *Bildungsspiel*. In that, Fortnite is examined as a specific example of a BR game in its capacity to simulate a sacrificial rite – child sacrifice in particular. This does not mean that other games, BR games especially, cannot be analysed in the same framework of sacrificial rites. Yet it is argued that the current discussion is exemplified better in the case of Fortnite.

I appropriate the term Bildungsspiel from the original term *Bildungsroman*. Bildungsroman derives from German and its literal translation is that of an educational novel. Historically, the Bildungsroman is considered to have sprung out of J. W. von Goethe's novel *Wilhelm Meisters Lehrjahre*.[19] It is a complex term that has been the subject of considerable scrutiny.[20] Some authors call for a more inclusive reconstruction of the term,[21] specifically to address its male dominance in "the assumption of the male self as the universal self" as J. Maroula would have it,[22] while others argue for altogether abandoning the concept.[23] Its cultural contention notwithstanding, Bildungsroman remains an accepted and acknowledged genre.

A Bildungsroman can include fictional rites of passage from childhood to adulthood. These rites are often metaphorical: a quest or a journey, physical or psychological, during which the child has to face challenges and overcome struggles. In other cases, like in the novels mentioned above, the rite is literal; a sacrificial rite at that. Children are sacrificed or forced to compete against each other sacrificing thus their antagonists and their childhood innocence in the process. In the words of S. S. M. Tan: "coming-of-age often involves a recognition of a culturally defined childhood as well as loss: loss of innocence, loss of childself".[24] F. McCulloch corresponds this experience to a "process of maturation [...] culminating in the moulding of a compliant and productive citizen who has internalised society's hegemonic values".[25] A rite is then a lesson to be learnt. The survivor is the successful student who shows that they can conform to the rules having mastered the pre-existing system.

In this light, the Bildungsroman seems to be retaining the status quo. At the same time, the Bildungsroman contains a transgressive power, which gives the hero, and by proxy the reader, the opportunity to challenge the hegemonic mode of being. By being a narrative of becoming, F. McCulloch argues that: "it is a genre of mutability that offers the potential of becoming through interactive narratives that resist dominant modes of being".[26]

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18 CARTER, M. et al.: Situating the Appeal of Fortnite Within Children's Changing Play Cultures. In *Games and Culture*, 2020, Vol. 15, No. 4, p. 457.

19 For more information, see: VON GOETHE, J. W.: *Wilhelm Meisters Lehrjahre*. Hamm : G. Grote, 1872.; Some theorists trace its origins even earlier, see: LOWE, B.: The Bildungsroman. In CAESERIO, R. L., HAWES, C. (eds.): *The Cambridge History of the English Novel*. Cambridge : Cambridge University Press, 2012, p. 405-420.

20 See also: BRUFORD, W. H.: *The German Tradition of Self-Cultivation: 'Bildung from Humboldt to Thomas Mann'*. New York, NY : Cambridge University Press, 1975.; ODENSTEDT, A.: Hegel and Gadamer on Bildung. In *The Southern Journal of Philosophy*, 2008, Vol. 46, No. 4, p. 559.; BIESTA, G.: Who's Afraid of Teaching? Heidegger and the Question of Education ('Bildung'/'Erziehung'). In *EducationI Philosophy and Theory*, 2016, Vol. 48, No. 8, p. 832. [online]. [2022-01-18]. Available at: <http://dx.doi.org/10.1080/00131857.2016.1165017>.

21 MEYER-DRAWE, K.: Das Ich im Spiegel des Nicht-Ich. In *Bildung und Erziehung*, 1993, Vol. 46, No. 2, p. 195.; VINTERBRO-HOHR, A., HOHR, H.: The Neo-Humanistic Concept of Bildung Going Astray: Comments to Friedrich Schiller's Thoughts on Education. In *Educational Philosophy and Theory*, 2016, Vol. 38, No. 2, p. 215.

22 JOANNOY, M.: The Female Bildungsroman in the Twentieth Century. In GRAHAM, S. (ed.): *A History of the Bildungsroman*. Cambridge : Cambridge University Press, 2019, p. 202.

23 MASSCHELEIN, J., RICKEN, N.: Do We Still Need the Concept of Bildung?. In *Educational Philosophy and Theory*, 2003, Vol. 35, No. 2, p. 139.

24 TAN, S. S. M.: Burn with Us: Sacrificing Childhood in The Hunger Games. In *The Lion and the Unicorn*, 2013, Vol. 37, No. 1, p. 55.

25 McCULLOCH, F.: Bildungsromane for Children and Young Adults. In GRAHAM, S. (ed.): *A History of the Bildungsroman*. Cambridge : Cambridge University Press, 2019, p. 174.

26 Ibidem, p. 199.

The formula may be contrived but the hero still has the chance to act and experience the results of their actions. This is where S. S. M. Tan positions the cathartic aspect of the Bildungsroman and situates its diachronic appeal: "a specific cultural-narrative to envision children "righting" the future",[27] making "each story resonating powerfully with its audiences".[28] A hope to do everything better, sort to speak.

In this aspect, games as ergodic media,[29] the outcome of which is the result of the player's actions, are very welcoming to Bildungsroman narratives. A. Ensslin and T. Goorimoorthee[30] in applying the term to digital games claim that while the natural medium of the concept was that of the novel, it has successfully been mediated in other forms[31] allowing for a *transmedia Bildung*, as they call it.[32] In that, they consider digital games as capable of affording a narrative and experience of Bildung as other media. Games possess the capacity to simulate a trajectory of self-growth and invoke moral and intellectual musings over it. Indeed, games have long been proven to facilitate education in a multitude of ways.[33] Yet, in the specific concept of Bildung, this connection is expanded due to the singularities of the genre: its relation to mastery and the transference of Bildung to the reader.

Bildungsroman is a genre preoccupied with mastery.[34] The hero is able to choose their fate and make their own choices by succeeding in honing their skills and becoming their own masters. When the concept of Bildungsroman was first theorised by German philologist K. Morgenstern in the early 19th century as a narrative of transformation and growth, he argued that a reader becomes educated themself while reading: Bildungsroman "furthers the reader's Bildung to a much greater extent than any other".[35] As A. Ensslin and T. Goorimoorthee explain: "Thus, the reader is inscribed, or coded, into the narrative as an inherently flawed, or incomplete novice, and her Bildung (in the sense of both operational skill and philosophical/spiritual awareness) develops alongside that of the protagonist, as she or he peruses the artefact in question".[36]

Games are a medium in which this mastery does not need to be explained to the player. It is actualised in each playthrough: the player starts as a novice and finishes the game as a full master that has conquered the challenges, their ludic progress attesting to that. The player cannot move on with the game if they have not mastered it first.[37] The player is executing a trajectory of mastery no matter the narrative of the game. The plot and setting might accentuate or facilitate this experience, but the experience is due to playing before anything else. Appropriately, in FBR the player has to master the game

27 TAN, S. S. M.: Burn with Us: Sacrificing Childhood in The Hunger Games. In *The Lion and the Unicorn*, 2013, Vol. 37, No. 1, p. 71.
28 Ibidem.
29 For more information, see: AARSETH, E. J: *Cybertext: Perspectives on Ergodic Literature*. Baltimore, MD : Johns Hopkins University Press, 1997.00
30 ENSSLIN, A., GOORIMOORTHEE, T.: Transmediating Bildung: Video Games as Life Formation Narratives. In *Games and Culture*, 2020, Vol. 15, No. 4, p. 1.
31 See also: BOLAKI, S.: *Unsettling the Bildungsroman: Reading Contemporary Ethnic American Women's fiction*. Amsterdam : Brill, 2011.
32 ENSSLIN, A., GOORIMOORTHEE, T.: Transmediating Bildung: Video Games as Life Formation Narratives. In *Games and Culture*, 2020, Vol. 15, No. 4, p. 1.
33 For example, see: KEE, K. et al.: Towards a Theory of Good History through Gaming. In *Canadian Historical Review*, 2009, Vol. 90, No. 2, p. 303-326.; McCALL, J.: *Gaming the Past: Using Video Games to Teach Secondary History*. London : Routledge, 2013.; GEE, J. P.: Learning by Design: Good Video Games as Learning Machines. In *E-learning and Digital Media*, 2005, Vol. 21, No. 1, p. 5-16.
34 For more information, see: HOWE, S.: *Wilhelm Meister and His English Kinsmen: Apprentices to Life*. New York, NY : Columbia University Press, 1930.
35 SWALES, M.: *The German Bildungsroman from Wieland to Hesse*. Princeton, NJ : Princeton University Press, 1978, p. 12.
36 ENSSLIN, A., GOORIMOORTHEE, T.: Transmediating Bildung: Video Games as Life Formation Narratives. In *Games and Culture*, 2020, Vol. 15, No. 4, p. 4.
37 VELLA, D.: No Mastery without Mystery: Dark Souls and the Ludic Sublime. In *Game Studies*, 2015, Vol. 15, No. 1. [online]. [2022-01-18]. Available at: <http://gamestudies.org/1501/articles/vella>.

in order to survive and, even more so, to master it better than all the other players. The rite of passage to adulthood is not metaphorical anymore but simulated. The players need to compete with each other and sacrifice their innocence by becoming killers.

At the same time, Bildung also concerns our ability to break free from our social position and parentage by allowing us an intuitive and dynamic relation to our environment:[38] "a decisive move away from the predestined path of joining one's father's guild and toward independent enquiry into one's own talents," as A. Ensslin and T. Goorimoorthee explain it.[39] Games possess the capacity to affect their surrounding space and reshape it as much as they are shaped by it. This is especially true for physical games, in which the boundaries are completely conventional. While digital games, like FBR, are more constricted due to their materiality,[40] they also exhibit opportunities for the players to interact with the game system and the other players in innovative ways. As such, they also demonstrate the potential of a breakthrough, which is integral to the genre of the Bildungsroman.

FBR possesses this Bildungseffect because it allows its participants the possibility to develop and manifest their own desires. While FBR, as a digital game, is constricted due to its coded system, it still contains the ability for the players to sacrifice their role models in a proper Bildungs or coming of age experience. This potential arises from the game's social affordances as a multiplayer game, and a streaming sensation at that, as well as its design as a PvP battle arena. Interestingly enough, a 10-years-old child player of FBR explains how one of the reasons he likes playing the game is because he can happen upon his favourite YouTube gamer-celebrity and potentially kill him.[41] Children watch famous players play Fortnite: BR not only because they learn the game but also become inspired to try different strategies that they cannot achieve by themselves. These professional players and their gameplay expertise become the objects of the children's desire. Being able to kill these famous players in the game facilitates the child's transgressive Bildung, which surpasses the hegemonic discourse that conditioned it. What is this discourse and how does social conditioning specifically relate to sacrificial rites and games? To answer these questions, the argument builds on R. Girard's conceptualisation of violence.

Sacrificial Rites

The affinity between sacrificial rites and BR games is straightforward: the participants have to survive by killing each other. Moreover, this killing constitutes a form of spectacle, which makes it ritualistic and sacrificial. This comes as no surprise as BR games are based on stories of sacrificial rites, namely The Hunger Games and Battle Royale. Obviously, the games are representations of a sacrificial rite since there are no real killings. Yet, the ritualistic element and its social significance as a matter of Bildung remains. To draw the connection between surviving and inflicting violence and its function as social conditioning, R. Girard's theory on sacrifice is used.

38 WULF, C.: Perfecting the Individual: Wilhelm von Humboldt's Concept of Anthropology, Bildung and Mimesis. In *Educational Philosophy and Theory*, 2003, Vol. 35, No. 2, p. 246.

39 ENSSLIN, A., GOORIMOORTHEE, T.: Transmediating Bildung: Video Games as Life Formation Narratives. In *Games and Culture*, 2020, Vol. 15, No. 4, p. 5.

40 NTELIA, R. E.: E-Sports at the Olympic Games: From Physicality to Virtuality. In MARGARITIS, K. (ed.): *Law, Ethics, and Integrity in the Sports Industry*. Hershey, PA : IGI Global, 2019, p. 134.

41 CARTER, M. et al.: Situating the Appeal of Fortnite Within Children's Changing Play Cultures. In *Games and Culture*, 2020, Vol. 15, No. 4, p. 459.

In his book *Violence and the Sacred*,[42] R. Girard connects the cultural institution of sacrifice with what he calls the substitution hypothesis. While sacrifice may seem like an intrinsic transference of guilt in the shape of a scapegoat, killing off an innocent in the place of the actual culprit,[43] R. Girard claims that sacrifice needs not adhere to any moral values or expiation: "Rather, society is seeking to deflect upon a relatively indifferent victim, a "sacrificeable" victim, the violence that would otherwise be vented on its own members, the people it most desires to protect".[44] The true horror of sacrifice is that it can potentially affect everyone; no ontological or moral attributes of an individual can save them from being a sacrificeable victim. The victim of sacrifice is then a substitute for any potential victim if violence remained unchecked: "The victim is not a substitute for some particularly endangered individual, nor is it offered up to some individual of particularly bloodthirsty temperament. Rather, it is a substitute for all the members of the community, offered up by the members themselves. The sacrifice serves to protect the entire community from its own violence; it prompts the entire community to choose victims outside itself".[45]

According to R. Girard, sacrifice is presocial but not asocial. It is evidenced in all societies because it is society's response to society's inherent violence; a violence that in sacrifice gets directed to specific victims so it remains regulated and under control: "The function of ritual is to "purify" violence; that is, to "trick" violence into spending itself on victims whose death will provoke no reprisals".[46] Sacrificial victims are not special, and their choosing is arbitrary. At the same time, being a victim is subject to norms. An appropriate victim must at the same time be recognizable as part of the community and different enough for its choice to be bearable and forbid confusion. The sacrificial victims are "exterior or marginal individuals, incapable of establishing or sharing the social bonds that link the rest of the inhabitants".[47] R. Girard understands this crucial link that is missing between the victims and the community in very concrete terms: "Their death does not automatically entail an act of vengeance".[48] As such, sacrifice is this unique phenomenon during which violence is exercised without enabling more violence but rather breaking the violent circle.

R. Girard comments that rites of passage are one of the most applicable cultural phenomena to function as sacrificial rites. Rites of passage, as coined by ethnographer A. Van Gennep,[49] are about a change of status: the participants find themselves at a threshold between being a member of the community and not being. They then have to successfully perform the ritual to be considered equals within society. These rites are ripe for becoming manifestations of sacrifice because the sacrificeable victims have to resemble the sacrificing community while retaining a distance from it. Children, as a result, performing their rites of passage are the best candidates. Their sacrifice gracefully retains this duality of concealment and awareness of transference of R. Girard's substitution hypothesis.

These rites of passage are sometimes reduced to simple tasks. Nonetheless, they find their true manifestation in the form of sacrificial rites. As R. Girard contends, in the rites of passage, the younger members of society "have no personal acquaintance with maleficent violence. In subjecting them to rites of passage the culture is trying to induce

42 GIRARD, R.: *Violence and the Sacred*. Baltimore, MD : Johns Hopkins University Press, 1972, p. 3.
43 For more information, see: MAISTRE, J. M.: *St Petersburg Dialogues: Or Conversations on the Temporal Government of Providence*. Montreal : McGill-Queen's University Press, 1993.
44 GIRARD, R.: *Violence and the Sacred*. Baltimore, MD : Johns Hopkins University Press, 1972, p. 4.
45 Ibidem, p. 8.
46 Ibidem, p. 36.
47 Ibidem, p. 12.
48 Ibidem, p. 13.
49 For more information, see: VAN GENNEP, A.: *The Rites of Passage*. Chicago, IL : University of Chicago Press, 2019.

a state of mind favourable to the perpetuation of a differentiated system".[50] The participants of these rites become both sacrificers and sacrificed. They need to enact violence to retain the cycle and society's status quo. By transferring violence against the new generation, the new members-to-be, society guarantees its existence because it demands that its children accept its violent discourse to gain admittance rights. A child has to sacrifice itself before everyone else to become an adult and partake in adult society; it is the rite of passage from childhood, which is unaware of death, to the traumatised by the knowledge of violent adulthood. The sacrificial rites of passage are an entry point, which proves to society that whoever survives has learnt their lesson and can perpetuate society's conventions. What exactly are these conventions and what is the differentiated system that needs to be perpetuated? R. Girard explains these by the concept of mimetic desire.

Mimetic Desire

R. Girard understands society's inclination towards sacrifice as a predisposition towards violence. Violence for R. Girard is not a natural phenomenon bound to become manifested. It is, however, a highly potential occurrence, the results of which can be catastrophic if violence remains unchecked. Rites are put into place even in the most advanced societies as a safeguard against the contingency of violence. R. Girard explains this original violence with the concept of mimetic desire. Mimetic desire functions for R. Girard as follows:

"Once his basic needs are satisfied (indeed, sometimes even before), man is subject to intense desires, though he may not know precisely for what. The reason is that he desires *being*, something he himself lacks and which some other person seems to possess. The subject thus looks to that other person to inform him of what he should desire in order to acquire that being. If the model, who is apparently already endowed with superior being, desires some object, that object must surely be capable of conferring an even greater plenitude of being. It is not through words, therefore, but by the example of his own desire that the model conveys to the subject the supreme desirability of the object".[51]

R. Girard further develops this notion as a relationship of rivalry towards others: "Rivalry does not arise because of the fortuitous convergence of two desires on a single object; rather, the subject desires the object because the rival desires it. In desiring an object, the rival alerts the subject to the desirability of the object. The rival, then, serves as a model for the subject, not only in regard to such secondary matters as style and opinions but also, and more essentially, in regard to desires".[52]

For R. Girard, desire is inherently mimetic because it is generated by the rival model, and it is oriented towards the object of the model's desire. Hence, desire is very often accompanied by rivalry and violence. Mimetic desire, subsequently, becomes "simply a term more comprehensive than violence".[53] For R. Girard, mimetic desire does not by default lead to violence. It does so only when the object of desire of both subject and the model cannot be shared. As explained by W. Palaver in his book *René Girard's Mimetic Theory*: "Rivalry and interpersonal violence threaten whenever two people direct their respective desires at a single object, which they are unable to both possess".[54] For W. Palaver, the fact that in many cultures the world over these objects are forbidden is proof that mimetic

50 GIRARD, R.: *Violence and the Sacred*. Baltimore, MD : Johns Hopkins University Press, 1972, p. 285.
51 Ibidem, p. 146.
52 Ibidem.
53 Ibidem, p. 148.
54 PALAVER, W.: *René Girard's Mimetic Theory*. East Lansing, MI : Michigan State University Press, 2013, p. 38.

desire leads to violence. He gives the example of the Tenth Commandment, which specifically forbids one to covet one's neighbour's belongings, including his wife, his slaves, his animals, his house, etc. This unsharability of certain objects is not an inherent trait of theirs. It is instead a matter of convention. It is no coincidence that in many cultures these objects are possessions of the male order, most tellingly women. It is because, as is argued below, the hegemonic patriarchal economy permeates and preserves the concept of mimetic desire.

The understanding of some objects as unshareable is itself a culturally charged conditioning. The perpetuation of unsharability which results in violence, and by proxy to sacrifice, is a means for hierarchy to sustain itself and its prescripts. In his book *The Scapegoat*,[55] R. Girard traces a history of "texts of persecution": accounts of violent phenomena from the point of view of the perpetrator. He connects them with myths and religious traditions, such as the Christian passion, showing that there is a cultural tendency for us to identify with the scapegoat and the innocent victim without accepting that the presence of the sacrificer is equally important and equally part of us. This line of thought can be pushed even further to explain how the presence of the perpetrator is in itself a cultural construct that facilitates society's establishment, if not consecration. In actuality, the use of this violent discourse functions as a tool for the perpetuation and stabilisation of the hegemony.

Violent Discourse

As R. Girard notices, the fear of violence brings society together; it is an agglutinant force. Yet the fear of violence is in itself a fantasy and a narrative that convinces people to stay together and retain the status quo. Indeed, in most societies, this discourse prevails as dominant.[i] W. Palaver alludes to that when he contends that only contentious objects that cannot be shared lead to rivalry and aggression: "As soon as the object of desire can no longer be shared — as with objects of sexual desire, social positions, and the like — mimetic desire generates competition, rivalry, and conflict".[56] W. Palaver is vague about which objects cannot be shared but in including social positions among them it already shows that constructs play an important role in defining these objects. W. Palaver's stance becomes more obvious later when he contends that: "We fight over objects that they [the models] themselves showed us we should desire".[57] This violent discourse shapes our desire and understanding of it as much as our physical contact with violence. Actually, more so since we are more readily exposed to mediated forms of violence and desire. R. Girard makes the connection himself in *Deceit, Desire, and the Novel*[58] when he traces his concept of desire and conflict in works of literature by Stendhal, M. de Cervantes, G. Flaubert, M. Proust, and M. F. Dostoyevsky. Through their heroic figures, R. Girard exhibits how mimetic desire can lead to personal and social crises and how it can happen through fiction as much as in reality. For example, he shows how Emma from *Madame Bovary*[59] comes to her desire for a lover through the romantic books she has been reading since her adolescence, or that Swann's love for Odette in *Swann's Way*[60] is described as the result of other men's desire towards her.

55 GIRARD, R.: *The Scapegoat*. Baltimore, MD : Johns Hopkins University Press, 1989, p. 7.
56 PALAVER, W.: *René Girard's Mimetic Theory*. East Lansing, MI : Michigan State University Press, 2013, p. 46.
57 Ibidem, p. 82.
58 For more information, see: GIRARD, R.: *Deceit, Desire, and the Novel*. Baltimore, MD : Johns Hopkins University Press, 1976.
59 See also: FLAUBERT, G.: *Madame Bovary: Mœurs de province*. Paris : Revue de Paris, 1856.
60 For example, see: PROUST, M.: *Du côté de chez Swann*. Paris : Grasset Editions, 1913.

It is in this context of violent discourse that representations of sacrificial rites find their applicability in the form of coming-of-age stories – or Bildunsromane. W. Humboldt brings this connection between social conditioning, Bildung that is, and mimesis to the forefront.[61] He understands Bildung as possible in its capacity as mimetic. The child learns by mimicking and that which it learns presupposes society. The child has to learn that desire is bound by social regulations, and they cannot desire without consequences. To be able to desire, they need to conquer and defeat a rival. Since the adult members of the society cannot be the objects of the child's violence, per R. Girard's substitution hypothesis, the child has to turn its hostility to other children instead, still non-members of the community but close in proximity and resemblance to it. In that way, the child becomes an adult as approved by society by actually performing the violent practices of adulthood.

Exemplarily, in the film adaptation of *Battle Royale*[62], the main protagonist, Shuya Nanahara (T. Fujiwara) exclaims towards the end of the movie: "I'll keep fighting even though I don't really know how until I become a real adult".[63] By contrast, Kitano (T. Kitano), a school teacher and director of the deadly games, shows the dead body of the class's ex-teacher before the beginning of the game as a lesson to be learnt: "We have here a failure as an adult. Be careful that you don't become an adult like him".[64] The teacher's failure as an adult results in his death. His death is also a symbolic death of any alternative mimetic model; the teacher could not abide the violent character of the society and therefore could not be a part of it anymore.

Battle Royale describes a dystopian society in crisis. This crisis intensifies the violent urges of its members therefore R. Girard's eruption of violence occurs. Indeed, while the narrative states that the current crisis is due to children's loss of respect towards adults,[65] the true failure seems to have been the result of society itself. Kitano alludes to that when commenting in a dream-sequence that hitting a student is prohibited: "Lay your hands on a student now and you're fired".[66] By removing this small act of violence, which for Kitano is not only an act of discipline but also a form of care and attachment – he claims that slapping students helped him "tell them apart, to grow to like them"[67] – society loses its outlet for violence. This results in greater and uncontrollable violence. The solution under this state of emergency and *exception*[68] is for society to put rites into place in the form of sacrificial games to appease violent outbursts and bring the general population once again in serendipitous coexistence.

While sacrificial rites are mostly witnessed among primitive societies in which law and the judicial system are not as advanced as in the Western world, R. Girard does not deem sacrifice obsolete in contemporary times. As he claims, whenever there is an event violent enough to disturb society's equilibrium, the community turns to sacrifice once more: "any community that has fallen prey to violence or has been stricken by some overwhelming catastrophe hurls itself blindly into the search for a scapegoat".[69] The members of the said community "convince themselves that all their ills are the fault of a lone individual who can be easily disposed of".[70] As R. Girard notes, this can lead to spontaneous outbreaks of violence such as lynchings and pogroms.

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61 See: HUMBOLDT, W.: *Werke in Fünf Bänden.* Darmstadt : Wissenschaftliche Buchgesellschaft, 1960.
62 FUKASAKU, K. (Director): *Battle Royale.* [Blu-Ray]. Tokyo : Toho Company, 2000.
63 Ibidem.
64 Ibidem.
65 Remark by the author: At the same time, the plot implies that it is the product of inadequate parenting, for example Nanahara describes how his parents were completely absent or Kitano is shown to be a distant father to his daughter.
66 FUKASAKU, K. (Director): *Battle Royale.* [Blu-Ray]. Tokyo : Toho Company, 2000.
67 Ibidem.
68 Remark by the author: The term belongs to G. Agamben.; See: AGAMBEN, G.: *The State of Exception.* Durham, MC : Duke University Press, 2005.
69 GIRARD, R.: *Violence and the Sacred.* Baltimore, MD : Johns Hopkins University Press, 1972, p. 79.
70 Ibidem.

Sacrificial Games

Interestingly enough, festivals, contests, sporting events, and, aptly, games are all considered by R. Girard commemorative of sacrificial rites in modern and contemporary societies. In the aforementioned Battle Royale movie, there are a series of flashbacks, in which the male students, now fighting for their lives against each other, are seen participating in a game of basketball against an opposing school, while their female schoolmates encourage their efforts from the bleachers dressed in cheerleader uniforms. The happiness, joy, and effervescence[71] shared by the students after they win the match stands in striking contrast to the antagonism and mutual mistrust they exhibit later in the movie when they are forced to exterminate each other. In terms of function, however, both experiences serve the same cause. In the words of Kitano: "Life is a game. So, fight for survival and find out if you're worth it".[72] If life ends up being brutal and violent then it demands a matching game to teach that. Basketball is too tame a game once violence has been manifested; playing for survival is the only acceptable resolution.

R. Caillois in *Man and the Sacred* sees in the children's game of tag the best example of a contamination ritual: "The one who is "it" passes on his quality by touching a player on the hand, but he must avoid being touched in turn by the latter, for he would then become "it" again".[73] As R. Caillois explains, there is often a special rule introduced that prevents such a manoeuvre: "the children frequently agree that it is not permitted to retouch one's father",[74] as per the parlance of the game. The necessity for such a rule provides, according to R. Caillois, evidence to the ritualistic nature of the game, since it eliminates "the circulation of impurity",[75] as rites do. Moreover, it provides a structured experience of contamination that is separate from actual life, in which one can always "lead the impurity back to its source, to touch one's father again".[76] The rules and regulations put into place allow the game, and the rite, to offer their participants, and the society to which they belong, a sanctification of the impurity that otherwise would spread to the whole community, like R. Girard's violence.

Similarly to R. Girard, who quotes R. Caillois for his connection of the festival to sacrificial rites,[ii] R. Caillois understands play as a sacred phenomenon in which the profane reigns; a state of exception that enables one to escape from their ordinary self and through, because of, and during this escape to perform the actions which are demanded for their cleansing and decontamination: contaminating oneself at a time and space allocated to this contamination; the only process available to the members of the community to defile one another in a manner which will not jeopardise their social concord. As with sacrificial rites, in play, players can perform violence in a predefined manner, so it does not spill outside the acceptable limits.

Understanding both play and rite as spatially limited is an attribute first theorised by J. Huizinga in his book *Homo Ludens*,[77] the playing human. Examining play as a phenomenon preceding culture, Huizinga uses the term magic circle, a space separated from ordinary life where the rules of play reign: "The turf, the tennis-court, the chessboard

71 For an explanation of the term, see: DURKHEIM, E.: *Elementary Forms of the Religious Life*. New York, NY : Simon and Schuster, 1995.
72 FUKASAKU, K. (Director): *Battle Royale*. [Blu-Ray]. Tokyo : Toho Company, 2000.
73 CAILLOIS, R.: *Man and the Sacred*. Champaign, IL : University of Illinois Press, 1959, p. 144.
74 Ibidem.
75 Ibidem.
76 Ibidem.
77 For more information, see: HUIZINGA, J.: *Homo Ludens: A Study of the Play-Element in Culture*. London : Routledge, 1949.

and pavement-hopscotch cannot formally be distinguished from the temple or the magic circle".[78] For J. Huizinga, this segmentation of space for play has no essential difference from the demarcation of sacred places or places for all kinds of rituals, which include practices of art, law, commerce, and science. R. Caillois in *Man and the Sacred* but most evidently in *Man, Play and Games* (1961) follows J. Huizinga's thought regarding the magic circle. In his treatise on play, he adopts most of J. Huizinga's characteristics as an activity: "accompanied by a special awareness of a second reality or of a free unreality, as against real life".[79]

As critics of both J. Huizinga and R. Caillois have argued,[80] this chrono-topological segregation of play not only is arbitrary but does not represent reality. It instead separates life into bubbles of practices, be it war, play, the court, or the ritual. As such, the concept of everyday, ordinary life becomes trivial and empty. Indeed, R. Caillois himself must understand that play and games are not separated from life since they shape it. How else could contamination in a game work in such a manner to prevent contamination outside the game? It must mean that this practice retains a continuation; if not categorical surely psychological. As T. Henricks points out, it is the intention of the person that allows games and play to form and this constitutes a conscious, albeit not always successful, arbitrary choice to allocate certain spaces and places to the practice of games, rites, and sacrificial rites.[81] It is in this capacity of theirs, that games can be great tools of social education, Bildung that is, much like Bildungsromane.

Just like with Bildungsromane, games can provide social education through a variety of means; be it their design, narrative, social gameplay etc. In the case of BR games, and FBR in particular, it is argued that this social conditioning is positioned primarily in their quality as re-enactments of sacrificial rites. In this, FBR educates the player psyche in accordance with the social norms and prescripts of the mimetic desire and violent discourse as explained by R. Girard. This Bildung is especially pertinent when child players are involved. Yet, the players do not have to be children themselves for this Bildung to take place, in the same fashion that the readers of Bildungsromane do not have to be children to receive the 'Bildungseffect'. In such cases, sacrificial rites re-establish for their audience the violent biddings of their contemporary society and keep violence checked within the fictional boundaries of the 'Bildungsartefact': the pages of The Hunger Games, the scenography of Battle Royale, and the battle arena of FBR.

In actuality, as argued in the following section, players of FBR may have an even more intense and, thus, resonating priming of their psyche within the context of violent discourse because they are both performers and spectators of the sacrificial rite, simultaneously. As performers, they possess the ability to act out their own trajectory and, as such, become masters of their own fate. As spectators, they retain distance from playing out the events in the game, which is necessary for the Bildungselement of the game as a prescripted outlet of sacrificial violence. This happens while they play through the avatarial control of the game and, also, after they die in the game due to FBR's spectator mode. As such, games, FBR most pertinently, provide an additional, medium-specific, experience of Bildung in their capacity as spectacles of self-performance.

78 For more information, see: HUIZINGA, J.: *Homo Ludens: A Study of the Play-Element in Culture*. London : Routledge, 1949, p. 20.

79 CAILLOIS, R.: *Man, Play, and Games*. Champaign, IL : University of Illinois Press, 1961, p. 9-10.

80 See also: EHRMANN, J.: Homo Ludens Revisited. In *Yale French Studies*, 1968, Vol. 21, No. 41, p. 31-57.; CALLEJA, G.: Erasing the Magic Circle. In SAGENG, J. R., FOSSHEIM, H., LARSEN, T. M. (eds.): *The Philosophy of Computer Games*. Berlin : Springer, 2012, p. 77-91.

81 For more information, see: HENRICKS, T.: Caillois's "Man, Play, and Games": An Appreciation and Evaluation. In *American Journal of Play*, 2010, Vol. 3, No. 2, p. 157-185.

Fortnite: BR as Spectacle

The connection between FBR and spectatorship is well-documented.[82] Many streamers became famous by playing FBR, while there is a certain interrelation between the game's appeal and the rise of streaming services, like *Twitch*.[83] Fortnite's viewership is evident also in its capacity as an eSports game. The 2019 Fortnite World Cup was viewed by 23,000 physical spectators and 1.5 million home viewers as players competed for a 30 mil. USD price pool, the largest in eSports history until that moment.[84] M. Carter et al. situate the game's appeal within this spectatorship culture, commenting on its spectator mode: after a player dies during the game, they do not immediately leave the game; instead, they continue watching the game being played following the avatar of the player who killed them "and following that, who killed that player, until the end—providing the vicarious experience of a high-skilled victory".[85]

The appeal of watching FBR being played is, as argued, intrinsically linked to its function as a simulated sacrificial rite. As per R. Girard, all sports and games exhibit this, but in the case of FBR, this is more substantial due to its gameplay as a survival game. It is an experience akin to watching the gladiators as part of *panem et circenses* in Roman antiquity fight, often for their lives.[86] There are obvious differences in terms of representation and the verisimilitude of the spectacle.[iii] In FBR, there is no overt violence. It contains cartoonish visuals, a vibrant colour palette, hip music, and catchy dance moves that the avatars perform after a victory. Unlike other games, there is no blood or gore; a fact which affects the parents' consent as to its appropriateness for their children.[87] When players die, they simply disappear from view.

Yet the spectacle of sacrifice does not need to be graphic to perform its cultural function discussed here. In ancient Greek tragedy, death is an off-stage occurrence.[88] This does not mean that those plays do not incorporate death and sacrifice as part of their spectacle. According to R. Girard's surrogate victim argument, sacrificial rites derive from the rivalry caused when two or more members of the society desire the same unshareable object. The appropriate resolution to that is the removal of the rivals. This act of removing is inherently violent, even more when it equals death. Of course, in digital games, like FBR, this is no actual death.[89] It is, however, a phenomenological death.[90] When the player is killed they are forced to stop being a player and regresses to the status of a viewer; obliged to witness someone acting without their being able to participate. In terms of R. Girard's

82 See also: KING, R., DE LA HERA, T.: Fortnite Streamers as Influencers: A Study on Gamers' Perceptions. In *The Computer Games Journal*, 2020, Vol. 9, No. 4, p. 349-368.

83 For example, see: ANDERSON, K. E.: Getting Acquainted with Social Networks and Apps: Figuring Out Fortnite in (Hopefully) Less Than a Fortnight. In *Library Hi Tech News*, 2019, Vol. 36, No. 9, p. 11-16.

84 PEREZ, M.: *Fortnite' World Cup: By the Numbers.* Released 26th July 2019. [online]. [2022-01-18]. Available at: <https://www.forbes.com/sites/mattperez/2019/07/26/fortnite-world-cup-by-the-numbers/?sh=167846516be0/>.

85 CARTER, M. et al.: Situating the Appeal of Fortnite Within Children's Changing Play Cultures. In *Games and Culture*, 2020, Vol. 15, No. 4, p. 462.

86 For more information, see: KNAPP, R.: *Invisible Romans*. London : Profile Books, 2011.

87 CARTER, M. et al.: Situating the Appeal of Fortnite Within Children's Changing Play Cultures. In *Games and Culture*, 2020, Vol. 15, No. 4, p. 461.

88 See: PATHMANATHAN, R. S.: Death in Greek Tragedy. In *Greece & Rome*, 1965, Vol. 12, No 1, p. 2-14.

89 See also: LEINO, O. T.: Death Loop as a Feature. In *Game Studies*, 2012, Vol. 12, No. 2. [online]. [2022-01-18]. Available at: <http://gamestudies.org/1202/articles/death_loop_as_a_feature>.; GIBSON, M., CARDEN, C.: *Living and Dying in a Virtual World: Digital Kinships, Nostalgia, and Mourning in Second Life*. New York, NY : Springer, 2018.; SCHOTT, G. R.: That Dragon Cancer: Contemplating Life and Death in a Medium That Has Frequently Trivialised Both. In CARTER, M., GIBBS, M. R., O'DONNELL, C. (eds.): *DiGRA '17 – Proceedings of the 2017 DiGRA International Conference*. Melbourne : DiGRA, 2017, p. 1-10.

90 For example, see: NTELIA, R. E.: Death in Digital Games: A Thanatological Approach. In *Antae Journal*, 2015, Vol. 2, No. 2, p. 90-100.

theory, the dead player is no longer able to satisfy their mimetic desire; they are bound to desire with no means to achieve their goals, which is the discerning feature of violence exercised against the sacrificeable victim.

Even when death is symbolic, as in the case of FBR, it still possesses an absolute quality: the game stops for the player, forever lost, until a new game begins and thus a new experience of it. In this light, the spectacle of FBR is as violent as ever, erotic even. R. Girard himself makes the connection between eroticism and violence, but it is in the work of G. Bataille that the two are interwoven. In "Hegel, Death and Sacrifice", Bataille comments on how the idea of death may multiply the pleasure of the senses: "I go so far as to believe that, under the form of defilement, the world (or rather the general imagery) of death is at the base of eroticism".[91] From all experiences of death, G. Bataille discerns the most potent in sacrifice, because it is the closest one can come to one's own death: "It is the death of another, but in such instances, the death of the other is always the image of one's own death".[92] As such, sacrifice is imbued with eroticism: "The association from ancient poetry is very meaningful; it refers back to a precise state of sensibility in which the sacrificial element, the feeling of sacred horror itself, joined, in a weakened state, to a tempered pleasure; in which, too, the taste for sacrifice and the emotion which it released seemed in no way contrary to the ultimate uses of pleasure".[93]

Representation, uncontestably, plays an important role in the erotic dimension of the spectacle of sacrifice. This is more evident in the movie Battle Royale, in which the camera acts per the scopophilic male gaze:[94] dead bodies of girl students are shown penetrated by sharp, phallic objects,[95] while there are frequent zoom-ins on the schoolgirls' naked legs under the short skirts of their uniforms. FBR does not entail this pornographic depiction of death[96] as other digital games do.[97] This diminishes the erotic pleasure of the spectacle, but it does not remove its functionality and effect. From another perspective, it is actually augmented because the player can become both the sacrificed victim but also the sacrificer, a duality that further accentuates the game's instrumentality as a Bildungsspiel.

In other forms of mediated representations of sacrificial rites, the spectator and the victim are ontologically distinguished, irrespective of whether a psychological identification takes place or not. The audience is clearly distinct from Katniss in The Hunger Games and Noriko of Battle Royale. In the case of FBR, the spectator can participate themselves in the game. This dual capacity is a medium intrinsic affordance, which occurs because the player can play the game and also watch others play it, either due to the spectator mode after they die in the game or through streaming. The spectacle in games is afforded at another level as well. The player, by controlling an avatar to play the game, acts and watches themselves act at the same time. They are the victim in the enactment of the sacrificial rite who needs to compete against others to survive while simultaneously they are also the spectator and orchestrator of this enactment.

In this sense, the game manifests itself as a 'Bildungsartefact' more so than the Bildungsroman. On one hand, it appropriates the conditioning of the player following the prescripts of the cultural order. The player has to play the game by competing with other

91 BATAILLE, G.: Hegel, Death and Sacrifice. In *Yale French Studies*, 1990, Vol. 42, No. 78, p. 23.
92 Ibidem, p. 24.
93 Ibidem, p. 23.
94 MULVEY, L.: *Visual and Other Pleasures*. London : Palgrave Macmillan, 1989, p. 14-26.
95 FUKASAKU, K. (Director): *Battle Royale*. [Blu-Ray]. Tokyo : Toho Company, 2000.
96 For more information, see: GORER, G.: The Pornography of Death. In *Encounter*, 1955, Vol. 5, No. 4, p. 49-52.
97 Remark by the author: See M. B. Adams's analysis of the trope of female sacrifice in the deaths of Lara Croft in the 2013 *Tomb Raider* game.; For more information, see: ADAMS, M. B.: Andromeda on the Rocks: Retreading and Resisting Tropes of Female Sacrifice in Tomb Raider. In *Kinephanos*, 2017, Vol. 9, No. 1 – Special Issue: Gender Issues in Video Games, p. 103-126. [online]. [2022-01-21]. Available at: <https://www.kinephanos.ca/2017/andromeda-on-the-rocks/>.

players in a survival challenge as this is understood as a sacrificial rite of passage. This conditioning does not demand any narrative because the players execute the enactment themselves: by playing the game they perform within, accept, and perpetuate this violent discourse. On the other hand, while in a digital game the freedom to act against the code of the design is much more limited than in a physical sport or game, there is still room for personal flair, specifically in the social interaction between players. Thus, the game also possesses the transgressive potential of antagonising and breaking the hegemonic paradigm, which is integral to the genre of Bildungsroman.

More so, the Bildungsprocess of the players is twofold because they also witness it as spectators. At first glance, this may seem to oppose and challenge R. Girard's hypothesis of the surrogate victim, since for R. Girard a prerequisite of sacrifice is for the victim to be distant from the society; having a participant who is the spectator of their own sacrifice in the form of a rite of passage seems contradictory if not schizophrenic. There is, however, an important degree of distance retained, which preserves the functionality of sacrifice as ordained by R. Girard; a material distance that is. While the player shares with their avatar a virtual subjectivity,[98] the avatar retains a distinct ontology from the standpoint of the player. This distinction is different from other media because it follows a dynamic structure. The player perceives the avatar both as an object and as an extension of their subject and this connection fluctuates and changes between the two points of subjective and objective avatarial manifestation throughout the gameplay.[99] This dynamicity allows the player to perceive themselves as their avatar and at the same time as separate from them. Therefore, the player's Bildung is not impeded but instead accentuated by playing the game, enabling the emergence of a medium-specific application of the concept, that of the Bildungsspiel.

Conclusion

In this article, FBR is examined as an example of Bildungsspiel. The term is employed as a medium-specific appropriation of the Bildungsroman. Bildungsroman, as a literary genre, focuses on coming-of-age stories, in which the protagonists have to undergo literal or figurative rites of passage as manifestations of their trajectory from children to adults. This trajectory is accompanied by social conditioning, during which the individual accepts the prescripts of the society they belong to. Through their challenges, they prove that they are ready to accept, condone, and preserve these prescripts as true members of this society.

Building on the sacrificial hypothesis of R. Girard, the article sees rites of passage as primarily sacrificial rites. As R. Girard explains, rites of passage are appropriate enactments of sacrifice because they predominantly involve children; individuals that are still not quite part of the society while bearing great resemblance to it. Sacrificial rites are then a successful means of violence mitigation. Society chooses a surrogate victim, a victim who is not an equal part of society and thus its sacrifice will remain unpunished, severing the vicious cycle of violence, temporarily at least. In rites of passage that enact sacrificial

98 For more information, see: GUALENI, S., VELLA, D.: *Virtual Existentialism: Meaning and Subjectivity in Virtual Worlds*. Basingstoke : Springer Nature, 2020.

99 See: VELLA, D.: Player and Figure: An Analysis of a Scene in Kentucky Route Zero. In BENJAMINSSON, U., LANKOSKI, P., VERHAGEN, H. (eds.): *Proceedings of Nordic DiGRA 2014 Conference*. Visby : DiGRA, 2014, p. 1-21. [online]. [2022-01-18]. Available at: <http://www.digra.org/wp-content/uploads/digital-library/nordicdigra2014_submission_2.pdf>.

rites, the victims need to compete with each other performing the sacrifice themselves thus keeping the violence further from society. FBR is a simulated sacrificial rite of passage, in which the players must fight each other till the last person remains standing.

As argued, this is not merely due to the fact that FBR's design is inspired by popular Bildungsromane concerning sacrificial rites of passage, The Hunger Games and Battle Royale that is. More so, it is due to its gameplay, which, more directly than other games, invites the players to re-enact a sacrificial rite of passage. The player has to compete with other players and sacrifice their own innocent self in the process, their self before violence. As such, the game indoctrinates the player in the prescripts of the violent society which dictates the existence of the game in the first place. The game, therefore, has a socially educational – or Bildungs – function. Indeed, the game accentuates its capacity as a 'Bildungsartefact' because the player is the one performing the actions themselves rather than experiencing a recounting of the process.

Furthermore, FBR possesses the medium-intrinsic singularity that the spectator and the spectacle of the sacrifice become one; namely, the player, who watches themselves being offered as a sacrifice while trying to overcome the trial and come out alive as a hailed and revered member of the adult society. This quality enforces the function of the Bildungsroman when it comes to BR games like Fortnite. Even though the game is more resistant to intervention due to the rigidity of its code, it still affords player innovation and agency, especially combined with its spectatorship dimension. For this, in BR games there is a medium-specific expansion and development of the tradition of Bildungsromane or coming-of-age stories in a genre that, in this article, is termed Bildungsspiel.

Notes

i This can be exemplarily witnessed in the case of *Lord of the Flies*.[100] R. Bregman makes the case that while the famous book by W. Golding pictures a gruesome and violent course of human coexistence when children are forced to survive pitted against nature, when a group of real children was actually castaway on a deserted island, they developed a peaceful and caring community, which secured their survival until they were saved.[101] W. Golding's account, despite being fictional, is considered to be a truthful depiction of our prone-to-violence disposition. Yet this is a cultivated and persevering narrative that, not only need not be the only possible outcome, but it is most likely not. R. Bregman challenges this false preconception further in his book.[102]

ii The connection between festival and sacrificial games can also be made in the case of FBR. The game has been argued to resemble a virtual playground more than a battle arena, a digital space in which children can go and meet their friends without the supervision of their parents, much like a skate park.[103] Notably, players can enjoy social events, like the live concert by DJ Marshmello, a Fortnite player himself,

100 For more information, see: GOLDING, W.: *Lord of the Flies*. New York, NY : Berkley, 1959.

101 BREGMAN, R.: *The Real Lord of the Flies: What Happened When Six Boys Were Shipwrecked for 15 Months?*. Released 9th May 2020. [online]. [2022-01-18]. Available at: <https://www.theguardian.com/books/2020/may/09/the-real-lord-of-the-flies-what-happened-when-six-boys-were-shipwrecked-for-15-months>.

102 See also: BREGMAN, R.: *Humankind: A Hopeful History*. London : Bloomsbury Publishing, 2020.

103 STUART, K.: *Fortnite: A Parents' Guide to the Most Popular Video Game in Schools*. Released on 7th March 2018. [online]. [2022-01-18]. Available at: <https://www.theguardian.com/games/2018/mar/07/fortnite-battle-royale-parents-guide-video-game-multiplayer-shooter>.; HASSAN, A.: *Fortnite Is a Social Space the way Skateparks and Facebook Used to Be*. Released on 12th December 2018. [online]. [2022-01-21]. Available at: <https://qz.com/quartzy/1493147/fortnite-a-social-space-like-facebook-and-skateparks-once-were/>.

which was attended by over than 10 million users.[104] During the live show, the battle mechanics were disabled allowing the players to enjoy the music and perform dance sequences with their avatars to it.

iii Indeed, spectatorship is a very big part of the narrative in both Hunger Games and Battle Royale. In the latter book, BR is described as follows: "In a nutshell, let's see Battle Royale is—you know how your usual pro wrestling match is one on one or between paired up partners, well with Battle Royale, ten or twenty wrestlers all jump into the ring. And then you're free to attack anyone, one on one, or ten against one, it doesn't matter. It doesn't matter how many wrestlers pin someone down. [...] Then there's only one player left in the ring, and he's the winner. He wins. He's given a huge trophy and prize money. Get it? Huh? What about players who've been friends? Well, at first, of course they help each other out. But in the end they have to fight each other. You have to follow the rules. Which also means you get to watch some rare matches".[105] From the above quote, one can surmise the simple rules of BR: many contesters fight each other until there is only one left standing. The other important aspect of BR is that the spectacle it offers is an intrinsic part of the event. That is not to say that for other events viewership is not as integral. The difference is that BR matches are designed as such to allow rare spectacles to occur. In the original wrestling BR, it is fights between friends. In the book's narrative, the rarity comes from the fact that it is now high-school students that have to fight each other, to the death all the more. In The Hunger Games series, randomly selected underage participants have to kill each other until only one survives. As such, even though BR did not start from an event involving children, its appeal as a form of spectacle increases all the more when children are sent to kill each other and die in a sort of sacrificial rite. Including child sacrificial rites shows the extent of society's degradation. If a society demands such a violent event as the sacrifice of children to break the cycle of violence, it can be inferred how much social cohesion has deteriorated.

BIBLIOGRAPHY

AARSETH, E. J: *Cybertext: Perspectives on Ergodic Literature*. Baltimore, MD : Johns Hopkins University Press, 1997.

ADAMS, M. B.: Andromeda on the Rocks: Retreading and Resisting Tropes of Female Sacrifice in Tomb Raider. In *Kinephanos*, 2017, Vol. 9, No. 1 – Special Issue: Gender Issues in Video Games, p. 103-126. ISSN 1916-985X. [online]. [2022-01-21]. Available at: <https://www.kinephanos.ca/2017/andromeda-on-the-rocks/>.

AGAMBEN, G.: *The State of Exception*. Durham, MC : Duke University Press, 2005.

ANDERSON, K. E.: Getting Acquainted with Social Networks and Apps: Figuring out Fortnite in (hopefully) Less than a Fortnight. In *Library Hi Tech News*, 2019, Vol. 36, No. 9, p. 11-16. ISSN 0741-9058.

BATAILLE, G.: Hegel, Death and Sacrifice. In *Yale French Studies*, 1990, Vol. 42, No. 78, p. 9-28. ISSN 0044-0078.

BIESTA, G.: Who's Afraid of Teaching? Heidegger and the Question of Education ('Bildung'/'Erziehung'). In *EducationI Philosophy and Theory*, 2016, Vol. 48, No. 8, p. 832-845. ISSN 1469-5812. [online]. [2022-01-18]. Available at: <http://dx.doi.org/10.1080/00131857.2016.1165017>.

104 WEBSTER, A.: *Fortnite's Marshmello Concert Was the Game's Biggest Event Ever.* Released on 21st February 2019. [online]. [2022-01-21]. Available at: <www.theverge.com/2019/2/21/18234980/fortnite-marshmello-concertviewer-numbers>.

105 TAKAMI, K.: *Battle Royale: The Novel*. Los Angeles, CA : Tokyopop, 1999, p. 8.

BOLAKI, S.: *Unsettling the Bildungsroman: Reading Contemporary Ethnic American Women's fiction*. Amsterdam : Brill, 2011.
BREGMAN, R.: *Humankind: A Hopeful History*. London : Bloomsbury Publishing, 2020.
BREGMAN, R.: *The Real Lord of the Flies: What Happened When Six Boys Were Shipwrecked for 15 Months?*. Released 9th May 2020. [online]. [2022-01-18]. Available at: <https://www.theguardian.com/books/2020/may/09/the-real-lord-of-the-flies-what-happened-when-six-boys-were-shipwrecked-for-15-months>.
BRUFORD, W. H.: *The German Tradition of Self-Cultivation: 'Bildung from Humboldt to Thomas Mann'*. New York, NY : Cambridge University Press, 1975.
CAILLOIS, R.: *Man and the Sacred*. Champaign, IL : University of Illinois Press, 1959.
CAILLOIS, R.: *Man, Play, and Games*. Champaign, IL : University of Illinois Press, 1961.
CALLEJA, G.: Erasing the Magic Circle. In SAGENG, J. R., FOSSHEIM, H., LARSEN, T. M. (eds.): *The Philosophy of Computer Games*. Berlin : Springer, 2012, p. 77-91.
CARTER, M. et al.: Situating the Appeal of Fortnite Within Children's Changing Play Cultures. In *Games and Culture*, 2020, Vol. 15, No. 4, p. 453-471. ISSN 1555-4120.
CLEMENT, J.: *Fortnite: Statistics and Facts.* Released on 27th May 2021. [online]. [2022-01-18]. Available at: <https://www.statista.com/topics/5847/fortnite/#dossierKeyfigures>.
COLLINS, S.: *The Hunger Games (series)*. New York, NY : Scholastic, 2008-2010.
CRITERION GAMES: *Battlefield V: Firestorm*. [digital game]. Redwood City, CA : Electronic Arts, 2019.
DURKHEIM, E.: *Elementary Forms of the Religious Life.* New York, NY : Simon and Schuster, 1995.
EHRMANN, J.: Homo Ludens Revisited. In *Yale French Studies*, 1968, Vol. 21, No. 41, p. 31-57. ISSN 0044-0078.
ENSSLIN, A., GOORIMOORTHEE, T.: Transmediating Bildung: Video Games as Life Formation Narratives. In *Games and Culture*, 2020, Vol. 15, No. 4, p. 372-393. ISSN 1555-4120.
EPIC GAMES: *Fortnite: Battle Royale*. [digital game]. Cary, NC : Epic Games, 2017.
FELDMAN, B.: *The Most Important Video Game on the Planet: How Fortnite Became the Instagram of Video Games.* Released on 9th July 2018. [online]. [2022-01-18]. Available at: <https://nymag.com/intelligencer/2018/07/how-fortnite-became-the-most-popular-video-game-on-earth.html>.
FLAUBERT, G.: *Madame Bovary: Mœurs de province*. Paris : Revue de Paris, 1856.
FUKASAKU, K. (Director): *Battle Royale*. [Blu-Ray]. Tokyo : Toho Company, 2000.
GEE, J. P.: Learning by Design: Good Video Games as Learning Machines. In *E-learning and Digital Media*, 2005, Vol. *2*1, No. 1, p. 5-16. ISSN 2042-7530.
GIBSON, M., CARDEN, C.: *Living and Dying in a Virtual World: Digital Kinships, Nostalgia, and Mourning in Second Life*. New York, NY : Springer, 2018.
GIRARD, R.: *Deceit, Desire, and the Novel*. Baltimore, MD : Johns Hopkins University Press, 1976.
GIRARD, R.: *The Scapegoat*. Baltimore, MD : Johns Hopkins University Press, 1989.
GIRARD, R.: *Violence and the Sacred*. Baltimore, MD : Johns Hopkins University Press, 1972.
GOLDING, W.: *Lord of the Flies*. New York, NY : Berkley, 1959.
GORER, G.: The Pornography of Death. In *Encounter*, 1955, Vol. 5, No. 4, p. 49-52. ISSN 0013-7073.
GUALENI, S., VELLA, D.: *Virtual Existentialism: Meaning and Subjectivity in Virtual Worlds*. Basingstoke : Springer Nature, 2020.
HASSAN, A.: *Fortnite Is a Social Space the way Skateparks and Facebook Used to Be.* Released on 12th December 2018. [online]. [2022-01-21]. Available at: <https://qz.com/quartzy/1493147/fortnite-a-social-space-like-facebook-and-skateparks-once-were/>.
HENRICKS, T.: Caillois's "Man, Play, and Games": An Appreciation and Evaluation. In *American Journal of Play*, 2010, Vol. 3, No. 2, p. 157-185. ISSN 1938-0399.
HOWE, S.: *Wilhelm Meister and His English Kinsmen: Apprentices to Life*. New York, NY : Columbia University Press, 1930.
HUIZINGA, J.: *Homo Ludens: A Study of the Play-Element in Culture*. London : Routledge, 1949.
HUMBOLDT, W.: *Werke in Fünf Bänden.* Darmstadt : Wissenschaftliche Buchgesellschaft, 1960.

HWANG, D.-H. (Created by): *Squid Game (series)*. [VOD]. Los Gatos, CA : Netflix, 2021.
CHOI, G., KIM, M.: Battle Royale Game: In Search of a New Game Genre. In *International Journal of Culture Technology*, 2018, Vol. 2, No. 2, p. 5-11. ISSN 2586-4688.
INFINITY WARD: *Call of Duty: Warzone*. [digital game]. Santa Monica, CA : Activision, 2020.
JOANNOY, M.: The Female Bildungsroman in the Twentieth Century. In GRAHAM, S. (ed.): *A History of the Bildungsroman*. Cambridge : Cambridge University Press, 2019, p. 200-216.
KEE, K. et al.: Towards a Theory of Good History through Gaming. In *Canadian Historical Review*, 2009, Vol. 90, No. 2, p. 303-326. ISSN 0008-3755.
KING, R., DE LA HERA, T.: Fortnite Streamers as Influencers: A Study on Gamers' Perceptions. In *The Computer Games Journal*, 2020, Vol. 9, No. 4, p. 349-368. ISSN 2052-773X.
KNAPP, R.: *Invisible Romans*. London : Profile Books, 2011.
KULMAN, R.: *600,000 Minutes of Fortnite? Why Kids Get Hooked: Why Do Kids Want to Play Fortnite Nonstop?.* Released on 7th March 2019. [online]. [2022-01-18]. Available at: <https://www.psychologytoday.com/us/blog/screen-play/201903/600000-minutes-fortnite-why-kids-get-hooked>.
LEINO, O. T.: Death Loop as a Feature. In *Game Studies*, 2012, Vol. 12, No. 2. ISSN 1604-7982. [online]. [2022-01-18]. Available at: <http://gamestudies.org/1202/articles/death_loop_as_a_feature>.
LOWE, B.: The Bildungsroman. In CAESERIO, R. L., HAWES, C. (eds.): *The Cambridge History of the English Novel*. Cambridge : Cambridge University Press, 2012, p. 405-420.
MAISTRE, J. M.: *St Petersburg Dialogues: Or Conversations on the Temporal Government of Providence*. Montreal : McGill-Queen's University Press, 1993.
MAKUCH, E.: *Fortnite: Battle Royale Has Hit 10 Million Players in Two Weeks.* Released on 12th October 2017. [online]. [2022-01-18]. Available at: <https://www.gamespot.com/articles/fortnite-battle-royale-has-hit-10-million-players-/1100-6454008/>.
MARLATT, R.: Capitalizing on the Craze of Fortnite: Toward a Conceptual Framework for Understanding How Gamers Construct Communities of Practice. In *Journal of Education*, 2020, Vol. 200, No. 1, p. 3-11. ISSN 0022-0574.
MASSCHELEIN, J., RICKEN, N.: Do We Still Need the Concept of Bildung?. In *Educational Philosophy and Theory*, 2003, Vol. 35, No. 2, p. 139-154. ISSN 0013-1857.
McCALL, J.: *Gaming the Past: Using Video Games to Teach Secondary History*. London : Routledge, 2013.
McCULLOCH, F.: Bildungsromane for Children and Young Adults. In GRAHAM, S. (ed.): *A History of the Bildungsroman*. Cambridge : Cambridge University Press, 2019, p. 174-199.
MEYER-DRAWE, K.: Das Ich im Spiegel des Nicht-Ich. In *Bildung und Erziehung*, 1993, Vol. 46, No. 2, p. 195-205. ISSN 0006-2456.
MOJANG STUDIOS: *Minecraft*. [digital game]. Stockholm : Mojang Studios, 2011.
MULVEY, L.: *Visual and Other Pleasures*. London : Palgrave Macmillan, 1989.
NTELIA, R. E.: Death in Digital Games: A Thanatological Approach. In *Antae Journal*, 2015, Vol. 2, No. 2, p. 90-100. ISSN 2523-2126.
NTELIA, R. E.: E-Sports at the Olympic Games: From Physicality to Virtuality. In MARGARITIS, K. (ed.): *Law, Ethics, and Integrity in the Sports Industry*. Hershey, PA : IGI Global, 2019, p. 124-143.
ODENSTEDT, A.: Hegel and Gadamer on Bildung. In *The Southern Journal of Philosophy*, 2008, Vol. 46, No. 4, p. 559-580. ISSN 2041-6962.
PALAVER, W.: *René Girard's Mimetic Theory*. East Lansing, MI : Michigan State University Press, 2013.
PARKIN, S.: How Fortnite Conquered the World. Released on 27th May 2018. [online]. [2022-01-18]. Available at: <https://www.theguardian.com/games/2018/may/27/fortnite-conquered-the-world-video-game-teenagers-parents>.
PATHMANATHAN, R. S.: Death in Greek Tragedy. In *Greece & Rome*, 1965, Vol. 12, No 1, p. 2-14. ISSN 0017-3835.

PAUMGARTEN, N.: *How Fortnite Captured Teens' Hearts and Minds: The Craze for the Third-Person Shooter Game Has Elements of Beatlemania, the Opioid Crisis, and Eating Tide Pods*. Released on 14th May 2018. [online]. [2022-01-18]. Available at: <https://www.newyorker.com/magazine/2018/05/21/how-fortnite-captured-teens-hearts-and-minds>.
PEREZ, M.: *Fortnite' World Cup: By the Numbers.* Released 26th July 2019. [online]. [2022-01-18]. Available at: <https://www.forbes.com/sites/mattperez/2019/07/26/fortnite-world-cup-by-the-numbers/?sh=167846516be0/>.
PROUST, M.: *Du côté de chez Swann*. Paris : Grasset Editions, 1913.
PUBG CORPORATION: *PlayerUnknown's Battlegrounds.* [digital game]. Seongnam : PUBG Corporation, 2017.
SCHOTT, G. R.: That Dragon Cancer: Contemplating Life and Death in a Medium That Has Frequently Trivialised Both. In CARTER, M., GIBBS, M. R., O'DONNELL, C. (eds.): *DiGRA '17 – Proceedings of the 2017 DiGRA International Conference*. Melbourne : DiGRA, 2017, p. 1-10.
STUART, K.: *Fortnite: A Parents' Guide to the Most Popular Video Game in Schools.* Released on 7th March 2018. [online]. [2022-01-18]. Available at: <https://www.theguardian.com/games/2018/mar/07/fortnite-battle-royale-parents-guide-video-game-multiplayer-shooter>.
SWALES, M.: *The German Bildungsroman from Wieland to Hesse*. Princeton, NJ : Princeton University Press, 1978.
TAKAMI, K.: *Battle Royale: The Novel*. Los Angeles, CA : Tokyopop, 1999.
TAN, S. S. M.: Burn with Us: Sacrificing Childhood in The Hunger Games. In *The Lion and the Unicorn*, 2013, Vol. 37, No. 1, p. 54-73. ISSN 1080-6563.
TSUKAYAMA, H.: *Everything You Need to Know about Fortnite and Why It's so Popular.* Released on 3rd April 2018. [online]. [2022-01-18]. Available at: <https://www.washingtonpost.com/news/the-switch/wp/2018/04/03/everything-you-need-to-know-about-fortnite-and-why-its-so-popular/>.
VAN GENNEP, A.: *The Rites of Passage*. Chicago, IL : University of Chicago Press, 2019.
VELLA, D.: No Mastery without Mystery: Dark Souls and the Ludic Sublime. In *Game Studies*, 2015, Vol. 15, No. 1. ISSN 1604-7982. [online]. [2022-01-18]. Available at: <http://gamestudies.org/1501/articles/vella>.
VELLA, D.: Player and Figure: An Analysis of a Scene in Kentucky Route Zero. In BENJAMINSSON, U., LANKOSKI, P., VERHAGEN, H. (eds.): *Proceedings of Nordic DiGRA 2014 Conference*. Visby : DiGRA, 2014, p. 1-21. [online]. [2022-01-18]. Available at: <http://www.digra.org/wp-content/uploads/digital-library/nordicdigra2014_submission_2.pdf>.
VINTERBRO-HOHR, A., HOHR, H.: The Neo-Humanistic Concept of Bildung Going Astray: Comments to Friedrich Schiller's Thoughts on Education. In *Educational Philosophy and Theory*, 2016, Vol. 38, No. 2, p. 215-230. ISSN 0013-1857.
VON GOETHE, J. W.: *Wilhelm Meisters Lehrjahre*. Hamm : G. Grote, 1872.
WEBSTER, A.: *Fortnite's Marshmello Concert Was the Game's Biggest Event Ever.* Released on 21st February 2019. [online]. [2022-01-21]. Available at: <www.theverge.com/2019/2/21/18234980/fortnite-marshmello-concertviewer-numbers>.
WEI, H.: Embedded Narrative in Game Design. In KAPRALOS, B., HOGUE, A., XU, S. (eds.): *Futureplay '10: Proceedings of the International Academic Conference on the Future of Game Design and Technology*. New York : ACM, 2010, p. 247-250. [online]. [2022-01-18]. Available at: <https://doi.org/10.1145/1920778.1920818>.
WULF, C.: Perfecting the Individual: Wilhelm von Humboldt's Concept of Anthropology, Bildung and Mimesis. In *Educational Philosophy and Theory*, 2003, Vol. 35, No. 2, p. 241-249. ISSN 0013-1857.

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Pen & Paper & Xerox: Early History of Tabletop RPGs in Czechoslovakia

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ABSTRACT:
The study presents preliminary research focused on the history of tabletop role-playing games (RPGs) in the former Czechoslovakia, especially Dungeons & Dragons (1974) and its local clone Dračí doupě (transl. Dragon's Lair, 1990). Based on theoretical literature, period sources and semi-structured interviews with first-generation players, it gives an overview of the first contacts with RPG in the specific post-communist cultural and economic context, focusing on the distribution and reception of Dragon's Lair, mainly in the Slovak part of the former common state. As a partial outcome of an ongoing research into the local gaming experience, the focus is not on the game itself or its commercial success, but rather on its players, their characteristics and initial experiences with tabletop RPGs in the early 1990s.

KEY WORDS:
Dragon's Lair, Dungeons & Dragons, fantasy, participatory culture, post-communist transformation, tabletop role-playing games.

Introduction

In this study, we deal with tabletop role-playing games (RPGs) and their early players in former Czechoslovakia. We focus on two specific titles, namely *Dungeons and Dragons* (or *Advanced Dungeons and Dragons*, further referred to as *D&D* or *AD&D*) and its Czech variant or clone *Dračí doupě* (transl. Dragon's Lair).[1] Tabletop RPGs, as we understand them today, did not exist before 1974. Their direct predecessors were strategy wargames.[2] Tabletop RPGs possess two features that make them very different: elements of children's make-believe games (the role-playing or simulation element) and omniscient referees, the dungeon master (or game master, further referred to as DM or GM) who is not neutral unlike in traditional wargaming.[3]

Development of the first proper RPG games is attributed to D. Wesely (the first to assign players single heroes instead of letting them command armies in 1967), D. Arneson (who was the first to put fantasy and medieval elements into traditional tabletop wargames), and G. Gygax (who drafted the rules for the so-called *Fantasy Game*, where players control heroes and roll dice to fight monsters, later transformed into Dungeons and Dragons).[4] All three stayed in this field; D. Arneson was a game developer his whole life, G. Gygax continued to develop more game systems and D. Wesely went on to design board games and digital games. Even L. Schick, who was among the first to research and document the history of tabletop RPGs in 1991, stayed in the industry, known mostly as the lead content designer for *The Elder Scrolls Online*[5].

1 Remark by the authors: The original Czech title is *Dračí doupě*, but to make English expression easier, further in the study we will use its literal translation, Dragon's Lair.
2 NIKOLAIDOU, D.: The Wargame Legacy: How Wargames Shaped the Roleplaying Experience from Tabletop to Digital Games. In HAMMOND, P., PÖTZSCH, H. (eds.): *War Games: Memory, Militarism and the Subject of Play.* London, New York, NY : Bloomsbury Academic, 2019, p. 180-183.
3 PETERSON, J.: *The Elusive Shift: How Role-Playing Games Forged Their Identity.* London, Cambridge, MA : The MIT Press, 2020, p. 4-12.
4 SCHICK, L.: *Heroic Worlds: A History and Guide to Role-playing Games.* Buffalo, NY : Prometheus Books, 1991, p. 17-20.; EWALT, D. M.: *Of Dice and Men: The Story of Dungeons & Dragons and The People Who Play It.* New York, NY : Simon & Schuster, 2013, p. 65-70.
5 ZENIMAX ONLINE STUDIOS: *The Elder Scrolls Online.* [digital game]. Rockville, MD : Bethesda Softworks, 2014.

The process of bringing Dragon's Lair to market is a story in which we find several elements typical of the atmosphere of the turn of 1980s and 1990s in the countries of the Eastern bloc; from the initial unavailability of Western products leading to forced ingenuity to the 'wild' commercialization in the form of semi-fraudulent systems, and later, market standardization.[6] With Dragon's Lair and RPGs in general, commercial sales are closely tied to community building; the two cannot be separated, as in this case, the players are not only consumers of the product but also its co-creators (as applies to this day).

From the point of view of game studies, we see *pen & paper* games as part of the overall picture of playing games in the region of the former Czechoslovakia; we call this a 'local gaming experience' and we are particularly interested in their distribution, adoption, reception, and user participation. Our exploratory study aims to outline the early history of tabletop role-playing games in the former Czechoslovakia (highlighting its Slovak part) in the years immediately before and after the fall of the communist regime in 1989. We also try to uncover certain qualitative aspects of the first tabletop RPGs in our region. To this purpose, we have combined research of secondary literature with primary sources in two forms: contemporary rulebooks, magazines and other print media, and interviews with local participants who we have addressed through various RPG internet communities. Interviewees were selected based on their first contact with RPGs in the late 1980s or early 1990s. We have conducted 11 semi-structured interviews (9 as internet video conferences, two as phone calls).[7]

In this text, we consider the terms pen & paper RPG and tabletop RPG interchangeable, as the literature hardly distinguishes between them (see for example their use by W. J. White and collective).[8] As the survey shows, Czechoslovak pioneers were often short of other props (maps, figures and sometimes dice), limiting their gameplay only to pen and paper. Western games and their rulebooks were routinely distributed not by purchasing largely unavailable legal copies but by photocopying originals and spreading those illicit copies within networks of informal distribution. Both Czech and Slovak languages adopted (as did English) the term 'xerox' to denote photocopying regardless of the brand name of the copier.

Aspects Forming Tabletop RPG

When defining role-playing games, the problem is that some authors either do not consider them as proper games at all or see them as borderline cases.[9] The determining factor is not their analogue medium, but that human game masters influence the rules. Rules, of course, also determine the rules – in the case of GM, we are talking about allowing options rather than limiting them. The definition can be also based on the emphasis on a specific part of the game; as a guide, we use R. Edwards' *GNS model*, which divides the approach of RPG players into three categories: *gamist*, *narrativist* (later replaced by dramatist) and *simulationist* (with possible slight overlaps).[10] The initial model of GNS division focused on the player's motivation; in a looser understanding, we can also apply

6 See also: BUČEK, S.: Prvé herné komerčné subjekty na Slovensku. In JURIŠOVÁ, V., KLEMENTIS, M., RADOŠINSKÁ, J. (eds.): *Marketing Identity 2016: Značky, ktoré milujeme*. Trnava : FMK UCM in Trnava, 2016, p. 194-208.

7 Remark by the authors: The names and other personal data of the interviewees stated in the study are used with their informed consent. The full text of the interviews has not been published.

8 WHITE, W. J. et al.: Tabletop Role-Playing Games. In ZAGAL, J. P., DETERDING, S. (eds.): *Role-Playing Game Studies*. New York, NY : Routledge, 2018, p. 64.

9 ZAGAL, J. P., DETERDING, S.: Definitions of "Role-Playing Games". In ZAGAL, J. P., DETERDING, S. (eds.): *Role-Playing Game Studies*. New York, NY : Routledge, 2018, p. 20.

10 EDWARDS, R.: *System Does Matter*. Released on 28th January 2004. [online]. [2022-04-15]. Available at: <http://www.indie-rpgs.com/_articles/system_does_matter.html>.

it to the style of the game, the game system or its definitions. For example, D. MacKay defines an RPG as "an episodic and participatory story-creation system that includes a set of quantified rules that assist a group of players and a gamemaster in determining how their fictional characters' spontaneous interactions are resolved".[11]

J. G. Cover also emphasizes the narrative side of the tabletop RPG, defining it as "a type of game/game system that involves collaboration between a small group of players and a gamemaster through face-to-face social activity with the purpose of creating a narrative experience".[12] In addition to theorists, some game developers also favour the narrative principle. B. King emphasizes the narrative that distinguishes D&D from board games: "It was the first really interactive game. If you play board games there is always an objective or goal. D&D is the opposite. It's about sitting down and telling stories with your friends".[13] Simulationist role-play emphasizes exploration (with exploration being at least partially present in two others) – according to R. Edwards, simulationist play varies as the object of exploration varies.[14] The simulationist perspective, which carries elements of R. Caillois' mimicry, is employed more when we view tabletop RPGs as simulation games, which can be very appealing to some gamers, or when we attribute educational potential to them (as realism or plausibility is a significant part of this kind of role-play).[15]

The gamist approach focuses on winning and its means: *levelling*, *mechanics*, *challenges*. We may consider this category as a kind of starting point of the game: "Initially, Dungeons & Dragons was largely gamist, doing little to encourage in-depth role-playing or any form of storytelling".[16] To determine whether the initial campaigns of tabletop RPGs in our region were predominantly gamist, as in the case of the Polish *Kryształy Czasu* (transl. Crystals of Time, 1998), will require further research.[17] Interviews we conducted indicate that the approaches varied greatly depending on the game and especially on the DM.

Dungeons & Dragons behind the Iron Curtain

Reports of anyone playing tabletop RPGs in Czechoslovakia before 1989 are rare. Statistically, the few individuals who did play are not relevant, but these isolated cases at least somewhat alleviate the considerable delay in the population's contact with games that had existed in the West for more than decade.

It appears that the first mention of D&D in communist Czechoslovakia was a sensationalist article in the magazine *100+1 zahraniční zajímavost* (transl. *100 + 1 Foreign Curiosity*) in July 1986. This report – purportedly lifted from the Italian magazine *Epoca* (6 years after

11 MacKAY, D.: *The Fantasy Role-Playing Game: A New Performing Art*. Jefferson, NC : McFarland & Company, Inc., 2001, p. 4-5.

12 COVER, J. G.: *The Creation of Narrative in Tabletop Role-Playing Games*. London, Jefferson, NC : McFarland & Company, Inc., 2010, p. 168.

13 WATERS, D.: *What happened to Dungeons and Dragons?*. Released on 26th April 2004. [online]. [2022-05-04]. Available at: <http://news.bbc.co.uk/2/hi/uk_news/magazine/3655627.stm>.

14 EDWARDS, R.: *Simulationism: The Right to Dream.* Released on 29th January 2003. [online]. [2022-04-15]. Available at: <http://www.indie-rpgs.com/articles/15/>.

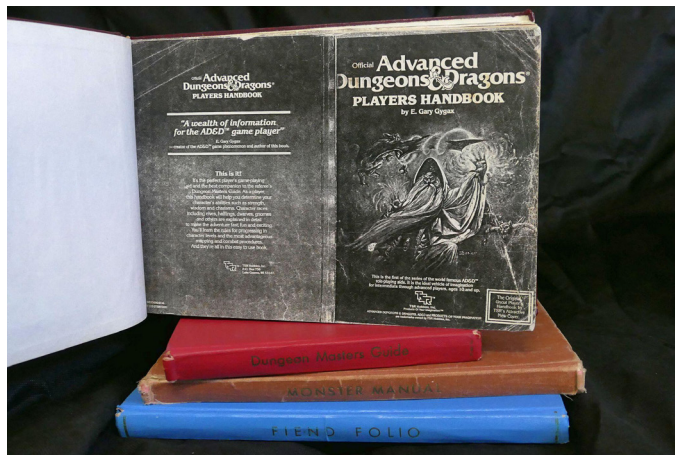
15 KIM, J. H.: *Threefold Simulationism Explained*. Released on 25th January 2004. [online]. [2022-05-04]. Available at: <https://www.darkshire.net/jhkim/rpg/theory/threefold/simulationism.html>.; WHITE, W. J.: The Right to Dream of the Middle Ages: Simulating the Medieval in Tabletop RPGs. In KLINE, D. T. (ed.): *Digital Gaming Re-imagines the Middle Age*. New York, NY : Routledge, 2018, p. 18.

16 TRESCA, M. J.: *The Evolution of Fantasy Role-Playing Games*. Jefferson, NC : McFarland & Company, Inc., 2011, p. 67.

17 MOCHOCKI, M., MOCHOCKA, A.: Magia i Miecz Magazine: The Evolution of Tabletop RPG in Poland and its Anglo-Saxon Context. In *Homo Ludens*, 2016, Vol. 1, No. 9, p 170-171.

its original publication in 1979) – became a rather curious instigator of the development of tabletop RPGs in Czechoslovakia. Titled "Číhá v dračím doupěti" (transl. Lurks in the Dragon's Lair) it discusses D&D as a dangerous mania responsible for the deaths of about fifty young Americans.[18] When M. Klíma, aged 17 at the time, read it, he was left fascinated and curious. Having the opportunity to travel with his parents to Bristol, England, where his father lectured at university, M. Klíma purchased a D&D copy at the Games Workshop store, brought the game to Prague, and began playing it there with friends.[19] D&D (similar to other Western titles) was not available on the market in communist Czechoslovakia , but a few more copies may have been brought by 'shopping tourists' such as M. Klíma, and then circulated similarly to sci-fi and fantasy literature or digital games from the West, only on a much smaller scale. The language barrier (the overwhelming majority of the population did not speak English) further hindered reception of Western media. As J. Švelch details, Czechoslovak gamers often acquired cracked and otherwise modified Western digital games without original packaging or manuals, leading to common misunderstandings.[20]

Our research can account for two more parties playing D&D in Czechoslovakia before the Velvet Revolution. While M. Klíma brought his copy from the United Kingdom, brothers D. Lipšic and E. Lipšic carried their game all the way from Kuwait where their father worked as a doctor during the years 1983-1986. Upon their return to Bratislava, they played few sessions with their high school mates.[21] At some time in 1987, another group of friends xeroxed their rulebook (Picture 1). D. Šmihula and P. Čejka attended the same gymnasium as the Lipšic brothers. M. Sústrik usually acted as DM and the fourth stable member was D. Šmihula's younger brother Vladislav. This core team played regularly throughout 1987-1988. Curiously, Prague and Bratislava cells played different versions of *D&D*. M. Klíma purchased the 'red box' Basic Set (1983 revision of the original game). The Lipšic brothers owned the 1979 edition of Advanced D&D. In the early 1990s, when V. Šmihula got to play M. Klíma's Dragon's Lair – which was largely a simplification of the basic D&D – he recalls it was "a bit of a disappointment" and soon went back to playing his copy of AD&D.[22]



Picture 1: Hardcover binding containing the photo-copies of the AD&D handbook and add-ons. Collection of Vladislav Šmihula
Source: own processing

18 AURITI, S.: Číhá v dračím doupěti. In *100+1 zahraničná zajímavost*, 1986, Vol. 23, No. 14, p. 10.
19 KLÍMA, M.: Hry nejen na hrdiny. In 518, V. (ed.): *Kmeny 90: městské subkultury a nezávislé společenské proudy v letech 1989-2000*. Prague : BiggBoss, 2016, p. 645.
20 ŠVELCH, J.: *Gaming the Iron Curtain. How Teenagers and Amateurs in Communist Czechoslovakia Claimed the Medium of Computer Games*. London, Cambridge, MA : The MIT Press, 2018, p. 143-144.
21 LIPŠIC, E.: *RPG in Czechoslovakia.* [Personal interview]. Released on 27th April 2022. 2022.
22 ŠMIHULA, V.: *RPG in Czechoslovakia.* [Personal interview]. Released on 19th April 2022. 2022.

If computer clubs provided a platform for distributing unauthorized copies of digital games in the 1980s, sci-fi/fantasy clubs did the same for literature.[23] Enthusiasts were not concerned with copyright or licensing agreements; after all, it was a matter of disseminating (xeroxed) copies of scarce items, especially within clubs. After 1989, these clubs also served as 'recruitment centres' for RPGs.

Dragon's Lair, Its Adoption, Players, and Reception

Amidst the transformation towards a liberal market economy M. Klíma rejected samizdat as a suitable method for spreading the translated D&D. He decided to apply formally to TSR (the original publisher of D&D) for a license, but the company never responded. With the opening of borders and the market, M. Klíma discovered the diversity of tabletop games and he opted for his own version of the RPG. Together with M. Benda, K. Papík and V. Kadlečková, he created Dragon's Lair, basically a simplified version of D&D.[24] M. Klíma initially published Dragon's Lair through an unaffiliated publisher. Its success allowed him to start his own publishing house *Altar* in 1991.

When M. Klíma and collective released Dragon's Lair in December 1990, they exploited the unique time window between the opening of the Czechoslovak economy after the Velvet Revolution and the 'avalanche' of Western RPGs such as original D&D, *Shadowrun*, German *Das Schwarze Auge* (transl. The Dark Eye) and others in the following years. The language barrier was a persisting issue, coupled with low purchasing power during the economic transformation, so their game represented a convenient and affordable alternative for the audience that after decades of neglect was starving for any fantasy-related content and did not understand much English or German, languages of the most widespread RPGs.

The first players of Dragon's Lair were M. Klíma's friends already introduced to D&D. Among them was R. Waschka from Brno, who had known M. Klíma from meetings of sci-fi fans. R. Waschka was also a member of the historical fencing society *Herold*, founded in 1983, where he met V. Chvátil, another of the prime Dragon's Lair players and later prominent board game designer. According to R. Waschka, the society organised live events where participants enacted scripted narratives about life at medieval castles, "basically LARPs", completely unaware of contemporary Western LARP scenes or tabletop RPGs, considered as one of sources of inspiration for live action role-playing.[25] R. Waschka acquired a test copy of the original edition late in 1990 and started playing by Christmas. In January 1991, his group was staying in a country cottage where they played a continuous session for at least a week.[26] Members of the same community also soon founded the *Society of Friends*

23 ŠVELCH, J.: *Gaming the Iron Curtain. How Teenagers and Amateurs in Communist Czechoslovakia Claimed the Medium of Computer Games*. London, Cambridge, MA : The MIT Press, 2018, p. 104.; KLÍMA, M.: Hry nejen na hrdiny. In 518, V. (ed.): *Kmeny 90: městské subkultury a nezávislé společenské proudy v letech 1989-2000*. Prague : BiggBoss, 2016, p. 645.

24 KLÍMA, M.: Hry nejen na hrdiny. In 518, V. (ed.): *Kmeny 90: městské subkultury a nezávislé společenské proudy v letech 1989-2000*. Prague : BiggBoss, 2016, p. 646.

25 LANCASTER, K.: *Warlocks and Warpdrive: Contemporary Fantasy Entertainments With Interactive and Virtual Environments*. London, Jefferson, NC : McFarland & Company, Inc., 1999, p. 34.

26 WASCHKA, R.: *RPG in Czechoslovakia*. [Personal interview]. Released on 19th April 2022. 2022.; Remark by the authors: In the 1990s, V. Chvátil also worked with M. Klíma in Altar Interactive, designing digital games, before he became famous for his his board games. R. Waschka eventually added to his many occupations digital games design as well.

of the Work of Mr. JRR Tolkien,[27] documenting how the inter-related subcultures of historical re-enactment groups, sci-fi and fantasy fandom and role-playing games, evolving in the West for decades, all collided in post-soviet countries in a few hectic years of the early 1990s.[28]

In addition to tabletop RPGs being constrained to few isolated groups of 'hip' teenagers, Czechoslovakia before 1989 also had a very limited market of board games, consisting primarily of variations of *Parcheesi* and a local clone of *Monopoly*, called *Dostihy & sázky* (transl. *Horse Racing & Betting*) launched in 1984.[29] Some people played the original Monopoly, brought from Western countries.[30] Some even invented their own tabletop and board games, e.g., imitations of wargames played by brothers D. Šmihula and V. Šmihula, or paper imitations of Monopoly, producing an unspecifiable number of homebrew variations. The Šmihula brothers' attempts at imitating wargames were based mostly on inferring the gameplay from photos, since recreational wargaming was also virtually unknown in the Czechoslovak context.[31]

If R. Waschka serves as an example of links between historical re-enactment, fantasy fandom and role-playing games in the Czech part of the former federation, the case of D. Šmihula (b. 1972) and his group illustrates the connection between fantasy readership and RPGs in Slovakia. After reading J. R. R. Tolkien's *The Hobbit*[32] when he was seven, D. Šmihula became a life-long fantasy fan. The Hobbit was actually the only J. R. R. Tolkien title published in communist Czechoslovakia (the first Slovak translation in 1973, Czech in 1979).[33] Publishing J. R. R. Tolkien's other books and Western fantasy in general was not officially prohibited, rather discouraged. Local communist censors considered it low value, trashy writing, "unclassifiable under the categories of socialist literature", and they had ideological reservations against the genre, e.g., its use of "nonmaterialistic magic and miracles".[34] However, intellectuals and dissidents circulated various samizdat translations of *The Lord of the Ring*[35] and other works. In his article on J. R. R. Tolkien's works in the Soviet bloc D. Šmihula argues that communist suspicion towards fantasy was fully justified. Informal fantasy subculture "including players of role-playing games [...] in continuation of activities of environmentalists, underground music and literary movements, companies of historical fencing and romantic tramping indeed formed certain cultural background [that was] alternative against the official communist culture and ideology".[36]

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27 Remark by the authors: The officially used English version of the name of the community *Společnost přátel díla pana J.R.R. Tolkiena*.

28 Remark by the authors: The Society was founded in Brno in January 1992.; *O nás aneb historie a* činnost *Společnosti v kostce*. Released on 1st December 2008. [online]. [2022-04-20]. Available at: <http://tolkien.cz/?page%20id=2#>.

29 ŠVELCH, J.: *Gaming the Iron Curtain. How Teenagers and Amateurs in Communist Czechoslovakia Claimed the Medium of Computer Games*. London, Cambridge, MA : The MIT Press, 2018, p. 112, 281.; Remark by the authors: JAVOZ, the company producing Horserace Betting, in 1980s also released Marshall and Spy (Maršál a špión), a clone of the abstract board game Stratego, or Phantom of Old Prague (Fantom staré Prahy), a variation of the Spiel des Jahre-awarded game Scotland Yard (1983).

30 BADAČ, M.: *RPG in Czechoslovakia.* [Personal interview]. Released on 11th April 2022. 2022.

31 ŠMIHULA, V.: *RPG in Czechoslovakia.* [Personal interview]. Released on 19th April 2022. 2022.

32 For more information, see: TOLKIEN, J. R. R.: *The Hobbit*. London : George Allen & Unwin Ltd., 1937.

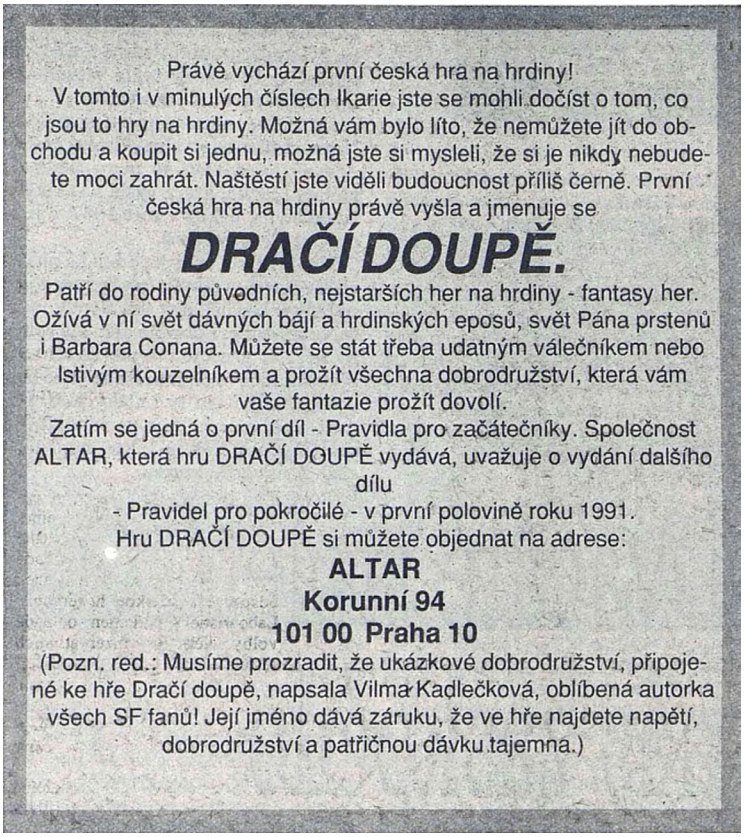
33 ŠMIHULA, D.: *RPG in Czechoslovakia.* [Personal interview]. Released on 19th April 2022. 2022.; Remark by the authors: D. Šmihula is a lawyer, political scientist, journalist and writer, author of short sci-fi stories and fantasy novel *Obrancovia Liptova*.; See also: ŠMIHULA, D.: *Obrancovia Liptova*. Bratislava : Vydavateľstvo Hydra, 2021.

34 ŠMIHULA, D.: *Tolkienovo dielo v socialistickom tábore*. Released on 13th May 2018. [online]. [2022-04-17]. Available at: <https://kultura.pravda.sk/kniha/clanok/469395-tolkienovo-dielo-v-socialistickom-tabore/>.

35 For example, see: TOLKIEN, J. R. R.: *The Lord of the Rings*. London : George Allen & Unwin Ltd., 1968.; Remark by the authors: The individual volumes of the trilogy were published from 1954 to 1955. Unofficial Czech translation existed since 1979-1980.

36 ŠMIHULA, D.: *Tolkienovo dielo v socialistickom tábore*. Released on 13th May 2018. [online]. [2022-04-17]. Available at: <https://kultura.pravda.sk/kniha/clanok/469395-tolkienovo-dielo-v-socialistickom-tabore/>.

In 1990-1992, the Czech translation of *The Lord of the Rings* trilogy was finally released officially, together with a deluge of other fantasy titles. Also in 1990, a group of Czech sci-fi writers and fans started publishing *Ikarie*, the first local magazine devoted to sci-fi, fantasy and horror. In June 1990 Ikarie published an article by K. Papík, a sort of native ad recounting typical gameplay of a new RPG game, called Dragon's Lair.[37] Later, in the February 1991 issue, Ikarie carried an ad for Dragon's Lair (Picture 2), associating the game directly with the booming fantasy subculture and its most iconic staples in the contemporary Czechoslovak context: "[The game] belongs to the family of the original, oldest role-playing games – fantasy games. It brings to life the world of ancient legends and heroic epics, the world of the Lord of the Rings and Conan the Barbarian".[38]


Právě vychází první česká hra na hrdiny!
V tomto i v minulých číslech Ikarie jste se mohli dočíst o tom, co jsou to hry na hrdiny. Možná vám bylo líto, že nemůžete jít do obchodu a koupit si jednu, možná jste si mysleli, že si je nikdy nebudete moci zahrát. Naštěstí jste viděli budoucnost příliš černě. První česká hra na hrdiny právě vyšla a jmenuje se

DRAČÍ DOUPĚ.

Patří do rodiny původních, nejstarších her na hrdiny - fantasy her. Ožívá v ní svět dávných bájí a hrdinských eposů, svět Pána prstenů i Barbara Conana. Můžete se stát třeba udatným válečníkem nebo lstivým kouzelníkem a prožít všechna dobrodružství, která vám vaše fantazie prožít dovolí.
Zatím se jedná o první díl - Pravidla pro začátečníky. Společnost ALTAR, která hru DRAČÍ DOUPĚ vydává, uvažuje o vydání dalšího dílu
- Pravidel pro pokročilé - v první polovině roku 1991.
Hru DRAČÍ DOUPĚ si můžete objednat na adrese:

ALTAR
Korunní 94
101 00 Praha 10

(Pozn. red.: Musíme prozradit, že ukázkové dobrodružství, připojené ke hře Dračí doupě, napsala Vilma Kadlečková, oblíbená autorka všech SF fanů! Její jméno dává záruku, že ve hře najdete napětí, dobrodružství a patřičnou dávku tajemna.)

Picture 2: Print advertisement for Dragon's Lair in Ikarie, 1991. It contains no information about price, only the address for placing an order

Source: Dračí doupě. [Print advertisement]. In *Ikarie*, 1991, Vol. 2, No. 2, p. 53.

Because Ikarie was also distributed in Slovakia, this was the source that first brought the game to the attention of many Slovak fantasy fans. For example, two of the interviewees, M. Badač from Bratislava and J. Krištofovič from Trnava, cite it as their source of information and subsequent decision to order the copy from the newly founded publishing house Altar.[39] However, conditions were rapidly changing. The fantasy boom also led

37 See: PAPÍK, K.: Brána do jiného světa. In *Ikarie*, 1990, Vol. 1, No. 6, p. 46-47.
38 Dračí doupě. [Print advertisement]. In *Ikarie*, 1991, Vol. 2, No. 2, p. 53.
39 BADAČ, M.: *RPG in Czechoslovakia.* [Personal interview]. Released on 11th April 2022. 2022.; KRIŠTOFOVIČ, J.: *RPG in Czechoslovakia.* [Personal interview]. Released on 19th April 2022. 2022.

to the rise of specialised genre bookshops, like the one in Bratislava, called *Arrakis* and originally set-up in the changing room of the library at Klariská street. Its frequent visitor M. Sedlačko (b. 1979), then barely teenage, was impressed by the displayed copy of the rulebook, so he pooled money with his primary school classmates to get it.[40]

While a background in board games, fantasy literature or historical re-enactment can be seen as conforming to similar Western standards of how one could become a RPG player, M. Sústrik and P. Čejka, members of D. Šmihula's AD&D party, represent another specific feature of growing up in the late communist Czechoslovakia. As members of the first young generation introduced to Western computer games, not only they *played* computer games before playing tabletop RPGs, but they were *aware of* computer games before knowing about the existence of RPGs. M. Sústrik and P. Čejka became also involved in designing their own amateur computer games as members of the Sybilasoft collective, producing their first games in 1987, the same year when they allegedly started playing AD&D with D. Šmihula.[41]

Like their Western counterparts, early adopters of RPGs in Czechoslovakia were teenagers or young adults.[42] In the United States in the 1960s Dave Arneson discovered wargaming as a teenager and D. Wesely as a university student. M. Klíma (b. 1969) became aware of D&D aged seventeen and he played it with his peers. The Lipšic brothers were born in 1972; members of the D. Šmihula group were around the same age (mostly born in 1972-1973) and did not continue playing after graduating from high school. Writing about the booming RPG scene in the United States in the 1980s, G. A. Fine described a typical gamer as being in his late teens or early twenties, while at the same time the median age of new players was decreasing.[43] Early Slovak players of Dragon's Lair like M. Badač and M. Sedlačko in Bratislava also started as teenagers. Our interviewees cited similar reasons for disengaging from the hobby as did G. A. Fine's subjects – graduation, marriages or jobs.[44]

Due to its accessibility, Dragon's Lair quickly expanded to smaller cities and towns around the country. J. Krištofovič (b. 1972) founded a group with his younger schoolmates at high school in Trnava in early 1991, M. Sedlačko usually played at clubs or cultural centres in Bratislava, but also in Šamorín, a small town on the outskirts of the capital.[45] I. Aľakša founded a group in Šaľa, another small town in southwest Slovakia. Initially, it was just a duo, where he was a GM and the other boy played up to five characters. Nonetheless, in 1993, I. Aľakša started the first Slovak fanzine for RPG players called *Meč a mágia* (transl. Sword and Sorcery), producing 12 issues by 1995. In 1997 it transformed into the first professional fantasy magazine called simply *Fantázia* (transl. Fantasy), published until 2011.[46]

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40 SEDLAČKO, M.: *RPG in Czechoslovakia.* [Personal interview]. Released on 13th April 2022. 2022.; Remark by the authors: The interviewee, nowadays a political and social scientist, dates this event to 1992 or 1993.

41 ŠVELCH, J.: *Gaming the Iron Curtain. How Teenagers and Amateurs in Communist Czechoslovakia Claimed the Medium of Computer Games*. London, Cambridge, MA : The MIT Press, 2018, p. 193-194.; Remark by the authors: Sybilasoft collective included S. Hrda and brothers M. Hlaváč and J. Hlaváč. Their games were mostly text adventures, the genre that was in turn directly influenced by tabletop RPGs.; AARSETH, E. J.: *Cybertext. Perspectives on Ergodic Literature*. Baltimore, MA : The John Hopkins University Press, 1997, p. 98.; SÚSTRIK, M.: *RPG in Czechoslovakia.* [Personal interview]. Released on 26th April 2022. 2022.

42 TESAŘ, A.: Elfové a draci pro každého. In *A2*, 2018, Vol. 14, No. 26. [online]. [2022-05-10]. Available at: <https://www.advojka.cz/archiv/2018/26/elfove-a-draci-pro-kazdeho>.; Remark by the authors: Klíma in 1994 broke members of Hexaedr up into two main groups: players around 14 years and high-school/college students.; See also: NĚMEČEK, T.: Draci studenta Klímy. In *Mladý svet*, 1994, Vol. 36, No. 14, p. 14.

43 FINE, G. A.: *Shared Fantasy – Role-Playing Games as Social Worlds*. Chicago, IL : University of Chicago Press, 1983, p. 39, 257.

44 Ibidem, p. 40.

45 KRIŠTOFOVIČ, J.: *RPG in Czechoslovakia.* [Personal interview]. Released on 19th April 2022. 2022.; SEDLAČKO, M.: *RPG in Czechoslovakia.* [Personal interview]. Released on 13th April 2022. 2022.

46 AĽAKŠA, I.: *RPG in Czechoslovakia.* [Personal interview]. Released on 16th May 2022. 2022.

It is not possible to determine at this stage of research how many Dragon's Lair copies were distributed in the Slovak part of the federation or how many players there were. It is probably safe to assume that it was a small percentage of the total numbers. Our interviewees were mostly concentrated in cities and towns of west Slovakia, having the closest ties to both the Czech Republic and Austria, but due to the qualitative character of this preliminary survey we are unable to say with any certainty how popular RPGs there were elsewhere in the country.

Mirroring Western gamers in yet another aspect, early participants in RPGs in Czechoslovakia seem to be overwhelmingly male. Our interviewees played almost exclusively with other boys. Only R. Waschka (b. 1968) confirmed already having female players in his group in 1991, maybe also because he and his group were in their twenties, a few years older than typical participants were.[47] For example, M. Sedlačko was startled to see the first girl in another group, older as well.[48] J. Průcha from České Budějovice recalls having met female participants only after 2000, D. Šmihula registered an influx of women into Bratislava fantasy fandom after 2000.[49] These accounts seem consistent with G. A. Fine's findings of around 90% male dominance in US fantasy role-playing in the 1980s, with recent figures suggesting that D&D is less male-dominated than it used to be.[50]

The reasons Fine cited for the absence of women, i.e. their attributes, the structural characteristics of the game, and the nature of recruitment into this subsociety, were not lost in translation.[51] Sci-fi and fantasy fandom were not virtually all-male hobbies like wargaming, but men were still in the majority. Some notable exceptions coming from Czech sci-fi clubs include V. Kadlečková and J. Vorlová who both substantially contributed to the development of Dragon's Lair and its publisher Altar. Sexist and chauvinist attitudes of role-playing gamers documented by G. A. Fine were ubiquitous among Czechoslovak participants as well. According to J. Průcha, when discussing playing with women, people were saying that the game "can't be for girls, that girls don't have imagination, they are not interested in fantastic worlds, they are more oriented towards reality and don't like fights".[52] Some groups even discouraged male members from playing female characters. M. Sedlačko recalls that it was certainly taboo, because fantasy role-playing was seen as a form of psychotherapy, not merely entertainment, and playing a female character would thus be inauthentic, "would betray the game's ethos".[53] However, not all groups held identical prohibitive views.

Dissemination and reception of RPGs in Czechoslovakia (and both succession states since 1993) seems to be devoid of one notable accompanying phenomenon occurring in the USA: moral panic over the dangers of role-playing games throughout the 1980s and 1990s. Moral entrepreneurs aligned with the New Christian Right accused RPGs of promoting Satanism and witchcraft and thus corrupting the impressionable youth, sometimes with deadly consequences.[54] Except for the sensationalist piece from 1986 mentioned above, post-communist national media, conservative circles or society in general paid very

47 WASCHKA, R.: *RPG in Czechoslovakia.* [Personal interview]. Released on 19th April 2022. 2022.
48 SEDLAČKO, M.: *RPG in Czechoslovakia.* [Personal interview]. Released on 13th April 2022. 2022.
49 PRŮCHA, J.: *RPG in Czechoslovakia.* [Personal interview]. Released on 13th April 2022. 2022.; ŠMIHULA, D.: *RPG in Czechoslovakia.* [Personal interview]. Released on 19th April 2022. 2022.
50 FINE, G. A.: *Shared Fantasy – Role-Playing Games as Social Worlds*. Chicago, IL : University of Chicago Press, 1983, p. 41.; TANEN, A.: *7 Dungeons & Dragons statistics you should know about*. [online]. [2022-05-12]. Available at: <https://dicecove.com/dnd-statistics/>.
51 FINE, G. A.: *Shared Fantasy – Role-Playing Games as Social Worlds*. Chicago, IL : University of Chicago Press, 1983, p. 62-71.
52 PRŮCHA, J.: *RPG in Czechoslovakia.* [Personal interview]. Released on 13th April 2022. 2022.; FINE, G. A.: *Shared Fantasy – Role-Playing Games as Social Worlds*. Chicago, IL : University of Chicago Press, 1983, p. 64.
53 SEDLAČKO, M.: *RPG in Czechoslovakia.* [Personal interview]. Released on 13th April 2022. 2022.
54 LAYCOCK, J. P.: *Dangerous Games: What the Moral Panic over Role. Playing Games Says about Play, Religion, and Imagined Worlds*. Oakland, CA : University of California Press, 2015, p. 76-176.; For more information, see: BYERS, A.: The Satanic Panic and Dungeons & Dragons: A Twenty- Five-year Retrospective. In BYERS, A., CROCCO, F. (eds.): *The Role-Playing Society. Essays on the Cultural Influence of RPGs*. Jefferson, NC : McFarland & Company, Inc., 2016, p. 22-45.

little attention to the new fast-spreading hobby. However, this view has yet to be verified by a further contemporary media study. Our respondents almost invariably denied any moral concerns from parents or other authorities over their participation in RPG sessions. Reactions, if there were any, exhibited rather incomprehension, bemusement, and occasionally slight ridicule. Dragon's Lair was "entertainment for nerds", "geeks" or "weirdos", but it was not scapegoated as an agent behind the scandalous behaviour of deviant youth.[55]

Discerning reasons for this development goes beyond the scope of this study. Provisionally, we can only point to the hecticness of early 1990s in the post-communist Czechoslovakia, mentioned in previous sections. An abrupt economic, political and social liberalisation after years of inertia brought a proliferation of heretofore virtually unknown phenomena, some of them considerably harmful, such as organised crime or illicit drug use. Suddenly, there were many far more visible (and scary) subsocieties or subcultures than nerdy gamers such as punks, skinheads and ultras, bikers, and gangsters. There was simply too much to worry about. Therefore, it comes as little surprise that, as our interviewees recall, their parents were only "glad that we don't take drugs".[56] Through youth leisure centres, centres of culture or community clubs, various municipalities demonstrably lent institutional support to RPG enthusiasts, indicating that the activity was not generally perceived as maleficent.[57]

Between Consumerism and Participation

The commercial success of Dragon's Lair has been well documented. M. Klíma claims that the first 5,000 copies sold out in half a year.[58] M. Bronec, former executive of the publishing house Altar, estimates that by the mid-1990s around 60,000 copies of the game were sold and perhaps 100,000 people were active players (in the country of 15 million).[59] In comparison, the original D&D grew much slower, taking almost a year for the first 1,000 copies to sell out and reaching 1 million players only by the 1980s.[60] The rapid expansion of Dragon's Lair indicates a pre-existing demand just waiting for a suitable product. M. Klíma actually helped to fuel this demand because he both founded *Hexaedr*, a national club for RPG players, and (as mentioned) advertised the game in Ikarie, months before its official release. By 1994, Hexaedr had 3,500 members.[61]

As we focus our research particularly on the player's experience, the 1990s interest us in terms of building a player base and gaming communities. If some theorists claim of the tabletop RPG that "they complicate our understanding of the relationship between authors and audiences, and our definitions of these terms", this was even more so in the atmosphere of the 1990s, in which companies like Altar were just learning ways of commerce and attempted to exploit the creativity of their audience for content

55 PRŮCHA, J.: *RPG in Czechoslovakia.* [Personal interview]. Released on 13th April 2022. 2022.; BADAČ, M.: *RPG in Czechoslovakia.* [Personal interview]. Released on 11th April 2022. 2022.
56 ANTALEC, I.: *RPG in Czechoslovakia.* [Personal interview]. Released on 18th April 2022. 2022.
57 SEDLAČKO, M.: *RPG in Czechoslovakia.* [Personal interview]. Released on 13th April 2022. 2022.
58 KLÍMA, M.: Hry nejen na hrdiny. In 518, V. (ed.): *Kmeny 90: městské subkultury a nezávislé společenské proudy v letech 1989-2000*. Prague : BiggBoss, 2016, p. 651.
59 ŠPLÍCHAL, P.: Po fantasy byl po revoluci hlad. In *A2*, 2018, Vol. 14, No. 26. [online]. [2022-05-10]. Available at: <https://www.advojka.cz/archiv/2018/26/po-fantasy-byl-po-revoluci-hlad>.
60 FINE, G. A.: *Shared Fantasy – Role-Playing Games as Social Worlds*. Chicago, IL : University of Chicago Press, 1983, p. 15, 26.
61 NĚMEČEK, T.: Draci studenta Klímy. In *Mladý svět*, 1994, Vol. 36, No. 14, p. 14.

production.[62] We can understand this in terms of participatory culture, i.e. not only culture interpreting meaning but also creating it, while still distinguishing between active participants who are involved in creating social and cultural content and those who use but do not create such content.[63] Gameplay in its various forms can be seen as a form of participatory culture that was encouraged directly by game designers. One of the important aspects is following or modifying the rules by players. In computer RPGs, software can quickly work with inputs and AI can be very sophisticated, but the gameplay is still limited to what designers originally intended and implemented. It cannot evolve unlike the ever-changing nature of collective imagination that is working on top of prepared layout in tabletop RPGs where rules provide objective measurement of success, but the gameplay depends on a DM and players. Computer RPG designers can also encourage participation by integrating modding options or other editing tools. However, it is participation of a different kind than spontaneous, in-person and real-time interactions and inventions of tabletop RPG gameplay. The aforementioned gamist system was tied to the so-called "hack-and-slash" school of playing. T. Toles-Patkin compares this to B. Sutton-Smith's typology of games based on age of the players. In this case, it is determined not only by the age and she connects this straightforward style of play to the low experience level of the players.[64]

Our interviewees' accounts vary in this matter and the sample is not sufficient to make a statement about the prevalence of a particular play style, but we can say that there was some inclination to hack-and-slash style consisting of rooms of enemies waiting for confrontation with players as described by D. M. Ewalt: "In the very first room, they discovered and defeated a nest of scorpions; in the second, they fought a gang of kobolds – short subterranean lizard-men. They also found their first treasure, a chest full of copper coins, but it was too heavy to carry".[65] This corresponds with the early style of play as described in our interviews. Some of our respondents recalled adventures in continuous rooms with non-functioning and often non-realistic ecosystems containing only monsters to deal with. For example, M. Sedlačko was critical of campaigns involving pure "cave eradication" and alleged that some players who felt restricted by official rules started to develop their own set of house rules and even completely new systems.[66] Other accounts confirm this notion. A. Tesař assesses the Dragon's Lair game system as "not elaborate", leaving much of the gameplay to the "imagination and dramatic abilities of players, especially the DM". Numerous fanzines often contained attempts to fix dysfunctional rules.[67] J. Olt considers the main difference between D&D and Dragon's Lair to be that "Lair's rules were often incomplete, looser and open to every possible modification and house rules".[68]

Tabletop RPGs are sets of interactions defined by the rules. In theory, an omniscient dungeon master oversees adhering to the rules, while the story can be influenced and co-developed by players who sometimes have little to no knowledge about the rules and learn them from the DM while playing. Why in theory? In the current understanding of tabletop RPG, the focus is towards the narrative and improvisation of the players, while the rules do not have to be taken strictly by the book. "For tabletop GMs, in-depth knowledge

62 WHITE, W. J. et al.: Tabletop Role-Playing Games. In ZAGAL, J. P., DETERDING, S. (eds.): *Role-Playing Game Studies*. New York, NY : Routledge, 2018, p. 67.

63 JENKINS, H.: *Textual Poachers: Television Fans & Participatory Culture*. New York, NY : Routledge, 1992, p. 22-23.

64 TOLES-PATKIN, T.: Rational Coordination in the Dungeon. In *Journal of Popular Culture,* 1986, Vol. 20, No. 1, p. 7.

65 EWALT, D. M.: *Of Dice and Men: The Story of Dungeons & Dragons and The People Who Play It*. New York, NY : Simon & Schuster, 2013, p. 65-66.

66 SEDLAČKO, M.: *RPG in Czechoslovakia.* [Personal interview]. Released on 13th April 2022. 2022.

67 TESAŘ, A.: Elfové a draci pro každého. In *A2*, 2018, Vol. 14, No. 26. [online]. [2022-05-10]. Available at: <https://www.advojka.cz/archiv/2018/26/elfove-a-draci-pro-kazdeho>.

68 OLT, J.: Role-playing v zemi chatařů. In *A2*, 2018, Vol. 14, No. 26. [online]. [2022-05-10]. Available at: <https://www.advojka.cz/archiv/2018/26/role-playing-v-zemi-chataru>.

and enforcement of the rules are not only unnecessary, but in many cases undesirable".[69] In the development of the first RPG, the rules formed an objective and universally valid commitment in order to restrict the decision-making by the GM. However, as early as the 1980s G. Gygax promoted the notion that rules do not determine the whole gameplay, but "merely provide guidelines for the DM to go about setting up these scenarios".[70] Paradoxically, his idea was better realized by the simplified localization of his game, a typically shoddy product of the transforming post-communist culture and economy of the former Czechoslovakia.

Conclusion

Compared to digital games, tabletop role-playing games had very limited reach in communist Czechoslovakia. The first contribution of our study is in presenting evidence that D&D was not played only by M. Klíma and his circle in Prague. There were at least two other consecutive groups that played AD&D version in Bratislava. Some members were at the same time among the pioneers of digital game design in Slovakia.

However, apart from a few isolated groups of players in the largest cities, the public was generally unaware of the phenomenon that was already very popular in the West. The real breakthrough came only after the Velvet Revolution in the early 1990s with the release of a localized clone of D&D, called Dragon's Lair. The game was an instant success unlike in the USA, where its growth was initially much slower. This rapid proliferation is linked to the simultaneous boom of Western fantasy literature that was until then largely unavailable in Czechoslovakia, restricted by the communist censorship. We conclude that the release of Dragon's Lair tapped into the pre-existing demand and concur with other authors who see it as a "paramount substitutionary product" for the audience hindered by the low purchase power and language barrier.[71] Surveying some of the early adopters, we have documented how Dragon's Lair was disseminated in the Slovak part of the republic. The study thereafter examines players and their practices. Interviews indicate that participants shared many characteristics with early gamers in the West; they were mostly male, teenagers or young adults, or students. They also displayed similar interests such as participating in sci-fi or fantasy fandom, historical re-enactment and LARP-like activities, or board games.

Considering the reception of RPGs, our survey indicates that due to various factors it did not include the aspect of moral panic, as was the case in the United States in the 1980s and 1990s. Although parents and the general public apparently did not comprehend much of the activity, our sources indicate that it was appreciated as pro-social rather than anti-social and supported by municipal institutions and authorities providing spaces and infrastructure for gamers (perhaps to keep them off the streets). This assessment needs to be verified by the extensive study of contemporary media. With its substitutionary and sketchy character, Dragon's Lair encouraged a considerable investment of creativity on the part of the players, emphasizing the association between RPGs and participatory culture. This unique configuration functioned a few years into the 1990s, until the standardization and diversification of the RPG market.

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69 BARTON, M., STACKS, S.: *Dungeons and Desktops. The History of Computer Role-playing Games*. Boca Raton, FL : CRC Press, 2019, p. 12.

70 TOLES-PATKIN, T.: Rational Coordination in the Dungeon. In *Journal of Popular Culture,* 1986, Vol. 20, No. 1, p. 3.

71 TESAŘ, A.: Elfové a draci pro každého. In *A2*, 2018, Vol. 14, No. 26. [online]. [2022-05-10]. Available at: <https://www.advojka.cz/archiv/2018/26/elfove-a-draci-pro-kazdeho>.

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BIBLIOGRAPHY

AARSETH, E. J.: *Cybertext. Perspectives on Ergodic Literature*. Baltimore, MA : The John Hopkins University Press, 1997.

AĽAKŠA, I.: *RPG in Czechoslovakia.* [Personal interview]. Released on 16th May 2022. 2022.

ANTALEC, I.: *RPG in Czechoslovakia.* [Personal interview]. Released on 18th April 2022. 2022.

AURITI, S.: Číhá v dračím doupěti. In *100+1 zahraničná zajímavost*, 1986, Vol. 23, No. 14, p. 10-11. ISSN 0322-9629.

BADAČ, M.: *RPG in Czechoslovakia.* [Personal interview]. Released on 11th April 2022. 2022.

BARTON, M., STACKS, S.: *Dungeons and Desktops. The History of Computer Role-playing Games.* Boca Raton, FL : CRC Press, 2019.

BUČEK, S.: Prvé herné komerčné subjekty na Slovensku. In JURIŠOVÁ, V., KLEMENTIS, M., RADOŠINSKÁ, J. (eds.): *Marketing Identity 2016: Značky, ktoré milujeme*. Trnava : FMK UCM in Trnava, 2016, p. 194-208.

BYERS, A.: The Satanic Panic and Dungeons & Dragons: A Twenty- Five-year Retrospective. In BYERS, A., CROCCO, F. (eds.): *The Role-Playing Society. Essays on the Cultural Influence of RPGs*. Jefferson, NC : McFarland & Company, Inc., 2016, p. 22-45.

COVER, J. G.: *The Creation of Narrative in Tabletop Role-Playing Games*. London, Jefferson, NC : McFarland & Company, Inc., 2010.

Dračí doupě. [Print advertisement]. In *Ikarie*, 1991, Vol. 2, No. 2, p. 53. ISSN 1210-6798.

EDWARDS, R.: *Simulationism: The Right to Dream.* Released on 29th January 2003. [online]. [2022-04-15]. Available at: <http://www.indie-rpgs.com/articles/15/>.

EDWARDS, R.: *System Does Matter.* Released on 28th January 2004. [online]. [2022-04-15]. Available at: <http://www.indie-rpgs.com/_articles/system_does_matter.html>.

EWALT, D. M.: *Of Dice and Men: The Story of Dungeons & Dragons and The People Who Play It*. New York, NY : Simon & Schuster, 2013.

FINE, G. A.: *Shared Fantasy – Role-Playing Games as Social Worlds*. Chicago, IL : University of Chicago Press, 1983.

JENKINS, H.: *Textual Poachers: Television Fans & Participatory Culture*. New York, NY : Routledge, 1992.

KIM, J. H.: *Threefold Simulationism Explained*. Released on 25th January 2004. [online]. [2022-05-04]. Available at: <https://www.darkshire.net/jhkim/rpg/theory/threefold/simulationism.html>.

KLÍMA, M.: Hry nejen na hrdiny. In 518, V. (ed.): *Kmeny 90: městské subkultury a nezávislé společenské proudy v letech 1989-2000*. Prague : BiggBoss, 2016, p. 638-656.

KRIŠTOFOVIČ, J.: *RPG in Czechoslovakia.* [Personal interview]. Released on 19th April 2022. 2022.

LANCASTER, K.: *Warlocks and Warpdrive: Contemporary Fantasy Entertainments With Interactive and Virtual Environments*. London, Jefferson, NC : McFarland & Company, Inc., 1999.

LAYCOCK, J. P.: *Dangerous Games: What the Moral Panic over Role. Playing Games Says about Play, Religion, and Imagined Worlds*. Oakland, CA : University of California Press, 2015.

LIPŠIC, E.: *RPG in Czechoslovakia.* [Personal interview]. Released on 27th April 2022. 2022.

MacKAY, D.: *The Fantasy Role-Playing Game: A New Performing Art*. Jefferson, NC : McFarland & Company, Inc., 2001.

MOCHOCKI, M., MOCHOCKA, A.: Magia i Miecz Magazine: The Evolution of Tabletop RPG in Poland and its Anglo-Saxon Context. In *Homo Ludens*, 2016, Vol. 9, No. 1, p. 167-196. ISSN 2080-4555.

NĚMEČEK, T.: Draci studenta Klímy. In *Mladý svet*, 1994, Vol. 36, No. 14, p. 14. ISSN 0323-2042.

NIKOLAIDOU, D.: The Wargame Legacy: How Wargames Shaped the Roleplaying Experience from Tabletop to Digital Games. In HAMMOND, P., PÖTZSCH, H. (eds.): *War Games: Memory, Militarism and the Subject of Play.* London, New York, NY : Bloomsbury Academic, 2019, p. 179-200.
O nás aneb historie a činnost *Společnosti v kostce*. Released on 1st December 2008. [online]. [2022-04-20]. Available at: <http://tolkien.cz/?page%20id=2#>.
OLT, J.: Role-playing v zemi chatařů. In *A2*, 2018, Vol. 14, No. 26. ISSN 1803-6635. [online]. [2022-05-10]. Available at: <https://www.advojka.cz/archiv/2018/26/role-playing-v-zemi-chataru>.
PAPÍK, K.: Brána do jiného světa. In *Ikarie*, 1990, Vol. 1, No. 6, p. 46-47. ISSN 1210-6798.
PETERSON, J.: *The Elusive Shift: How Role-Playing Games Forged Their Identity*. London, Cambridge, MA : The MIT Press, 2020.
PRŮCHA, J.: *RPG in Czechoslovakia.* [Personal interview]. Released on 13th April 2022. 2022.
SEDLAČKO, M.: *RPG in Czechoslovakia.* [Personal interview]. Released on 13th April 2022. 2022.
SCHICK, L.: *Heroic Worlds: A History and Guide to Role-playing Games*. Buffalo, NY : Prometheus Books, 1991.
SÚSTRIK, M.: *RPG in Czechoslovakia.* [Personal interview]. Released on 26th April 2022. 2022.
ŠMIHULA, D.: *Obrancovia Liptova*. Bratislava : Vydavateľstvo Hydra, 2021.
ŠMIHULA, D.: *RPG in Czechoslovakia.* [Personal interview]. Released on 19th April 2022. 2022.
ŠMIHULA, D.: *Tolkienovo dielo v socialistickom tábore*. Released on 13th May 2018. [online]. [2022-04-17]. Available at: <https://kultura.pravda.sk/kniha/clanok/469395-tolkienovo-dielo-v-socialistickom-tabore/>.
ŠMIHULA, V.: *RPG in Czechoslovakia.* [Personal interview]. Released on 19th April 2022. 2022.
ŠPLÍCHAL, P.: Po fantasy byl po revoluci hlad. In *A2*, 2018, Vol. 14, No. 26. ISSN 1803-6635. [online]. [2022-05-10]. Available at: <https://www.advojka.cz/archiv/2018/26/po-fantasy-byl-po-revoluci-hlad>.
ŠVELCH, J.: *Gaming the Iron Curtain. How Teenagers and Amateurs in Communist Czechoslovakia Claimed the Medium of Computer Games*. London, Cambridge, MA : The MIT Press, 2018.
TANEN, A.: *7 Dungeons & Dragons statistics you should know about*. [online]. [2022-05-12]. Available at: <https://dicecove.com/dnd-statistics/>.
TESAŘ, A.: Elfové a draci pro každého. In *A2*, 2018, Vol. 14, No. 26. ISSN 1803-6635. [online]. [2022-05-10]. Available at: <https://www.advojka.cz/archiv/2018/26/elfove-a-draci-pro-kazdeho>.
TOLES-PATKIN, T.: Rational Coordination in the Dungeon. In *Journal of Popular Culture,* 1986, Vol. 20, No. 1, p. 1-14. ISSN 1540-5931.
TOLKIEN, J. R. R.: *The Hobbit*. London : George Allen & Unwin Ltd., 1937.
TOLKIEN, J. R. R.: *The Lord of the Rings*. London : George Allen & Unwin Ltd., 1968.
TRESCA, M. J.: *The Evolution of Fantasy Role-Playing Games*. Jefferson, NC : McFarland & Company, Inc., 2011.
WASCHKA, R.: *RPG in Czechoslovakia.* [Personal interview]. Released on 19th April 2022. 2022.
WATERS, D.: *What happened to Dungeons and Dragons?*. Released on 26th April 2004. [online]. [2022-05-04]. Available at: <http://news.bbc.co.uk/2/hi/uk_news/magazine/3655627.stm>.
WHITE, W. J.: The Right to Dream of the Middle Ages: Simulating the Medieval in Tabletop RPGs. In KLINE, D. T. (ed.): *Digital Gaming Re-imagines the Middle Age*. New York, NY : Routledge, 2018, p. 15-28.
WHITE, W. J. et al.: Tabletop Role-Playing Games. In ZAGAL, J. P., DETERDING, S. (eds.): *Role-Playing Game Studies*. New York, NY : Routledge, 2018, p. 63-86.
ZAGAL, J. P., DETERDING, S.: Definitions of "Role-playing Games". In ZAGAL, J. P., DETERDING, S. (eds.): *Role-Playing Game Studies*. New York, NY : Routledge, 2018, p. 19-51.
ZENIMAX ONLINE STUDIOS: *The Elder Scrolls Online*. [digital game]. Rockville, MD : Bethesda Softworks, 2014.

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Two Perspectives of Being a Cosplayer: Japan vs Europe

Interview with Hikari GREEN and Naoko “Fran” TAMURA

Hikari Green
Shinagawa, Tokyo
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Hikari Green is a Japanese cosplayer working in the financial sector. She represents the idea of cosplay and hobby in various mainstream media in Japan and abroad. She is regularly invited to interviews about Japanese culture, pop culture and cosplay activities by Japanese as well as foreign media. Various brands in Japan invites her to pose as a model for their products, events and cafeterias. With the help of these side jobs, she is able to represent cosplay as an interesting hobby to a general audience.

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Naoko “Fran” Tamura is Japanese businesswoman, active in cosplay communities and activities since 1987. She helped with the organization of the biggest cosplay event in Japan, the World Cosplay Summit. There, she gained a lot of experience and thanks to her great level in English she was able to provide much needed help to international cosplay guests and attendees of the convention. She regularly attends conventions abroad, either as a cosplay guest or cosplay competition judge. She recently started her own business company with international trade in the food and wine industry. Thanks to this business she is able to travel worldwide and she often connects cosplay and her daily job together.

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Anna Paulína Jelínková (A. P. J.): Cosplay as a hobby activity has a tradition in Japan. When did you first encounter this phenomenon?

Hikari Green: I grew up with *otaku*[1] culture from an early age. In Japan, various otaku and fan magazines with chapters from popular manga comics, such as Weekly Shonen Jump, have been published. I've always loved reading them. In one of these magazines was a report from Comic market – Comiket, which is a meeting of manga authors – mangaka, and manga readers. The cosplayers who took part in this event were also mentioned in these magazines. But there were very few of them at the time, and it was more of a rarity.

Naoko "Fran" Tamura: Even before cosplay, I always loved drawing manga. I attended *Comiket* – Comic markets with my friends and helped them with their booths, where they sold their drawings and *doujinshis*.[2] I also used to draw a lot and enjoyed these conventions. First time I saw cosplay was at Comiket – few of my friends made their own costumes and cosplayed their favourite characters. My first convention I visited as a visitor – not a cosplayer was in 1987, at that time only a few people were wearing costumes.

A. P. J.: When did you make your first cosplay and what character did you chose? Did you attend a convention in cosplay as well?

Hikari Green: I started cosplaying when I was a high school student. My first cosplay was Nina from *Suikoden*, she was a high school student too, wearing a simple high school uniform, that's why I chose her. I also liked her character as well. At that time (early 2000) there were not any cosplay shops, so this costume was made from parts of outfits I already owned. I took this costume to convention as well, secretly, of course. My parents did not want me to go to convention, and I thought I had fooled them, but they figured it out and were not very happy about it, as I was minor at that time. Today, they do not have problem with it.

Naoko "Fran" Tamura: My first cosplay that I wore to convention in 1995 was Souichiro Jin from the manga *Slam Dunk* – this costume was made by my friend. The first costume I made was Angel from the game *Tekken 2* and I wore it to a convention in Japan in 1997. Both of these characters are male, and I chose them, because I am tall and my cosplay group needed these characters. Also I like these characters personality as well.

A. P. J.: How is cosplay perceived in Japan compared to the European approach?

Hikari Green: Thanks to cosplay I travel a lot, either as a guest, cosplay competition judge or just as a visitor by myself and I see many differences. First of all, cosplay in Japan is overlooked, and the general public sees it as extravagant hobby. Many Japanese think that cosplay are ladies in sexy outfits, and it is sexualized a lot. In western countries, when people think of cosplay they usually think of big and popular costumes like Iron Man, Spider Man or Wonder Woman. In Japan many cosplay girls only make outfits of sexy characters in bikini, hence Japanese think of cosplay as a sexualized hobby. That is one of the reasons why I do not like to cosplay sexy versions and prefer male characters.

1 Remark by the authors: Otaku is a term used for fans of anime, manga, comics and pop culture media.
2 Remark by the authors: Doujinshi is a fan drawn manga of already existing manga/anime. It is similar to fan fiction or fan art.

Naoko "Fran" Tamura: I would say that in last 10 years perception of cosplay in the eyes of Japanese people changed. Before, I was very nervous when someone knew that I do cosplay, I never spoke about it with anyone other than my cosplay friends. Today, society is more open to this hobby, cosplayers are presented in mainstream media and on the internet. People do not hold strange feelings towards cosplayers now. Cosplayers are viewed as artist or actors I think.

A. P. J.: What are the main differences between Japanese and European conventions?

Hikari Green: My first convention abroad was in 2009 in Thailand, I went there by myself. I remember that Thais were really surprised that Japanese came to their convention. Thanks to kind visitors there I build up a strong fanbase abroad. Later I started to receive invitations to foreign conventions to judge cosplay contest, or just be a guest there

Naoko "Fran" Tamura: When I travel to foreign conventions, I usually go alone, but I never feel lonely. Once I am there people approach me and chat with me. When they realize I am Japanese, they are even more excited, because usually, they are also fans of our culture. I really enjoy meeting people abroad and talk with them. In Japan, we do not have such a strong bond in communities, like westerners do. I usually hang out with few of my friends. Also, in Japan we do not hold panels or presentation blocks like in Europe, it is usually more about market – selling and buying mangas, merch, and so.

A. P. J.: Does your family, friends, co-workers know that you are cosplayer?

Hikari Green: I am open about being a cosplayer, it is no secret for me. My family is supportive, since I have a regular job and cosplay as a hobby. In Japan I am quite active in mainstream media – I was in several magazines and on TV as well, trying to introduce the world of cosplay to the general public. Thanks to my job in the financial sector, I am invited as a cosplayer to media often – because for Japanese, my daily job is respectable, but cosplay is perceived strangely. But when it is combined, in me as a person, the casual viewer is more willing to listen. I was also interviewed in few foreign fan magazines as well.

Naoko "Fran" Tamura: I do not share the fact that I am cosplayer very easily. Basically only my otaku Japanese friends know about it, and surely my close family. My family is neutral about it. This year I opened my own business in international trading, after working many years as an employee. My colleagues did not know that I am a cosplayer, I did not have the urge to tell them either. I have many international friends that I know from conventions, who know I am a cosplayer and I am happy about it, since I can speak about my favourite manga and anime with them and even plan cosplays together.

A. P. J.: What does cosplay mean to you? What emotions does it bring in you?

Hikari Green: Cosplay is my life – cosplay changed my life significantly, since I was a young girl. Thanks to cosplay my view has been broadened and I got to meet many different and interesting people. Cosplay is not only about wearing costumes and putting on make-up, it is a way of my life. I am able to express my feelings, my passion through costuming, crafting and role playing.

Naoko "Fran" Tamura: The purpose of cosplay is to express passion of someone who loves wearing costume, who loves to become their favourite character from game, anime, manga... For me, cosplay is my most beloved hobby, in more depth, this is how I express myself. When you say cosplay, I instantly imagine a person who loves anime, manga and pop culture. It makes me excited. Thanks to cosplay I made and am still making many new friends, I get to know people on different level, and am able to travel across the world.

A. P. J.: Do you think cosplay is for everybody?

Hikari Green: Yes, I think it is. I met people with different opinions about this topic. Most of them were not even cosplayers. Some of them told me that I am too old to cosplay (I was about 35 at that time), that cosplay is too childish. All of the veteran cosplayers I know are proud to be cosplayers, and age does not play a role when their hobby makes them happy. Some of the veteran cosplayers do not approve of young cosplayers, who do not make their own costumes. This is based on the fact, that 20 – 30 years ago, there were no cosplay shops, wig shops or anything for cosplayers, and we had to make everything ourselves. This is very different today, when all you need to do is go on eBay, Amazon or Aliexpress and you can buy everything for your cosplay. I find it super useful and helpful, but still, mostly I do all of my costumes and props by myself.

Naoko "Fran" Tamura: I am sure that cosplay is for everyone. In the Japanese community, I heard many times, that cosplay is not for everybody – bigger people should not cosplay thin anime characters, if you are too tall you should not cosplay short characters and vice versa. I do not condone this sentiment. Being a cosplayer means expressing yourself and your passion. It does not mean you are an idol or actor and need to look some specific way. I figured that in western countries, communities are much more welcoming in this regard, and they do not judge cosplayers who do not look 100 percent like character.

A. P. J.: Do you perceive cosplayers who only buy costumes, and do not make them by themselves differently?

Hikari Green: Kind of, yes. For me, fans who only buy costumes and props and do not make them by themselves are more like models than cosplayers, maybe I would call them light cosplayers. I do not hate on them, I do not think of them as any less. As long as they have fun and are nice to everyone else I find it okay.

Naoko "Fran" Tamura: Not really, as long as the rules are not broken (as for cosplay competitions, where you cannot attend in bought costumes) I do not have problem with it. Cosplay is a hobby for everyone, and you don't have to make everything by hand. There are different aspects of cosplay which one can enjoy. Be it crafting, prop making, sewing, roleplaying, or just chilling in costume with your friends.

TREACHEROUS PLAY

CARTER, M.: *Treacherous Play*. London, Cambridge, MA : The MIT Press, 2022. 141 p. ISBN 978-0-262-046312.

František Rigo

Treacherous Play by M. Carter is another addition to the *Playful Thinking* series of books published by the MIT Press that aims at shedding light on "new ways of thinking about games and new ways of using games to think about the rest of the world" (p. viii). Being a Senior Lecturer in Digital Cultures at the University of Sydney and focusing his research interest on media studies, digital games and human-computer interactions, in *Treacherous Play* (about a hundred pages, excluding appendix, notes, bibliography and index) M. Carter succeeds in meeting the aforementioned aim of the series, i.e., he acquaints the reader with the concept, purpose and appeal of playing games in a way that embraces scamming, deception or betrayal. However, it needs to be borne in mind that the author draws a clear distinction between any unfair playing practices occurring in just any game and the playstyles and games at the centre of his research attention. The reason for such a distinction is clear: treachery in games is rare and playing treacherously is actively designed against in most multiplayer games. Thus, treacherous type of play is underexplored and in the author's attempt to examine the examples of games where treacherous play is successful, he choses to focus on the games employing (and supporting, at times even encouraging) "the lawful use of deception to betray another person in a multiplayer game by choice, where it provides in-game advantages" (p. 11). For M. Carter, such games are *EVE Online*[1], *DayZ*[2] and *Survivor*[3]. These games are presented as examples of games in which treacherous play contributes to their appeal and commercial success and they are tackled in three individual chapters of the book. While the analyses in those chapters comprise the core of the publication, they are accompanied by three more complementing chapters providing insight into the very basis of treacherous play, introducing key design principles for games embracing this playstyle, and concluding the issue of treacherous play as dealt with in the book.

For a deeper understanding of treacherous play, in the first chapter, in *An Introduction to Playing Treacherously*, M. Carter tackles three basic assumptions that players and scholars often have about this playstyle: treacherous play is *unethical*, treacherous play is *antisocial*, treacherous players are *bad people*. Drawing on work by other relevant scholars and on M. Carter's own research findings and analyses related (not only) to the three above stated games, he interrogates the phenomenon of treacherous play in depth. Even though the author claims it is not his aim to dispel these assumptions, he manages to lead the reader to questioning them. Reasoning that even negative emotions can be a part of play, and thus enjoyed, and referring to the phenomenon

1 CCP GAMES: *EVE Online*. [digital game]. New York, NY : Simon & Schuster Interactive, CCP Games, Atari, 2003.
2 BOHEMIA INTERACTIVE: *DayZ*. [digital game]. Prague : Bohemia Interactive, 2018.
3 PARSONS, C. (Created by): *Survivor*. [TV]. New York, NY : CBS, 2000-2022.

of betrayal aversion, reversal theory or the excitation transfer effect, the reader is left questioning themselves whether treacherous play really is unethical if "betrayal crucially falls within the rules of the game" (p. 6). Is treacherous play really antisocial? As M. Carter argues, in the case of games where trust and social relationships have become the played commodity and whose core appeal is the social experience, the assumption about treacherous play being antisocial does not seem that sound. The same goes for the third assumption stating that treacherous players are bad people. In games like poker, lying to one's opponents is actually the core of the game and, thus, it would be too short-sighted to base our claims about who people are on how they play. However, in the cases of treacherous games analysed in the book, the players are given the responsibility to choose how to play, whether to use deception and betrayal or not, they can decide what is right or wrong and, in this way, players are forced to engage with the morality of their game and their actions.

The second chapter is dedicated to the analysis of treacherous play within a massive multiplayer online game EVE Online and is titled by the game's informal number one rule – "DON'T TRUST ANYONE" (p. 22). As the very chapter title suggests, the entire game is pervaded by the culture of distrust. As the analysed piece is a hugely complex game, a considerable amount of text within the chapter is devoted to describing the principles of the game and introducing its universe. Being very different from mainstream game culture and having a rather specific player base, EVE Online is presented as an ideal environment for treacherous play, namely *scamming*. The author uses authentic text-based communication between players and accompanies it with his commentary to provide the reader with an insight into the scams occurring in the game, both basic and more complex ones. As far as scamming in EVE Online is concerned, it is important to state that M. Carter distinguishes between scamming within the scope of treacherous play, as explained by him in the previous chapter, and mere griefing. However, scamming is not the only treacherous practice widely present in EVE Online. Via a detailed case-study, the author examines the treacherous practice of *espionage*. As surprising as it may seem, even in the seemingly hostile environment of the game, very real friendships can develop in EVE Online, as it can provide strong social experience, also because of treachery that is in the core of the game. "Risk, after all, is exciting, and the presence of treacherous play ensures that social interactions are riskier, more intense and more engaging" (p. 38).

DayZ: Treachery in the Zombie Apocalypse is the title of the third chapter of the book. According to M. Carter, the potential for treachery lies at the heart of DayZ's social gameplay and its feature of proximity-based voice chat introduces the opportunities and motivations for treachery. Within the examination of treacherous play in this game, the author conducts research on players' motivation for betrayal (once again, the distinction between griefing and treachery is crucial). It turns out that a treacherous player's motivation lies in the value of the objects stolen, not in a player's negative outburst. Drawing on other authors' works on reversal theory or the excitation transfer effect, the author explains wherein lies the appeal of the game. It is the "increased risk [that] satisfies the paratelic player's desire for high arousal" (p. 51), thus *dying in DayZ* does not have to be necessarily a negative experience. On the other hand, from the social perspective, (the possibility of) *killing in DayZ* gives players the responsibility to choose what is right or wrong, as well as an opportunity to experience negative emotions in a safe way. Treacherous play is a part of what makes DayZ attractive to players and the fear of betrayal makes players value their trust with another person.

In his examination of treacherous play, M. Carter does not limit his attention only to digital games. In the fourth chapter, titled *Survivor: Treacherous Play as a Spectator Sport,* referring to chosen particular seasons of the show, the author provides an intriguing insight into the well-known reality TV show "played out in its social interactions" (p. 64). From among the three analysed games, it is in Survivor where the social aspects of treacherous play become most significant as betraying a player is a highly personal act of treachery and players' reactions to betrayal fully shape the way the game is viewed and understood. While in games "betraying might be okay, [...] betraying a friend might not be" (p. ?). According to M. Carter, the players' choice to act deceptively or not is what really distinguished treacherous play in Survivor, as the fact that betraying is not absolutely necessary to play the game is the key. The way the game is played in Survivor "reflects the society and culture in which it is played" (p. 73).

The fifth chapter of the book, *Designing Treacherous Play,* provides a logical conclusion of the analyses presented in the previous chapters. If deception and betrayal are to contribute to a game's appeal and commercial success, five key patterns crucial for treacherous play have to be incorporated in designing such games: relationships between players must be ambiguous; players must be able to openly communicate with one another; the game must have interactions that require players to trust one another; play must be consequential; treacherous play must take place within the rules of the game. In reasoning the necessity of each pattern, the author revisits his analyses presented in the previous chapters, thus each pattern is supported by a solid knowledge base the reader has already become familiar with. In addition, M. Carter comes up with two more unnecessary patterns; however, both of them could be identified within each analysed game: "the inclusion of a dystopian imaginary" (p. 94) and "a clear ceiling on what is acceptable in gameplay" (p. 95). As far as the key design patterns for games deception and betrayal go, the bottom-line is that even treacherous play needs to be bounded.

In the final chapter, *Treacherous Assumptions,* M. Carter revisits the assumptions about treacherous play postulated in chapter one. Having explored EVE Online, DayZ and Survivor from the perspective of the three assumptions, the author formulates logical conclusions about treacherous play. The examined games remain ethical, they provide an appealing opportunity to experience various aspects of humanity (even those that are related to harsh, painful or unpleasant experiences) and create an environment in which relationships can be deep and highly valued. If part of the reason why we play games is social interaction, treacherous play, according to M. Carter, enhances the social experience of players as, by its nature, it is a very social way of playing a game. Treacherous play allows us, momentarily, "the experience of being bad. Ultimately these kinds of experiences also teach us what it means to be good" (p. 105).

M. Carter's Treacherous Play provides the reader with an undoubtedly intriguing insight into an unexplored area of (not only) digital games embracing deception, scamming or betrayal. It is a thought-provoking read not only for players of digital games or scholars within the given field, but for everyone that finds engaging in a game fascinating, as "[t]reacherous play shows how complex and provocative playful experiences can really be" (p. 105).

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BIBLIOGRAPHY

BOHEMIA INTERACTIVE: *DayZ*. [digital game]. Prague : Bohemia Interactive, 2018.
CCP GAMES: *EVE Online*. [digital game]. New York, NY : Simon & Schuster Interactive, CCP Games, Atari, 2003.
PARSONS, C. (Created by): *Survivor*. [TV]. New York, NY : CBS, 2000-2022.

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RESIDENT EVIL VILLAGE

CAPCOM: *Resident Evil Village* (*PlayStation 4 version*). [digital game]. Osaka : Capcom, 2021.

Klaudia Jancsovics

Resident Evil[1] is a well-known horror franchise with an extensive and rich history: among others, several movies and video games tell the story of the T-Virus that can turn biological beings into mutants or zombies. As S. Boluk and W. Lenz underline, the zombies have an Afro-Caribbean origin, and they arise from the voodoo culture.[2] In contrast, the plague zombie is a twentieth-century phenomenon that emerged when modern science unmasked the pestilence's mystery. Many Resident Evil stories use this type of enemy.

Resident Evil 7: Biohazard[3] took a different turn: a new, faceless protagonist, Ethan Winters, was introduced, who had to fight against the creatures of a fungal superorganism, the mold. The sequel, *Resident Evil Village*, also focuses on Ethan's journey, while it announced some unique enemies and locations. With the help of the mold, supernatural beings and mutants can come to life (instead of zombies, they are the werewolf-like Lycans), which are agile, aggressive entities. As the director, M. Sato, said in one of the interviews, "the players should not mindlessly react to the game, but engage the game and even second guess themselves, then finally overcome their fears and the obstacles in front of them".[4] Before the analysis of Resident Evil Village goes deeper, it is essential to mention that the following review will contain major spoilers.

Village is a first-person shooter, the player's vision is restricted to the protagonist's point of view, and there are direct corollaries between the character and the player.[5] Ethan Winters is a faceless hero, he seems like an average human, but he has incredible regenerative power. However, this ability does not suspend the feeling of vulnerability, the player has to navigate between narrow corridors, dark places, and the threat can hide in every corner. The protagonist does not control the environment, and the camera angles permit a view, which allows the enemies to get up close before the player can detect the threat. Village uses jumpscare, in some cases, the game 'plays' with the users' attention: when the player has to search for a code (the numbers are written in bright colours) they can see it from a window, and when they step closer, a monster jumps in front of them. This jumpscare builds on the player's predictability, and there are many similar details and solutions in the game.

The gameplay follows the previous Resident Evil games' mechanism: it is possible to combine and upgrade items, and players must be aware of how and what to store in their inventory due to the limited space. There are several routes and opportunities to defeat the enemies, and clever puzzle elements and minigames are placed inside the main game.

1 CAPCOM et al.: *Resident Evil (series)*. [digital game]. Osaka : Capcom et al., 1996-2021.
2 BOLUK, S., LENZ, W.: Infection, Media, and Capitalism: From Early Modern Plagues to Postmodern Zombies. In *Journal for Early Modern Cultural Studies*, 2010, Vol. 10, No. 2, p. 134-137.
3 CAPCOM: *Resident Evil 7: Biohazard*. [digital game]. Osaka : Capcom, 2017.
4 *Making of Resident Evil Village – The Internal Struggle*. Released on 21st May 2021. [online]. [2022-05-26]. Available at: <https://www.youtube.com/watch?v=EIS-TW1XeNg&ab_channel=ResidentEvil>.
5 For more information, see: DANSKY, R.: Writing for Horror Games. In DESPAIN, W. (ed.): *Writing for Video Game Genres. From FPS to RPG*. Wellesley, MA : A K Peters Ltd., 2009, p. 113-126.

These minigames represent the meta-level, which is unnecessary for progression but can add further challenges to the game. As A. M. Green highlighted in *Storytelling in video games. The art of the Digital Narrative*, players who spend more time on uncovering every secret bond more with the game world, and they can reach a *well-played* state.[6] In Village the player's additional efforts will be rewarded with unique and strong items; it is worth completing the minigames, but it is not mandatory. Village has a framework, and players can decide how they want to navigate within it. Due to the open area, it is almost like an open-world video game, but of course, there are restricted places. These aspects give the impression of free will and at the same time, remind the player that they are exposed to the developers' intentions. Even the open fields hide threats, we can never know from which direction the enemies will strike. One of the most memorable is a field with scarecrows. Even though the space is open, the player can not see much because of the plants (Picture 1). We can tell from the sounds that something is hiding there, causing an oppressive feeling. The narrative and the spatial constructions fit into the horror genre perfectly.

Picture 1: Even open fields strengthen vulnerability

Source: GRAEBER, B. et al.: *Resident Evil 8 Village Wiki Guide.* Released on 5th December 2021. [online]. [2022-05-23]. Available at: <www.ign.com/wikis/resident-evil-8-village>.

The plot takes place in a rural area of Europe (Lei is the currency, which implies that the location can be found somewhere in Romania) after three years of the previous game's events. Ethan has to find his kidnapped daughter in this isolated area and defeat the four lords and their leader, Mother Miranda. Initially, Miranda was a scientist who had lost her child (Eva), and after this tragedy, she discovered the Magamycete, a fungal root, which is the source of the mold. In order to bring her child back to life, she started to experiment on other human beings with the mold – that is how the infection started in the village. And also, that is how she created the lords. In this sense, she is both mother and creator, who can control superhuman, unnatural forces, and has protected the inhabitants from the Lycans. She became the leader of the village's new religion; the residents prayed to her and treated her portrait as a cultic object.

6 For more information, see: GREEN, A. M.: *Storytelling in Video Games. The Art of the Digital Narrative*. Jefferson, NC : McFarland & Company, Inc., 2018.

Miranda appears in different forms during the game, she is a shapeshifter. She can mimic other persons (such as Ethan's wife, Mia), but usually, she has black wings and covers her face with a mask. With her wings, she resembles the Biblical angels and the villagers believe in her good intentions, but she has a sinister side: her character design is more demonic during the game's final stage. During the final boss fight, her eyes are completely covered – this possibly represents that grief made her 'blind', she only cares about her goal, and everything else is subordinate to Eva's resurrection. In addition, she has huge claws and her dress is shredded (Picture 2).

Picture 2: Mother Miranda usually has black wings and appears as a human (left), but her final form shows her true, demonic nature – huge claws, spiky wings, messy clothes (right)
Source: Miranda. [online]. [2022-05-23]. Available at: <www.residentevil.fandom.com/wiki/Miranda>.

The metaphor that conceptualizes the political body as if it was a living, biological body is widely recognized. The village resembles T. Hobbes' Leviathan, a commonwealth, where the desire for safety holds together the system.[7] This narrative usually sees the outsider as a threat. In the game there is a scene where the survivors lock themselves in a house to protect themselves from the dangerous outside and the deadly Lycans. First, they do not want to let the protagonist in because he is an outsider, not a part of the 'body', he does not belong to the community. But thanks to the owner of the house, he can step in and can stay with the villagers. However, the threat comes from the inside: one of the survivors starts to act strangely and then turns into a Lycan, because he had been infected. The mold is a biological threat, which acts like a virus and remains invisible until someone turns into these werewolf-like creatures. Ethan tries to save everyone, but it is too late. He is the only one who survives the surprise attack. It is interesting how Village and the mentioned scene show us the infected insider and the innocent outsider. It turns out that the outsider is not the threat, the true risk comes from a well-known villager, who has been infected and with this attack, the whole system – the remnants of the survivors – lose their lives. Later on, Ethan will not meet any other healthy villagers, we can assume that the survivors in the house were the last ones.

The player also learns that the leader of the system let the body die because she almost reached her goal – Ethan's daughter is a perfect vessel to bring her child back to life –, and she does not care about it anymore. Miranda also leaves behind her more significant experiments, the four lords, and it looks like she intentionally sent Ethan to them. The "body has been immunized rather than replaced: not only does it survive the death of its members, it even periodically derives its reproductive energy from them",[8] states

7 See also: HOBBES, T.: *Leviathan or the Matter, Forme, & Power of a Common-wealth Ecclesiasticall and Civill.* London : Yale University Press, 2010.
8 ESPOSITO, R.: *Immunitas: The Protection and Negation of Life.* Cambridge, Malden, MA : Polity Press, 2011, p. 130.

R. Esposito in *Immunitas*. We can see the same process in Village, because Miranda lets the lords die to give their energy back to the Magamycete.

Resident Evil Village has up-to-date design, and thanks to motion capture technology, all the characters – except Ethan – have rich facial expressions. The actors make the motives and backgrounds of the four lords more believable, which helps immerse the player in the fictional world. In addition, Village has a complex story with many surprises and symbols. The game perfectly connects to the original storyline (the Resident Evil franchise), we can even learn a little about Oswell E. Spencer's life. The gameplay is challenging and offers many possibilities to eliminate enemies, players have to think and second guess themselves, just as M. Sato originally wanted.

BIBLIOGRAPHY

BOLUK, S., LENZ, W.: Infection, Media, and Capitalism: From Early Modern Plagues to Postmodern Zombies. In *Journal for Early Modern Cultural Studies*, 2010, Vol. 10, No. 2, p. 126-147. ISSN 1553-3786.

CAPCOM: *Resident Evil 7: Biohazard*. [digital game]. Osaka : Capcom, 2017.

CAPCOM et al.: *Resident Evil (series)*. [digital game]. Osaka : Capcom et al., 1996-2021.

DANSKY, R.: Writing for Horror Games. In DESPAIN, W. (ed.): *Writing for Video Game Genres. From FPS to RPG*. Wellesley, MA : A K Peters Ltd., 2009, p. 113-126.

ESPOSITO, R.: *Immunitas: The Protection and Negation of Life*. Cambridge, Malden, MA : Polity Press, 2011.

GRAEBER, B. et al.: *Resident Evil 8 Village Wiki Guide.* Released on 5th December 2021. [online]. [2022-05-23]. Available at: <www.ign.com/wikis/resident-evil-8-village>.

GREEN, A. M.: *Storytelling in Video Games. The Art of the Digital Narrative*. Jefferson, NC : McFarland & Company, Inc., 2018.

HOBBES, T.: *Leviathan or the Matter, Forme, & Power of a Common-wealth Ecclesiasticall and Civill*. London : Yale University Press, 2010.

Making of Resident Evil Village – The Internal Struggle. Released on 21st May 2021. [online]. [2022-05-26]. Available at: <https://www.youtube.com/watch?v=EIS-TW1XeNg&ab_channel=ResidentEvil>.

Miranda. [online]. [2022-05-23]. Available at: <www.residentevil.fandom.com/wiki/Miranda>.

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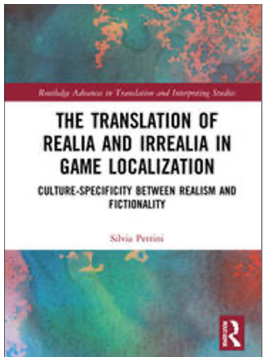

THE TRANSLATION OF REALIA AND IRREALIA IN GAME LOCALIZATION: CULTURE-SPECIFICITY BETWEEN REALISM AND FICTIONALITY

PETTINI, S.: *The Translation of Realia and Irrealia in Game Localization: Culture-Specificity between Realism and Fictionality*. London, New York, NY : Routledge, 2022. 231 p. ISBN 978-0-367-43232-4.

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In the past decade or so, video game research has allowed for greater interdisciplinarity, and researchers started exploring the specific issues which game localization encompasses. Monographs by M. O'Hagan and C. Mangiron[1] and M. Á. Bernal-Merino[2] served as the necessary stepping-stones that game researchers needed to investigate individual spheres pertaining to game localization, and freed them from having to defend the place of game localization research within translation and interpreting studies. Papers published in *The Journal of Internationalization and Localization,* published since 2009 or *Game Studies*, published since 2001, indicate the vast research potential the sphere of game localization provides with every new issue. Besides the localization viewpoint, recent monographs researching video games from the ludo-narrative[3] or design and production perspective[4] testify to the variety of video game recesses worth academic attention. In her monograph *The Translation of Realia and Irrealia in Game Localization,* S. Pettini focuses on the so far thoroughly untouched area of localization – realia and irrealia.

Before the publication of the book under review, realism and fictionality in the language and texts of video games have never been studied in game localization studies with complexity. Previous studies might have mentioned localization strategies, but no monograph has explored these in such detail as S. Pettini's. With the example of the three video games sharing military themes and genre specifics (*Medal of Honor: Warfighter*[5], *Battlefield 4*[6] and *Mass Effect 3*[7]) and their Italian and Spanish localizations, S. Pettini proposes useful models for categorizing game realia and irrealia and explores translation tendencies adopted in each localization. Her monograph consists of six chapters.

The first chapter briefly introduces the rationale behind the monograph. S. Pettini purposely selected her corpus to demonstrate "the relationship between the real world and the virtual game world" which she sees as "the potential single most variable which may influence translators' approach to the translation of game texts" (p. 6). This correlation she takes as the major hypothesis for her work. Referring to the works of F. Dietz[8]

1 See: O´HAGAN, M., MANGIRON, C.: *Game Localization: Translating for the Global Digital Entertainment Industry*. Amsterdam, Philadelphia, PA : John Benjamins, 2013.
2 For more information, see: BERNAL-MERINO, M. Á.: *Translation and Localisation in Video Games: Making Entertainment Software Global*. London, New York, NY : Routledge, 2015.
3 See also: NAE, A.: *Immersion, Narrative, and Gender Crisis in Survival Horror Video Games*. London, New York, NY : Routledge, 2022.
4 For example, see: CHANDLER, H. M.: *The Game Production Toolbox*. Boca Raton, FL : Taylor Francis Group, 2020.
5 DANGER CLOSE GAMES: *Medal of Honor: Warfighter*. [digital game]. Redwood City, CA : Electronic Arts, 2012.
6 DICE: *Battlefield 4*. [digital game]. Redwood City, CA : Electronic Arts, 2013.
7 BIOWARE: *Mass Effect 3*. [digital game]. Redwood City, CA : Electronic Arts, 2012.
8 For more information, see: DIETZ, F.: Issues in Localizing Computer Games. In DUNNE, K. J. (ed.): *Perspectives on Localization*. Amsterdam, Philadelphia, PA : John Benjamins, 2006, p. 121-134.

or M. Loponen,[9] S. Pettini elaborates on the theory of realia and irrealia and applies it to video games. She also points out the popularity of video games in Italian and Spanish locales. The second chapter of the book introduces the issue of game localization and translation, and – besides providing an overview of the countless works on game localization since the first phase of its research[10] – it contains a resumé of information game researchers are well familiar with. However, it can be a welcome overview for those for whom game localization is a new area of interest.

The third chapter of the monograph offers essential information on culture-specificity in video games, introducing F. Dietz' realism-fictionalism spectrum axis[11] as well as the reasoning behind the choice of video games included in the corpus. The author's decision to compare Spanish and Italian localizations of the three selected video games is valuable since it offers a comparative point of view, but the method might have had a bearing on the fact that only 40% of each video game was analysed. We may only assume how the results would change should the author decide to analyse the selected video games in full, focusing on either Italian or Spanish (or even both). However, analysis of video game texts is a time-consuming process, and this fact significantly influences the size of the corpus researchers select for investigation. S. Pettini's research is based on the author's dissertation and as such was limited by the time and space she had at her disposal. The third chapter of *The Translation of Realia and Irrealia in Game Localization* also elaborates on the cultural issues of each analysed video game, as well as the realia and irrealia present in the given video games. Taxonomy of realia and irrealia in section 3.6.1, as well as translation strategies for realia and irrealia in section 3.6.2, are key and the most important contributions of S. Pettini's monograph, and have the greatest potential to inspire researchers in the future.

The fourth chapter specifies the realia and irrealia, and strategies of their translation are introduced in the third chapter and highlighted in the analysed corpus. Even though Italian and Spanish are mutually intelligible languages that share certain lexical characteristics and belong to the same language family, S. Pettini's analysis clearly shows the artistic specificities of each localization and differences between the adopted translation strategies for the given realia and irrealia. The fifth and penultimate chapter is a foundational chapter from a terminological viewpoint focused on military language in video games and translation of military terminology. A thorough analysis of the military language contained in the analysed video games as well as the presentation of used translation strategies serves as a promising model for the future research of similar video games and their localization and translation. The last chapter of the monograph offers concluding remarks for each analysed category of realia and irrealia as well as the military language, and confirms that different degrees of realism or fictionality have an impact on the translatable assets video games possess and on the adopted translation strategies.

S. Pettini's monograph *The Translation of Realia and Irrealia in Game Localization* is a welcome publication proving that game localization has become an established field of study. It also shows that researchers can at last stop feeling pressured to justify its position within Translation and Interpreting Studies. S. Pettini showed excellent orientation in game localization, translation and interpreting studies research, and the rather unnecessary elaboration of game localization history and its research is balanced by a foundational

9 See also: LOPONEN, M.: Translating Irrealia: Creating a Semiotic Framework for the Translation of Fictional Cultures. In *Chinese Semiotic Studies*, 2009, Vol. 2, No. 1, p. 165-175.

10 MANGIRON, C.: Research in Game Localisation: An Overview. In *The Journal of Internationalization and Localization*, 2017, Vol. 4, No. 2, p. 74-90.

11 DIETZ, F.: Issues in Localizing Computer Games. In DUNNE, K. J. (ed.): *Perspectives on Localization*. Amsterdam, Philadelphia, PA : John Benjamins, 2006, p. 122-124.

introduction of realia and irrealia taxonomy and useful models for future researchers. On the example of war-themed video games, S. Pettini's analysis of translated realia and irrealia in Medal of Honor: Warfighter, Battlefield 4 and Mass Effect 3 offers an important source of information for the research of realia and irrealia in video games, as well as translation and localization of military language. S. Pettini's monograph is an important book much needed by game localization research.

BIBLIOGRAPHY

BERNAL-MERINO, M. Á.: *Translation and Localisation in Video Games: Making Entertainment Software Global.* London, New York, NY : Routledge, 2015.

BIOWARE: *Mass Effect 3*. [digital game]. Redwood City, CA : Electronic Arts, 2012.

DANGER CLOSE GAMES: *Medal of Honor: Warfighter*. [digital game]. Redwood City, CA : Electronic Arts, 2012.

DICE: *Battlefield 4*. [digital game]. Redwood City, CA : Electronic Arts, 2013.

DIETZ, F.: Issues in Localizing Computer Games. In DUNNE, K. J. (ed.): *Perspectives on Localization*. Amsterdam, Philadelphia : John Benjamins, 2006, p. 121-134.

CHANDLER, H. M.: *The Game Production Toolbox*. Boca Raton : Taylor Francis Group, 2020.

LOPONEN, M.: Translating Irrealia: Creating a Semiotic Framework for the Translation of Fictional Cultures. In *Chinese Semiotic Studies*, 2009, Vol. 2, No. 1, p. 165-175. ISSN 2198-9613.

MANGIRON, C.: Research in Game Localisation: An Overview. In *The Journal of Internationalization and Localization*, 2017, Vol. 4, No. 2, p. 74-99. ISSN 2032-6904.

NAE, A.: *Immersion, Narrative, and Gender Crisis in Survival Horror Video Games*. London, New York, NY : Routledge, 2022.

O'HAGAN, M., MANGIRON, C.: *Game Localization: Translating for the Global Digital Entertainment Industry.* Amsterdam, Philadelphia, PA : John Benjamins, 2013.

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Cortana: (Un)finished Journey from NPC to Virtual Ambassador?

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Since 2001, *Cortana* has originally been a fictional non-playable character (NPC) appearing in Microsoft's game series flagship, *Halo*[1], specifically in games in which Master Chief is the main protagonist, and considered one of the most important parts of the entire franchise storyline. As an artificial intelligence with a female-looking holographic projection and voice,[2] she serves as the Master Chief's assistant providing him intelligence background information and (even alien) IT systems mastering.

The importance of the game character declared itself in 2014 when Microsoft introduced its own multilanguage virtual assistant named *Cortana*, although, this name was originally only a codename during the feature development.[3] Subsequently, Cortana has gradually been integrated into the Windows 10 system,[4] joining the next-generation of virtual assistants like Apple Siri and Amazon Alexa.[5]

However, unlike other comparable virtual voice assistants, her outstanding advantage is that just as in the games, the US localized version of the Cortana application is voiced by J. Taylor, the same actress that Halo games players all around the world have become used to for more than 20 years.[6] Recently, Cortana has appeared in the Paramount live-action TV series of the same name as the game franchise on which it is based, *Halo*[7], again with the familiar voice of J. Taylor.

Cortana has also another unique dimension arising from her gaming origins. She actually meets the criteria to be able to be considered as gamification – utilization of the gaming character, with the same voice actress to increase interest as well as overall engagement in interacting with the operating system's in-built 'non-game' virtual assistance service.[8] In addition, the launch icon of this Windows application has the form of a circle, a ring, evoking the fundamental identification feature of Halo games – Halo installations' shape (Picture 1).

Nevertheless, due to innovations in the AI-powered experience in Microsoft 365, since 2020 Microsoft has transformed Cortana, starting with ending support for her third-party skills, and iOS and Android apps,[9] causing an overall reduction in awareness of her further development together with reports of killing her off by Microsoft.

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1 BUNGIE et al.: *Halo (series)*. [digital game]. Redmond, WA : Xbox Game Studios, 2001-2021.

2 Remark by the author: For this reason and for simplifying comprehensibility in this contribution, we refer to Cortana as 'she' and 'her'.

3 WARREN, T.: *The story of Cortana, Microsoft's Siri killer*. Released on 2nd April 2014. [online]. [2022-05-20]. Available at: <https://www.theverge.com/2014/4/2/5570866/cortana-windows-phone-8-1-digital-assistant>.

4 WILLIAMS, W.: *Microsoft updates Cortana for Windows Insiders*. 2020. [online]. [2022-05-20]. Available at: <https://betanews.com/2020/04/22/microsoft-updates-cortana-for-windows-insiders/>.

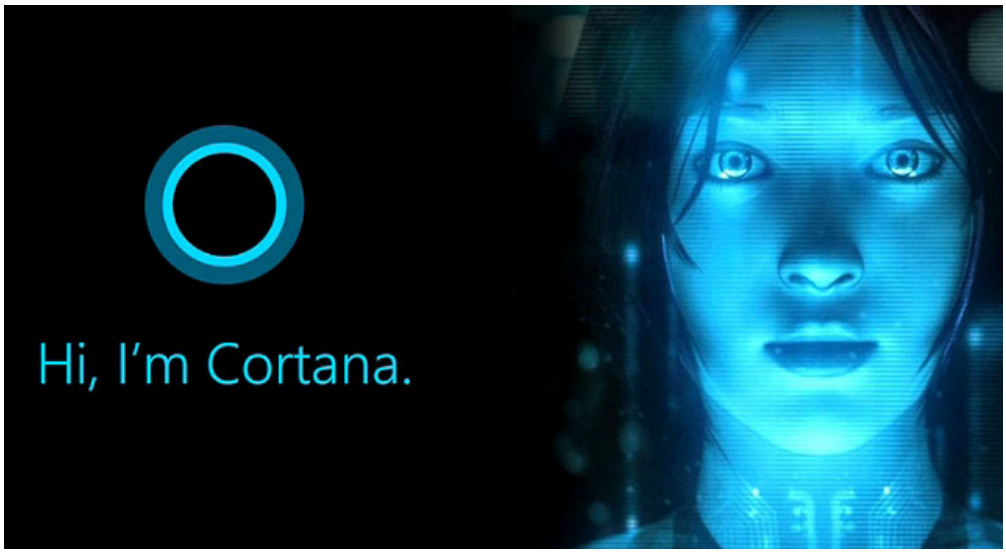
5 For more information, see: HOY, M. B.: Alexa, Siri, Cortana, and More: An Introduction to Voice Assistants. In *Medical Reference Services Quarterly*, 2018, Vol. 37, No. 1, p. 81-88.; KĚPUSKA, V., BOHOUTA, G.: Next-generation of virtual personal assistants (Microsoft Cortana, Apple Siri, Amazon Alexa and Google Home). In CHAKRABARTI, S., SAHA, H. N. (eds): *2018 IEEE 8th Annual Computing and Communication Workshop and Conference (CCWC 2018)*. Las Vegas, NV : IEEE, 2018, p. 99-103.

6 WOOD, A.: *Cortana voice actor reflects on 20 years of Halo: "It's just a gift to get to play a character such as this"*. Released on 31st December 2021. [online]. [2022-05-20]. Available at: <https://www.gamesradar.com/cortana-voice-actor-reflects-on-20-years-of-halo-its-just-a-gift-to-get-to-play-a-character-such-as-this/>.

7 KILLEN, K., KANE, S. (Created by): *Halo*. [VOD]. New York, NY : Paramount+, 2022.

8 For comparison, see: DETERDING, S. et al.: From game design elements to gamefulness: Defining "gamification". In LUGMAYR, A. et al. (eds.): *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments, MindTrek '11*. Tampere : ACM, 2011, p. 9.; HUOTARI, K., HAMARI, J.: "Gamification": from the perspective of service marketing. In TAN, D. et al. (eds.): *CHI 2011 Workshop Gamification: Using Game Design Elements in Non-Game Contexts*. Vancouver : ACM, 2011, p. 3. [online]. [2022-05-22]. Available at: <http://gamification-research.org/wp-content/uploads/2011/04/CHI_2011_Gamification_Workshop.pdf>.

9 *Changes to Cortana in 2020 and 2021.* [online]. [2022-05-25]. Available at: <https://support.microsoft.com/en-us/topic/changes-to-cortana-in-2020-and-2021-2d04871e-f576-7080-58b4-7c37131c3baf>.



Picture 1: Microsoft Windows 10 Cortana promo image
Source: WILLIAMS, W.: *Microsoft updates Cortana for Windows Insiders.* 2020. [online]. [2022-05-20]. Available at: <https://betanews.com/2020/04/22/microsoft-updates-cortana-for-windows-insiders/>.

Current development of the social-media-communication sphere, e.g., the increasing popularity of streaming platforms and virtual influencers, M. Zuckerberg's metaverse initiative, etc., is resulting in a reconsideration of strategies, and maybe also of previous decisions. Due to that, Cortana may still represent an invaluable all-interconnecting asset for eventual future Microsoft efforts to build its own metaverse, and may provide a marketing advantage in the competitive struggle related to mentioned ongoing trends as well. Perhaps as a fully integrated virtual brand ambassador like Lil Miquela or Bejby Blue, having already been on this path for some time, and of course already having experience of resurrection from the Halo games series.

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BIBLIOGRAPHY

BUNGIE et al.: *Halo (series)*. [digital game]. Redmond, WA : Xbox Game Studios, 2001-2021.
DETERDING, S. et al.: From game design elements to gamefulness: Defining "gamification". In LUGMAYR, A. et al. (eds.): *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments, MindTrek '11*. Tampere : ACM, 2011, p. 9-15.
HOY, M. B.: Alexa, Siri, Cortana, and More: An Introduction to Voice Assistants. In *Medical Reference Services Quarterly*, 2018, Vol. 37, No. 1, p. 81-88. ISSN 0276-3869.
HUOTARI, K., HAMARI, J.: "Gamification": from the perspective of service marketing. In TAN, D. et al. (eds.): *CHI 2011 Workshop Gamification: Using Game Design Elements in Non-Game Contexts*. Vancouver : ACM, 2011, p. 1-5. [online]. [2022-05-22]. Available at: <http://gamification-research.org/wp-content/uploads/2011/04/CHI_2011_Gamification_Workshop.pdf>.

Changes to Cortana in 2020 and 2021. [online]. [2022-05-25]. Available at: <https://support.microsoft.com/en-us/topic/changes-to-cortana-in-2020-and-2021-2d04871e-f576-7080-58b4-7c37131c3baf>.
KËPUSKA, V., BOHOUTA, G.: Next-generation of virtual personal assistants (Microsoft Cortana, Apple Siri, Amazon Alexa and Google Home). In CHAKRABARTI, S., SAHA, H. N. (eds): *2018 IEEE 8th Annual Computing and Communication Workshop and Conference (CCWC 2018)*. Las Vegas, NV : IEEE, 2018, p. 99-103.
KILLEN, K., KANE, S. (Created by): *Halo*. [VOD]. New York, NY : Paramount+, 2022.
WARREN, T.: *The story of Cortana, Microsoft's Siri killer*. Released on 2nd April 2014. [online]. [2022-05-20]. Available at: <https://www.theverge.com/2014/4/2/5570866/cortana-windows-phone-8-1-digital-assistant>.
WILLIAMS, W.: *Microsoft updates Cortana for Windows Insiders*. 2020. [online]. [2022-05-20]. Available at: <https://betanews.com/2020/04/22/microsoft-updates-cortana-for-windows-insiders/>.
WOOD, A.: *Cortana voice actor reflects on 20 years of Halo: "It's just a gift to get to play a character such as this"*. Released on 31st December 2021. [online]. [2022-05-20]. Available at: <https://www.gamesradar.com/cortana-voice-actor-reflects-on-20-years-of-halo-its-just-a-gift-to-get-to-play-a-character-such-as-this/>.

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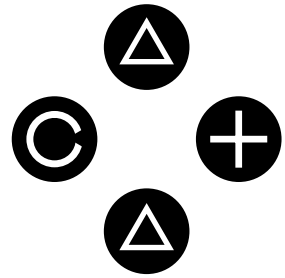

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