



TOTALITARIANISM IN VIDEO GAMES: A semiotic analysis of *Beholder's* narrative

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Abstract. Totalitarianism and dystopia have traditionally been one of the most popular themes for designers to create rich narratives. This paper attempts a dynamic semiotic reading of *Beholder's* dystopian world, an adventure game, based on storytelling. Our main goal is to reconstruct the semantic universe around which the game is themed as a concrete set of meanings and to highlight the semiotics of totalitarianism and how playfulness is shaped through the use of mechanics of interface. To do so, we analyse the introductory cutscene as a text, through semiotics' analytic point of view, exploring the semiotic systems that compose the meaning produced and investigating the kind of interaction and playfulness in relation to the interface, within the broader field of game studies.

Keywords: interactive digital storytelling, semiotics, totalitarianism

Totalitarism videomängudes: Beholderi narratiivi semiootiline analüüs

Abstraktne. Totalitarism ja düstopia on traditsiooniliselt olnud disainerite jaoks üks populaarsemaid teemasid rikkalike narratiivide loomiseks. Käesolevas töös üritatakse Beholderi düstoopilise maailma, seiklusmängu dünaamilist semiootilist lugemist, mis põhineb lugude jutustamisel. Meie peamine eesmärk on rekonstrueerida semantiline universum, mille ümber mäng on temaatiseeritud kui konkreetne tähenduste kogum, ning tuua esile totalitarismi semiootika ja see, kuidas mängulisus on kujundatud liidese mehaanika abil. Selleks analüüsime sissejuhatavat vahekokkuvõtet kui teksti semiootika analüütilise vaatenurga kaudu, uurides semiootilisi süsteeme, mis moodustavad toodetud tähenduse, ning uurides, millist interaktsiooni ja mängulisust kasutajaliidesega seoses mängude uurimise laiemas valdkonnas kasutatakse.

Märksõnad: interaktiivne digitaalne jutustamine, semiootika, totalitarism

Totalitarismo en Videojuegos: Un Análisis Semiotico de la Narrativa de Beholder

Resumen. El totalitarismo y la distopía han sido tradicionalmente uno de los temas más populares entre los diseñadores para crear grandes narraciones. En este artículo se intenta realizar una lectura semiótica



dinámica del mundo distópico de *Beholder*, un juego de aventuras, basado en la narración. Nuestro principal objetivo es reconstruir el universo semántico en torno al cual se basa el juego como un conjunto concreto de significados y poner de relieve la semiótica del totalitarismo y cómo se configura la ludificación mediante el uso de mecánicas de interfaz. Para ello, analizamos la escena introductoria como un texto, a través del punto de vista analítico de la semiótica, explorando los sistemas semióticos que componen el significado producido e investigando el tipo de interacción y la ludicidad en relación con la interfaz, dentro del campo más amplio de los estudios del juego.

Palabras clave: narración digital interactiva, semiótica, totalitarismo

1. Totalitarianism in video games

Totalitarianism, from the dawn of the 20th century to the present day, has irreparably wounded the collective mind. Characteristic of authoritarian regimes is the establishment of control mechanisms, censorship, propaganda, control of the media, the creation of a complex bureaucratic web that acts as a cog in the wheel, and the loss of individual identity, with the individual becoming a mass controlled by fear (Arendt 1973 [1951]). A rich literary production influenced by the events that shook the 20th century stood on the ramparts in the face of a global phenomenon that dramatically changed the world and taught humanity that politics is not a luxury for the few, but the right and privilege of all people. From Aldous Huxley to George Orwell and Hannah Arendt, totalitarianism has been the subject of scholarly study and a literary theme.

Video games, especially those based on storytelling, could not be unaffected by this global phenomenon (Johnson, Tulloch 2017). At the dawn of the 1980s, a simulation game set in a dystopian society appeared, influenced by the Kafkaesque universe. *The Prisoner* takes players into a world where individuality has been abolished in a technologically controlled society. The main character is an undercover agent who has quit his job and been kidnapped to an island from which he is struggling to escape. The authorities on the island make his life difficult and use any means to distract him from his attempt to win back his freedom. Another, more contemporary, take on literature and a critique of totalitarianism is the adventure game, *Animal Farm*. Based on George Orwell's book, the story is an allegory through which the main ideas of the book come to the surface and challenge players to design a farm where all the animals, who have overthrown the status of their owners, will live together as equals. The players in this choice-driven game decide how to run the farm for the animals' best interest.

*Beholder*¹ is part of a larger series of indie games that sets their plot in a dystopian world that bears similarities to 1980s East Germany, or a society of the former Eastern Bloc, developing a thread both with history and with the



genre they belong to. The designers themselves admit to being influenced by literature in the creation of this particular game², which was preceded by *Papers Please*, another indie game about a border inspector whose job is to certify or reject the travel documents of various individuals passing in and out of Arstotzka, a fictional nation modeled on the communist dictatorships of the 20th century Eastern Bloc (Morrissette 2017). The influence of *Beholder's* designers on this game is evidenced by the fact that they dedicate the name *Papers Please* to a task whose purpose is to get a tenant out of the country.

In *Beholder*, an adventure game where the story plays an essential role (Katsaridou 2016), we are transferred to a dystopian society, set in 1984, where a family man named Carl Stein is appointed by the regime as the manager of an apartment building, tasked with spying on the tenants and reporting anything that might pose a threat to the state. The goal of the game, which is not visible from the beginning, is the survival of Carl and his family and their safe escape from the country. The game features multiple endings and each mission can unlock numerous subplots depending on the degree of interaction between the main character and the satellite characters (Aarseth 2012). The decisions made by the players, who exclusively manipulate Carl, do not always lead to the desired outcome. A good deed does not lead to a good end and vice versa. This creates a dynamic plot, with deep immersion, in a universe where everything is fluid (Ryan 2008).

Dystopia and totalitarianism are therefore central themes of the narrative which are not limited to the aesthetic aspect of the game (Johnson, Tulloch 2017). The key strands of analysis in order to highlight how totalitarianism is semantically shaped in *Beholder* are the examination of the semiotic systems that semantically dominate the introductory cutscene, the semiotic role of space in relation to the interface and how all of the above contribute to a particular style of playfulness in relation to plot and narrative (Ryan 2008; Knoller 2010; Aarseth 2012; Mason 2013; Katsaridou 2016).

2. Theoretical framework

The introductory cutscene, through semiotics' analytical point of view, is understood as a "text", a culturally shaped assemblage of signs (Chandler 2007). The game as a cultural product falls within the plethora of narrative representations of dystopia and totalitarianism, as we have shown earlier, and can therefore be approached with the available tools offered by previous research on literary texts and especially by contemporary research on interactive storytelling (Koenitz et al. 2013). Based on Lotman's view that "a text has the capacity to preserve the memory of its previous contexts" (Lotman 1990: 18), we can safely assert that the introductory cutscene incorporates all previous representations of totalitarianism, thus forming a



thread in artistic production through the process of semiosis. Recognising the thread that connects the cultural representations of totalitarianism, we can assume the commonly recognisable repertoire of signs and symbols exploited by the developers in the introductory cutscene and, more generally, the way in which *Beholder's* bleak world is semantically constructed.

Space in *Beholder* is considered an architectural structure, a real space, in which elements that make up the game's semiosphere are rendered. By analogy to biosphere, semiosphere is the imaginary space where communication takes place through semiosis (Lotman 1990). The semiotic space of *Beholder*, technically defined by the interface, is identified with the boundaries of the culture and society of the imaginary world of the game, i.e., it constitutes the semiosphere, which is shaped by the types of interaction, the various meanings, and the physical spatial boundaries within which the characters move or are confined. Questions about the ways of limitation and physical boundaries in the space of *Beholder* need to be answered in order to understand the ways in which spatialization intertwines with plot (Lagopoulos, Boklund 2014). Consequently, an interdisciplinary theoretical framework is inevitably formed which attempts a dynamic semiotic reading of the game as a politically and socially shaped text.

3. Semiotics of audio-visual narrative

The introduction to *Beholder's* semiosphere uses the cinematic-influenced cutscene to establish the background storyline that unfolds during the game and introduces the main character and his family to the players (King, Krzywinska 2002). Through the synergy of different semiotic systems such as image, music, text, and spoken language, a rich narrative text is constructed that introduces players to the story (Zantides 2018). In the black and white opening cutscene³, lasting one minute and fifty-eight seconds (1:58), with its evocative music and numerous dystopian connotations, we follow the journey of the main character, Carl Stein, and his family to their new residence, where Carl has been appointed by the government as the new landlord. The cutscene is dominated by the voice of the narrator, a representative of the ministry, who reads the letter delivered to Carl by the Ministry of Allocation as seen below:

Dear Carl Stein,
 We are happy to announce you've been appointed a landlord of a Class D apartment block on Kruchvice 6. You must arrive there immediately and start working. You and your family are given an apartment on the first floor. The experimental medicine you've been injected with during the medical checkout suppresses your need for sleep. Thus, you will be able to spend more time serving your motherland. Welcome to the elite official rank.
 Ministry of Allocation⁴

Totalitarianism dominates the game from the beginning and is imposed by



every means. For the letter addressed to the main character we identify three ways in which totalitarianism is semantically marked: a) the identification of the country with the government in power, b) the distortion of reality regarding the nature of the main character's work, and c) the power over people's lives and health. The identification of the homeland with the government in power is highlighted through the phrase "serving your motherland". This phrase implies that Carl's services as a state-appointed administrator will work for the benefit, not just of the state, but of the entire country. Carl's work, in other words, goes far beyond a typical job requiring management duties, thereby taking on the characteristics of a national purpose. The distortion of the truth is shown at the point where the Ministry conceals the true nature of Carl's work. Soon, he - along with the players - discovers that the services of the Kruchvice Street apartment building include spying on the lives of the residents, recording all kinds of suspicious activity, and reporting those deemed dangerous by the regime. Finally, the power that the regime exercises over people's lives is shown by the medical intervention that has been carried out on Carl's body by administering a substance that keeps him awake so that he can work as much as possible for the regime. The nature of totalitarianism is brought out in its entirety through the keen vigilance of those who serve the regime - the watchful eye of power that sees all and hears all.

Another semiotic trick that highlights the importance of the homeland is underlined semantically through the double message of the poster in the introductory cutscene (Figure 1). The poster depicts an officer pointing in one direction, with war planes and tanks above and below his face. The meaning of the verbal sign is likely interpreted as "For the Fatherland", with "Fo" being an alternative spelling of the English "For". However, "Fo", in military English terminology, also functions as an acronym for "Field Order".



Fig. 1 Introductory cutscene: the poster (Source: YouTube)



If we accept this interpretation, then the meaning of the poster is none other than what we would call “Code name: Fatherland”, meaning that Carl is charged with a single mission: to serve his country. In light of this, the pictured officer in the visual message is also essentially pointing metonymically the way to the completion of the task.

It would perhaps be risky, but we cannot overlook the connotations of this particular sign and its connection with the famous statue of Lenin in Brest, Belarus. Considering the era in which the game is set, the 1980s, the extensive use of German surnames⁵ with references to East Germany (DDR⁶), as well as place names that allude to totalitarianism, such as Borea, a country to which Carl’s son wants to travel, with a direct reference to communist North Korea, it is safe to argue that the Russian designers of a socio-political game, who are very fluent with symbolism, are influenced not only by the European literary heritage, but also by the political and military history that has defined the modern world.

Concluding the discussion on the semantics of the introductory cutscene the case of *Beholder* comes to highlight the essential contribution of audiovisual narrative in creating what Squire calls an “emotionally compelling context for the player” (Squire 2008: 11). Often the cinematically influenced audiovisual representation of the story is perceived as the non-interactive element of the game or as a method of limiting the user’s initiative, especially when it takes a significant share in the development of the plot, inhibiting immersion (Jenkins 2004). However, according to Mason immersion can also occur independently of the narrative and the type of interactivity (Mason 2013: 27). Therefore, immersion cannot be the only dimension for critiquing mediated cinematic-type scenes. Many researchers bring to the surface the multidimensional functionality of cutscenes (Klajver 2002). Indeed, the preceding examination has shown that the introductory cutscene through its variety of semiotic resources transports players from the real world to the imaginary world of the game, fostering immersion with a catalytic immediacy that could not otherwise be achieved. In other words, *Beholder*’s introductory cutscene realises the designers’ programmatic statement about the genre of the story and the dominant semantic universe in which the players will move and act.

4. Semiotics of space

The semiotic space in *Beholder* is identified as the real territorial space and the boundaries of the interface within which action takes place as shown in Figure 2. In this section we will describe the territorial features and attempt a semiotic analysis of the boundaries of *Beholder*’s semiosphere, based on Lotman’s thinking about the features that define the semiosphere (Lotman 1990)⁷. We



distinguish two levels in which there is a strong semiotic activity: the level of the apartment building, which is a sub-semiosphere in relation to the city, and the broader level of the world within which the micro-community of Kruchvice Street, the players' interface, falls.

In the first level, the road Kruchvice 6, on which the building is located is the imaginary axis that separates the action in the interface from what is happening in the outside world, to which the players have no access. With the street being a horizontal axis, the building is divided vertically. Below the street is the basement which contains, from right to left, the following: Carl's office, where he writes his reports and telephones the ministry; Carl's apartment, where he lives with his family; and two shared areas to which all residents have access: the kitchen and the laundry room. Above the street, the three floors of the building contain the tenants' apartments and extend up to the roof terrace.

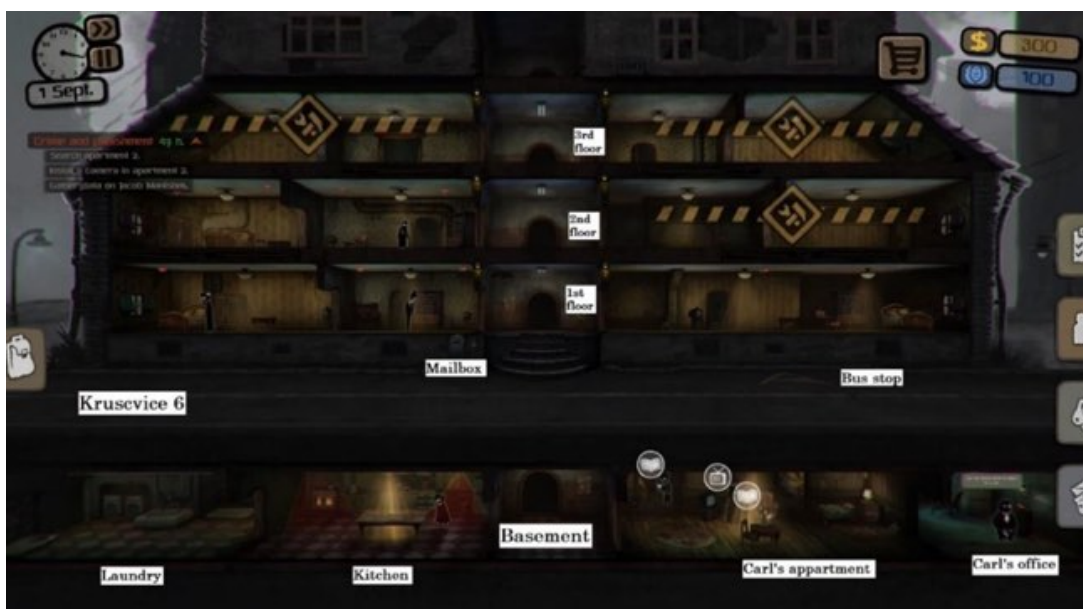


Fig. 2. Semiotic space of the interface (Source: MobyGames)

A further semiotic division of space is that between the communal spaces and private spaces relating to the apartments. The door acts as a boundary between the privacy that characterises one's personal space and the action in the communal spaces of the building. Players can select the magnifying glass on the door of each apartment and spy on the activity of the residents. In this way they have a full view of the interior of an apartment, with the result that access through the magnifying glass removes the role of the door as a boundary and privacy remaining an illusion in the minds of the residents.

But Kruchvice, a public street, does not only function as an architectural division of the interface. Often when the tenants, who have a narrative program that unfolds alongside the main plot, return from their shift in the city, a question mark (quest) appears above their heads, indicating that there is the possibility of player interaction to develop the plot. It can be argued that



tenants become agents of the public with *Beholder's* exterior space penetrating the sub-semiosphere of the neighbourhood through the fluid boundaries of continuous transit.

Thus, the most obvious distinction of *Beholder's* semiotic space is that of the apartment versus the city. The phenomenon of fluid privacy highlighted earlier is reinforced by the constant arrival of external forces on the scene, such as anti-authoritarians acting behind the scenes, riots, and moving tenants. All these forces come from the periphery of the sub-semiosphere of the neighbourhood, merging into Kruchvice Street, the core of the action. Kruchvice is, in other words, a crossroads with fluid borders, defined by its lack of normality, but also by its constant dialectic with the wider *Beholder* society. A characteristic example of the dialectic with the external world and the coexistence of different voices can be found at the level of textuality in the news that regularly arrives in the mailbox. On the front page of the newspaper is the official state version of an event, while on the back page there is the anti-state counter-argument, an accusatory discourse (see Fig. 3). This fusion of different voices goes beyond the boundaries of playfulness and echoes the gloom that is fostered in the atmosphere of the game and the dominance of propaganda.

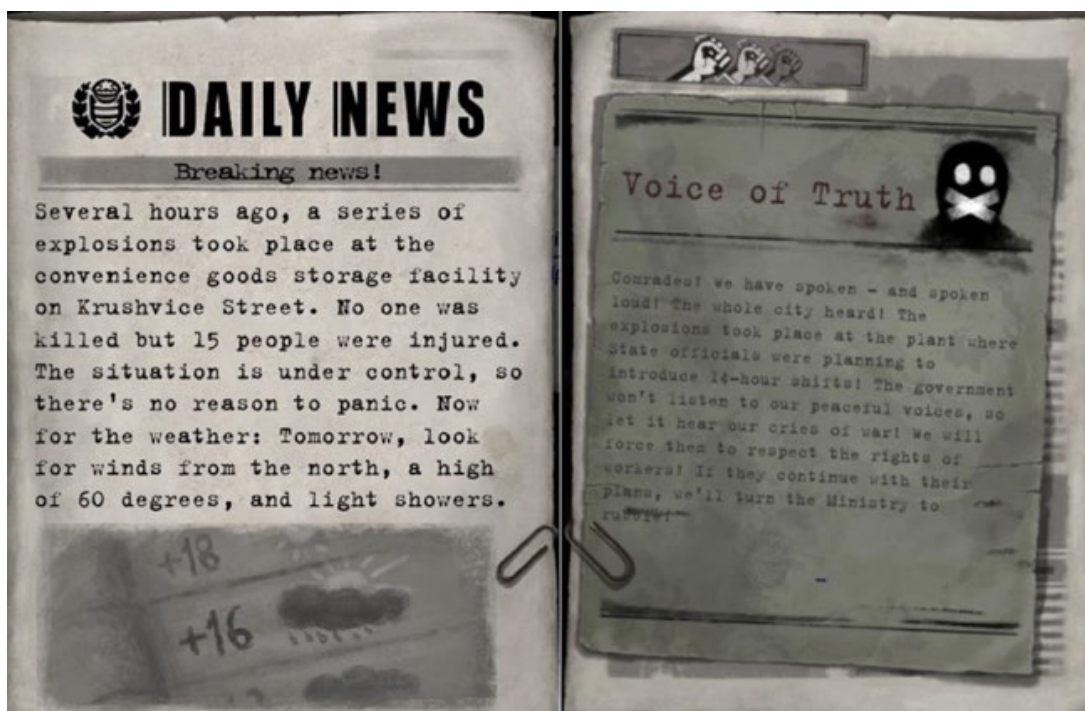


Fig. 3. Fusion of boundaries (the two sides of the newspaper)

At the broader level, between life in the city and the outside world, the distinction is less blurred, but equally contradictory. You either survive and live free or you die. Any attempt to escape the city or the country seems either utopian and therefore not pursued by the characters or dreamlike and remains in the realm of the desirable. The plot unfolds either one way or the other



depending on the decisions of the players and in the case of the main character marks the respective different endings.

5. Interface, style of playfulness, and absurdity

In addition to spying on tenants, players can also interact with objects to achieve the goals of the game. Objects are divided into two categories: a) those that provide useful information about the tenant's profile, mainly related to a hobby, e.g., a cookbook, a tennis racket, etc. and b) illegal items⁸. The discovery of an illegal item can be used in two ways: a) to denounce the tenant to the state or b) to blackmail the tenant with a financial benefit for the main character. Money is a key element for the completion of missions and its acquisition becomes an end in itself for survival in the game. The preparation of each type of report is carried out by Carl in his office. By successfully completing a report on each tenant's profile, the main character receives a minimal amount of money from the government as a reward.



Fig. 4. Workplace's interface and Government directives (Source: True Achievements)

These features provided by the interface can largely be applied throughout the game. However, access to these tools creates the illusion that they are sufficient to solve most of the missions. This is a typical case of what has been called pseudo-agency (Smed et al. 2019: 57). Unlimited action paradoxically corresponds to a limited impact on the story plot, which cannot be fully unfolded without interaction with the satellites.

Interaction takes place through predetermined task-based dialogues



that provide useful information for decision making (Cavazza, Charles 2005: 22) or through designed dialogues with meaningful relevance to the textual genre favouring information gathering. However, the agency, as it was previously shown, is rather limited, favouring more the story that is designed to be told, as often decisions that at a given moment seemed reasonable to the interactants, later collide with an undesirable outcome and are reassessed retrospectively (Knoller 2010: 267). The path to be followed is therefore highly fluid and is constantly redefined through the agency developed by the interactant.

Where will priority be given? Will Carl pay his son's tuition fees or risk him being expelled from the university or pay the doctor who has to provide hard-to-find medicines for Carl's sick daughter? Will Carl give in to the threats of the anti-regime movement and help or will he continue to serve the government? Will he turn in the one who is acting suspiciously, or will he help him once he learns his tragic story? Such dilemmas co-exist within the game and often force players to make decisions different from their wishes, given the suffocating pressure of time, as many missions must be completed within a certain time frame. Failure to complete them has consequences that in turn affect the plot. Thus, each decision is closely linked to the production of meaning and intensifies the commitment of the players (Tanenbaum, Tanenbaum 2010).

The options available in the interactants are not visible from the outset and only through trial-and-error can one gain the necessary knowledge to know what to avoid and what to choose according to the target. We suggest, therefore, that what the Tanenbaums call the „illusion of agency“ is not based solely on mechanics, but is rather a deliberate choice by designers about the kind of playfulness they want to create in relation to the world they want to represent (ibid, 13). This sense of infinite trial and error gives the game its characteristic difficulty and sense of absurdity, but also the charm of replayability, as each visit is different from the previous one (Ryan 2008). This leads us to the conclusion that pleasure and fun are sacrificed on the altar of replayability and the bleakness of the universe of totalitarianism, a world that for the designers is treated as a dead end, with the autonomy of the subjects being only an illusion.

In the end, it makes no difference whether the regime managed to stay in power or was overthrown by the revolutionary movement, as the path to dystopia has transformed the players in such a way that catharsis – even if it results from the plot – is not enough to erase an experience of playfulness through illegitimate means and frustrations, practices synonymous with trying to survive in an absurd world. The designers, therefore, manage to create not just an adventure game, but rather an exciting simulation game of life in a dystopian society.



Conclusion

Through the semiotics' analytical point of view, we attempted to reconstruct the semantic universe of *Beholder*, focusing on the visual signs used in the introductory cutscene and the spatial characteristics of the game's semiosphere, namely the boundaries that distinguish the different levels of communication and action.

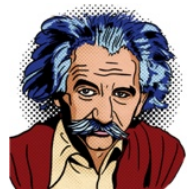
Through the process of semiosis, totalitarianism is presented as a social phenomenon, situated in a neighbourhood that affects people's lives. The story is invested with a plethora of symbols that constitute the totalitarian identity of the society in which the action takes place, such as the illusion of freedom, state control, harsh prohibitions, miserable living conditions, work that amounts to serving the national interest, an invisible state apparatus, the control of media and propaganda. These meanings are encoded through speech, image, behaviour and finally the aesthetics of the game including graphics, interface structure and audiovisual texts.

The fluid boundaries between public and private are a key feature of *Beholder's* semiosphere and were mainly found at two levels: a) at the level of textuality, in the case of news, with articles functioning as conflicting voices that create a climate of questioning the truth, which favours a lack of trust towards any official or unofficial voice and b) at the level of the interface, with the function of the apartment door as a separator between the public and the private space being abolished.

Such a gaming experience can be seen from many stances. One is the didactic, as the game immerses players in a world that in our time seems like a nightmare, a world in which no one would want to live or relive. The other is the side of narrative charm, as it draws players into a story that leaves no one unaffected, as if we were reading a well-written book. But beyond these two functional perspectives, it is important to bear in mind that these games are not neutral, in the sense that they reflect their era and the historical and political context in which the identity of their designers was shaped, and it is important not to overlook the socio-political dimension that characterises them. The thread that we have already identified from the beginning of this article between literature, the genre to which the game belongs, and the historical events of the 20th century is now, we believe, confirmed through the semiotic analysis of the narrative that we have attempted.

References

- Aarseth, Espen 2012. A narrative theory of games. In: *Proceedings of the International Conference on the Foundations of Digital Games (FDG '12)*. New York, USA: Association for Computing Machinery, 129-133.



- Arendt, Hannah 1973 [1951]. *The Origins of Totalitarianism*. New York: Harcourt Brace Jovanovich.
- Cavazza, Marc; Charles, Fred 2005. Dialogue generation in character-based interactive storytelling. In: Young R.-Michael; Laird John (eds.), *First Artificial Intelligence and Interactive Digital Entertainment Conference*1(1). Marina del Rey, California, USA: 21-26.
- Chandler, Daniel 2007. *Semiotics: The Basics*. London: Routledge.
- Jenkins, Henry 2004. Game Design as Narrative Architecture. In: Wardrip-Fruin, Noah; Harrigan, Pat (eds.), *First Person: New Media as Story, Performance, and Game*. Cambridge: MIT Press. Retrieved from: <https://web.mit.edu/~21fms/People/henry3/games&narrative.html>, 28.3.2022.
- Johnson, Craig; Tulloch, Rowan 2017. Video games and dystopia: Total cities, post-cities and the political unconscious. *Journal of Gaming & Virtual Worlds* 9 (3): 243-256.
- Katsaridou, Maria 2016. From literature to video games: Recent adaptations of Sherlock Holmes. *Animation Journal* 24: 17-32.
- King, Geoff; Krzywinska, Tanya. 2002. Computer Games / Cinema / Interfaces. In: Frans Mäyrä (ed.), *Proceedings of the Computer Games and Digital Cultures Conference*. Tampere: Tampere University Press, 141-153.
- Klevjer, Rune. 2002. In Defense of Cutscenes. In: Frans Mäyrä (ed.), *Proceedings of Computer Games and Digital Cultures Conference*. Tampere: Tampere University Press, 191-202.
- Knoller, Noam 2010. Agency and the Art of Interactive Digital Storytelling. In: Aylett, Ruth; Lim, Mei-Yii; Louchart, Sandy; Petta, Paolo; Riedl, Mark (eds), *Interactive Storytelling*. Berlin, Heidelberg, New York: Springer, 264-267.
- Koenitz, Hartmut; Sezen, Tonguc Ibrahim; Ferri, Gabriele; Haahr, Mads; Sezen, Digdem; Catak, Gven (eds.) 2013. *Interactive Storytelling. ICIDS*. Cham, Heidelberg, New York, Dordrecht, London: Springer
- Koenitz, Hartmut 2018. What Game Narrative Are We Talking About? An Ontological Mapping of the Foundational Canon of Interactive Narrative Forms. *Arts* 7(4), 51. <https://doi.org/10.3390/arts7040051>.
- Lagopoulos, Alexandros-Phaidon; Boklund-Lagopoulou, Karin 2014. Semiotics, culture and space. *Sign Systems Studies* 42(4): 435-486.
- Lotman, Yuri 1990. *Universe of the mind: A semiotic theory of culture*. London: I.B. Tauris.
- Mason, Stacey 2013. On Games and Links: Extending the Vocabulary of Agency and Immersion in Interactive Narratives. In: Koenitz, Hartmut; Sezen, Tonguc Ibrahim; Ferri, Gabriele; Haahr, Mads; Seezen, Digdem; Çatak, Glüven (eds.), *Interactive Storytelling*. Proceedings of the 6th International Conference, ICIDS 2013, Istanbul, Turkey, November 6-9, 2013. Cham, Heidelberg, New York, Dordrecht, London: Springer, 25-34.
- Morrisette, Jess 2017. Glory to Arstotzka: Morality, Rationality, and the Iron Cage of Bureaucracy in Papers Please. *The International Journal of Computer Game Research* 17 (1). Retrieved from: <http://gamestudies.org/1701/articles/morrisette>, 27.3.2022.



- Ryan, Marie-Laure 2008. Interactive narrative, plot types, and interpersonal relations. In: Spierling, Ulrike; Szilas, Nicolas (eds.), *Interactive Storytelling, Joint International Conference on Interactive Digital Storytelling*. Berlin, Heidelberg: Springer, 6-13.
- Smed, Juni; Suovuo, Tomi-Bgt; Trygg-Bulatovic, Natasha; Skult, Petter 2019. *Lecture Notes on Interactive Storytelling*. Turku Centre for Computer Science.
- Squire Kurt 2008. Video Game-Based Learning: An Emerging Paradigm for Instruction. *Performance Improvement Quarterly* 21(2): 7-36.
- Tanenbaum, Karen; Tanenbaum, Theresa-Jean 2010. Agency as commitment to meaning: Communicative competence in games. *Digital Creativity* 21(1): 11-17.
- Zantides, Evripides (ed.) 2018. *Semiotics and Visual Communication II: Culture of Seduction*. Cambridge Scholars Publishing.

Notes

- 1 *Beholder* is a Russian adventure game developed by Warm Lamp Games and published by Alawar Entertainment. It was released on November 9, 2016 on Steam.
- 2 “Beholder is inspired by dystopian works of George Orwell, Aldous Huxley and Ray Bradbury” (Source: <https://beholder.fandom.com/wiki/Beholder>).
- 3 For the discussion about opening cinematics see Dickey 2006; Klevjer 2002; King; Krzywinska 2002; Hancock 2002 and Gibbons 2010.
- 4 Transcribed by the author.
- 5 Stein, Zauer, Schimmer, Wattermach, Meineke, Walner, Brukich are some of the surnames of the satellite characters.
- 6 Deutsche Demokratische Republik.
- 7 “even more crucial is the unifying factor of the boundary, which divides the internal space of the semiosphere from the external, its inside from its outside” (Lotman 1990: 130).
- 8 The government issues directives on a daily basis for activities, objects and practices that are recognized as illegal and are prohibited by the regime (e.g., possessing foreign currency, the production of political propaganda, crying, war talk, reading books).