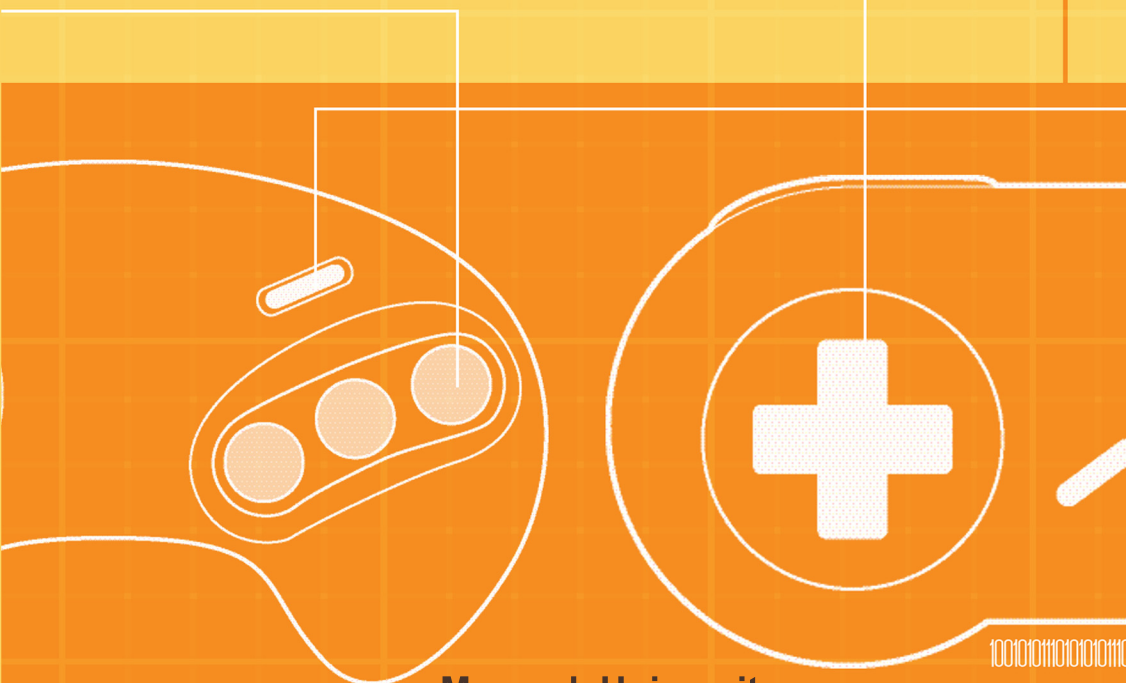


New Perspectives In Game Studies: Proceedings of the Central and European Game Studies Conference

BRNO 2014

1011101110111011
1101000101010110
111111111011111
0101010100110101



**New Perspectives in Game Studies:
Proceedings of the Central and Eastern
European Game Studies Conference
Brno 2014**

Edited by Tomáš Bártek, Jan Miškov, Jaroslav Švelch

Masaryk University
Brno 2015

This book was published in cooperation with MU Game Studies and Department of Media Studies nad Journalism, Masaryk Universty, Brno



GAMESTUDIES.CZ

Authors: Tomáš Bártek, Jaroslav Švelch, Jan Miškov, Stanisław Kra-
wczyk, Tomasz Z. Majkowski, Justyna Janik, Jan Švelch, Eszter Tóth,
Zdenko Mago, Mateusz Felczak

Design of publication: Tomáš Bártek

Printed by Stuaire, s. r. o., Brno

Published by Masaryk University

Brno 2015

1st edition

ISBN 978-80-210-8044-7

ISBN 978-80-210-8045-4 (online : pdf)

Contents

Introduction	5
“You Must Gather Your Party Before Venturing Forth”: Why Did Computer Games From Around 2000 Become So Important in Poland?	9
Stanisław Krawczyk	
Grotesque Realism and Carnality: Bakhtinian Inspirations in Video Game Studies	27
Tomasz Z. Majkowski	
The Cluster Worlds of Imagination: The Analysis of Collage Technique in Games by Amanita Design	45
Justyna Janik	
Negotiating a Glitch: Identifying and Using Glitches in Video Games with Microtransactions	55
Jan Švelch	
Potential of Games in the Field of Urban Planning	71
Eszter Tóth	
Tetris and Gamification in Marketing Communication	91
Zdenko Mago	
Narratives of spectatorship: E-sports in Poland	109
Mateusz Felczak	

All rights reserved. No part of this e-book may be reproduced or transmitted in any form or by any means without prior written permission of copyright administrator which can be contacted at Masaryk University Press, Žerotínovo náměstí 9, 601 77 Brno.

Introduction

On October 10–11, 2014, around 150 people gathered at the Masaryk University in Brno, Czech Republic to discuss and learn about digital games. It was the first annual Central and Eastern European Game Studies (CEEGS) conference – and it marked an important step in the integration of digital games research across the region. It was the first time when game scholars from different parts of Central and Eastern Europe met to share their research, and the start of many fruitful collaborations, both within the region and with our Western European colleagues.

However, to get to this point, game studies in the region had had to overcome numerous obstacles. First, the discipline had to become accepted as a serious and legitimate discipline. This took a little more time than in the U.S. or Scandinavia. In the case of the Czech Republic, we had at least two courses in game studies at two different universities and at least one course in game development in 2009. The students' reactions were enthusiastic, and the hosting departments were satisfied. Secondly, there had to be an infrastructure that would allow people to organize such a conference. Fortunately, by that time, our academic organization, the MU Game Studies, already existed. MU Game Studies (short for Masaryk University Game Studies) was founded as a non-profit association in 2009 by the enthusiastic students of game studies classes at Masaryk University – along with Jaroslav Švelch, their instructor at the time. Later on, more members from other schools started joining the group, while some of the students started working on their Ph.D.'s and became instructors and scholars themselves. MU Game Studies has since organized numerous

events, provided help and advice to game studies students and held a number of national game studies conferences. In late 2013, the MU Game Studies crew were debating where to go next. We realized how sad it was that we knew next to nothing about what was happening in game studies in Poland, Hungary, or other countries of the region. Out of the discussion arose the plan that next time, we would organize a larger international conference with formalized peer reviews, a call for papers addressed to an international audience, and respected keynote speakers. Although we had next to no budget, we persevered.

Along the way, we were greeted with a great amount of interest and support. Professor Espen Aarseth from the IT University of Copenhagen, one of the founders of the discipline and the editor-in-chief of the *Game Studies* journal, accepted our invitation to become a keynote speaker – a choice fitting the foundational spirit of the conference. He has since remained on the CEEGS team as the chair of the “humanistic theory of digital games” section. We were overwhelmed by the number of abstracts we received and decided to go for a 2-track conference instead of the planned 1-track program. We welcomed over 120 registered participants (organizers and volunteers not included) and around 50 speakers from both academia and game development, including people coming from Poland, Slovenia, Slovakia, Hungary, Germany, Austria, China and Turkey. The atmosphere was inspiring and relaxed, and thanks to our enthusiastic volunteers, everything went smoothly.

The topics ranged from history to theory, from empirical studies to applied research. Quite importantly, many of the presentations focused on subjects related to Central and Eastern European gaming experiences, histories and developers. As such, the conference started building a regional identity of game studies in Central and Eastern Europe, and helped us to discover common themes in our research. The first day of the conference concluded with a panel discussion about the state of the art of game studies in the Czech Republic, Poland, Hungary, and Scandinavia (represented by Espen Aarseth).

On the second day of the conference, academics were joined by practitioners from the areas of game design and development. It featured a captivating keynote by Sos Sosowski of McPixel fame, who narrated his personal story of being an Eastern European developer, and a number of other talks which represented the cutting edge of the regional game design, marketing and publishing. And despite the puzzlement of some developers over the academic pursuit of

game studies, a fruitful exchange followed, proving that there is enormous value in the meetings of academics and professionals.

The success of the conference encouraged us to continue. To maintain the international spirit of the conference, it will from now on travel between various cities in the region. In 2015, the place is Krakow, Poland, and the date is 21–24 October. And as the dates themselves suggest, the conference is growing.

The papers in this volume represent the diversity of the papers presented at the 2014 conference. Acknowledging different publication strategies in different countries and departments, we made the participation in the proceedings volume optional, and we worked closely with the authors to deliver polished versions of their talks. The rest of the presentations are available as video recordings on MU Game Studies' YouTube channel, which is accessible from our website at gamestudies.cz.

In the first paper in this volume, Stanisław Krawczyk offers a sophisticated look at the social history of gaming in Central and Eastern Europe. In his piece “*You must gather your party before venturing forth*”, he analyzes the foundational role that RPG games from around 2000 had in Polish digital game culture and contributes to our limited academic knowledge about the development of gaming communities in the region.

Tomasz Majkowski's paper *Grotesque realism and carnality* is a great example of novel approaches to the medium of video games which build on the continental and Central and Eastern European tradition of literary theory and philosophy. Majkowski's Bakhtinian take on the carnivalesque in digital games is both inspiring and provocative.

Justyna Janik contributed a detailed analysis of the output of the Czech studio Amanita Design. In the paper entitled *The cluster worlds of imagination*, she applies the theoretical instruments of art history and theory of art to games like *Samorost* and treats them as a specific form of collage that subverts the drive for photorealism present in commercial blockbuster titles.

In his paper *Negotiating a glitch: identifying and using glitches in video games with microtransactions*, Jan Švelch explores the phenomenon of glitch and defines it as a never ending process of negotiation among the players, the press and developers. The text examines the discourse about glitches in two well-chosen cases – the infinite respawn glitch from *Dead Space 3* and the missile glitch in *Mass Effect 3*.

In her paper *Potentials of games in the field of urban planning*, Ezster Tóth aptly

presents several examples of urban games designed to raise awareness of urban planning processes, or to foster citizen engagement, as well as urban games utilized in education. In Tóth's view, these games support decision-making and public participation in multidimensional planning processes and can be valuable contributions to the evolution of public spaces.

Zdenko Mago proposes to analyze *Tetris* as a tool of gamification. His research is rooted in a historical understanding of the game and the theoretical foundations of gamification. In his contribution, Mago focused on participants' perception of commercials which apply the principles of gamification and questions the effectiveness of using such practices for marketing purposes.

Mateusz Felczak's paper *Narratives of spectatorship: e-sports in Poland* fulfils the aim of the conference to promote research of gaming cultures with the region. He describes the electronic sport tournament event, the Intel Extreme Masters World Championship finals, which took place in Katowice, Poland. The paper discusses the transformation of videogame spectatorship due to the development of online streaming.

Before we invite you to read the papers, we would like to thank all institutions and organizations who made the event possible: Masaryk University in Brno and its Faculty of Social Studies, Charles University in Prague's Faculty of Social Sciences, the Brno-Center district, and the Regional Museum in Litomyšl. Most of all, we want to express our gratitude to all of our volunteers, colleagues and reviewers who dedicated many precious hours of their lives to the conference.

Tomáš Bártek, Masaryk University in Brno
Jan Miškov, Masaryk University in Brno
Jaroslav Švelch, Charles University in Prague
Zdeněk Záhora, chairman, MU Game Studies

“You Must Gather Your Party Before Venturing Forth”: Why Did Computer Games From Around 2000 Become So Important in Poland?

*Stanisław Krawczyk*¹
University of Warsaw

Abstract

The turn of the 21st century was a significant period for computer games in Poland, especially in the roleplaying and strategy genres. The titles published at that time include *Fallout*, *Starcraft*, *Baldur’s Gate*, *Heroes of Might & Magic III*, or *Planescape: Torment*. This paper seeks to explain why these and other similar games had an important impact on the identities of many Polish players and contributed to the national gaming culture. Several social and cultural factors are analyzed, such as the players’ sociodemographic characteristics, the historical development of cRPG (computer roleplaying games) and RTS (real-time strategy) games, the role of Polish publishers, and the significance of technologies. The methodology of the study draws from Wendy Griswold’s cultural diamond heuristic, which emphasizes the benefits of investigating cultural objects (in this case, games) in relation to their producers, players, and the general social context. In general theoretical terms, the paper is grounded in cultural sociology.²

Keywords: computer games, cRPG, Polish players, strategy games

¹ Contact: krawczykstanislaw@gmail.com

² The chapter is the author’s revised translation of a Polish article accepted for publication in the journal *Homo Ludens*.

Introduction

The phrase “You must gather your party before venturing forth” comes from *Baldur’s Gate*, a hugely successful cRPG (computer roleplaying game) first released in 1998. In the Polish version, the words read by the well-known actor Piotr Fronczewski (*Przed wyruszeniem w drogę należy zebrać drużynę*) became a generational classic. A four-second YouTube copy of the recording³ has been viewed about 150,000 times from June 2010 to March 2015, and typing the phrase into a search engine will yield hundreds if not thousands of unique results.

This paper aims to demonstrate how that has been made possible. But the study is also about many other games from the same period – the games that numerous Polish players still remember with great fondness.

As a matter of fact, I once played a good number of those titles myself. It still strikes me how quickly the feeling of mutual comprehension appears when I talk to friends about those games. And sometimes the memories come at the strangest moments. For instance, after my friend and I talked to a guard of one national park in 2011, the friend said this while we were leaving the park: “I wish we had asked her if she would join the party”. A conversation on the *Baldur’s Gate* series followed promptly, eventually taking a good part of the day.

Personal experiences can be a valuable resource for social researchers (Lofland, Snow, Anderson & Lofland, 2010, pp. 31–35). However, they may also narrow down the scholars’ perspectives, often in a subconscious way. This is why it is important to define the standpoint from which the role of past computer games will be described here⁴, even though the study is not an instance of autoethnography.

As was true for many men born in Poland in the 1980s, I developed an interest in cRPGs and strategy games in my teenage years. The experience of this period has shaped my future preferences: cRPGs are still my favorite genre. Such a biography may easily encourage a researcher to overemphasize the social importance and outreach of studied games. It ought to be stated explicitly,

³ Available at <https://www.youtube.com/watch?v=Ph0yhtZDWIQ>, or by searching YouTube for the Polish phrase.

⁴ ‘Past games’ and ‘older games’ serve as handy synonyms for cRPG and strategy games published in Poland at the turn of the 21st century. The expression ‘computer games’ is used throughout the paper to underscore the fact that it was generally personal computers that Poles used to play strategy and roleplaying games at that time.

then, that the paper does not present a comprehensive view of all Poles playing on computers around the year 2000. Instead, the study is mostly concerned with players belonging to specific social categories (briefly speaking, with well-educated young men). In addition, the paper focuses on heavily engaged gamers much more than on casual players.

The current work is related theoretically and methodologically to various sociological examinations of how cultural production is grounded in the social context (e.g., Peterson & Anand, 2004; Santoro, 2008). Speaking more broadly, the paper inspects games from the standpoint of cultural sociology – an increasingly frequent approach in sociological research that builds on the following assumption: “[C]ulture, social life, and social institutions are mutually implicated. Following any single strand of cultural analysis is likely to quickly open out into a broad set of considerations: of personal relationships, everyday life, economic institutions and their cultural bases, public etiquette, transnational differences, technology and culture, global diffusion, and more” (Hall, Grindstaff, & Lo, 2010, p. 2). In terms of its subject matter, the paper is related not just to game studies, but also to media archeology and fan studies.

To avoid confusion, it should be stressed that the key question of this paper is not “How was it possible for those games to appear?” but “How was it possible for those games to become so important?” In other words, the paper concentrates on reception rather than reflection⁵.

The next sections present the dominant social and demographic traits of the fans of older games, describe a number of indicators of the long-standing significance of those games, and examine the causes of their popularity. As these topics are understudied, the paper needs to be partly descriptive. Together with the space restrictions and the broad range of games and factors discussed, this means that cultural sociological concepts and methods can only be explained and applied in a limited way. Nevertheless, illustrating their usefulness to game studies is an important, if secondary, goal of the present work.

The players’ sociodemographic characteristics

This part of the paper aims to distinguish the basic social categories of Poles interested in cRPGs and strategy games at the turn of the 21st century (it will be

⁵ The terms ‘reception’ and ‘reflection’ have been applied by Wendy Griswold. The former designates the way people make use of cultural objects. The latter concerns the origins of those objects, treated as manifestations of societal values, class conflicts or interests, social pathologies, and so forth (Griswold, 1986, pp. 9–10).

discussed later why other genres are largely irrelevant to this study). Another goal is to explain how particular sociodemographic characteristics strengthened both the players' engagement at that time and their long-term interest in subsequent years.

Gender

Even though there are no comprehensive statistical data concerning the gender of Polish players around the year 2000, there are grounds to think that most games studied here appealed mainly to men. One crucial reason lies in the impact that general gender differences in society had on the gaming culture in Poland. In analyzing this, the paper borrows arguments from the article of Magdalena Tuła (2013), who has in turn referred to Pierre Bourdieu's notion of symbolic violence.

Polish men around 2000 had more free time than women and their leisure was less frequently interrupted by family activities or household chores. This made it easier for male players to enjoy games that required more time to play or finish. Such titles were also more prestigious than games ascribed to women – an example of typically male activities in general tending to earn more respect than female ones. The games that were more eagerly picked by female players (e.g., *The Sims*) could easily be denied the status of “true games.” A man would also encounter fewer troubles than a woman when developing an interest in technology, which was related to becoming a computer game fan. All this had a bearing on the growth of the gaming culture in Poland (cf. Tuła, 2013, pp. 282–284)⁶.

The fact that male players were the majority meant that it was less demanding for them to find friends and form groups of the same gender, which became an additional consolidating factor in a mostly male-populated gaming culture. Another consequence was the low visibility of female experiences. There is no doubt that titles like *Baldur's Gate* were attractive to women, too, but their voices have been less audible than male ones⁷.

⁶ Of course, gender differences vary across time and space, and none of the remarks here are meant to refer to all contemporary populations. Still, it is worth noting that even in 2010 the amount of spare time declared in a national survey by Polish women remained lower than that declared by men, both in employed and non-employed groups. This was apparently related to differences in time spent on taking care of children and on household chores (Stasik, 2010, p. 3).

⁷ Another thing to consider is that some Polish women were strongly involved with

Another reason to think that there was a majority of men is that many past games were tied up with fantastic fiction or with tabletop roleplaying games (such as *Dungeons & Dragons*), and the Polish communities focused on these around the year 2000 were predominantly male. This gender proportion is reflected in convention programs and photographs, readers' letters, mastheads and author names in trade periodicals, etc.

For all these reasons, the claims of this paper may be applied mostly to male players and the gaming culture to which they have contributed. I must also note that my own biographical perspective makes it easier to write about men's experiences.

Age

Three age groups can be distinguished among fans of older games. The first group is composed of the people born in the 1970s or (more often) in the 1980s, who were often high school or university students when the titles in question were released. The initial contact of these players with past games occurred in the crucial period of identity formation, coinciding with the process of peer bonding. Games were a frequent topic of conversation and provided young people with an opportunity to play together in the hotseat mode or through a local network. At present the members of this group are thirty- and forty-year-olds, who do not have as much time to spare as in the 1990s but still value the titles from their formative time.

The sales of the most popular games can testify to the numbers of those players. A clear example is the breakthrough Polish edition of *Baldur's Gate*, which sold 18,000 copies on the very first day of distribution (Jankowski, 2013). Of course, not all those who bought the game would later become ardent players, but the figures are still significant.

Members of the second group were born in the early 1990s. They only came across titles like *Age of Empires II* sometime after the initial release, and this limited their chances to find peers playing those games at the same time. Besides, in 2001 Telekomunikacja Polska – a key telecommunications service provider in Poland – introduced the service Neostrada. Based on the ADSL technology, it began to replace cumbersome and ineffective dial-up modems. Many people could now play comfortably on the Internet, which became a competition both for hotseat get-togethers and for private LAN parties. This technological and

games which are not analyzed in the paper. *The Sims* in itself is a title that merits a separate study.

social change had a negative impact on the number of gaming sessions held as direct gatherings. That may have weakened the cult potential of older games, as experiencing and recollecting meetings with friends appears to have played its role in forming the players' identities.

However, one needs to consider the developments that had opposite effects, such as the rise of gaming festivals (e.g., Poznań Game Arena) and Internet cafés. The latter provided players with opportunities to meet at the time when a fast connection was still very rare in Polish households. On the whole, people born just after 1990 – who are now in their twenties – were not as fascinated with past games as older players were; yet they still had an interest in them.

Only the final group – today's teenagers – never really cared about games published in the late 1990s and shortly afterwards. These players rarely heard about such games or chanced on them in stores; they got used to quick Internet access; and newer titles accustomed them to advanced graphics and an intuitive interface.

Social class

It is time to turn to the players' wealth, profession, and education. Convincing arguments have been raised in support of the view that people who are positioned differently in the class system are also likely to engage in different consumption practices (Bourdieu, 1984; Cebula, 2013). A plausible example of this is the variation in computer game selection and playing style. Even the very fact of playing, as well as the very phenomenon of cult games, has likely been conditioned by class. In practice all this could mean having parents who could afford to purchase computers and original games for their children, knowing about ways to get pirated copies, having friends with interests in games, and so on.

It is reasonable to speculate that computer games in the late 1990s and early 2000s were mostly attractive to people from the middle-class or intelligentsia, and so the appeal of games was grounded in a commonality of economic conditions. While locating relevant quantitative data from that exact period is not easy, a report from one nationally representative survey conducted in 2006 contains a brief note that playing computer games “is a domain of young people, with middle or high education, who consider their material conditions to be good” (Lewandowska, 2006, p. 7).

Indicators of the long-term impact of past games

We already know about certain factors that may have strengthened the original

fascination in older titles. But how can we determine if the latter are still important for the players born in the 1970s and 1980s (and in some cases, in the early 1990s)? The present section examines two possible sources of relevant data.

Informal conversations between players

One source to be considered is informal conversations between players. Let us look at some anonymized examples (in my translation from Polish) from the comment exchange that took place under a 2012 Facebook status in which I had asked friends about cRPG and strategy titles from around 2000. Every example comes from a different person, and I have tried to retain the original spelling of game titles insofar as possible. The conversation was not public but the authors have agreed for their comments to be quoted here. Every quotation is preceded by the author's birthdate.

1. (1991) "I am 100% fascinated by Baldur, Heroes III, Starcraft, etc. (we still play that today with ... an old-school LAN cable) ... I'll add that my brother, 1999, despite my strong attempts to convince him, only plays Heroes out of all these, but he prefers [part] V [to part III], so unfortunately there is a cutoff somewhere."

2. (1991) "Personally, I played fervently (with younger and older cousins, and friends), mostly strategy games ... I still like talking about those games and sometimes I come back to some."

3. (1991) "Strangely enough, I've heard about most of the titles you've mentioned, and I don't think I'll ever find a replacement for 3 of them or something equally good (I still play Starcraft through LAN with my friends). Sadly, I'm getting old fast, because no game after 2005 has impressed me much (there'll be 2-3 exceptions).

4. (1988) "I play the newest games, too, but I rarely go back to them (apart from certain exceptions). But I do go back to older titles."

5. (1986) "My brother was born in 1992 but he began his romance with Heroes III sitting next to me, staring at our first computer. I was 14 and he was 8. I don't know which of us has a stronger sentiment."

6. (1989) "Among my playing friends, both from around 1990 and 1994 ... cult and model games are still Baldur's Gate 1, Diablo II, Morrowind, HОMM3 and CS 1.6 [Heroes of Might and Magic, Counter-Strike] ... And of course Worms World Party and Warcraft 3."

7. (1992) "For me Baldur's Gate I and II are still the best RPGs, all those new Mass Effects, Skyrimms, and other wonders from the 21st century can't hold a candle to the old good Baldurs."

8. (1990) “I still have most of the titles you mentioned on my hard drive, and I sometimes play them.”

9. (1992) “I also like Baldur’s Gate, Gothic, Starcraft, and Heroes III, although I don’t scorn new games, either. And I think that if somebody plays a lot, then no matter when they were born, they HAVE TO know certain games.” (One of just 2 comments written by women, as opposed to about 110 comments from men, including mine.)

10. (1987) “‘Generational games’ in my case are Heroes III, Planescape: Torment, Baldurs, Fallout I and II, Starcraft, Worms, Tomb Raider, Worms, and Unreal: Tournament. I probably forgot about some others.”

11. (1995) “I was lucky to find BG [Baldur’s Gate] in a shop in the Extra Classic edition and notice that the game was set in ‘the bestselling world of Forgotten Realms’ ... And my cousin, a little older than me, made me love the Forgotten Realms. ... Thanks to me my younger brothers also know their BG, Neverwinters, etc. But I think that my case is an exception for people from 1995 or younger.”

12. (1987) “We STILL play ‘Age of Empires II’ TODAY! The gameplay quality is much better than in contemporary titles.”

13. (1989) “I’ve experienced this generational phenomenon, too. A good-sized group of my friends from university understood that they were meant for each other when one intoned ‘You must gather your party...’”

14. (1993) “Somehow I still consider the games you mentioned to be generational ones. ... I can also talk about them for hours, and I come back to them often!”

The exact reach of these and similar phenomena is hard to define, especially given the fact that the significance of older titles does not need to be apparent in players’ everyday lives. Memories of past experiences can remain dormant until triggered by some social situation (a good analogy here would be talking to friends whom one has not seen for a long time).

Nevertheless, even a small number of active players interacting in the ways listed above can shape the gaming culture, contributing to the formation and operation of its key institutions. For this reason, such informal conversations may be a fruitful topic for qualitative studies.

Filmweb game rating

A more systematic indicator used here is the ratings that measure the popularity of computer games. For this paper, I have selected the rating of the Filmweb portal, which shows one hundred titles that received the highest average

ratings from users (“Ranking gier”, n.d.). The assessments of many thousands of players, as well as a relatively large number of games included, mean that the list is a more valuable source of information than other similar ratings. Although the players who set up accounts and publicly evaluate games may be different from the general playing population, taking such persons into account is in keeping with the focus of the paper on the so-called core players.

Figure 1 indicates which years have seen the publication of the largest numbers of titles from the Filmweb rating. As at Filmweb itself, world premiere dates (not Polish release dates) have been given, and expansions have been treated as autonomous titles. The graph disregards the exact positions of individual games in the Top 100 (these would be difficult to compare effectively, given the fact that there are sizeable differences between the number of voters that rated each game). For the sake of clarity, the years 1985–1993, represented at the most by a single title each, have been left out.

The most important part of the graph is the data on the years 1998–1999, and more broadly: 1998–2001. The quantitative leap in comparison with the year 1997 is easily noticeable. What is more, a standstill may be observed in the next period (with a brief interruption in 2007). Only in the years 2010–2013 does another set of high results appear.

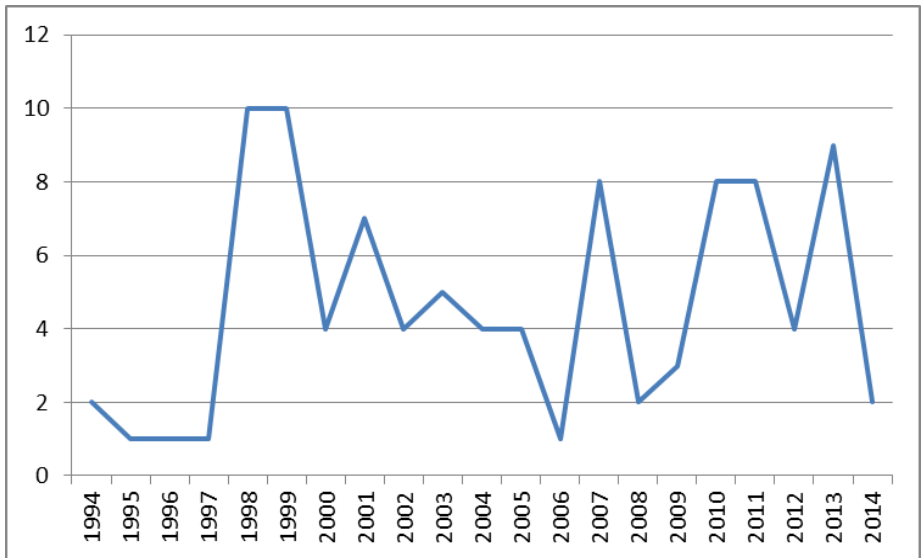


Figure 1. The number of games from the Filmweb Top 100 by date of release (Ranking gier, n.d.), retrieved on May 13, 2014

Interpreting this data is challenging due to the lack of information on voters' ages. Yet we do know that the rating was introduced in 2011, and by that time older games had generally ceased to be officially promoted or distributed. It is therefore safe to assume that the results are not due to young players getting to know *Fallout* or *Planescape: Torment* (and then rating them) but due to more experienced individuals remembering their earlier experiences and perhaps getting back to past games⁸.

The data also demonstrates that roleplaying and strategy genres are particularly relevant for the purposes of this paper. The rating includes 20 titles released in 1998 or 1999; 7 of these are cRPGs and 4 are strategy games⁹ (adding up to 55% of the total amount). The period between 1996 and 2003 is similar: 44 titles, including 15 cRPGs and 11 strategy games (59%). Only in the entire time span are the proportions different: 100 titles, of which 24 are cRPGs and 15 are strategy games (39%). We can thus say that around the year 2000, roleplaying games had the greatest potential to become classics, and strategy games took second place. It was not until several years later that the role of these two genres became smaller.

Table 1 contains a selection of important cRPG and strategy titles published in Poland at the turn of the 21st century (for the sake of brevity, expansions have been omitted and some titles shortened). Games from the Filmweb Top 100 are listed in bold, and the ones with potentially controversial genre definitions have been given in square brackets. Except for a few titles where the date of initial release in Poland has not been confirmed (those are marked with an asterisk), years in the table indicate the Polish premieres. Some dates are thus different than in the Filmweb rating. The most useful source in determining the years of initial Polish release were the entries in the comprehensive online encyclopedia of the web portal Gry-OnLine.pl (Encyklopedia Gier, n.d.).

⁸ However, the age of people voting on more recent games – *The Witcher 2*, *The Elder Scrolls V: Skyrim*, or the *Mass Effect* series – remains unclear. Therefore, while the rating testifies to the lasting impact of past games, it cannot tell us whether they have been less or more important to their fans than newer ones.

⁹ The other nine, in keeping with Filmweb's categorization, consist of a stealth or TPS game (*Metal Gear Solid*), two survival horrors (*Resident Evil 2*, *Silent Hill*), a platform game (*Crash Bandicoot 3*), an FPS one (*Half-Life*), an adventure game (*The Longest Journey*), a racing game (*Gran Turismo 2*), a fighting game (*Tekken 3*), and a mixed racing-platform title (*Crash Team Racing*). None of these genres can compete in numbers with cRPGs and strategy games. (TPS – third person shooter, FPS – first person shooter.)

First release	cRPGs	Turn-based strategies	Real-time strategies
1996		<i>Civilization II*</i> , <i>Lords of the Realm II*</i> , <i>Master of Orion II</i>	<i>Command & Conquer</i> , <i>The Settlers II</i> , <i>Warcraft</i>
1997	<i>[Diablo]</i> , <i>Final Fantasy VII*</i> , <i>The Elder Scrolls II*</i>	<i>Lords of Magic*</i> , <i>Warlords III *</i>	<i>Age of Empires</i> , <i>Dungeon Keeper</i> , <i>Total Annihilation*</i>
1998	<i>Fallout</i>		<i>Knights and Merchants: The Shattered Kingdom</i> , <i>Starcraft</i> , <i>The Settlers</i>
1999	<i>Baldur's Gate</i> , <i>Fallout 2</i> , <i>[System Shock 2]</i>	<i>Heroes of Might & Magic II</i> , <i>Heroes of Might & Magic III</i> , <i>Jagged Alliance 2</i>	<i>Age of Empires II</i> , <i>Command & Conquer: Tiberian Sun</i> , <i>Dungeon Keeper 2</i> , <i>Might & Magic VII</i> , <i>The Settlers III</i>
2000	<i>Baldur's Gate II</i> , <i>[Deus Ex]</i> , <i>[Diablo II]</i> , <i>Icwind Dale</i> , <i>Planescape: Torment</i>	<i>Age of Wonders</i>	<i>Homeworld</i> , <i>Majesty</i> , <i>The Settlers IV</i>
2001	<i>Arcanum</i>	<i>Civilization III</i>	<i>Might & Magic VI</i> , <i>Might & Magic VIII</i> , <i>Original War</i>
2002	<i>Gothic</i> , <i>Gothic II</i> , <i>Icwind Dale II</i> , <i>Neverwinter Nights</i> , <i>The Elder Scrolls III</i>		<i>Age of Mythology</i> , <i>Might & Magic IX</i>
2003	<i>Star Wars: Knights of the Old Republic</i>	<i>Warlords IV</i>	<i>Homeworld 2</i>

Table 1. A selection of roleplaying and strategy games in Poland, 1996–2003

The table shows the importance of the years 1999 and 2000 (which correspond to the years 1998 and 1999 in the Filmweb rating). During that time nine titles from the Filmweb Top 100 were published, whereas the remaining six years saw the release of just seven games¹⁰.

¹⁰ An earlier part of the text mentioned 26 – and not 16 – cRPG and strategy classics from the years 1996–2003. The main cause of this disparity is that the table does not include expansions.

Other determinants of the role of past games

The popularity of games from around 2000 was influenced by a number of as yet unmentioned factors. In the discussion to follow, these factors are classified in accordance with the heuristic scheme of the cultural diamond as proposed by Wendy Griswold (1986, pp. 5–9; 2008, pp. 14–17). The scheme assumes the need for a joint analysis of cultural objects (e.g., games), their producers, receivers, and the social context. Each of these apices of the diamond is described briefly below, with an exception for receivers (players) who have already been portrayed.

Cultural objects and their producers

One crucial aspect of past titles is their place in the history of game genres. Certainly, roleplaying and strategy titles (for instance, *Betrayal at Krondor*, *Civilization*, *Dune II*) had existed before the mid- and late 1990s, but it was the games discussed here that established a new canon for the two genres.

In the early 1990s the first golden age of cRPGs came to an end when the company Strategic Simulations ceased publishing both the Gold Box series and the series *Eye of the Beholder*. The BioWare company, founded in 1995, made good use of the CD-ROM technology to prepare *Baldur's Gate*, a title of unprecedented scale that helped fill the gap in the genre. For strategy games, a similarly vital title was *Warcraft*, a 1994 RTS that launched the career of Blizzard. In 1995 a sequel to *Warcraft* was released, along with Westwood Studios' *Command & Conquer* (which had been preceded by *Dune II* in 1992).

In both cases the titles that we now consider groundbreaking were made in a period of rapid technological and market change. It is their success that defined genre standards that are still in place today, even if some of those standards were first introduced on a smaller scale by earlier games (the gameplay similarities between *Dune II* and *Warcraft* are a good example here). BioWare and Blizzard are still massive companies, and their old games have been followed by numerous expansions, sequels, and spiritual successors. It may be that the road for new classics in cRPGs and strategy games has been closed for several years now, and perhaps fresh titles with comparable innovative force can only be found in other, less stable genres.

Notably, the games above have been even more revolutionary in Poland than in the United States, for only in the mid-1990s did the Polish computer game market began to gain real traction. The example of CD Projekt illustrates this: within just three years (1996–1999), the company proceeded from publishing its first Polish boxes and rule translations for foreign games to releasing

the fully localized *Baldur's Gate*. Whereas North American players had had time to get accustomed to the Gold Box series and other attractive titles before they saw *Warcraft* or *Fallout*, the Polish players' access to such games had been much more limited, even in unofficial distribution. To the playing public in Poland, the contrast between the former state of the market and the plethora of titles released professionally in the late 1990s must have been huge. This is one of the reasons why so many games from that time became classics in Poland.

The case of CD Projekt is a reminder that one needs to consider the role of game publishers, and not just game developers, even though only the latter are cultural producers in the strictest sense of the term. While both functions can be important in the same organization (Blizzard itself comes to mind), this was hardly the case in the peripheral computer game market in Poland before the late 2000s, which was heavily dominated by imported games.

Table 2 presents some basic data on computer game publishers in Poland from the late 1980s to the early 2000 (the very names of companies indicate the significance of English-language games for the local market). An essential resource in defining game release dates has been the catalog of Polish publishers at the web portal Gry-OnLine.pl (Katalog firm, n.d.).

Company	Founding year	First game premiere
Mirage Media	1988	?
Laboratorium Komputerowe Avalon	1989	?
MarkSoft	1990	1995
IPS Computer Group Sp. z o.o.	1991	?
APN Promise	1991	1997
Wydawnictwo Bauer	1991	1998
Techland	1991	1995
CD Projekt	1994	1994
Play-publishing	1994	2001
TopWare Poland	1995	1996
Licomp Empik Multimedia	1997	1997
Lemon Interactive	?	1998

Play-It	1999	1999
Axel Springer Polska	?	2000
Dobra Gra	?	2001
Lukas Toys	?	2001
City Interactive	2002	2002

The data shows that the official distribution of computer games in Poland gained speed around 1995. This growth in publishing was a crucial precondition for the success of games which later became classics.

One particular reason for that growth was full game translations. Although rules and boxes had become a standard before 1999, the extensive localization of *Baldur's Gate* was a big step forward. And this step might have come later if it had not been for CD Projekt. According to Zbigniew Jankowski, a game journalist who talked to the founders of the company in 2013, they were enamored with BioWare's presentation of the game in London in 1997. They also became convinced that *Baldur's Gate* would be a breakthrough for the entire gaming market. However, to the original publisher – Interplay – it did not seem profitable to pay BioWare for implementing the Polish language version. Big games did not sell well in Poland, so the risk appeared to be too high. Ultimately, the founders of CD Projekt decided to invest their own money and implement the localization without either the publisher's or the developer's help. The risk paid off, and the rest became history (Jankowski, 2013; see also Pitts, 2014).

It is likely that the triumph of this translation was due to its quality as well as originality. A good indicator of that quality could be the fact that well-known actors were employed to record voices for the Polish version. A careful analysis of this localization would be a way to explore a part of what the present study only touches upon; namely, the features of games themselves. Such an analysis might also be a means of applying aesthetic criticism as an element of sociological reasoning.

Games in the social world

The social context – or social world – of cultural objects is composed of “the economic, political, social, and cultural patterns and exigencies that occur at any particular point in time” (Griswold, 2008, p. 15). This definition could be made more systematic by referring to the six facets of cultural production distinguished by Richard A. Peterson and Narasimhan Anand (2004, p. 313–321): technology, law and regulation, industry structure, organization structure, oc-

cupational careers, and market. For this study, however, two less methodical remarks should suffice¹¹.

First, the technological aspect of past games ought to be taken into consideration. Some parts of it have been mentioned in the text: dial-up modems; local area networks; the ADSL technology; CD-ROMs; graphics; and interface. Taken together, they demonstrate the active role of technologies, which can shape social phenomena to some extent.

Second, it is good to remember that Polish computer game magazines were sometimes printed in circulations exceeding one hundred thousand copies. Such periodicals as *Top Secret* (1992–1996 and 2002–2003), *Świat Gier Komputerowych* (*The World of Computer Games*, 1992–2003), *Secret Service* (1993–2001), *Gambler* (1993–1999), *Reset* (1997–2001), and *CD-Action* (still published since 1995) contained game rules and maps (especially in the early years, when many games reached Polish players via informal distribution channels, without any official materials), walkthroughs, humor, reviews, opinion pieces, as well as games on floppy discs and CD-ROMs. In the period of more limited Internet access, periodicals were a vital space of game-related communication, and the existence of such communication has likely been a condition of long-term success for any game.

As an example, *Secret Service* prepared its readers well for the Polish translation of *Baldur's Gate*. A review of the original version appeared in December 1998, and the expansion pack *Tales of the Sword Coast* was reviewed in May 1999. As for the localized game, its review was published in April 1999, one month before the official release. The same issue included a quiz contest with prizes related to *Baldur's Gate*. And a few issues that year advertised the game on the very first and last pages. All this certainly raised the awareness of *Baldur's Gate* among Polish readers and helped establish its position in the market.

Of course, game magazines were spaces of rather one-sided communication, with mostly passive readers and mostly active authors or editors. Readers could express their views in letters to the editorial staff but that was still a very restricted conversation. This changed a lot with the advent of message boards and other Internet-based means of communication, whose role could easily merit a separate study.

¹¹ If that makes the present section too brief, the reader may note that the publishers – discussed earlier as producers – might also be qualified as part of the social world. In some cases assigning persons and institutions to one specific apex of the cultural diamond may just be an arbitrary decision.

Conclusions

In this paper, most factors have been examined in isolation. The next step would be to study the relations between factors – the connections between the four apices of the cultural diamond. For instance, the relatively high amount of spare time among male players could be analyzed in connection with the role of longer games in cRPG evolution. A question might then arise if the introduction of CD-ROMs had a negative effect on women's participation in the gaming culture.

Another way to build on the present analysis would be to examine the discourse on computer games in Polish gaming periodicals, as in Graeme Kirkpatrick's study of the formation of the gaming culture in the United Kingdom (Kirkpatrick, 2012). This would allow for taking the players' own experiences into consideration. A similar goal could be accomplished by conducting in-depth interviews or running focus groups.

Still, despite its constraints, the paper has hopefully demonstrated that many factors have had an effect on the lasting popularity of classic games published in Poland around 2000. Any serious attempt to explain the cult status of such titles needs to account for that complexity.

More generally, the paper embraces a methodological approach that will perhaps be of use to other game scholars. Instead of analyzing any single node in the cultural diamond, it might be more fruitful (at least for social researchers) to study the numerous characteristics and interrelations of games themselves, their producers, players, and the general context. The methods of cultural sociology – however heuristic and limited their use is in the current paper – may be helpful in this regard.

References

- Bourdieu, P. (1984). *Distinction. A Social Critique of the Judgement of Taste*. Cambridge, Massachusetts: Harvard University Press.
- Cebula, M. (2013). Społeczne uwarunkowania gustów i praktyk konsumpcyjnych. Zbieżność pozycji społecznych i stylów życia czy autonomizacja kultury? [Social Patterning of Consumption Tastes and Practices: Convergence of Social Positions and Lifestyles or Autonomy of Culture?] *Studia Socjologiczne [Sociological Studies]*, 53(2), 97–125.
- Encyklopedia gier [Game Encyclopedia] (n.d.). Retrieved from <http://www.gry-online.pl/encyklopedia-gier.asp>.
- Griswold, W. (1986). *Renaissance Revivals. City Comedy and Revenge Tragedy in the London Theatre, 1576–1980*. Chicago and London: The University of Chi-

ago Press.

Griswold, W. (2008). *Cultures and Societies in a Changing World* (3rd ed.). Thousand Oaks: Pine Forge Press.

Hall, J. R., Grindstaff, L., & Lo, M.C. (2010). *Handbook of Cultural Sociology*. Routledge: London and New York.

Jankowski, Z. (2013). *Od Baldur's Gate do Wiedźmina* [From Baldur's Gate to the Witcher]. Retrieved from <http://www.eurogamer.pl/articles/2013-05-24-od-baldurs-gate-do-wiedzmina>.

Katalog firm [List of Companies] (n.d.). Retrieved from <http://www.gry-online.pl/gry-katalog-firm.asp>.

Kirkpatrick, G. (2012). Constitutive Tensions of Gaming's Field: UK gaming magazines and the formation of gaming culture 1981–1995. *Game Studies*, 12(1). Retrieved from <http://gamestudies.org/1201/articles/kirkpatrick>.

Lewandowska, J. (2006). *Co Polacy robią w czasie wolnym. Komunikat z badań* [What Poles Do in Their Free Time. Research Report]. Centrum Badań Opinii Społecznej. Retrieved from http://www.cbos.pl/SPISKOM.POL/2006/K_124_06.PDF.

Lofland, J., Snow, D. A., Anderson, L., & Lofland, L. H. (2010). *Analiza układów społecznych. Przewodnik metodologiczny po badaniach jakościowych* [Analyzing Social Settings: A Guide to Qualitative Observation and Analysis]. Warszawa: Wydawnictwo Naukowe "Scholar".

Peterson, R. A., & Anand, N. (2004). The production of culture perspective. *Annual Review of Sociology*, 30, 311–334.

Pitts, R. (2014). How the Team Behind the Witcher Conquered Poland. Retrieved from <https://www.polygon.com/features/2014/7/16/5884227/cd-projekt-the-witcher-3>.

Ranking gier [Game Rating] (n.d.). Retrieved from <http://www.filmweb.pl/rankings/game/world>.

Santoro, M. (2008). Culture as (and after) production. *Cultural Sociology*, 2(1), 7–31.

Stasik, A. (2010). *Czas wolny Polaków* [The Leisure Time of Poles] (p. 15). Centrum Badań Opinii Społecznej. Retrieved from http://www.cbos.pl/SPISKOM.POL/2010/K_133_10.PDF.

Tuła, M. (2013). Dlaczego mężczyźni grają w "FIFA", a kobiety w "The Sims"? Przemoc symboliczna w grach komputerowych [Why do men play FIFA and women play The Sims? Symbolic violence in computer games]. *Homo Ludens*, 5(1), 279–288.

Ludography

- BioWare. (1998). *Baldur's Gate*. Black Isle Studios, Interplay Entertainment.
- Black Isle Studios. (1999). *Planescape: Torment*. Interplay Entertainment.
- Blizzard Entertainment. (1998). *Starcraft*. Blizzard Entertainment.
- Blizzard Entertainment. (1994). *Warcraft: Orcs & Humans*. Blizzard Entertainment.
- Dynamix. (1993). *Betrayal at Krondor*. Sierra On-Line.
- Ensemble Studios. (1999). *Age of Empires II: The Age of Kings*. Microsoft, Konami.
- Interplay Entertainment. (1997). *Fallout*. Interplay Entertainment.
- Maxis. (2000). *The Sims*. Electronic Arts.
- Meier, Sid. (1991). *Civilization*. MicroProse.
- New World Computing. (1999). *Heroes of Might & Magic III: The Restoration of Erathia*. New World Computing.
- Westwood Associates. (1991). *Eye of the Beholder*. Capcom, Sega.
- Westwood Studios. (1995). *Command & Conquer*. Electronic Arts.
- Westwood Studios. (1992). *Dune II*. Virgin Interactive.

Acknowledgments

The process of writing this paper has been influenced by suggestions and ideas of many people. I am grateful to all of them, in particular to Kacper Skocki, Bartek Łopatka, and Amadeusz Smirnow.

Grotesque Realism and Carnality: Bakhtinian Inspirations in Video Game Studies

Tomasz Z. Majkowski¹
Jagiellonian University in Krakow

Abstract: The aim of this paper is to re-frame criticism of video-game portrayal of the human body and basic human interactions in light of Mikhail Bakhtin's theory of carnivalesque and grotesque realism. According to the Russian scholar, the latter is a dominant aesthetic convention for the former, facilitating representation of the essence of carnival (understood as a worldview, not a festival). My claim is that various grotesque deformations of bodies in mainstream, high-budget video games, such as over-muscled male protagonists, hypersexual women and hideous or inhuman enemies, as well as the strange obsession with producing photorealistic settings, fall firmly into this aesthetic. The same is true for the fragmented, incomplete body of the first-person-perspective protagonist.

The imaginary is further strengthened by the common way AAA video-games handle human interaction, as they are prone to reduce any contact to various collisions of bodies, eliminating any other social convention—even simple conversation—outside the realm of gameplay or else seriously reducing it. The most important collision of this kind is, of course, combat of an often excessively violent nature. Fighting conjures important aspects of the carnivalesque: ritual humiliation and the dismantling of hierarchies—represented by clear stratification of antagonists, varying by strength and danger they pose to the protagonist— by reducing them to their carnality.

This mode of interpretation opens up further perspectives with regard to inquiry into the social importance of violent video games as possible vehicles

¹ Contact: tzmajkowski@gmail.com

for the expression of opposition to static ethical and political orders.

Keywords: carnival, grotesque, carnality, game violence, Bakhtin

Middle-Earth: Shadow of Mordor (Monolith Productions, 2014) is a true showcase of brutality. A lone Gondor Ranger roams the titular evil domain, eliminating dozens of malicious orcs. The severed heads of the grotesquely deformed human-shaped beings shower upon the ground like ripe pears. It goes against the spirit of J. R. R. Tolkien's original novel, in which the equivalent of the game's protagonist does not derive joy from cutting off orc heads. Instead, it derives justification from the brutal aesthetic of the film adaptation of *the Lord of the Rings*. Thanks in part to that connection, it did not provoke disapproval from the critics, most of whom were unequivocal in their praise for *Shadow of Mordor* despite their doubts preceding its release. This does not mean that the game's reviews were free of criticism. One of the most intriguing negative appraisals was the opinion of Zach Gage – a journalist, game author and independent artist – expressed on the website *Polygon*. Gage was annoyed by the fact that the tutorial for sneaking, used during the course of the game for taking down enemies, involves the hero sneaking up on his wife to steal a kiss. He's quite blunt: "Designers shouldn't make kissing and murdering feel the same." (Gage, 2014), especially considering the contrasting emotions accompanying these two different actions.

This anecdotal case illustrates three threads significant in games criticism outside of academia. The first is the idea that killing is fundamentally different from other carnal activities (in this case, a physical representation of love). Secondly, critics pose that this divide may lead to a negative valorisation of acts of violence as opposed to positive value ascribed to other sorts of activity. Thirdly, as many of the positive game reviews testify, a different way of describing violence is relatively rare: if it's not ascribed negative value, it becomes translucent and indistinguishable from adventure (Moran, 2014; Dutka, 2014). Combat, with which brutal images are associated, starts to be described mostly as a clinically clean system (Cameron, 2014).

The aim of this paper is to differently problematize the images of violence and bodies falling to violence in video games. I strive to completely forego the didactic thread, and not concern myself with the issue of whether the saturation of violence in video games has a positive or negative effect on the player. Similarly, the issue of problematizing violence as the measure of a game's artistic quality (seen in the critique of titles like *Spec Ops: The Line* or *This War*

of *Mine*) is only a distant context. The primary goal is to try and come up with a theoretical perspective which would shed light upon three problems at once: the association of games with images of destruction, the pleasure derived from brutal actions in games, and identification of the dominant modes of presenting bodies and carnal interactions.

This does not mean that I will ignore interesting and important productions that approach violence solemnly or problematize violence-based visual culture. Those titles, however, are given their due in academic approaches. As a result, I am more puzzled by the position brutality holds in the high-budget mainstream titles, created ostensibly for entertainment. I am of the mind that the aspects I will discuss are present to some degree in the majority of video games, though not all are equally saturated with them. It is indisputable that the most interesting overtly brutal approaches to the body can be found among the biggest financial successes and the most popular genres: shooters, action-adventure, sandbox games, or cRPG, especially the hack&slash subgenre.

Images of grotesque bodies

Despite the recent tendency to imitate the aesthetics of comics or animation, the dominant aesthetic paradigm of the majority of games in the aforementioned genres is a popular version of realism (Abercrombie, Lash, & Longhurst, 1996). In popular criticism this kind of representation was, and sometimes still is, used to judge the artistic quality of the mainstream game. It is manifested at the level of aesthetic presentation, recreating locations down to miniscule details and meticulously simulating physical effects like gravity, lightning, friction or even the realistic behaviour of character's hair. It is also manifested at the level of basic social observations like AIs or simulations of crowd behaviour. Even when the aesthetic strays from realism, as is the case in the *Borderlands* (Gearbox Software, 2009–1015) series, in *Fable* (Lonhead Studios, 2004–2014), or in games aimed at children, the quality of the simulation of nature is usually the same, also ensured by the rules of the engine with which the game is created.

However, even the most rigorously realistic productions introduce a significant difference between the ways they present inanimate objects and living characters. The former are usually closer to photorealism and governed by representation of physics, as they real-world counterparts are (eg. It is desired for wooden object to be breakable). The latter – slightly deformed and governed by arbitrary or conventional rules. The most visible representation of this division is the strongly conventional system of inflicting and receiving inju-

ries which—in extreme situations—allows the protagonist to survive multiple gunshot wounds and regain full health after a few seconds behind a safe barrier. This system replaced the older but similarly arbitrary model of regaining health via the use of first aid kits or other medical supplies. Aside from such enhanced durability, heroes and enemies sometimes possess other qualities that belie the postulated realism: the ability to stick to almost vertical surfaces, to jump over uniform distances no matter the circumstances, or their great resistance to damage from falls. These are just a few such aspects in one type of game that doesn't really cut itself off from realism. The *Assassin's Creed* (Ubisoft, 2007–2014) series, for example, lays claim to unprecedented historical detail, but allows for modes of movement that completely forego any rules of human anatomy.

A similar contradiction can be found in the aesthetic perspective. Human bodies in video games often appear highly fetishized at two simultaneous levels. First, it undergoes various deformations: the enemies are often presented as ugly and mutilated while the protagonists are often strongly sexualized. The latter aspect was, of course, widely described, especially by feminist-oriented game criticism (Kennedy, 2002), (MacCallum-Stewart, 2014). Second, mainstream games, especially those with heavy combat, revel in showcasing damage, presenting (sometimes in slow motion) the blows finishing the fight, as a reward for performing well. Examples of this range from the ripping out of heads and spines in the first *Mortal Kombat* (Midway Games, 1992), to X-Rays showcasing the damage done by bullets from the hero in *Sniper Elite* (Rebellion Developments, 2005–2014).

Privileging the body as the main aesthetic subject goes even further: the complex character creators, specific to RPGs or *The Sims*, that allow for customizing the protagonist's look are not coupled with similarly complex systems of choosing behaviour or personality. Even the protagonist's voice is not as meticulously modified. Many games clearly separate the subjects capable of movement and action from the decorative objects, tying movement to the ability to violently act upon other characters in the game world. This often leads to clear division between moving enemies and the unmoving allies – of this, I have written elsewhere (Majkowski, 2012). Finally, in the majority of games in the discussed genres, the body of the protagonist organises the game experience by defining the camera movement and taking a central position on the screen in the case of third-person-perspective games. In the case of first-person-perspective games, it identifies the physical position of the player with the position of the character's body. Even the isometric view, allowing for adjusting the viewpoint to

the point at which the central character is invisible, assumes the neutral, automatic point of view in which the body takes position in the middle of the screen.

It would seem that the described tendency cuts the default game aesthetic in half. One half concentrates on the non-living, non-human details aiming to imitate reality. The other deforms the human body in various ways, assigning it some incredible capabilities. This duality finds a common ground when interpreted as a symptom of *grotesque realism*, the aesthetic practice described by Mikhail Bakhtin in *Rabelais and his World*. Bakhtin finds in this duality the most important aspect of the culture of laughter (the informal cultural undercurrent, antagonistic to the solemn and pompous official culture), expressed in satire, carnivalesque phenomena and various forms of excess (Bakhtin, 1975, pp. 78–99). Among its aspects are the exposition and affirmation of the human body and carnality through a specific kind of ugliness. These include combining what should not be combined, presenting moments of humiliation, describing carnal erotic and gastric excess as well as mutilation and various deformations. The goal is not to create disgust for the body but rather to present it as constantly connected to the world and other bodies, always unready, becoming, giving birth, dying, and being recreated. At the same time, grotesque realism doesn't separate itself from realistic representation. Instead, like the movement connected to the official culture and termed classical realism by Bakhtin (Bakhtin, 1975, pp. 90–91) that avoids the presentation of time and suggests that the now is everlasting and constant, it concentrates on the fleeting nature of both the body and the social order in which the body is currently positioned.

I believe that the grotesque deformation that the image of the body undergoes in video games can be described in this category. Firstly, there is the strong tendency to present the image of the main protagonist as unfinished: the player can influence and modify that image by changing, for example, the costume. The importance of this feature is indicated by the fact that additional modification options are monetised and available as paid-for add-ons or as a reward for especially careful or engaged gameplay. Similar tendencies are found in the rules when the characters undergo some development. This is usually a one-way transformation, leading the character toward excellence, though there are titles in which the hero undergoes a degradation, like *Jim Guthrie's Superbrothers: Sword and Sorcery* (Capybara Games, 2011) or *Shadow of the Colossus* (Team Ico, 2005). In both cases, it is clear testament to the presence of the main character in time, their gradual “becoming”, as opposed to static “being”. This fluidity manifest itself mainly on the level of the character's body, to

which the described by rules development applies: it becomes stronger, more durable, agile or able as the game progress. That development is more often accompanied by a change in social position, described at the narrative level, than by the psychological shifts usually found in literature, and which Bakhtin also ties to the culture of laughter (Bakhtin, *Discourse in the Novel*, 1981).

What's more, the deformation of characters' bodies usually occurs in two ways. In the case of the protagonist and the positive characters, they manifest in attributes associated with attractiveness: overdeveloped musculature in the case of men (the extreme case is Marcus Phoenix in the *Gears of War* (Epic Games, 2006)) and grotesquely large and usually unrealistically animated breasts in case of women – or, in general, the heightened portrayal of erotic features. The ironic peak of this tendency is presented in *Bayonetta* (Platinum Games, 2009). Often the deformations take the form of scars (especially facial) and tattoos, constant elements of character creators in cRPGs. Such images of the human body usually attract criticism from the feminist perspective. They do, however, seem to occupy an important place in grotesque realism, which exposes the carnal and erotic side of human nature, opposing the “classical” realism, tied to the official, high-brow art. The latter aestheticizes the human and equates them with the psyche, trying to portrait human being as finished and everlasting. Bakhtin himself described in this way the internal polemic within the culture of the late middle ages, between official, Church-based imaginary and unofficial, popular and vulgar descriptions of carnality. But, in relation to the feminist perspective, the arguments relate to the calls for a “strong female protagonist” whose strength is a quality of the mind, identified with independence, ingenuity and courage and not of the body. (Bachtin, 1975, pp. 432–435). While it is obviously problematic, it falls into the described convention whose aim is to bring down the static system of values incorporated into the official culture, especially through inappropriate, even blasphemous, images. This gesture in video games is obviously curtailed due to commercially-grounded censorship. That is the reason, in my opinion, for the lack of grotesque portrayals of birth, defecation, exposed buttocks or disproportionally large penises.

The alternative to such a presentation of the protagonist, and to assigning him the central screen position, is assuming the first person perspective, which covers aspects of the protagonist's body. Sometimes the cover is dual, as in the case of *Crysis* (Crytek, 2007) or *Halo* (Bungie, 2001), where the physical body of the hero is hidden under a spacesuit or armour. I will, for now, leave alone the duality of relations inherent to this mode of body presentation with regards to player form. Here I want to point out that even in those cases,

the player has partial access to the image of their character. Hands or feet can often be seen. The body not only undergoes grotesque hyperbolisation but is also fragmented. Segmentation—dividing of what is whole in nature and combining it again in unusual combinations—is amongst the central elements of grotesque realism (Bachtin, 1975, pp. 436–438, 473–475, 496–497) and often used in the carnivalesque aesthetic. The segmented body of the protagonist poses her (and with her, the player), in the role of the carnivalesque king, the humiliated ruler of the holy excesses (Bachtin, 1975, pp. 292–295), though the humiliation is here connected mostly to the antagonistic position of other actors in the world, and to the multiple, sometimes fulfilled, threats of death.

The second convention is tied to the monstrualising of the enemies or to their grotesque dehumanisation. This tendency is especially visible in games that use the fantastic aesthetic, where it finds rationalisation in introducing other races of humanoids. It doesn't change the fact that the enemies are often mutated allies: this happens in the *Mass Effect* series (BioWare, 2007–2012), or in any game using the zombie theme or its modifications, like the human-mushroom hybrids of *The Last of Us* (Naughty Dog, 2014). Monstrualisation has its place in the audiovisual realm, but in this case it seems to have an additional aspect: introducing the aesthetic category Bakhtin calls the “laughable monster.” This is a being that is grotesquely deformed, monstrous, causing simultaneous fear, laughter and pity. It is usually a metaphor for the figure of the official of metaphysical order. After a grotesque transformation, those feared in real life become hideous and simultaneously dreaded and pathetic. An example of such a character is the carnivalesque king, chosen from the ugliest and the most deformed participants of the fest, or the grotesque costumed figures of the new year. In this way, the helplessness and fleeting nature of the system is exposed, decreasing the absolute distance between the rules and the subjects. The ritual humiliation (and, sometimes, destruction) of this kind of figure is an act of liberation, restoring familiarity in the relations between people (Bachtin, 1975, pp. 102–103).

Analogies between the laughable monster figure and the deformed antagonist of a video game are visible not only in the rules of portrayal, but can also be found in the diegetic parts of the game. The relationships of the laughable monsters to power are expressed not only in their sheer numbers but also in internal hierarchies that are not as clearly present for the positive heroes. The pragmatics of gameplay tie in here to the semantics of the carnival: a lone hero, however representative of the collective interest of the group, opposes a system of enemies within which there are clearly distinguishable levels of

threat, where the highest is sometimes called, quite fittingly, the “boss”. Over the course of the fight, the hero climbs the hierarchy, starting with subservient enemies posing the smallest threat and finishing with the most dangerous, often dominant in the enemies’ social order and distinguishable by their increased size. As a result, the hero fulfils their carnivalesque mission in deconstructing the hierarchical order, exposing its most important defect: the seeming difference in quality between two ends of the social ladder is in actuality a difference in quantity. All members of the hostile social order fall under the same rules and they give in to the same language: violence. This deconstruction reconstitutes the world, in which the basic rule of the carnival—the equality and familiarity of human relations—is restored.

Naturally, this radical conclusion is smoothed over, usually by introducing a hierarchy on the side of the positive heroes. It has much less consequence, however, and is usually introduced at the narrative level, making the protagonist a soldier, a captain, or a policeman within the story. A hierarchy of this kind only has a marginal effect on the gameplay, that is during the actual confrontations the hero either acts alone or as a leader of a small group (this is true also in the case of multiple heroes, as in strategy games). If they answer to power, it is more in terms of the control of the player and the capabilities and goals of the game than in terms of the hierarchy of command within the diegesis.

The relationship between the player and the protagonist requires more problematizing. There is a reason why I have been avoiding use of the term “avatar,” adopted for describing the character via which the player “transports themselves” into the game space. The movement the player performs to interact with the game, especially in the case of single player games, appears to be based on recognising at least a partial autonomy of the protagonist so that they can become the central character of the narrative presented by the game. Similarly, the player recognises the protagonist’s body as different from their own, at the same time projecting onto it their own emotions in the way described by Bakhtin in *Author and Hero in Aesthetic Activity* (Bakhtin, 1990). Video games try to reduce this distinction through two basic tools. The first involves a spatial character and means identifying the position of the space of the game occupied by the protagonist with the place where the player is – this happens in the case of the first person perspective. The second relates to time and relies on the impression that the actions of the player and the protagonist are simultaneous: that is, pulling a trigger on the controller happens at the same time as the hero shooting their gun. This simultaneity, which I want to point out, is realised at the level of engaging the body. When the game employs tools simi-

lar to literary or film narrative to introduce the storyline, the impression of simultaneity disappears or weakens. Especially given that many games increase the player's control of the time flow during such moments, allowing them to skip the animated sequence.

Physical relations between the player and the protagonist are ambivalent and further complicated by the fact that the physical actions of the protagonist are translated to physical actions of the player, as Gregersen and Grodal point out (Gregersen & Grodal, 2008) – it has its equivalent in more or less natural movement of the controller. In the extreme cases, when movement controls are employed, the similarity in movement can be quite advanced. At the same time, I believe, the player remains conscious that the hero is removed in the way that they react to certain movements and gestures, unlike a string puppet, tied to each tug of a string. I do not want to analyse the whole system in all its complexity but simply wish to stress that this relationship increases the grotesque nature of the representation, connecting the body of the protagonist with the physical body of the player in a way characteristic to the presented aesthetic system's figure: double-bodied being (Bachtin, 1975, pp. 87–88), possessing autonomic features of the hero and reliant on the manual competencies of the player. The movement of the protagonist and the movement of the player, following the same goal and performed in the same moment remain connected but, simultaneously, separate and possible to distinguish.

Interactions of the grotesque body

In the traditional aspects of the culture of laughter, the grotesque, carnivalesque body is a communal body. It takes part in the common, familiar carnal community of beings acting under analogous nature laws as opposed to the cultural stratifications (Bachtin, 1975, pp. 60–71). This thread is more difficult to trace in video game, and it might seem that paying special attention to the protagonist, the only one to be tied to the body of the player and therefore qualitatively different from other characters in the game, might invalidate the above conclusions. This thread is pointed out by Rune Klevjer (Klevjer, 2014), who argues that this qualitative difference negates any possible further Bakhtinian interpretation.

While I agree with the identification of the problem, I believe that it is important to note two contexts. First, the singular act of playing brings forth the transformation of the player and the protagonist into a double-bodied being. Such singular transformation can be transferred into the gaming community as a whole. In multiplied copies of the game, played by different players,

the same protagonist, taking the same place in the narrative and in the game rules, combines with different players (and their bodies), creating numerous double-bodied beings. This is, however, a thread that requires a separate analysis. Second, and more important to this analysis, is the distinctiveness of video games from other forms of culture of laughter, especially from the social phenomenon of the carnival, the very form Bakhtin describes using the notion of the communal body (Bakhtin, 1975, pp. 82–85, 436–442). Games seem to be closer to narrative forms which, as Bakhtin writes, are more carnivalesque than a carnival per se. Therefore, some phenomena, clearly observed in street festivities, are problematized or presented as metaphors. The same processes take place in the novel, which is the main subject of interest for Bakhtin. On the level of narrative, the collective body finds its equivalent in the polyphony and heteroglossia of the novel, that is in the equality of various points of view and socially rooted languages which are not given into the regime of ideological speech and official hierarchy (Bakhtin, *Discourse in the Novel*, 1981). In video games, this theme is visible both at the level of narrative, from which comes the prestige of the various sequences of “moral choices” changing the storylines, and at the level of construction. There, the game is a conglomerate of different ways of describing the world: narrative, systemic (expressed in the game mechanics), cinematic etc. This is accompanied not only by an interest in grotesque carnality, another narrative equivalent of carnivalesque practices (described above), but also by rules of interaction between characters, oriented around physical contact and establishing a community.

Two important solutions to the lack of communal body dilemma are tied to that last aspect. The first is the negative role of hierarchy and the posing of its dismantling as the central task for the hero both at the level of gameplay, through the elimination of increasingly more powerful enemies, which I have described above. And at the level of the narrative, as is the case with *Assassin's Creed*, the *Grand Theft Auto* (Rockstar, 1997–2014) series, or the above-mentioned *Middle Earth: Shadow of Mordor*: in those games, the hero is tasked to destroy oppressive hierarchies (templars, crime syndicates, servants of Sauron) in order to create a society based on common bond instead.

The second is the elimination of the private life in games by introducing characters who aren't enemies of the protagonist. Anonymous crowds from the *Assassin's Creed*, *Saint's Row* (Volition, 2006–2015) or *Mass Effect* series exist only in the public space, in the streets and squares, waiting for the hero to interact with them. This can have a triple effect: in the first of the abovementioned series, the hero can disappear into the crowd, reducing its singularity and tem-

porarily becoming a part of the collective body. This collective body is governed by the same rules, and the variety of NPC's is deceptive, though it does reflect the carnivalesque characteristic of mixing people from different social strata and backgrounds. In the second case, the crowd falls prey to the protagonist's brutality and serves as the object of visually stunning eliminations and the escalation of violence. The third case seems to me to be the most symptomatic: commander Shepard wanders the space Citadel, amongst crowds publicly discussing their most intimate concerns, including health issues and sex life. The hero can often join the conversation and become a part of the life events that Western culture considers private and eliminates from the public sphere (Bakhtin, 1981). The narrative makes Shepard a confidante and solver of the personal dilemmas. It is probably the most commonly found model of portraying familiar contacts within the communal body: the protagonist becomes the one to carry the problems of the whole community, divulged to them without hesitation or protest. The problems they solve rarely touch them personally. They either affect the whole community (when it must be saved) or are the result of interacting with the community.

Nonetheless, combat remains the basic mode of interaction between the bodies presented in the game— some games don't even introduce any other forms of interactions, and others curtail them considerably (assuming that touching others is possible only in cut scenes, without the player's influence). Such representations of human contacts fall neatly into the poetics of the grotesque realism: it is pointed out by Bakhtin himself, as he describes combat as one of the possible models of degradation, next to curious ugliness, verbal humiliation and exposition of excrements (Bachtin, 1975, p. 455). A similar thread is followed by John Fiske when he points out the carnivalesque aspect of staged wrestling matches (Fiske, 2010, pp. 84–97). Degradation is adjacent to quartering, which not only serves as carnivalesque humiliation, falling into the broader category of remaking a world upside-down, but also serves as an affirmation of anatomy, bringing attention to those elements of the human body that are usually hidden from the human eye. This inability to perceive entrails, as Bakhtin argues, perpetuates the myth of stillness, untouchability and beauty of the human body, characteristic of the classical realism that the grotesque one opposes. Similar grotesque degradations can sometimes be found within the images of video game combat: elaborate finishing moves, heads exploding on impact, decapitations, piles of dead enemies or blood generously staining the clothes and body of the protagonist.

But the deconstruction of laughable monsters and humiliation of the body are

not the only tropes connected to the visuals of brutal combat in video games. I don't even think that they are the most important ones. More significant seems to be the fact that combat is the only situation when the body of the protagonist/player comes into direct contact with other bodies and intertwines with them, at the same time removing and strengthening the border between them. Elements of the hero/player enter the enemy (especially in games with ballistics) and the blows of the enemy enter the body of the protagonist. At the same time, those exchanges signify a change in status, loss of power, movement towards submission, and demand a clear distinction of which of the bodies receives and which initiates the contact. Again, Rune Klevjer sees in this trope a move away from the tenets of the grotesque realism (Klevjer, 2014). But physical conflict, dominance of one of the combatants, death dealt one on one and in great numbers all fall easily into the aesthetic analysed by Bakhtin. The Russian scholar himself analyzed examples taken both from carnivalesque literature, like mass drownings of enemies and innocent people in the streams of Pantagruel's urine (Bachtin, 1975, pp. 457–459), and carnival activity, like the report from staged knife fight during the roman carnival (Bachtin, 1975, pp. 355–359). A similar meaning can be derived from wrestling, as interpreted by Fiske. In this way, the old life gives way to the new, as in the grotesque poetics dying and being born – as the elements of the same human existence in its temporal aspect – come from the same ambivalent image, a metaphor of which is the image of a pregnant old woman, or of one giving birth (Bachtin, 1975, pp. 86–87).

This kind of ambivalence accompanies brutal combat in video games. The body of the hero/player is encompassed by the everlasting circle of dying and being reborn, never being completely destroyed – this theme, on the example of the *GTA IV*, was analysed by Mark Butler (Butler, 2010). A similar rule governs the bodies of the antagonists in the games where enemies respawn. Furthermore, if the hero/player defeats an enemy, the body is often impregnated and by dying gives birth to items not present earlier in the world, now available for consumption by the protagonist. They take the form of additional life, experience points and, above all, loot, whose appearance can be so grotesque and unnatural that many games openly mock the mechanic, albeit without questioning it. Alongside the mechanism of quartering and degradation appears the metaphor of copulation, impregnation, and birth, closely tied and problematized by the game as a form of struggle. The he metaphor is not completely absent in the Western culture, where sexual act is sometimes described as “love wrestling”. The trope is presented in a more discreet manner due to social constraints, but it is a necessary (and probably unconscious) result of

employing a grotesque realist aesthetic, in which death is inextricably linked to birth and the accumulation of possessions. To describe this phenomenon, Bakhtin uses the metaphor of a seed which is pushed into the mud (and thus humiliated and killed) to bring forth a sprout (Bakhtin, 1975, p. 86).

At the same time, the act of looting, that is devouring the remains of the killed enemies, opens the space for another trope important to this aesthetic: unlimited consumption. The centre of the grotesque life is not the mind but the stomach, from which comes laughter and which demands abundant sustenance. The open mouth, disturbing the border between the body and the world, the readiness to devour new elements of this world, the insatiable hunger and the pleasure of eating are lasting carnivalesque images. A similar insatiable hunger is a constant element of gameplay. The hero becomes more powerful by devouring what remains from the bodies of destroyed enemies: increasingly more powerful items, points and money. Sometimes, especially in platform games, they also devour some elements of the world: orbs of energy hanging in the air, spinning coins and other items helpful in measuring progress. A particularly spectacular illustration of this tendency is the mechanic used in *Fable 2* (Lionhead Studios, 2008) (otherwise also saturated with carnivalesque images), where the enemies turn into colourful orbs and the player deliberately feeds on them. This way what is external enters the protagonist's body, changing and strengthening him.

The hero/player's appetite is insatiable. It is difficult to stop players from hoarding items, even those they won't use. This tendency is curtailed by games that introduce various limits on the items that can be carried at once. The excess must then be removed from the body of the protagonist, introducing the third key category of the grotesque realism: defecation. Though the images of faeces and urine are even rarer in games than scenes of copulation, I believe that in the acts of reducing excess inventory there is a clear metaphor, strengthened with gaming experience. Simply returning the items in unchanged form, throwing them away (vomiting) is unsatisfactory. Satisfaction comes only from reshaping the unusable trash into some other form: selling it, dismantling it for spare parts, transmuting it into different matter. If we then assume that obsessive collection of loot, even worthless items, is the metaphor for insatiable carnivalesque appetite, the satisfying act of transmuting them into a different substance is a metaphor for digestion and defecation. The empty stomach is instantly readied for more feed.

The ties of brutal combat, erotica, consumption and defecation make for a circle of gameplay in the majority of modern mainstream games. From this stems the equivalency of kissing and killing in *Shadow of Mordor* that so irritated Zach Gage, and it seems to me to be an accurate and humorous commentary on the wider phenomenon central to modern games.

Consequences of the grotesque body

The dominance of the aesthetic of grotesque realism seems to be the natural consequence of the relationship of video games to the culture of laughter: their entertaining but outrageous character, and the various temporal pressures put on the process of gameplay (which used to be of great interest to academics (Juul, 2004)). This convention allows us to deal with the difficulty of comparing the consequences of the dominant gameplay models, to not ask about the reason for the supernatural abilities of the characters, not dwell on their inner lives and emotions, not question the ability of both the protagonist and the enemies to constantly be reborn. Ambivalent, strange, monstrous images make for a coherent aesthetic proposal that does not offend with the lack of coherence but rather with its way of commenting on the dominant ideology. In other words, it makes the experience of playing video games intellectually and emotionally acceptable, and even satisfying.

The reasons for this satisfaction and its consequences need to be explained. The pleasure of playing the game, the euphoric approach to the killing without consequence and the scenes of violence, all of which inspire concern in academics, can be described in terms of carnivalesque laughter and exhilaration. Those deeply inappropriate sequences pose an alternative to the sanitised official narrative, wary of violence and in general to extreme emotions – the narrative which calls for nuanced conflicts and refuses to name someone a monster or an enemy. It also seems connected to the desire Bakhtin speaks of: melting into the familiar community, in which giving in to carnal pleasures, not constrained by the rules of the social coexistence, allows for renewing the contract with one's own physicality and the material aspect of existence. In that sense, video games work in tandem with the carnivalesque, the controlled and temporary excess which allows us to briefly escape the world of ideology to regain the necessary energy to then re-join that reality.

From this comes the suspicion and dislike from the fans of games which operate strongly within the grotesque realism towards the attempts to use games

as tools for ideological education. Demands for sensitivity, empathy, feminism and consideration of the politics of representation are nowadays part of the official narrative and, as such, are immediate reference for parodic power of grotesque imagery. As a result, they cannot be integrated into aesthetic conventions familiar to gamers. They can only be mocked as they are used. This issue, along with the marginalisation of the significance of violence and destruction for the shape of modern video games seems to me the source of current tensions in the realm of non-academic critique and fan communities. As a result, I believe it calls for greater attention and a deeper analysis than the above modest attempt.

References

- Abercrombie, N., Lash, S., & Longhurst, B. (1996). Popular representations: Re-casting Realism. In S. Lash, & J. Friedman (Eds.), *Modernity and Identity*. Blackwell: Oxford.
- Bachtin, M. (1975). *Tworczość Franciszka Rableais'go a kultura ludowa średniowiecza i renesansu*. (A. Gogęń, & A. Goreń, Trans.) Kraków: Wydawnictwo Literackie.
- Bakhtin, M. (1981). Discourse in the Novel. In M. Bakhtin, *The Dialogic Imagination: Four Essays* (M. Holquist, & C. Emerson, Trans.). Austin: University of Texas Press.
- Bakhtin, M. (1981). Forms of Time and Chronotope in the Novel. In M. Bakhtin, *The Dialogic Imagination. Four Essays* (C. Emerson i M. Holquist, Trans., pp. 84–258). Austin: University of Texas Press.
- Bakhtin, M. (1990). Author and Hero in Aesthetic Activity. In M. Bakhtin, *Art and Answerability* (V. Liapunov, Trans., pp. 4–256). Austin: University of Texas Press.
- Butler, M. (2010). On Reality and Simulation in an Extra-Moral Sense. In S. Günzel, M. Liebe, & D. Mersch (Eds.), *Logic and Structure of the Computer Game* (pp. 212–231). Postdam: Postdam University Press.
- Cameron, P. (2014, October 4). *Middle-Earth: Shadow of Mordor review*. Retrieved from: <http://www.telegraph.co.uk/technology/video-games/video-game-reviews/11139586/Middle-Earth-Shadow-of-Mordor-review.html>
- Dutka, B. (2014, September 30). *Middle Earth: Shadow of Mordor Review*. Retrieved from: <http://www.psxextreme.com/ps4-reviews/42.html>
- Fiske, J. (2010). *Zrozumieć kulturę popularną*. (K. Sawicka, Trans.) Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
- Gage, Z. (2014, October 1). *Kissing vs. killing: How Shadow of Mordor fails at explain-*

ing the difference. Retrieved from: <http://www.polygon.com/2014/10/1/6880061/shadow-mordor-kissing-design>

Gregersen, A., & Grodal, T. (2008). Embodiment and Interface. In B. Perron, & M. Wolff (Eds.), *The video game theory reader 2* (pp. 65–83). New York: Routledge.

Juul, J. (2004). Introduction to Game Time. In N. Wardrip-Fruin, & P. Harrigan (Eds.), *First Person: New Media as Story, Performance, and Game* (pp. 131–142). Cambridge: MIT Press.

Kennedy, H. W. (2002, December). Lara Croft: Feminist Icon or Cyberbimbo? *Game Studies*, 2(2). Retrieved from: <http://www.gamestudies.org/0202/kennedy/>.

Klevjer, R. (2014, October 30). *Dancing with the Modern Grotesque. War, work, play and ritual in the run-and-gun First Person Shooter*. Retrieved from: <http://folk.uib.no/smkrk/docs/dancing.htm>

MacCallum-Stewart, E. (2014, December). “Take That, Bitches!” Refiguring Lara Croft in Feminist Game Narratives. *Game Studies*, 14(2). Retrieved from: <http://gamestudies.org/1402/articles/maccallumstewart>.

Majkowski, T. Z. (2012). Złote Runo. Gra wideo jako doświadczenie interpretacyjne. In A. Pitrus (Ed.), *Olbrzym w cieniu* (pp. 177–190). Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.

Moran, C. (2014, October 8). *Middle-earth: Shadow of Mordor review – a glorious knockout punch*. Retrieved from: <http://www.theguardian.com/technology/2014/oct/07/middle-earth-shadow-of-mordor-review-tolkien>

Ludography

Bioware. (2007–2012). *Mass Effect (series)*. Electronic Arts.

Bungie. (2001). *Halo*. Microsoft Studios.

Capybara Games. (2011). *Jim Guthrie’s Superbrothers: Sword and Sorcery*. Capybara Games.

Crytek. (2007). *Crysis*. Electronic Arts.

Epic Games. (2006). *Gears of War*. Microsoft Studios.

Gearbox Software. (2009–2015). *Borderlands (series)*. 2K Games.

Lionhead Studios. (2008). *Fable II*. Microsoft Games.

Lionhead Studios. (2004–2014). *Fable (series)*. Microsoft Games.

Midway Games. (1992). *Mortal Kombat*. Midway Games.

Monolith Productions. (2014). *Middle-earth: Shadow of Mordor*. Warner Bros. Interactive Entertainment.

Naughty Dog. (2014). *Last of Us*. Sony Computer Entertainment.

Platinum Games. (2009). *Bayonetta*. Sega.

Rebellion Developments. (2005–2014). *Sniper Elite (series)*. MC2 France.
Rockstar. (1997–2014). *Grand Theft Auto (series)*. Rockstar Games.
Team Ico. (2005). *Shadow of the Colossus*. Sony Computer Entertainment.
Ubisoft. (2007–2014). *Assassin's Creed (series)*. Ubisoft.
Volition. (2006–2015). *Saint's Row (series)*. THQ; Deep Silver.

Acknowledgments

The author expresses his most sincere gratitude to Joanna Kucharska, for her invaluable help with the translation of his twisted sentences into English.

The Cluster Worlds of Imagination

The Analysis of Collage Technique in Games by Amanita Design

Justyna Janik¹

Jagiellonian University in Krakow

Abstract: This paper will show how the collage technique actively influences the structure of Amanita Design's games, such as *Samorost* series, *Botanicula*, *Machinarium*. These examples are particularly interesting as the artistic technique in this case goes beyond the aesthetic aspects (visual art and music) and the narration, and actively informs the gameplay. The structure of these game cluster spaces is built not only from material artefacts of human culture but also from the elements of nature. Such refined structure of virtual assemblage seems to escape the concept of simulacrum. The creators base their technique on a deconstruction of one reality, and at the same time they build entirely new worlds. Every time they set a spatially complex structure in the two-dimensional environment of the game, it manages, despite its fantastic nature, to maintain its full integrity. The new reality, however radically anti-realistic, does not try to pretend to be something else than itself. Hence the worlds created by Amanita Design seem to be the answer to the dominant hyper-realistic aesthetics of mainstream games.

Keywords: collage, space, puzzle adventure game, Amanita Design

Since the beginning of its existence, the independent Czech video game development company Amanita Design has been known for sophisticated and exceptional aesthetics of its productions. These include not only well-known and popular games, but also smaller forms, like interactive music videos. All

¹ Contact: kisia.janik@uj.edu.pl

of them share not only the extreme attention to detail and artistic sophistication, but also the employment of the same art technique. The signature style of collage has contributed to the company's success. Amanita has perfected the technique, creating a touching but ambivalent aesthetic, drawing the players in. By introducing collage on every level of the game environment, the studio creates exceptionally eclectic, oneiric worlds. These worlds openly oppose the dominance of hyperrealism in video games. We will not find the photorealistic characters or three-dimensional open worlds and environments that aim to seduce the player with the illusion of simulating the real world. Neither are they spaces recalling retro games or classical animation. Via their use of collage, the designers created a new kind of game space experience, which, even though it is based on an anti-realistic aesthetic, does not cut the player off from the possibility of immersion in the game world.

This article aims to follow this argument. It will focus only on the full, stand-alone video games, like the *Samorost* series (2003–2005), *Machinarium* (2009) and *Botanicula* (2012), though the analysis could be extended and applied to other productions of the studio. Before we can start to analyse the titles, however, we need to take a closer look at collage itself.

Collage

The artistic technique of collage appeared at the beginning of the 20th century as the avant-garde's answer to the representation crisis and to the traditional rules of representation in art. Avant-garde artists made various attempts at breaking the conventional representation which, based on the aesthetic of realism, could not even get close to the direct access to reality (Nycz, 2000, pp. 281–283). Collage, due to its capabilities of expression and its simplicity, quickly gained in popularity. Though it was first introduced in the works of Georges Braque and Pablo Picasso, its appeal was not limited to visual arts. It started to appear in the works of composers, writers, filmmakers and even performance artists. And though with time it lent itself to many variations (for example assemblage, photomontage, emballage, land-art), and regardless of the materials, its basics remain constant. As Max Ernst states (1948): “Collage is the noble conquest of the irrational, the coupling of two realities, irreconcilable in appearance, upon a plane which apparently does not suit them” (p. 13).

In other words, the basis of collage is the combination of two seemingly unbridgeable elements and putting them together so they become a whole: in *papier collé* and photomontage, these are images and symbols cut out from photos, books or newspapers; in filmic montage these are fragments of shots; in

assemblage these can be various objects (for example everyday items) or their parts (Banash, 2013, p. 14). However, for the creation to be possible, first a deconstruction of everyday reality must take place. By cutting out the objects and reconfiguring them in a new order, the artist constructs a new reality.

Incorporating quotations from reality into the domain of art, the artist brings those two spheres closer. They cross borders that had firmly separated the two before and made it impossible to completely experience the world. In this way, from the combination of two realities, new meanings can arise. In this sense, collage, especially modernist collage, is an attempt to question the concept of simulacrum (Karpowicz, 2007, pp. 123–125, 129–130). For Jean Baudrillard the *simulacrum* is an image which has no direct connection to the reality. It is pure simulation and it is not founded on real objects, but their perfect copies (2005, p. 11). Therefore modernist collage stands as the opposition to this concept. Artists did not want to capture or literally replace the reality, but create a qualitatively new one (Karpowicz, 2007, pp. 123–124). As Marjorie Perloff (1986) claimed: “[...] each element in the collage has a dual function: it refers to an external reality even as its compositional thrust is to undercut the very referentiality it seems to assert” (p. 49). It clearly follows that collage does not try to imitate reality, but rather to modify the experience of the audience, who find new quality in familiar objects and factures. Collage brings the representation system closer to life, but not in a realistic way, but in a creational one. In this way it becomes an attempt to reinstall a direct experience of reality (Karpowicz, 2007, p. 125).

This attempt of breaking the barrier of direct experience of reality seems so close to video games which, in terms of worldbuilding, strive toward a space in which the player could completely immerse themselves. In majority of cases however, this leads to hyperrealistic simulations of a world, which are only illusions of reality. Their polar opposite are the surrealist games from the Amanita Design studio which, despite its antirealistic aesthetic, aims for the same effect through the use of collage.

The inspiration by collage and collage artists is a callsign of almost all works by Amanita Design. The choice of such a distinct aesthetic technique and the consequence of its use in digital medium made the studio's games clearly distinguishable among other productions. The decision to implement it in the virtual environment was not accidental. In interviews, the studio founder Jakub Dvorský often stresses the influence on the artistic vision of the studio of artists and writers such as Jurij Norsztejn, Karel Zeman, Stanisław Lem, Jules Verne, Leonardo da Vinci, or the abovementioned Max Ernst (Naik, 2010). If we take

a closer look at the studio's output, we can notice that they are situated in the wider tradition of animation and illustration of Central Europe. In *Machinarium* and *Samorost*, we can see the influence of Jan Švankmajer, Zdeněk Smetana or Daniel Mróz. But collage in Amanita games has a more important role than just an artistic technique. Permeating all levels of the work it connects them, creating a coherent and autonomous world which amazes with its continuous "strangeness", at the same time allowing the player to immerse themselves in the game's reality and offering them new avenues of cognition.

Visual Level

Worlds created by the Czech studio are paradoxical in their nature: on the one hand they are composed of universal tales, in which the heroes aren't entangled in any complicated relationships, but at the same time, being simple and compelling, they are our guides to the world which, unlike them, amazes with its variety. Regardless whether we explore the space of *Samorost*, *Botanicula* or *Machinarium*, each offers something unique in the player's experience. But despite this variety, we can observe some similarities in the way of creation. Amanita's artists prove, however, that using the same tool, in this case the collage, does not mean giving up originality.

In the space of *Samorost* (and as we will later see, in *Botanicula* as well), collage seems to be the most visible. It is employed to create an unfamiliar world, composed of deserted asteroids floating through space. Landscapes are cold and austere, and it takes a while to notice that they are composed out of worn out industrial elements in perfect symbiosis with wild and raw nature. We can find rotten tree trunks with embedded rusted pipes and spider webs, mossy hills, old burrows, rocks and roots. The entirety of the world seems to be an artistic installation constructed out of ill-matched elements, rather than a natural environment. Interestingly, in this strange, surrealistic world, the environment and its parts are more real (in sense of being visibly material) than the cartoonish inhabitants. They, painted in bright colours, resemble oneiric ghosts rather than full-blooded creatures. They are fleeting guests, which makes their state closer to the player's position than to anything else.

Then there is the absurd world of *Botanicula*, almost overwhelming in its warm colouring and resembling a child's dream rather than a fantastical realm. It needs to be noted however, that it is much more homogenous than the one in *Samorost*. Both the space and the inhabitants seem to come from the same order. At all times the screen is filled with elements that clearly state they are but fragments of the bigger world. Branches, flowers, fruits and underground

roads all combine into an image that can be fully perceived only in one's imagination. This state remains throughout the gameplay, though the mood of the images changes as the player nears the roots of the tree. Though, we still deal with a collage: the world of *Botanicula* consists mostly of material objects (like fruits or seeds) or natural textures, which are shown in completely new roles.

Machinarium is significantly different. It is difficult to find ready-made objects there. The space of the game resembles illustrations made in ink. The city of robots glimmers with all shades of metal. Rusty and dirty colourful stains are enclosed in stark contour. This lends itself to the whole thing looking like a paper cutting, although it lacks deconstruction, which is typically the first phase of collage. Objects in the game space aren't transferred there from the material world, which makes the world of *Machinarium* more aesthetically coherent. Though thanks to the thick line art, which defines the shapes of all details in the game environment, the player has the feeling of visiting a construction composed out of many different elements.

As this brief analysis shows, despite the immaterial character of video games, when employed in them, collage does not lose its characteristics. What's more, not only the border between art and everyday life is crossed, but also the border between materiality and virtuality. The phase of deconstruction is deepened: objects are first carefully selected and taken out from their natural order, and then, deprived of physicality, become their digital representation. They are assigned new roles and meanings. Only thus prepared can they be used as a building material for new, autonomous worlds.

Sonic Level

Music in Amanita Design games is just as important as their visual component. This does not mean that it simply reaches the same quality as the graphics, but that it is a part of the world. During the gameplay one can encounter musical riddles, nested inside the game environment. They do not require highly developed musical competences from the player, but they still succeed in actively engaging the auditory capabilities, which usually are ignored in video games. But the relationship between music and game space goes even deeper. Both Tomáš Dvořák during composing the music for *Samorost 2* and *Machinarium*, and the Czech musical duo DVA, whom Amanita Design collaborated with on *Botanicula*, consequently use sound collage. Similarly to the visual arts one, this technique is based mostly on purposeful selection and combination of seemingly ill-fitted elements. It combines not only fragments of various musical tracks and vocals, often using sampling, but also, and maybe above all, at-

tempts to include sounds of everyday reality, like nature sounds, urban noises, random conversations, creaks and thumps of objects, electronically prepared sounds, etc.

The technique of audio collage has been developed by, among others, Pierre Schaeffer, who experimented with sounds to create the compositional practice of *musique concrète*, which by definition comes from ready-made sounds, arranged into a coherent track. At the same time, the listener should not try to separate the elements, but rather experience the whole in its new combined quality (Dack, 2013, pp. 277–278).

In each of Amanita's games we face a variety of styles in sound collages. It is not only because of the different composers or creators. We also have to assume that the choice of this particular technique was more than a case of singular artist's decision. The extremely specific visual aspect almost demands a consequent approach to music. Though the soundtracks to *Samorost 2*, *Machinarium* and *Botanicula* differ from each other, listening to each one leaves a similar impression: next to harmonic melodies played on traditional instruments we also get rhythmic, difficult to classify sounds: mysterious industrial noises, radio static, creaking or nature sounds. While in the first two productions these elements seem more like an afterthought to the main theme, in *Botanicula* they emerge as one of the instruments. Melodies are played not only on the acoustic or electronic instruments, but also with the buzzing of insects, cowbells, rattles made out of poppy heads and bird calls. This is supplemented by a mysterious language (typical of DVA) which might seem as a nonsensical babble, but it grounds the fairy-tale absurd world of *Botanicula*. Separating particular sounds is pointless. Without accompanying other elements of the track they are like a *signifié* without a *signifiant*.

No matter which production of Amanita Design we are analysing, music is always something more than a simple background noise which only supplements the visual sphere. It is a standalone quality as important as movement or colour. Thanks to employing collage techniques, it enriches the game world becoming its integral part – a new dimension of the digital reality.

Gameplay Level

The presence of the gameplay level in this analysis can come as a surprise, especially since the collage technique is usually perceived on the level of the audiovisual. But if we take from collage, especially from its modernist beginnings, the very essence of the technique, which is combining two seemingly ill-fitted objects to create a new quality, we can easily consider the issue from a much

wider perspective. The issue itself is compounded and widens from the description of how the game's world is explored by the player to the interpretation of this manner of communication in view of the tactility of new media.

All of the games produced so far by Amanita Design were classical adventure games of the point'n'click variety. The mechanics of this type of games are very simple: the player has to, via clicking with the mouse (or touching the screen in the mobile versions), find elements in the playable space of the game that will help them solve riddles. These riddles are basically the only challenge for the player, who has to rely mostly on their own ingenuity and intelligence and not on manual skills. This is mostly due to the fact that traditionally, the space for exploration in classical adventure games has been very limited. Though there are some exceptions, usually the player has no way to move freely in the space and is forced to stick to pathways given by the designers, which are usually enclosed within the screen's frames.

But the very construction of space, though it might seem claustrophobic, has the markings of collage. Firstly, it is not homogenous, it is composed of various independent elements: our avatar, objects which can, but don't have to, have effect on the gameplay and the multi-layered, usually two-dimensional background. All of this is more of a complex assemblage than a uniform painting. This sort of space composition definitely simplifies implementation of riddles in the game space. To solve them, one usually has to combine different elements, usually connected illogically, so that they create a new object with particular qualities. The entire process resembles collage, of which deconstruction and construction are the basis. The other significant similarity is the creative character of those actions. Owing to that, the game worlds resemble paper cuttings. Their simplicity, however, can be deceiving. The player is required to be able to look at the game world not as a whole, but rather as a collection of objects that will become whole.

The next manifestation of collage on the level of the gameplay is the very model of exploration of the game space. It is a complex issue, connected to the analysis of communication processes of the virtual space. We can state after Derrick de Kerckhove (2009) that in the contemporary reality of new media we are something more than just an audience. Immersing ourselves in the space of the web we do not only look for content – our presence inside the screen means that we ourselves become the content (pp. 49–51). This pertains to our participation in the social media, browsing Wikipedia and even exploring the virtual worlds of video games. It does not amount only to leaving behind a trace of ourselves, but rather to becoming a part of the digital structure.

When we cross the worlds built by the Czech studio we become an element of the collage which, cut out from its natural order, melts together with other fragments of the game. The players do not only passively complement the image, but through active exploration they are able to experience an immersive experience.

Regardless of whether we communicate with the digital space via an avatar or a cursor, our presence will always be tied to movement, the sense of direction that is directly connected to our actions (Kerckhove, 2009, pp. 45–47). Whether we click or tap, our communication stems from our sense of touch, as Marshall McLuhan wrote: “our most intimate and interrelating activity” (McLuhan, 1964, p. 107). Here we need to understand McLuhan’s concept of tactility is far more than a simple touch (as one of the senses). It is not concentrated in a particular part of the body, but is rather distributed throughout it. And that is why it has a capacity of other senses as well (Bogard, 2007).

When we look at the experience of adventure game in this way, collage seems to be the perfect technique to accentuate this kind of experience. Every time we immerse ourselves in the worlds of Amanita we experience an alien, surrealist world inhabited by fantastical beings and machines. But if we take a closer look, we will also see some little details familiar to our experience. Wild landscapes assembled from moss-covered bark and old industrial objects, like leaky pipes, patinated levers and rusty cogs. Often the purpose of these objects is different than their usual one, for example the soda can in *Samorost* that becomes a space rocket. There are also the inhabitants of the world of *Botanicula* who, made from seeds, fruits and sprouts, build their shelters on the branches of a great tree. When we take a closer look at them, we will see a familiar rough surface of acorn shells, thorns, delicate veins of dry leaves, or glistening brown skin of ripe conkers. All of these shapes and textures are familiar to us. We recognize them on sight, sometimes through sound, but experience via touch. In this moment of illumination, tactility of the Amanita worlds becomes clear. We are able to experience the world as a whole and safely immerse ourselves in it, despite its initial unfamiliarity. Thanks to collage, manifested on all game levels, from visual through sound to gameplay, the worlds of *Samorost*, *Machinarium* and *Botanicula* become autonomous. This new kind of game experience is similar to what collage artists wanted to achieve, but with one difference: not only everyday objects were given the status of art, but in this case the art became once more an everyday, material reality.

Conclusion

Worlds created by Amanita Design draw the attention with their malleable complexity. Unlike in most video game productions, we will not find in them the hyperrealistic three-dimensional visuals, complicated game mechanics or complex, multi-thread narratives. Beyond the façade of an antirealistic world, we find a reality which does not pretend to be an exact copy of another one. The use of collage successfully distances the authors from dangerous vicinity of the *simulacrum* effect. Authors do not try to create the playable simulation of the material reality, but they have undertaken the mission to build new, autonomous worlds. This strategy allows them to build a universal space which in result seems to be a different way of achieving immersion in the virtual reality of the game. Through the use of material objects or real sounds, it was possible to create an independent world which seems possible despite being illogical. This kind of reality is possible mostly thanks to the use of the collage technique and its special way of experiencing the realm of art, which is very subjective and private in interpretation, but also intimate in reception (Karpowicz, 2007, p. 129). Combined with the mechanics of adventure games, which allow the player to come into direct tactile contact with the game environment elements, this makes the player not only a part of the world, but also its creator. The player ceases to be just an active explorer, but instead starts to be partially responsible for the creation of the completely new, sometimes alien, but always potentially immersive reality.

References

- Banash, D. (2013). *Collage Culture: Readymades, Meaning, and the Age of Consumption*. Amsterdam: Editions Rodopi B.V.
- Baudrillard, J. (2005). *Symulakry i symulacja* [Simulacra and Simulation]. Warszawa: Wydawnictwo Sic!.
- Bogard, W. (2007, November 9). The Coils of a Serpent. Haptic Space and Control Societies. Retrieved February 16, 2015, from <http://www.ctheory.net/articles.aspx?id=581> .
- Dack, J. (2013). Collage, montage and the composer Pierre Henry: The real, the concrete, the abstract in sound art and music. *Journal of Music, Technology & Education*, 6, 275–284.
- Ernst, M. (1948). *Max Ernst: Beyond painting and other writings*. New York: Wittenborn, Schultz, Inc.
- Karpowicz, A. (2007). Kolaż – rzeźbienie rzeczywistości [Collage Carving the Reality in the XXth Century Art]. *Przestrzenie Teorii*, 7, 123–132.

- Kerckhove, D. (2009). Umysł dotyku. Obraz, ciało taktylność, fotografia. In A. Maj, M. Derda-Nowakowski (Eds.), *Kody McLuhana: Topografia nowych mediów* (pp. 45–51). Katowice: Wydawnictwo Naukowe ExMachina.
- Kerckhove, D., & Dewdney, C. (2001). *Powłoka kultury: Odkrywanie nowej elektronicznej rzeczywistości* [The skin of culture: investigating the new electronic reality]. Warszawa: Mikom.
- McLuhan, M. (1964). *Understanding media: The extensions of man*. New York: McGraw-Hill.
- Naik, R. (2010, January 1). Interview with Jakub Dvorsky, lead designer of Machinarium. Retrieved February 16, 2015, from <http://www.gamecritics.com/richard-naik/interview-with-jakub-dvorsky-lead-designer-of-machinarium> .
- Nycz, R. (2000). *Tekstowy świat: Postrukturalizm a wiedza o literaturze*. Kraków: Universitas.
- Perloff, M. (1986). *The futurist moment: Avant-garde, avant guerre, and the language of rupture*. Chicago: University of Chicago Press.

Ludography

- Amanita Design. (2012). *Botanica*. Amanita Design, Daedalic Entertainment.
- Amanita Design. (2009). *Machinarium*. Amanita Design, Daedalic Entertainment.
- Jakub Dvorský. (2003). *Samorost*. [Browser game], Amanita Design.
- Jakub Dvorský. (2005). *Samorost 2*. Amanita Design.

Negotiating the Glitch

Identifying and Using Glitches in Video Games with Microtransactions

Jan Švelch

Charles University in Prague

Abstract: The article explores the way a particular glitch is defined in video game culture and argues that the process of definition is in fact a negotiation between different groups of stakeholders. After a glitch is identified, the process of negotiation among the players, press and developers continues. The use of a glitch also has to be defined and interpreted. In this article, I take a closer look at glitches that interact with microtransactions in full-price video game titles, using examples from two games published by EA: *Mass Effect 3* and *Dead Space 3*. While players of both games used glitches to bypass the microtransactions, fan and press reactions to these two cases of glitch exploitation were significantly different. While nearly no one questioned *Mass Effect 3*'s *missile glitch* to be a cheat of sorts, the *infinite respawn glitch* from *Dead Space 3* was subject to many discussions regarding its nature as a glitch or a feature. This article analyzes the discourse of glitch discussions and offers explanations as to why the two cases have differed so radically.

Keywords: glitch, microtransactions, exploit, cheating, farming

Introduction

Glitch is an inherent part of digital culture. Roughly since the 1960s, when it first appeared in Time's magazine coverage of the US space program ("Space: The Glitch & the Gemini," 1965), glitch has been established as an unpredict-

able quirk of a machine, most often quite annoying to people. Still, the definition of glitch is nowhere near to being settled. Olga Goriunova and Alexei Shulgin differentiate between hardware and software glitches and define the latter as: “an unpredictable change in the system’s behavior, when something obviously goes wrong” (2008, p. 110). The second part of their arguably broad definition is a source of many discussions and arguments because it disqualifies many potential instances of system’s unpredictable behavior from being identified as a glitch. As such, it misrepresents the current video game discourse where the term “is something of a catch-all and is variously used [...] to refer to audio-visual imperfections (graphics drawing incorrectly or audio breaking up), gameplay anomalies (the ability to get stuck in certain looping sequences), or even narrative inconsistencies (continuity errors either within titles or across series)” (Newman, 2005, p. 63).

While the academic definition of glitch certainly does not need to encompass all potential (mis)uses of the term, it should acknowledge a potential link that connects the uses of such term in popular discourse. Although Goriunova and Shulgin are aware of the fact that “some phenomena are perceived as ‘glitchy’ although they are not glitches in technical terms” (2008, p. 111), they still insist on defining glitches as erroneous artifacts. It is important to note that since the Age of Enlightenment the dominant meaning of an error has been a deviation from the true path (Nunes, 2011). This notion was further emphasized by Wiener’s cybernetics (1988) that utilized error as a source of feedback. The aforementioned erroneous nature of a glitch in this sense does not do justice to the variety of artifacts labeled as “glitches,” most importantly it overlooks the complexity of video game systems from which glitches often appear as instances of emergence. I argue that while a glitch can be faulty, its crucial characteristic lies in its unpredictability that stems from a context¹. A glitch cannot be placed solely in the technological sphere or in the realm of human cognition, as Rosa Menkman pointed out in her *Glitch Studies Manifesto* (2011). It is always the interplay between the two that makes us perceive certain computer behavior as a glitch.

The surprise that comes with a glitch does not always follow the binary logic of right and wrong of Wiener’s cybernetics. Some glitches add value to a video game and their unpredictability does not bar them from becoming a feature.

¹ The context is formed by conventions like representational modeling, natural physics (Galloway, 2006), cinematic realism (Manovich, 2002), and increase in audiovisual resolution (Krapp, 2011). These trends in video game design make glitches stand out even more palpably against our expectations, which are strongly rooted in our perception of everyday surroundings and real-life physics.

For example *Quake III Arena's* (id Software, 1999) rocket jumping had started as a glitch and was then accepted as a legitimate game mechanic (Juul, 2005). Such glitches are very close to video game emergence that Juul defines as “situations where a game is played in a way the game designer did not predict” (2005, p. 76). Understandably, such notion of unpredictability can be just in players’ minds: “A game with many objects that interact according to well-defined rules can surprise a player in a way where the player can afterwards understand what did happen because the game proceeded according to clear rules” (Juul, 2005, p. 82).

Glitch is not as simple as a bug, for which it is often used as a synonym (Goriunova & Shulgin, 2008). While a bug is the fault in the system’s behavior, a glitch resembles the historical meaning of an error before the Age of Enlightenment. In the 16th century, an error meant a path in its own right, just without a particular heading and purpose (Nunes, 2011). To conclude, I propose to define video game glitches as perceived unpredictable changes in video game behavior that may or may not be faulty, but are in any case part of the art form (Krapp, 2011) and source of digital aesthetic qualities (Goriunova & Shulgin, 2008).

Playing with Glitches

This article focuses on a particular type of glitches which could be most easily described as functional glitches. Such glitches directly interact with the game mechanics and their usage alters the gameplay. Mia Consalvo (2007) has already explored a similar subcategory of glitches that she calls exploits², unfortunately she has not dealt with the difference between the two hierarchized terms – glitch and exploit. She assumes that every glitch that is used to gain advantage in a video game automatically counts as an exploit. Even though Consalvo simplifies this relationship, she rightly questions their role in cheating. Functional glitches result in a “gameplay not intended by the designer” (Consalvo, 2007, p. 115), but the reception of such practice depends “on the extremity of the action, and the amount of advantage or disadvantage gained as well as its impact on

² Consalvo (2007) distinguish two types of glitches in the context of cheating: exploits and duping. So-called duping (item duplication) should be considered a special case of exploit. Consalvo herself uses the term this way – “A more recent example wasn’t even an actual exploit but the rumor of duping (or item duplication) exploit [...]” (2007, p. 114) – even though the subtitle of the chapter about glitches “Taking Advantage of a Glitch: Exploits and Duping” (ibid.) may suggest that the terms exploit and duping are on the same level.

the other players.” (2007, p. 117) She concludes with a figurative statement alluding to the logics of law: “game laws have not been broken, just carefully bent.” (ibid.) But as we’ll see later on the case of *Dead Space 3* (Visceral Games, 2013), such notion if taken literally can be easily contested. Exploits as a dubious way to obtain, for example, in-game resources are often defined in contrast to farming. Players who “farm” engage in a repetitive activity to gather resources, but its effectivity does not upset the balance of a game.

Glitches do not find their use only as potential exploits and cheats, they also take part in constituting the larger metagame³ or gaming capital (Consalvo, 2007). Even when we talk about “functional” glitches, players can engage them with very different motivations than just to take advantage of them. The joy of experimentation that comes with the probing of the boundaries of a video game should not be overlooked, especially when we consider that the playfulness is at the heart of ludic experience. This desire for exploration has been mapped, for example in the case of the famous MissingNo. glitch from *Pokémon Red and Blue*⁴ (Game Freak, 1998). James Newman claims that “the search for and revelation of glitches illustrates that for the avid fan, then, the videogame is not simply a static text to be read and decoded [...] Through conversation, analysis and discussion, the game is refigured as a living, dynamic, malleable entity revealing new secrets as it is continually probed, investigated and played [...]” (2005, p. 65) But the theoretical considerations of the use of glitches should not stop at this particular practice. Playing with glitches can be pleasant and joyful by itself. It doesn’t always have to challenge the notion of a video game as a medium and of the designer’s control over its reading, or rather playing. Still, the questions of control and authorial intent are also very important, especially when we consider the practice of video game patches and updates which fix glitches and bugs.

The joy of interacting with glitches can be best illustrated on the widely popular subgenre of gameplay mischief videos (Švelch, 2014). These videos systematically utilize glitches’ capacity to create humorous events and to induce

³ Metagame is usually defined as “the game beyond the game’ and refers to the aspects of game play that derive not from the rules of the game, but from the interplay with surrounding contexts.” (Salen & Zimmerman, 2004, p. 481) Play styles and player attitudes fall under this term, knowledge of glitches can be understood as a part of a metagame.

⁴ Players were trying to collect the glitched Pokémon MissingNo despite the fact that it could break their save file.

laughter in their spectators. As Jaroslav Švelch points out “poking at engines where they are most vulnerable [...] glitches expose the fragility of the simulated world and the arbitrariness of its rules.” (2014, pp. 2544–2545) The unpredictable behavior of a video game system perceived and labeled as a glitch then makes us laugh. If we consider that the spectators find the performed glitches funny, the playing itself should then also be able to make players laugh when experiencing the glitches.

Lastly, glitches can be considered art or as tools for creation of art. As I already mentioned, glitches are said to possess genuine software aesthetics (Goriunova & Shulgin, 2008). Avant-garde games often use the dysfunctional logic of glitches. Alexander R. Galloway (2006) mapped many of these forms of artistic expression in his chapter on counter gaming. The art as well as a glitch puts players into unpredictable gameplay situations which challenge video game conventions. Perception of such art depends on the context and takes place at the intersection of technology and human cognition.

As I aimed to illustrate in this overview, glitches can be used to very different ends. While this article focuses primarily on the area of cheating and metagaming, we should not forget the broadness of the term glitch that greatly influences the way particular glitches are identified and further differentiated by their potential use and context – a glitch alone does not signify cheating or exploiting.

Microtransactions and Blockbuster Games

In-game purchases with real money (microtransactions) are widely used in the casual segment of video games but are gradually entering the full-price video game titles due to market convergence (Milner, 2013). Glitches may be used to bypass microtransactions. The overall negative reception to microtransactions potentially influences the interpretation of a glitch or an exploit – cheating in such context can be seen as a form of protest.

Microtransactions sell video game content, usually for very small sums, hence the name *microtransactions*. In casual market, these purchases mostly complement otherwise free games. Content bought in such a way is labeled as premium – it is not necessary for the enjoyment of a game in its basic version. Premium content commonly consists of cosmetic and functional game objects, limited daily playing time of casual games can be also extended by microtransactions.

The convergence of business practices of casual and hardcore gaming markets were foreshadowed by downloadable content (DLC) that is currently con-

sidered “an emergent standard in gaming” (Milner, 2013, p. 15). DLC expands the core game experience by adding various types of content – from new story episodes, missions, quests, to weapons, outfits or multiplayer maps. Such expansions are usually released after a game has been launched, but there are exceptions – the so-called “day one DLC” available right away on launch, was widely criticized by players and journalists (Milner, 2013). DLC fulfills two basic functions: it serves as an additional source of revenue and it prolongs the life of a video game. Microtransactions only keep the former function.

Ryan M. Milner studied the reception of DLC and microtransactions in *Mass Effect 2* (BioWare, 2010) and found that the game, which had significantly more DLC than its predecessor, led fans to think that they “were being ‘nickel and dimed’ if they wanted a complete and enjoyable experience.” (Milner, 2013, p. 21) *Mass Effect 3* (BioWare, 2012) and *Dead Space 3* continued in this trend and alongside the traditional single-player DLC also introduced microtransactions. For further analysis of glitching, it is important to bear in mind that microtransactions in full-price games are negatively received in general. Bypassing in-game purchases using glitches or exploits can be then seen as a manifestation of political consumerism and such context could change regular cheating practices into a political action. At the same time, exploits that circumvent the need to invest in microtransactions can be seen as a serious threat to the monetization scheme of a game. Players using these dubious methods risk being banned from the game⁵.

Methodology

The empirical work consists of a qualitative analysis of discourse of three different stakeholders (press, fans and developers), who participated in the discussions about the two selected glitches – the *missile glitch* from *Mass Effect 3* and the *infinite respawn glitch* from *Dead Space 3*. The glitches were picked for the role they played in player communities and in specialized gaming press – while the *missile glitch* discussions were mostly kept within discussion forums, the *infinite respawn glitch* received wide press coverage and even attracted the BBC (Kelion, 2013). They also work as counterexamples of possible negotiations over the status of a glitch. The nature of the *missile glitch* as a cheat was not contested; on the other hand the *infinite item respawn* went through a lot of redefinitions and reinterpretations.

Mass Effect 3 and *Dead Space 3* have many things in common – both are third installments in successful franchises, both share the genre of third person

⁵ Bans are only effective in multiplayer games.

shooter⁶, both are set in sci-fi fictional worlds and both feature cooperative multiplayer alongside single-player campaign. But more importantly they were both published by Electronic Arts (EA). These aspects should make the comparison even more valid.

As it is always the case in Internet research, the amount of suitable data for analysis was not a problem, the important decision was how to scale it down to a size that would allow for rich readings and interpretations and at the same time would not overwhelm the researcher (Jenkins, 2006). Therefore, I designed the data collection to get a diverse set of opinions on the selected glitches based on my own experience with both games – both as a player and a frequent visitor (but not an active participant) of forums and video game news sites.

The material for the analysis of *Dead Space 3*'s glitch was based on a chronological reconstruction of the events that shaped its meaning – altogether I have collected at least one press article for each day of a week-long period since the publication of the first article on the *infinite respawn glitch* on February 5. The complete set contains 12 articles from 9 different video game news outlets (including BBC.co.uk). The developer's statement in full version was included in 5 articles. After this first step, I have collected three player discussions threads⁷ to account for significant events that had the potential to influence the discourse – the first thread from XboxAchievements forums is actually the original place of the glitch discovery, the second thread from Gamefaqs captures the discourse after the publication of the BBC's article, the last one from Escapist Magazine forums accounts for EA's press release. To acknowledge for the multimediality and multimodality of the Internet discourse on video games, two YouTube videos (along with their descriptions) were added to the sample.

Given the fact that *the missile glitch* received much less coverage, the data set is proportionally smaller. Only one of the news sites from *Dead Space*'s sample published an article about the missile glitch. This one article was then supplemented by one carefully selected discussion thread from official BioWare forums and one developer post on cheating in *Mass Effect 3*.

The analysis combined deductive and inductive approaches: the former

⁶ *Mass Effect 3* could be also described as a role-playing game, while *Dead Space 3* is a horror adventure.

⁷ To respect privacy of forum posters and the original context of a specialized discussion forum, excerpts used in this article are anonymized and do not contain direct URL of the site of discussion (Sveningsson, 2009). Only minor spelling and grammar edits have been made to improve readability.

was represented by theoretically guided qualitative content analysis (Julien, 2008; Krippendorff, 2004) and the latter by discourse analysis (Fairclough, 2003). The first step of analysis took form of closed qualitative coding of both samples for following five key topics that emerged from theory: glitch, cheat/exploit, farming, patching and microtransactions. The coded data were then closely analyzed regarding the interplay of coded topics, the framing of a news article and the overall discourse. I explored the texts for patterns and looked at various discursive norms as constituents of a discourse. The inclusion of texts produced by three different groups of stakeholders allowed for a study of the social practice behind the identification and interpretation of a glitch and its use in direct relation to terms like exploit, farming, feature or cheating.

Before You Glitch: Blockbusters with Microtransactions

Mass Effect 3 from 2012 took a considerably conservative approach to microtransactions – it featured traditional single-player DLC in the same manner as previous entries in the franchise and added microtransactions to the multiplayer part of the game. The in-game purchases allowed players to buy multiplayer gear for real money or for fictional in-game currency. Effectively, *Mass Effect 3*'s microtransactions allowed players to get advantage over players not willing to spend real money. Still, the paid packs on offer had their contents generated randomly. This fact made any investment risky and the outcome greatly dependent on luck. Developers also justified the microtransactions by adding multiplayer expansions to the game for free. The effectiveness of such implementation can be documented on *Dragon Age: Inquisition* (BioWare, 2014), which opted for exactly the same approach as *Mass Effect 3*.

On the other hand, *Dead Space 3*'s inclusion of microtransactions in the single-player campaign was an experiment that challenged the conventions of full-price video game titles. It was received very poorly and some reviewers even called it “greedy” (Phillips, 2013). In-game purchases allowed players to buy in-game resources and in effect make the game easier. This goes directly against the sense of pride that some players derive from the equality of opportunity (Milner, 2013). Apart from in-game purchases, *Dead Space 3* also offered eleven pieces of “day one DLC”, which was in general also received very negatively. Unlike in the case *Mass Effect 3*, no free content was delivered as justification for increased monetization.

The Life and Impact of a Glitch

Both glitches in question made it easier for players to obtain in-game resources without paying for microtransactions. *Missile glitch* was a trick move that gave players many times more ammunition for arguably the strongest weapon in a game, the hydra missile launcher. In consequence, it made earning in-game currency much easier, therefore rendering microtransactions pointless. *Infinite respawn glitch* was a way of gathering in-game resources by returning to previously harvested locations. It allowed relatively slow collection of crafting materials which could also be bought through microtransactions, therefore also rendering them pointless.

While the *missile glitch* was very quickly considered a cheat by developers (Abram, 2012), press (Evans-Thirlwell, 2013a) and the majority of the player community, the status of the *infinite respawn glitch* was subjected to deep scrutiny from press and players and transformed over time. Therefore, the chronological account of events that shaped the definition of this glitch is necessary. The first evidence of the glitch appeared on January 31st 2013 in a YouTube video (ArnaldoDK Montagnoli, 2013). This discovery was then discussed on XboxAchievements.com forums where some commenters already argued that “maybe it’s meant to be that way” and pointed out to similar features in previous *Dead Space* games. The story was first picked up by GameFront on February 5th (Thielenhaus, 2013); the article described this game feature as a helpful glitch. The news began spreading through video game news sites and even caught the attention of BBC’s technology section. The article from February 7th speculated that by using the *infinite respawn glitch* players may commit a theft (Kelion, 2013). The situation was clarified on February 8th by EA spokesperson, who issued a statement to GameFront and other webs claiming that:

“The resource-earning mechanic in Dead Space 3 is not a glitch. We have no plans to issue a patch to change this aspect of the game. We encourage players to explore the game and discover the areas where resources respawn for free. We’ve deliberately designed Dead Space 3 to allow players to harvest resources by playing through the game. For those that wish to accumulate upgrades instantly, we have enabled an optional system for them to buy the resources at a minimal cost (\$1–\$3).” (Burnham, 2013)

Still, some journalists and fans were not convinced by EA’s press release and considered it more of a PR damage control in later articles:

“The assertion follows a string of bad press regarding the publisher’s decision to integrate a free-to-play model into their full retail product. Whether or not this is in fact a glitch, EA could probably stand to lose a few dollars from players

who were unlikely to embrace these ‘in-app purchases’ anyway. The publisher will make its money regardless, but at least this way it has some vague hope of gleaning a little customer goodwill from an otherwise overwhelmingly negative situation.” (MacGregor, 2013)

In the end, there was no consensus on the nature of the *infinite respawn glitch*. Even though EA issued a clear statement, players and press were divided into two main camps – the first one believed that the *infinite respawn glitch* was indeed a feature and tried to find evidence to back their claims, the other considered it a glitch and potential exploit whose use was legalized in order to remedy negative reception of microtransactions.

Discourses about Glitches

The comparison of the rather complex case of *Dead Space 3’s infinite respawn glitch* and the much simpler case of *missile glitch* from *Mass Effect 3* shows that many aspects play a role in the identification and interpretation of a glitch. The common link between these two glitches is the fact that both of them were at some point perceived as an unpredictable change in the video game’s behavior. Such reception is the key to understanding a glitch, because a glitch is constructed at the intersection of a machine and human cognition and is dependent on context.

Missile Glitch

The definition of the *missile glitch* settled very quickly and the stakeholders also nearly univocally agreed on the name of the glitch. The *missile glitch* was defined in the context of cheating – a developer post on cheating in *Mass Effect* stated that among offences against the fair play that could result in multiplayer ban or a credit wipe is also “item ‘X’ exploitation” that is further defined as “using an exploitable glitch of any item that gives unfair advantage over other. Example: missile glitch” (Abram, 2012). In such light, a glitch is a very fluid behavior defined by its unpredictability, not by potential use. The *missile glitch* is arguably an unpredictable behavior because it allows the player to shoot rockets from weapons that under normal circumstances do not shoot rockets. Therefore, it not only breaks the designers’ intentions but also the players’ notion of realistic representation. Most probably, stakeholders agreed so easily on the “glitchiness” of the *missile glitch* due to these reasons. Once a glitch was established, its potential use came into question. The line between cheating and farming was then drawn based on the amount of advantage that a glitch gives to its users, as Consalvo (2007) already found out. As one poster on official Bio-

Ware forums put it “missile glitching just plain breaks the game.” The severity of the *missile glitch* was most palpable when compared to other questionable ways of play – exploiting the *missile glitch* gave the player unfair advantage, farming through other means was in comparison a “legitimate (although boring) strategy” and “cheesy but legal.” The overall discourse on the *missile glitch* was preoccupied by notions of unintentionality and cheating and is unified across all three stakeholder groups. The use of the *missile glitch* was not questioned. Therefore there was no need to discuss its definition, only the consequences for its users and its potential patching. The *missile glitch* is an example of a glitch where a rigorous exploration into its origin is possible. The challenged video game conventions were easy to see, advantage was easy to measure. This makes any definition and interpretation much more objective and more likely to be shared among the stakeholders.

Infinite Respawn Glitch

The definition of the *infinite respawn glitch* never reached any consensus. The term *infinite respawn glitch* used throughout the article is an amalgamation of some of the names used in the data. This disagreement on something as trivial as a name poignantly illustrates the underlying dispute over the status of the glitch.

Players’ discourse was divided into two bigger strands that emphasized different aspects of the possible glitch. The first discourse focused on the repetition and intentionality of the *infinite respawn glitch*. This mechanic was present in previous *Dead Space* games, which makes it seem intentional. One commenter on Gamefaqs forums said “to leave such an obvious thing in multiple games just seems like an on purpose thing.” The same person also pointed out to video game conventions of respawning “it’s also common feature in games to have items, enemies, etc. spawn in places, and re-spawn when you reload the level... it’s been around for decades in fact.” The second discourse stressed the unpredictability of such event happening intentionally and the perceived undermining of microtransactions. Arguably, respawning breaks the notion of realistic representation that *Dead Space 3* otherwise aims for in its fictional world – after all, things do not just appear out of thin air, every time someone enters a location. In this sense, one commenter on Gamefaqs forums likened the glitch to duping (item duplication exploit) and went on to describe the way it renders microtransactions useless: “EA is pissed because now people don’t need to buy their stupid bulls***. If they weren’t charging for these items (which is a f***** crime to begin with) they wouldn’t give two s**** if anyone found a way to

dupe them.” Note that the author had posted his statement before EA replied to GameFront. This comment also illustrates the negative stance of many players towards any microtransactions. In the light of EA’s press release, some commenters rejected the claims pointing out to the IT trope “Ah, the old it’s not a glitch, it’s a feature excuse” which tries to reframe a bug as an (unintended) software feature. In this case, two conflicting conventions (or traditions) were used as the context to define the glitch. The realistic representation was at odds with design conventions of re-spawning, in consequence agreement was harder to negotiate than it the case of the *missile glitch*.

The press did not really enter the discussion about the definition of the glitch from the structural viewpoint, even though many journalists communicated their opinion on the glitch/feature dispute on the rhetoric discursive level. While some accepted the press release, others implicitly or explicitly distanced themselves from the reported speech, mostly through use of quotation marks and particular reporting clauses (“claims” or “according to publisher”). Considering the variety of opinions present in player discussions, it is surprising that journalists did not investigate the glitch further and did not back their claims about the status of the *infinite respawn glitch* by any evidence or theory. EA’s press statement also did not point out to the fact that similar mechanic was present in previous games.

The use of the *infinite respawn glitch* was framed as farming, exploiting, cheating, harvesting, stealing, and consumer activism. We can see that the social practice was quite varied in this case. I would argue that this was caused by a clash of two discourses that operate on a different logic – gaming discourse and legal discourse. The negotiations over the consequences of the use of the glitch started within the gaming discourse, the legal discourse was introduced later in BBC’s article (Kelion, 2013).

Considering the use of the glitch, players and journalists shared roughly the same opinions. At first none of them suggested that the *infinite respawn glitch* could be considered a cheat. The common interpretation was a helpful workaround to microtransactions that showed players’ ingenuity. At that time, the terms farming and exploit were used very loosely and often as synonyms. This suggests that players were aware of some minor benefits that the alleged glitch gave them, but as some journalists (Evans–Thirlwell, 2013b) and players noted the game could be easily played without microtransactions – the workaround then seemed marginal and maybe even purposeless.

The BBC’s article influenced the whole discourse by quoting a specialist on intellectual property law who suggested that by exploiting this glitch a player

could be committing a theft (Kelion, 2013). Here, Consalvo's (2007) notion that an exploit just bends the rules of a video game was confronted with an opinion of a lawyer who suggested that players who use the glitch are quite possibly committing a theft (Kelion, 2013). I would argue that this statement does not disprove Consalvo's findings, but only shows that the logics of law do not completely fit into the gaming discourse. In the same article, the use of the glitch was also described as a potential act of consumer activism against microtransactions. The brewing discussions about the legal and activist nature of glitching were quite quickly reoriented back at the definition of the glitch by EA's press release. Stealing turned back into farming, the act of consumer activism lost its disruptive potential. EA assumed control over the implications stemming from the use of the alleged glitch. In the case of such an exploit in a single-player game or even a cooperative game, the victim is the system of a video game that players take advantage of. Developers and the publisher have the right and obligation to defend it and their word has the performative strength of shaping the social reality.

It is also important to note that EA's statement avoided using any of the terms with negative connotations. First, it rebutted that item respawning could be a glitch. Second, it described it as harvesting, although the etymology of the term harvest noticeably resembles the other agricultural metaphor used in the discourse – farming. While EA did not achieve control over the definition of the so-called *infinite respawn glitch*, it succeeded in redefining its use as a legitimate method of farming (harvesting) of in-game resources.

Conclusion

This article explored the way glitch is defined in the video game culture by interplay of three major stakeholder groups – players, press and developers. I have focused particularly on the subset of glitches that can be used to gain in-game resources, thus can be potentially considered exploits and cheats. The selected glitches also clashed in a way with microtransactions and therefore should be of more concern for developers and publishers. Given the general definition of glitch, I have decided to differentiate on an analytical level between the identification of a glitch and the interpretation of its use. The analysis showed there is no consensus on how to use these broadly defined terms like glitch, exploit or farming. However specific cases are much easier for the community to agree upon, as I've shown on the example of the *missile glitch* from *Mass Effect 3*. The second example, *Dead Space 3's infinite respawn glitch*, was much more complex as different stakeholders had not agreed upon

the definition of the glitch in question. Nonetheless, this case illustrates that a glitch is constructed at the intersection of a machine and human cognition and is dependent on ever shifting context. The process of definition is not dominated by developers, who should be able to pinpoint the technological origins of a glitch. Players and the press also actively engage in the construction process, although they have limited knowledge about the underlying technology and in the discussion mostly represent the side of human cognition. As the case of the *infinite respawn glitch* has shown, players do not have to take the developer's word at face value; on the contrary, they can oppose the redefinition of a glitch as a feature. Ultimately, even though a developer has to negotiate over the definition with other stakeholders, the framing of the use of a given glitch is mostly in his control, at least if we consider the actual consequences for the players that used the glitch.

References

- Abram, T. (2012, August 8). Cheating Compendium & News. Retrieved from <http://social.bioware.com/forum/1/topic/343/index/13575450/1#13575450>
- ArnaldoDK Montagnoli. (2013). *Dead Space 3 Infinite Respawn Items Unlimited Items Bug Glitch Gameplay Stage 8 !!!* [Video file]. Retrieved from https://www.youtube.com/watch?v=MPGWsFDML_I&feature=youtube_gdata_player
- Burnham, M. (2013, February 8). EA: Dead Space 3 Item Farming “Not a Glitch,” No Plans to Patch. Retrieved November 25, 2013, from <http://www.gamefront.com/ea-dead-space-3-item-farming-not-a-glitch-no-plans-to-patch/>
- Consalvo, M. (2007). *Cheating: gaining advantage in videogames*. Cambridge, Mass: MIT Press.
- Evans-Thirlwell, E. (2013a, January 31). News: Mass Effect 3 Xbox 360 patch prepares ground for new Mass Effect 3 DLC. Retrieved February 11, 2015, from <http://www.totalxbox.com/49772/mass-effect-3-xbox-360-patch-prepares-ground-for-new-mass-effect-3-dlc/>
- Evans-Thirlwell, E. (2013b, February 11). News: Legal expert likens Dead Space 3 micro-transaction exploit to. Retrieved February 15, 2015, from <http://www.totalxbox.com/50110/legal-expert-likens-dead-space-3-micro-transaction-exploit-to-theft/>
- Fairclough, N. (2003). *Analysing Discourse: Textual Analysis for Social Research*. Routledge.
- Galloway, A. R. (2006). *Gaming: Essays on Algorithmic Culture*. Minneapolis: University of Minnesota Press.
- Goriunova, O., & Shulgin, A. (2008). Glitch. In M. Fuller (Ed.), *Software stud-*

- ies: a lexicon (pp. 110–119). Cambridge, Mass: MIT Press.
- Jenkins, H. (2006). *Fans, bloggers, and gamers: exploring participatory culture*. New York: New York University Press.
- Julien, H. (2008). Content Analysis. In L. M. Given (Ed.), *The Sage encyclopedia of qualitative research methods* (pp. 120–121). Los Angeles, Calif: Sage Publications.
- Juul, J. (2005). *Half-real: Video Games Between Real Rules and Fictional Worlds*. Cambridge, MA: MIT Press.
- Kelion, L. (2013, February 7). Dead Space cheat undermines in-game micro-transactions. *BBC*. Retrieved from <http://www.bbc.co.uk/news/technology-21367852>
- Krapp, P. (2011). *Noise channels: glitch and error in digital culture*. Minneapolis: University of Minnesota Press.
- Krippendorff, K. (2004). *Content analysis: an introduction to its methodology* (2nd ed). Thousand Oaks, Calif: Sage.
- MacGregor, K. (2013, February 9). EA: Dead Space 3 microtransaction workaround not a glitch. Retrieved February 11, 2015, from <http://www.destructoid.com/ea-dead-space-3-microtransaction-workaround-not-a-glitch-244456.phtml>
- Manovich, L. (2002). *The language of new media* (1st MIT Press pbk. ed). Cambridge, Mass: MIT Press.
- Menkman, R. (2011). Glitch Studies Manifesto. In G. Lovink & R. S. Miles (Eds.), *Video Vortex reader II: moving images beyond YouTube* (pp. 336–347). Amsterdam: Institute of Network Cultures.
- Milner, R.M. (2013). Contested Convergence and the Politics of Play on Game Trailers.com. *Games and Culture*, 8(1), 3–25. doi:10.1177/1555412013478684
- Newman, J. (2005). Playing (with) Videogames. *Convergence: The International Journal of Research into New Media Technologies*, 11(1), 48–67. doi:10.1177/135485650501100105
- Nunes, M. (2011). Introduction: Error, noise, and potential: the outside of purpose. In M. Nunes (Ed.), *Error: glitch, noise, and jam in new media cultures* (pp. 3–26). New York: Continuum.
- Phillips, T. (2013, February 6). Dead Space 3 item exploit negates use of micro-transactions. Retrieved February 11, 2015, from <http://www.eurogamer.net/articles/2013-02-06-dead-space-3-item-glitch-spotted-negates-use-of-micro-transactions>
- Salen, K., & Zimmerman, E. (2004). *Rules of Play: Game Design Fundamentals*. MIT Press.

- Space: The Glitch & the Gemini. (1965). *Time*, 86(19), 110.
- Švelch, J. (2014). Comedy of Contingency: Making Physical Humor in Video Game Spaces. *International Journal of Communication*, 8(0), 23.
- Sveningsson, M. (2009). How Do Various Notions of Privacy Influence Decisions in Qualitative Internet Research. In A. N. Markham & N. K. Baym (Eds.), *Internet inquiry: conversations about method* (pp. 69–88). Los Angeles: Sage Publications.
- Thielenhaus, K. (2013, February 5). Dead Space 3: Infinite Item Farming Locations Strategy [UPDATE]. Retrieved from <http://www.gamefront.com/dead-space-3-infinite-item-spawning-location-glitch/>
- Wiener, N. (1988). *The Human Use Of Human Beings: Cybernetics And Society*. New York: Da Capo Press. Retrieved from <http://public.eblib.com/EBLPublic/PublicView.do?ptiID=729474>

Ludography

- BioWare. (2010). *Mass Effect 2*. Electronic Arts.
- BioWare. (2012). *Mass Effect 3*. Electronic Arts.
- BioWare. (2014). *Dragon Age: Inquisition*. Electronic Arts.
- Game Freak. (1998). *Pokémon Red and Blue*. Nintendo.
- id Software. (1999). *Quake III Arena*. Activision.
- Visceral Games. (2013). *Dead Space 3*. Electronic Arts.

Potential of Games in the Field of Urban Planning

Eszter Tóth¹

HafenCity University Hamburg

Abstract: The implementation of games and game principles has been a specific approach in the context of urban planning and development for a long time. There has been an increasing number of games specifically designed for supporting decision-making and public participation in planning processes, as well as in the education of urban planners. Yet, there is a lack of analysis of urban games as it relates to their possible contribution to the field of urban planning. This paper provides a summary of the main developments of games in the urban context with an overview of recent examples, and explores interrelations of game genres and platforms, and potential fields of implementation.

Keywords: urban planning, urban games, game genres, application fields, games for planning, games for participation, games for learning

Introduction

The act of playing is intrinsically tied to human life. As Johan Huizinga stated in his influential work on the role and importance of play in culture and society, play is an essential condition for the formation of culture (Huizinga, 1938). Although he argues that play is not a serious activity, he notes that it has a “significant function” and imparts meaning to action. Play in his definition is spatially and temporally isolated from real life, embedded in a self-contained system of rules, which he calls the magic circle. But does the meaning of play only relate to the action of play without having any impact on the rest of daily life?

¹ Contact: eszter.toth@hcu-hamburg.de

On the other hand, since the end of the 19th century, function-centric theorists have emphasized the biological or social functions of play (Flitner, 2002). Psychologists tried to find empirical evidence for the beneficial effects of play, whether relating to the release of energy, to practice moral or cognitive skills, or to strengthen players' self-awareness (Sutton-Smith, 1997). These theories describe play as merely a tool for accomplishing certain functions, but they are not able to explain why people like to play (Rodriguez, 2006).

In the second half of the 20th century, several research studies were conducted in the field of developmental and social psychology, focusing on the phenomenon of play experience. The sensation of fun, pleasure and engagement, which Csíkszentmihályi defines as the state of flow, proved to be an essential quality of games (Csíkszentmihályi, 1990). Flow experience can foster intrinsic motivation and therefore has a reinforcing effect in learning processes (Gee, 2003). In parallel with the growing number of empirical results on the impact of play on performance, attitude, motivation and social behavior, games were introduced into different fields of education and training. Framed in a formalized set of rules, these games built upon the motivational and cognitive effects of play. More and more games were designed for serious purposes, for "a purpose beyond play" (Klopfer, Osterweil, & Salen, 2009, p. 1). Nowadays, games are conceived as established tools in different fields, such as learning and education, prevention or therapy (Wiemeyer & Göbel, 2011). New domains are emerging, ready for the involvement of games for everyday practices. Games attract more and more attention in the field of urban planning as well. An increasing number of games are designed specifically for supporting decision-making and the participation of residents in planning processes, as well as in the education of urban planners.

This paper examines the potential of games and game principles in the field of urban planning. First, I will explore the relevance and suitability of games as tools in the process of urban planning. This will be followed by a short historical overview on game principles implemented in urban planning processes. Then I will examine how games can contribute to urban planning by analyzing recent games designed for this specific purpose. Finally, I will conclude by discussing the possible improvement of the implementation of games and game principles in urban planning, with potential directions for further research.

Relevance and suitability of games in the field of urban planning

In order to explore the rationale for games in the context of urban planning, it is necessary to define the term *game* as the object of investigation. As a large body of research on games shows, there is not one prevalent definition (Huizinga,

1938; Callois, 1961; Abt, 1970; Sutton-Smith, 1997; Salen & Zimmerman, 2003). The way we define games always depends on the specific context in which games are examined. In this study, I apply the definition of Salen and Zimmerman (2003), who define a game “as a system in which players engage in an artificial conflict by rules, that results in a quantifiable outcome” (p. 80). Thus, games can be understood as systems which consist of a set of parts, such as game elements or attributes, and as interrelations of these elements within the context of a game. These elements interrelate to a whole complex system.

Considering games as complex systems and as “procedural representations of aspects of reality” (Salen & Zimmerman, 2003, p. 55) generates the bridge towards urban environments. Cities encompass simple components that interact within a complex system involving both physical and social systems. By relating game components with those of an urban environment, they can simulate mechanisms and dynamics of the urban space. Moreover, they can create a space to experience real situations compressed in time, communicate and visualize very complex data, and experiment with ideas without any consequences in real life. Thus, they permit “learning about the process of change in a dynamic environment requiring periodic decisions” (Sanoff, 1979, p. 1).

But more than just being simulations of reality providing an enjoyable experience, games can engage and motivate people in activities for an extended period of time. The experience of pleasure results from a challenging activity and the clear goals of the game, the clear and ongoing feedback resulting in consequences for the progress, and the paradox of having control in an uncertain situation, among other elements. The psychologist Csíkszentmihályi (1990) refers to this exceptional state of mind as the optimal experience, which he calls flow. In the state of flow, players can immerse themselves in concentration and they are fully engaged with their activity. However, flow is not unique to digital games. It is an essential characteristic of the activity of play. Thus, games can increase motivation and strengthen positive attitude through the optimal experience.

Based on these considerations, games have been part of a specific approach in the context of urban planning and development for a long time. This paper provides a summary of the main developments in the field of urban games, with an overview of recent examples, and reflects potential areas of implementation and directions of further research.

The history of games in the field of urban planning

Game elements found their way into the field of urban planning as civilian applications of simulation games as early as the 1950s. At that time, simulation

gaming – already an established training and planning tool in the military field – opened up to new domains like education and business management training. Referring to the functionality and practical implementation of those games, contemporary sources use the term “operational gaming” (e.g. Abt, 1970; Armstrong & Hobson, 1972; Duke, 1964, 2011). Many of the early games implemented in the field of urban planning were “products of local needs”, developed at universities on the commission of local municipalities, and had been played only a couple of times without being published (Mayer, Bekebrede, Bilsen, & Zhou, 2009, p. 170). The early examples of simulation games in the field of urban planning served mainly to support stakeholders’ understanding of the complexities of urban planning processes. The game sessions were addressed mainly to professionals and decision makers, and had a very tight link to reality: the simulations were generally based on real data and players often represented their own role in a game. Games focused mainly on city management, land use, and resource management. From this perspective, these early examples of urban planning games can be considered simulations rather than games.

Two of the first pioneers to introduce the concept of simulation games in urban planning and policy were Richard Meier and Richard Duke. Commissioned by the Lansing, Michigan, City Council, Duke developed a simulation game on communal budgeting issues in order to support consensus finding processes amongst members of the municipality (Duke, 1964). He developed a playfully structured process known as *Metropolis* that simulated the city budget decision sequence. In subsequent years, as Director of the Environmental Simulation Lab (ESL) at the University of Michigan he had the opportunity to work with Meier on the refinement of his game concept and to develop a more sophisticated computer driven game called *Metro*. This computer simulation was later further developed, and under the name *Apex* it is still in use in the practice of urban planning (Duke, 2011).

In 1960, *CLUG (The Cornell Land Use Game)*, one of the first board games designed for planning purposes, was published. *CLUG* was developed by Allan Feldt and colleagues, and it is also still in use in the education and practice of urban planning.

Despite successful implementations, games could not break into this field. Armstrong and Hobson (1972) noted that apart from military and training there are still only a few examples of the use of games for planning purposes. In the same year, Schran (1972) claimed that even though Richard Duke presented his *Metropolis* to a seminar in Berlin as early as 1967, it took more than a decade in Germany to find a broader recognition for the implementation of games for plan-

ning purposes. Armstrong and Hobson (1972) see the reason for disregarding games in the delusion that they are not able to produce forecasts of future trends and events, a goal essential to planners. In their article, they argue, however, that operational games can indicate the types of different planning objectives and support understanding of the various interest groups involved. Hence, they can be an effective tool for supporting planning processes. Based on these concerns, they developed a number of simulation games in the context of regional planning at the Institute of Local Government Studies at the University of Birmingham, and defined an assessment model for operational games.

In the 1970s, in parallel with the proliferation of public participation, simulation games were increasingly implemented in order to engage residents and support open urban planning processes. Planners and developers built upon the motivational effects of games. By implementing game elements and playful processes in decision-making, they aimed to engage a broader audience in participation. These games, however, often consisted of the typical rules of public meetings, supplemented by a set of game rules. *Simpolis*, developed by Clark C. Abt, was implemented in New York in order to assess possible reactions, crises and consequences of urban planning decisions with local residents. *Simpolis* was played in the public space of the Central Park Mall, where participants could take optional roles, representing the different sectors of city administration, business and civil society and discuss real or devised conflict situations. New aspects and arguments that arose during the simulation widened the perspective of the participants and delivered tangible results for local politics. Abt described this role-playing game in his influential book *Serious Games*, published in 1970 (Abt, 1970). Abt Associates developed a number of simulation games for planning purposes, such as *Trade-off* from 1968, where St. Louis residents could prepare a redevelopment plan for their city within a certain budget, or *Fair City* (1970) incorporated into the U.S. federal Model City Program.

In 1979, Henry Sanoff published a collection of urban planning games in his book *Design Games* (Sanoff, 1979). These games aim to provide a way to explore environmental issues and engage people in discussions about planning situations. Sanoff describes a great variety of games, divided into different categories according to their field of implementation: to generate ideas, support individuals to make specific design choices or facilitate group consensus decisions. They can be considered more as playful exercises or, in some cases, decision-making simulations than games.

From the seventies on, there were two relevant development fields for urban gaming: on the one hand, the rise of the commercial game market (e.g. Sid

Sackson's *Metropolis*), and on the other hand, the evolution of system dynamics (Mayer et al., 2009). System dynamics is an approach that aims to understand the behavior of complex systems like cities (Forrester, 1969). This approach influenced not only urban planning professionals but also game designers. Will Wright, inspired by the systems dynamics, developed the game *SimCity*, where players have to think about cities as complex systems. Players step into the role of an omnipotent mayor and build, develop and manage their city. Meanwhile, they experience how each of their choices exert influence on the whole urban system. The game was published in 1989 and enjoyed immediate success among the broader audience. Although it was intended as an entertainment game, it is highly appreciated among urban planners and teachers as well. *SimCity* is widely used as a didactic and modelling tool in educational and professional circumstances (Rufat & Minassian 2009; Mayer et al. 2009). Meanwhile, sim-like, open-ended city builder games have captured the market (e.g. *SimCity*, *CivCity Rome*, *City Life*), and keep influencing the design of games developed for planning purposes.

The proliferation of digital games and novel technologies has opened new ways of playful urban planning. The new possibilities offered by videogames, computer and mobile games concerned with communication, interconnection of spaces, visualization and experimentation changed the character of games and gamespace. Furthermore, they exert influence on how we perceive and experience the urban space. Digital games are considered spatial representations (Borries, Böttger, & Walz, 2007). Spaces created by digital games range from two dimensional abstractions of spaces to complex constructions of social communities. These digital spaces combined with the interactive systems of games make digital games a powerful tool for modelling and simulating complex systems of urban space. *Zone 63065* was one of the earliest examples of computer games developed especially for planning purposes. The 3D real-time interactive adventure game was launched in 1999. Players were able to follow the changes of urban spaces in Offenbach, Germany, and by acting and experimenting in the virtual city learn new ways of dealing with their own living environment (Grüttner, 2005).

Due to technological developments like wireless, mobile or GPS, digital games became mobile and pervasive. They advanced the development of a new type of space, engendered through superimposition of the physical and the virtual spaces (Borries et al., 2007). In the so called "Alternate Reality Games", physical and virtual space interconnects, opening up new possibilities for urban planning games. *Participatory Chinatown* is a 3D multiplayer game, developed to support the communication process on the new master plan for Boston's Chi-

natown neighborhood. It is meant to be played in the shared physical space of a traditional master planning meeting and the virtual game, thus emphasizing “the simultaneity of face-to-face and virtual situations” (Gordon & Schirra, 2011, p. 180). *Participatory Chinatown* aims to motivate a broader audience to take part in the discussion of community issues through the creation of an engaging, ludic reality.

In recent years, numerous examples of participatory games have been designed for and implemented in urban planning processes. Especially in the field of public participation, the implementation of games is increasing, with the interactive and engaging quality of games employed to motivate and involve different target groups (e.g. Beckett & Shaffer, 2005; Bagley & Shaffer, 2011; Gordon & Koo, 2008; Gordon & Schirra, 2008; Poplin, 2011, 2012, 2013; Tóth & Poplin 2013, 2014).

Method

A comprehensive survey of games designed between 1999 and 2013 in the context of urban planning was conducted in order to explore the interrelations between the aims, the field of implementation within the planning process and the genre of games. I analyzed 19 games on the basis of different sources of information, including empirical and conceptual articles, conference proceedings and websites. Games selected for the analysis include analog, digital and pervasive games. Each of these games has been designed to support urban planning and development. Predefined criteria of the analysis are the following:

- purpose of the game relating to urban planning
- field of application within the planning process
- genre
- technology
- target group
- location
- empirical results on the effectiveness

First, the aims of a game were collected, e.g. understanding the complexity of urban planning processes, fostering civic thinking, raising awareness of a certain topic or involving a certain target group into the planning process). By analyzing declared purposes of the selected urban planning games, the following main categories could be defined: education, professional education, awareness raising, communication among stakeholders, citizen engagement and data collection. Then the selected games were assigned systematically and thematically to one

of the categories. Subsequently, genre (e.g. role-play, strategy, adventure game), technology (digital, analog or mixed), target group and location were identified. Additionally, it was checked whether there were existing empirical results regarding the effectiveness of those games. Then I analyzed interrelations between the purpose of the games and their genres and platforms, in order to explore and formulate guidelines for the design of urban games.

GAME	FIELD OF APPLICATION	GENRE	TECHNOLOGY	TARGET GROUP	DATE	LOCATION
PARTICIPATORY CHINATOWN	citizen engagement	role-play	mixed	local community	2010	Boston
HUB2	citizen engagement	second life	mixed	local community	2008	Boston
STADTSPIELER	communication	strategy game	analog	stakeholders	2009	none
STADT SPIELT STADT	data collection	simulation	digital	youth	2004	Görlitz, Germany
B3	data collection	simulation	digital	local community	2011	Hamburg
BLOCK BY BLOCK	data collection	second life	digital	youth	2013	Nairobi and diverse
KARL ÄRGERE DICH NICHT	data collection	role-play	analog	youth	2012	Berlin
URBAN SCIENCE	education	role-play	mixed	students	2006	Madison, Wisconsin
ZONE 63065	education	adventure	digital	local community	1999	Offenbach, Germany
POP-UP PEST	education	strategy	analog	youth	2012	Budapest
PARTICIPÉCS	education	strategy	analog	youth	2014	Pécs, Hungary
CITYONE	professional education	simulation	digital	urban planning students and professionals	2010	none
MADISON 2200	professional education	role-play	mixed	urban planning students	2003	Madison, Wisconsin
QUAG	professional education	role-play	digital	urban planning students and professionals	2008	none
SECURING SYDNEY'S URBAN PLANNING	professional education	simulation	digital	urban planning students and professionals	2013	Sydney
TYGRON SERIOUS GAMES	professional education	simulation	digital	stakeholders	since 2005	none
BIG URBAN GAME	awareness raising	racing	pervasive	local community	2003	none
CAN YOU SEE ME NOW?	awareness raising	racing	mixed	local community	2003	none
REZONE PLAYFUL INTERVENTIONS	awareness raising	miscellaneous	pervasive	local community	2014	Den Bosch

Figure 1. Results of the analyses of selected urban games

Results

Fig. 1 shows the results of the analyses of selected urban games based on the predefined criteria. Games have been clustered according to the main cat-

egories relating to their purpose: education, professional education, awareness raising, communication among stakeholders, citizen engagement and data collection. Additional categories helped to identify interrelations between the purpose of the games and their genre, technology and the focus on specific target groups or locations. A short summary of each of the categories follows.

Games for raising awareness

An increasing number of urban games are designed to raise people's awareness of urban issues. The design of games which aim to raise the awareness of location specific issues and promote active civic engagement in the co-creation of the urban space is tightly linked to a certain urban environment. Those games generally have no specific target group, instead striving to reach a broader audience and involve as many people as possible. Thus, *pervasive games* in particular are well suited to achieve these goals, taking place in given public spaces and open to play for everyone. Montola, Stenros and Waern define pervasive game as "a game that has one or more salient features that expand the contractual magic circle of play spatially, temporally or socially" (2009, p. 12). In pervasive urban games, gamespace and real space overlap, as game activities happen in real public spaces, involving spaces, objects and people outside of the magic circle and in real time. "Pervasive games pervade, bend, and blur the traditional boundaries of game, bleeding from the domain of the game to the domain of the ordinary" (Montola, Stenros, & Waern, 2009, p. 12). Thus, pervasive urban games can involve the broader public somewhat "accidentally" in gaming experiences dealing with serious urban issues.

These kinds of urban games usually promote informal, bottom-up initiatives and encourage people into active participation in shaping the urban environment. They are not usually linked to formal planning processes. Due to their open format, it is hard to gain empirical data regarding the effectiveness of those games, or data from participants. One of the most well-known pervasive urban game, the *Big Urban Game (BUG)*, was created in 2003 by the University of Minnesota's Design Institute. The *BUG* aimed to promote awareness of the built environment of the twin cities Minneapolis and Saint Paul and raise novel perceptions for considering new strategies for improvements by encouraging people to move huge pieces through the city (Lantz, 2007). Another example, the location-based games created within the project *Rezone Playful Interventions* in 2013, aimed to "involve visitors and stakeholders through play to the issue of abandoned post-industrial heritage, and strengthen their sense of 'ownership'" (de Lange, 2014).

Games fostering citizen engagement

Several games have been designed to empower a specific target group and foster active participation in the co-creation of the urban space. Tied to a growing demand for the integration of disadvantaged social groups in participatory urban planning that are usually under-represented in traditional forms of public participation (Fürst & Scholles, 2008, p. 162), these games aim to foster citizen engagement among diverse social groups such as children and youth, elderly people or migrants. These games build upon the motivational effects of a playful, engaging environment and provide positive experiences relating to urban issues. They promote a civic attitude and values by engaging players in the ludic solution of complex civic problems. Thus, **problem-solving** and **simulation games** in particular are appropriate for the purpose of fostering civic engagement in which a player can experience active participation in a safe and closed environment, learn via models, as well as trial and error and explore different ways of contribution and co-creation. Relating these experiences to real-life situations through reflection can strengthen the feeling of self-efficacy, an essential precondition of civic engagement. These games have a strong local focus, in order to strengthen identity and the commitment to the community. These games are mostly **collaborative** or **cooperative**, based on collaborative problem-solving rather than competition. They can be implemented at the initial stage of a formal urban planning process in order to explore the needs of local residents. Both digital and analog games can be suitable tools for this purpose.

The Boston-based Engagement Game Lab has developed a number of games with the above mentioned purpose, involving novel technologies and platforms. Gordon and Koo argue, for example, that “that the immersive, playful, and social qualities of the virtual world **Second Life** are uniquely appropriate to engage people in dialogue about their communities” (2008:204). The authors emphasize the possibility for sharing experiences of a collectively planned space and “having the opportunity to deliberate over, comment on, and alter that space” (2008:204). Their game called *Hub2* is based on the platform *Second Life*, in which participants can explore, rethink, rebuild and comment on the selected neighborhood in Boston. *Hub2* aims to engage local youth in the planning of a neighborhood park, by offering a different, more ludic space than a traditional community planning meeting. *Hub2*, similar to *Participatory Chinatown*, a more recent game by Engagement Game Lab, is meant to be played in the shared physical space of a traditional master planning meeting. The game designers call this approach **augmented deliberation** which emphasizes the simultaneity of face-to-face and virtual situations (Gordon & Schirra, 2008).

Studies conducted on both games indicated that game sessions were successful in attracting the predefined target groups (Gordon & Koo, 2008, Gordon & Schirra, 2008). Playing computer games embedded in a real participatory situation developed an understanding in players about local issues and made them feel more connected to the community. However, the empathy developed within the game *Participatory Chinatown* “did not convincingly transfer outside of the magic circle to effect decisions made at the meeting immediately after engaging with the game” (Gordon & Schirra, 2008, p. 180).

Fostering communication among stakeholders

Experiences related to the implementation of **simulation games** in the context of urban planning have shown how games can support the communication process among stakeholders. Simulation games can develop the understanding in participants of the complexity of the planning process, sensitize them to other perspectives and create space for experimenting with different ideas without any immediate consequences in the real world (Diekman & Leppert, 1978). Thus, simulation games have been implemented in planning processes in order to foster communication among stakeholders (see early urban planning simulation games, such as *CLUG*, *Simpolis*, *Trade-off*, etc.). Another game genre applied in professional urban planning is **role-play**, in which players assume the roles of characters – such as stakeholders, planners or decision-makers – in the fictional setting of a planning process (e.g. *QUAG*, *Madison2000*). These games have a discursive character and generally address students, planners, decision-makers or representatives of different interest groups familiar with the planning situation. They can either be related to a specific planning situation, based on real-world data and related to a specific location, or embedded in a more abstract game context complemented by diverse playful elements.

A recent example is the board game *Stadtspieler*, developed by Netzwerk Agens e.V. and published in 2009. *Stadtspieler* invites players to share and discuss their ideas by modeling them in clay on the playing field. They can take on different roles such as investor, citizen and urban planner, commenting on and evaluating their ideas from different perspectives. The game can be used for educational purposes, and as a tool in real-world planning situations, which facilitates communication between stakeholders.

Games for collecting data from citizens

Games can be a supportive tool in decision-making processes for gathering data from different stakeholders. Considering games as procedural represen-

tations of aspects of reality indicates that interactions of players within the game, the way they act and react to certain situations, strategies or plans can serve as meaningful information for planners and decision-makers. Games designed for the purpose of supporting participation in planning processes are interactive systems, which collect information about players' preferences, needs and ideas relating to a certain urban development project or plan. Therefore, these games have to reflect and represent a concrete situation. They have to be linked to a specific location and often embed context-specific guidelines or parameters. Either analog or digital **simulation games** or **collaborative design environments** (such as *Second Life*, for example in the case of the game *Block By Block*) can serve this purpose, if the feedback of the players is made available for planners and decision-makers to embed in masterplans. However, in parallel with the proliferation of information and communications technology-supported participation (also called e-participation), more and more digital games are designed to support public participation. *B3* is an example of a 3D **online computer game** which aims to involve the broader public in a specific planning process. *B3*, developed by students of the HafenCity University in Hamburg, enables players to design their marketplace in Billstedt in the city of Hamburg. The game creates a playful online platform for players to design their own market place and discuss their suggestions with other citizens and urban planners.

Games for professional education

Simulation games can impart procedural knowledge regarding the planning and decision-making processes. Players have to deal with complex conflict situations within a given time-frame, motivating them to think creatively and forcing them to comprehend and analyze the situation quickly (Diekmann & Leppert, 1978). Therefore, **simulation games** have been an established tool in the academic education of urban planners. Due to technological development, more and more **videogames** are applied as didactical tools in urban planning education (Adams, 1998; Squire, 2004; Gaber, 2007; Gordon & Koo, 2008). Moreover, some urban systems modelling software, e.g. *MacSim*, have shifted into games (Mayer et al., 2009). Several, mostly city-builder-like simulation games have been developed in order to train urban planning students and professionals, such as the game *CityOne* from IBM or the series of *Tygron Serious Games* in the Netherlands (IBM, 2014; Tygron 2015). These games aim to support professionals in real-world problem-solving situations.

Games for education

Despite the proliferation of game-based learning in different content areas, I discovered a lack of games designed specifically for learning about urban issues, urban planning or public participation. Most of the games mentioned before have an incidental or secondary educational value, but there are only a few examples that were designed specifically for educational use and which link pedagogical theories to the design of urban planning games. As research from the field of game-based learning shows, different learning goals require different strategies of learning, and in consequence, in the case of game-based learning, different game design (Schrader & McCreery, 2012). In the context of learning about urban planning and urban space, Shaffer (2006) suggests implementation of **epistemic games**. Based on the theory of situative learning and communities of practice, he introduced epistemic games, “based on the ways in which professionals acquire their epistemic frames” (p. 233). Epistemic frames comprise practice, identity, interest, understanding and epistemology. It determines how a community understands the world – and each community has a different epistemic frame. In what Shaffer calls epistemic games, players act like real world professionals and learn in authentic environments the epistemic frames of a certain profession (Shaffer, 2006, p. 233). Shaffer and his colleagues developed the games *Madison 2200* and *Urban Science* at the University of Wisconsin, Minnesota (Beckett & Shaffer, 2005; Bagley & Shaffer, 2011). Both games can be considered **augmented by reality** learning environments, a combination of urban planning simulation tools based on geographic information system (GIS) and real-world urban planning practices. By playing the game, high school students had to reshape a certain area of their city by taking on the role of an urban planner. Their research showed that epistemic games helped to develop students’ understanding of complex urban issues.

In order to contribute to the field of educational games in the context of urban planning, I conducted a design-based educational research project in Pécs, Hungary, between 2013 and 2015. A **cooperative** educational board game called *ParticiPécs* was developed in a collaborative design process involving youth and young experts. The aim of this research is to relate pedagogical theories on cooperative learning with the theories on game design and contribute to the field of educational games in the context of urban planning. *ParticiPécs* imparts patterns of action for active participation and aims to foster learning about the co-creation of urban space by simulating real-world small-scale urban interventions. It aims to raise the awareness of children and young people about urban issues and to empower them to be active participants in

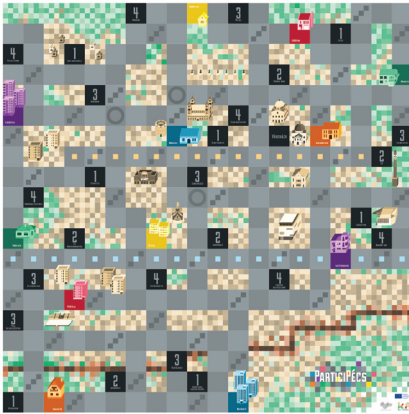


Figure 2. The game *ParticiPécs*

shaping the built environment. Fig. 2 shows the playing field which represents the extended downtown of Pécs.

During game design workshops, a cyclical optimizing of the prototype took place. This part of the research incorporated cycles of analyses, design and development of prototypes, formative evaluation and revision. The systematic analyses of the design process will provide knowledge about the essential characteristics of an intervention, as well as procedural knowledge about the set of design activities useful and efficient for the development of such an intervention (Plomp, 2007). In order to draw meaningful conclusions about a relationship between the educational game *ParticiPécs* and the learning outcome of participants, I plan to implement a learning experiment. This experiment will be conducted in classroom contexts. A traditional design based on pre-testing and post-testing will be implemented in order to provide evidence of students' learning achievements relating to an urban space and co-creation of a built environment resulting from a game session.

Conclusion

Games have a lot of potential in the field of urban planning. Due to their ludic and engaging quality, they can raise people's awareness of urban issues and involve different social groups' participatory planning processes. Games can contribute to real-world decision-making processes by fostering communication amongst different stakeholders and supporting data collection from citizens. Furthermore, games and game principles can be implemented effectively in education, as well as in the professional training of urban planners. For

different purposes, different game genres with specific qualities and technology can be implemented.

There are a growing number of games designed specifically for planning purposes. Nevertheless, there is a lack of empirical data on the outcomes of such playful planning processes. On the one hand, more quantitative data is needed relating to the effectiveness of urban planning games, on the other hand more qualitative data would be needed in order to understand how exactly games can work in this specific context.

However, there are several good practices and procedures that can serve as a direction for future research and development of urban games. Through further analyses of games designed for the context of urban development, guidelines for game design with specific purposes can be formulated.

Despite the popularization of playful urban planning and game-based learning, urban games have not yet been able to establish themselves in the field of education. One reason for that could be the lack of linkage of this specific content to the curriculum. Knowledge related to the urban space is only rarely connected explicitly to the curriculum. This makes the introduction of urban games into classroom contexts more difficult. However, there is available research on the adaptation of urban games into institutional learning environments (Beckett & Shaffer 2005; Bagley & Shaffer, 2009; Kuntz, 1999). More research is needed on the effectiveness of urban games relating to students' learning outcome and attitude, as well as thematic linkages to the curriculum.

References

- Abt, C. C. (1970). *Serious Games*. New York, NY: The Viking Compass.
- Adams P. C. (1998). Teaching and learning with SimCity 2000. *Journal of Geography*, 97(2), 47–55. doi: 10.1080/00221349808978827
- Armstrong, R. H. R., & Hobson M. (1972). The Use of Games in Planning. *Long Range Planning*, 5(1), 62–66.
- Bagley, E., & Shaffer, D. W. (2009). When people get in the way: Promoting civic thinking through epistemic gameplay. *Gaming and Computer-Mediated Simulations*, 1(1), 36–52. Retrieved from <http://edgaps.org/gaps/publications/>
- Beckett, K., & Shaffer, D. W. (2005). Augmented by reality: The pedagogical praxis of urban planning as a pathway to ecological thinking. *Educational Computing Research*, 33(1) 31–52. doi: 10.2190/D5YQ-MMW6-V0FR-RNJQ
- Borries, F., Böttger, M., & Walz, S. P. (eds.). (2007). *Space time play. Computer games, architecture and urbanism : The next level* (pp. 390–391). Basel: Birkhäuser Basel.

- Caillois, R. (1961). *Man, Play, and Games*. Urbana, IL: University of Illinois Press.
- Csikszentmihályi, M. (1990). *Flow : The psychology of optimal experience*. New York: Harper Perennial.
- Diekmann, P., Leppert, H. (1978). *Planspiel und Planspielsimulation in der Raumplanung*. Basel, Stuttgart: Springer-Verlag.
- Duke, R. (1964). *Gaming Simulation in Urban Research*. East Lansing, Michigan: Michigan State University Institute for Community Development.
- Duke, R. (2011). Origin and Evolution of Policy Simulation: A Personal Journey. *Simulation & Gaming*, 20(10), 1–17. doi: 10.1177/1046878110367570
- Flitner, A. (1972/2002). *Spielen – Lernen. Praxis und Deutung des Kinderspiels*. München: Beltz J.
- Forrester, J. (1969). *Urban dynamics*. Portland, OR: Productivity Press.
- Fürst, D., & Scholles, F. (Eds). (2008). *Handbuch Theorien und Methoden der Raum- und Umweltplanung* (3rd Edition). Dortmund: Verlag Dorothea Rohn.
- Gaber, J. (2007). Simulating planning: SimCity as a pedagogical tool. *Planning Education and Research*, 27(2), 113–121. doi : 10.1177/0739456x07305791
- Gee, J. P. (2003). *What video games have to teach us about learning and literacy*. New York: Palgrave Macmillan.
- Gordon, E., & Koo, G. (2008). Placeworlds: Using Virtual Worlds to Foster Civic Engagement. *Space and Culture*, 11(3), 204–221. doi: 10.1177/1206331208319743
- Gordon, E., & Schirra, S. (2011). Playing with empathy: digital role-playing games in public meetings. In *Proceedings of the 5th International Conference on Communities and Technologies (C&T '11)* (pp. 179–185). New York, NY: ACM. doi:10.1145/2103354.2103378
- Grüttner, K. (2005). Zone 63065. „Spiel mit deinem Lebensraum“. In Friedrich, K. (Ed.), *Stadt spielt Stadt. Experimente computer- und webgestützter Bürgerbeteiligung und Planung* (pp. 70–79). Dresden: Thelem.
- Huizinga, J. (1938/1955). *Homo ludens. A study of the play-element in culture*. Boston: Beacon Press.
- IBM (2014). City one. Real World Game, Real World Impact. Retrieved February 2, 2015 from <http://www-01.ibm.com/software/solutions/soa/innov8/cityone/>
- Klopfer, E., Osterweil, S., & Salen, K. (2009). *Moving Learning Games Forward. Obstacles, Opportunities & Openness*. Retrieved February 2, 2015 from http://education.mit.edu/papers/MovingLearningGames-Forward_EdArcade.pdf
- Kuntz, M. (1999). *SimCity 3000 Teacher's guide*. Maxis corporation. Retrieved from <http://simcity.ea.com/us/buildframes.phtml?guide/tips/teachers>

- de Lange, M. (2014). *Publication: Rezone playful interventions – Spelen voor de toekomst*. Retrieved February 2, 2015 from <http://themobilecity.nl/>
- Lantz, F. (2007). Big Urban Game. In Borries, F., Böttger, M., & Walz, S. P. (Eds.), *Space time play. Computer games, architecture and urbanism: The next level* (pp. 390–391). Basel: Birkhäuser Basel.
- Mayer, I. S., Bekebrede, G., Bilsen, A., & Zhou, Q. (2009). Beyond Simcity: Urban Gaming and Multi-Actor Systems. In Stolk, E., & te Brommelstroet, M. *Model Town. Using Urban Simulation in New Town Planning* (pp. 168–181). Amsterdam: SUN/INTI.
- Montola, M., Stenros, J., & Waern, A. (2009). *Pervasive Games. Theory and Design*. Burlington, MA: Morgan Kaufmann.
- Plomp, T. (2010). Educational design research: an introduction. In: Plomp, T. & Nieveen, N. (Eds). *An introduction to educational design research* (pp. 9–37). Enschede: SLO Netherlands Institute for curriculum development.
- Poplin, A. (2011). Games and serious games in urban planning: study cases, lecture notes in computer science. In *Computational Science and Its Applications – ICCSA 2011. Lecture Notes in Computer Science* (pp. 1–14). doi:10.1007/978-3-642-21887-3_1
- Poplin, A. (2012). Playful public participation in urban planning: A case study for online serious games. *Computers, Environment and Urban Systems*, 36(3), 195–206. doi:10.1016/j.compenvurbsys.2011.10.003
- Poplin, A. (2013). Digital serious game for urban planning: B3 – Design your Marketplace! *Environment and Planning B: Planning and Design*, 40(3), 493 – 511. doi:10.1068/b39032.
- Rodriguez, H. (2006). The Playful and the Serious: An approximation to Huizinga's Homo Ludens. *Game Studies*, 6(1). Retrieved from <http://gamestudies.org/0601/articles/rodrigues>
- Rufat, S., & Minassian, H. T. (2008). Video games and urban simulation: new tools or new tricks? *Cybergeog: European Journal of Geography*, document 622, doi:10.4000/cybergeog.25561
- Salen, K., & Zimmerman, E. (2003). *Rules of Play: Game Design Fundamentals*. Cambridge: MIT Press.
- Sanoff, H. (1979). *Design Games*. California, USA: William Kaufmann, Inc.
- Shaffer, D. W. (2006). Epistemic frames for epistemic games. *Computers & Education*, 46(3) 223–234. doi:10.1016/j.compedu.2005.11.003
- Schrader, P. G., & McCreery, M. (2012). Are All Games the Same? In D. Ifenthaler, D. Eseryel & X. Ge (Eds.). *Assessment in Game-Based Learning. Foundations, Innovations, and Perspectives*. New York: Springer-Verlag.

- Schran, H. (1972). Urban systems gaming. Developments in Germany. *Simulation & Gaming*, 3(3), 309–328. doi: 10.1177/104687817200300304
- Squire K. (2004). Review: Sid Meier's Civilization III. *Simulation & Gaming*, 35(1), 135–140. doi: 10.1177/1046878103255490
- Sutton-Smith, B. (1997). *The Ambiguity of Play*. Cambridge, Mass.: Harvard University Press.
- Tóth, E., & Poplin, A. (2013). Cooperative Learning Games – a Successful Tool for Promoting Children's Participation in Urban Planning? In K. Mitgutsch et al. (Eds.). *Context Matters! Exploring and Reframing Games in Context*. Wien: New Academic Press.
- Tóth E., & Poplin, A. (2014). *ParticiPécs – a cooperative game fostering learning about the built environment and urban planning* Paper presented at the conference AGILE 2014, June 2–6, Castellón, Spain.
- Tygron Serious Games (2015). Retrieved February 2, 2015 from <http://www.tygron.com/>
- Wiemeyer, J., & Göbel S. (Eds.) (2011). Serious Games – Theory, Technology & Practice. In *Proceedings – Game Days 2011, September 12th – 13th*. Darmstadt: Technische Universität Darmstadt / Institut für Sportwissenschaft.

Ludography

- Abt Associates, Inc. (1970). *Simpolis*. Abt Associates, Inc.
- Abt Associates, Inc. (1968). *Trade-off*. Abt Associates, Inc.
- Abt Associates, Inc. (1970). *Fair City*. Abt Associates, Inc.
- Bernoth, K., Bleyh, N., Mörtel, E., Kreutzer, J., Friedrich, K. Klasek, K., Lacrote, J.-N., Schweider, A. (2004). *Stadt Spielt Stadt* (PC).
- Blast Theory and The Mixed Reality Lab (2003). *Can you see me now?* (Mixed reality). Blast Theory and The Mixed Reality Lab.
- Bradbury, S. (2006). *CivCity: Rome* (Windows). 2K Games.
- Brömme, Till (2009). *Stadtspieler*. LUDILUX.
- Bui, V., Westerberg P., Beattie, H., Winters, L. (2012). *Block by block* (PC). UN-Habitat and Mojang.
- Duke, R. (1964). *Metropolis*. Lansing, Michigan City Council.
- Duke, R. & Meier, D. (1966). *Metro* (PC). University of Michigan
- Duke, R. & McGinty, R. (1981). *Apex* (PC). University of Southern California.
- Engagement Game Lab (2010). *Participatory Chinatown* (PC). Engagement Game Lab.
- Engagement Game Lab (2008). *HUB2* (PC). Engagement Game Lab.
- Feldt, A. (1960). *CLUG* (board game). Free Press.

- GeoGames Lab (2010). *B3 – Design Your Marketplace!* (PC). GeoGames Lab.
- Goodwin, R. & Lowe, R. (2013). *Securing Sydney's urban planning* (PC). NSW Government's Emergency Information Coordination Unit (EICU).
- Grüttner, K. (1999). *Zone63065* (PC). Maila push.
- IBM (2010). *Cityone* (PC). IBM.
- Lantz, F. (2003). *Big Urban Game*. Design Institute of the University of Minnesota.
- Lüdecke, M., Reckien, D., Eisenack, K. (2008). *QuAG*. Potsdam Institute for Climate Impact Research.
- Maurer United & Verbiesen, M., DUS Architects & Monobanda, ZUS Architects & Fourcelabs (2014). *Rezone Playful Interventions*. Den Bosch.
- Monte Cristo (2006). *City Life* (Windows, Nintendo DS). Focus Home Interactive.
- Sackson, S. (1984). *Metropolis*. Otto Maier Verlag.
- Shaffer, D. W. (2003). *Madison 2200* (PC). University of Wisconsin–Madison.
- Shaffer, D. W. (2006). *Urban science* (PC). University of Wisconsin–Madison.
- Tóth, E. (2012). *Pop-up Pest*. kultúrAktív Ass.
- Tóth, E. (2015). *Participécs*. kultúrAktív Ass.
- Wright, W. (1989). *SimCity* (PC). Maxis.

Tetris and Gamification in Marketing Communication

Zdenko Mago

Costantin the Philosopher University, Nitra

Abstract

The paper deals with theoretical and practical aspects of *Tetris* in marketing communication within the realms of a current phenomenon called gamification. The historical review of *Tetris* is followed by a summary of definitions and criteria of gamification, as well as its implementations within the domain of advertising. Later, the process of gamification is analyzed for non-narrative games with the aim to determine a theoretical basis for research. Results of Osgood's semantic differential – a part of online questionnaire – focused on the participants' perception of various dimensions defined within commercials applying or not applying principles and mechanics of digital games. This research tool provided data for the final comparison with the aim to determine the effectiveness of using digital games and their elements for marketing purposes.

Keywords: digital games, *Tetris*, gamification, advertising, advergaming, Central and Eastern Europe.

Introduction

Currently, the influence of digital technologies has spread into every area of human society, including marketing communication. The media, which initially were not taken seriously, especially digital games, have become more valuable for their interactive nature and the ability to reach the contemporary digital generation. Prensky (2001) calls this generation *digital natives*¹. Advergaming

¹ According to Prensky (2001) current generation is characterized as people who “are all ‘native speakers’ of the digital language of computers, video games and the Internet” (p. 1).

(already known since the 1970s) together with in-game advertising (the usage of which has grown exponentially since the beginning of the new millennium)² have become a part of the marketing and advertising standard practice even in those countries where the gaming industry develops more slowly.

The need for interaction and the popularity of digital games caused that not only gaming content, but also game mechanics and game design techniques have started to be used even in non-game contexts.³ This phenomenon, called gamification, became a trend in 2010 and has gradually spread its influence into various areas such as education, media, film industry, research and others. *SimCity* (Maxis, 2013), for example, is used as a teaching aid in some schools of architecture. Marketing communication also uses classic games, such as *Pac-Man*, *Space Invaders* and *Tetris*, which helped establish the gaming industry.

Although *Tetris* is a Russian game (originally developed in the USSR in 1984), it is also one of the most popular as well as one among the best-selling games of all time. The simple principle of aligning seven variably shaped pieces is not difficult to use in advertising messages even in non-digital commercials.⁴ Recently, *Tetris* was used at the closing ceremony of the 2014 Sochi Winter Paralympics that was broadcast by several television channels and whose video recording can be found at the official webpage of Winter Paralympics and YouTube.

The aim of this study is to analyze *Tetris* as a tool of gamification in marketing communication. The potential of its use will be also demonstrated by the results of the research focused on differences in the perception of conventional ads, ads using digital games and advergames based on *Tetris* and finally by comparison of these results with theoretical knowledge acquired during previous analysis. This study represents another step toward wider implementation of digital games and game studies in general within marketing communication in Slovakia. At the same time it could become a pilot study for the next research regarding this issue in the Central and Eastern European region.

About Tetris

In 2014, it was 30 years since Alexej Pajitnov from the former USSR devel-

² Electronic Arts publicly announced a several million dollar contract with McDonald's and Intel to promote their products within the upcoming project *The Sims Online* (Maxis, 2002) in 2002 (Šisler, 2005).

³ According to Deterding's definition of gamification (Deterding, 2011).

⁴ Non-digital commercials include forms of print, outdoor and guerrilla marketing techniques.

oped a simple puzzle video game based on matching tiles that soon spread all around the world. Soon after *Tetris* (Pajitnov, 1984) was released, Robert Stein, the founder of a European software company called Andromeda, discovered it while he was in Hungary and quickly negotiated with Pajitnov for the worldwide rights to the game. Once acquired, Stein quickly licensed them to Mirrorsoft, a British software company, and Spectrum Holobyte, its American subsidiary. Mirrorsoft then licensed the Japanese arcade game rights to Sega and the North American arcade game, home console, and handheld rights to Atari Games.⁵ Nintendo was also interested in getting rights for the game and quickly obtained both the console and handheld rights to *Tetris*. Robert Stein finally gained only the computer rights for it (Wolf, 2008).

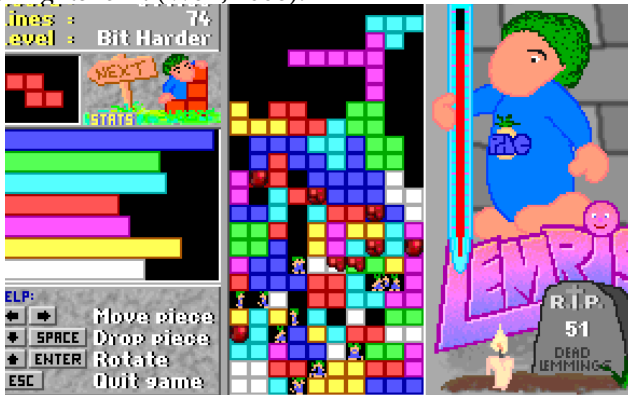


Figure 1. Screenshot of the computer game Lemris (Jan Cajti Zeithaml, 1994).

Over the years, *Tetris* has become one of the top-selling video games of all times (Guinness, 2013). It's been released on more than 50 platforms, translated into more than 50 languages, played in more than 185 countries and it has sold more than 170 million copies to date (Levy, 2014). Hundreds of its variants, versions and modifications exist, like *Hatris* (Bullet-Proof Software, 1990) or *Lemris* (Zeithaml, 1994) made in the Czech Republic (see Figure 1), and it has been played on dozens of platforms – arcade machines, Comodore 64, Apple II, Sega Mega Drive, MS-DOS etc. But perhaps the most famous platform was the Nintendo Game Boy. Henk Rogers (Levy, 2014), managing director of The Tetris Company, stated: “*Tetris’ made Game Boy and Game Boy made ‘Tetris’.*”

⁵ Meanwhile, company Tengen released *Tetris* for the Nintendo Entertainment System (NES) without the legal right to distribute the game; therefore 268,000 cartridges were returned and destroyed (Wolf, 2008).

Nowadays, we can play *Tetris* as a mobile game (which has more than 425 million paid downloads (Tetris Press, 2014)), on social networks, for example Facebook's *Tetris Blitz* (Electronic Arts, 2013), and since recently, gamers can experience Tetris in HD on new gaming consoles Microsoft Xbox One and Sony PlayStation 4 as *Tetris Ultimate* (SoMa Play, 2014).

In 2014, as a homage to the 30th anniversary of the game, *Tetris* inspired the closing ceremony of the Paralympic Winter Games in Sochi. One part was directly devoted to the game, when hundreds of people were carrying huge colored shaped pieces. *Tetris* tiles later became a part of other performances of the ceremony, also in contexts not referring to the game (Paralympic Games, 2014). Other examples of using *Tetris* in real life are artistic expressions by Swedish artist Michael Johansson, the analog *Tetris* within *Codeco*,⁶ the human *Tetris* performance by French-Swiss artist Guillaume Reymond or two magnificent building-display light shows – MIT's *Holy Grail of Hacks* and Cira Centre's *Tetris* in Philadelphia (The Telegraph, 2014), which won the Guinness World Record as the world's largest architectural videogame display (Guinness, 2014).

Gamification and marketing

Even though according to Nelson (2012) gamification originated in the USSR between the early to mid-20th century, it became a trend only in 2010, when the term first appeared in Google search (Burke, 2012). Currently, gamification is highly discussed in many fields – academic, business, education, marketing etc. The summary of definitions (see Figure 2) shows that there is no single and widely accepted definition for gamification. The first known definition in an academic environment was presented by Huotari and Hamari, but the one more often found in non-academic papers is the one from Sebastian Deterding (Simões, 2014c), now widely used especially outside of academia circles, by marketers and gamification experts alike.

Marketing had started to use games or their elements before gamification became a phenomenon. For example *advergames*, advertisements designed as games, have been known since the 1970s. First non-digital applications of gamification in marketing have not been associated with games, but belonged to the so-called *guerilla marketing*.⁷ In general, the main reason for the usage

⁶ Codeco (coded – decoded – coded) is an artistic movement that tries to overcome the era of digitization and reach a new recoding (analogisation) of information. More information is available at <http://codeco.org/>.

⁷ Marketing strategies using creative, unexpected, shocking techniques to maximize

of gamification in advertising was pertinently expressed by Marczewski (2012): “...it is making a task more interesting by adopting gaming mechanics” (p. 4). Paradoxically, Ian Bogost (2011), a critic of marketing use of gamification, actually defined the reason why marketing started to use game mechanics for commercial purposes, the same way: “...the very point of gamification is to make the sale as easy as possible.” He suggested using the term *exploitationware*.⁸

Author	Definition
Johnson, 2014	<i>The notion that gaming mechanics can be applied to routine activities.</i>
Duggan, 2013	<i>The use of game mechanics and rewards in non-game setting to increase user engagement and drive desired user behaviors.</i>
Zichermann, 2013	<i>Implementing design concepts from games, loyalty programs, and behavior economics to drive user engagement.</i>
Domínguez, 2013	<i>Incorporating game elements into a non-gaming software application to increase user experience and engagement.</i>
Rughinis, 2013	<i>Simple gameplay to support productive interaction for expected types of learners and instructors.</i>
Killian, 2013	<i>Harnessing the hugely powerful human emotions and psychological phenomena evidenced in game playing to drive increased engagement, performance and productivity.</i>
Huotari, 2012	<i>...a process of enhancing a service with affordances for gameful experiences in order to support user's overall value creation.</i>
Burke, 2012	<i>The use of game mechanics and game design techniques in non-game contexts to design behaviors, develop skills or to engage people in innovation.</i>

profit at the lowest expenses.

⁸ According to Bogost (2011) *exploitationware* is a more accurate name for gamification's true purpose within marketing communication that he even likens to dishonoring of gamification.

Werbach, 2012	<i>The use of game elements and game-design techniques in non-game contexts.</i>
Marczewski, 2012	<i>The application of game metaphors to real life tasks to influence behavior, improve motivation and enhance engagement.</i>
Kapp, 2012	<i>Using game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning and solve problems.</i>
Wu, 2011	<i>The use of game attributes to drive game-like player behavior in a non-game context.</i>
Huotari, 2011	<i>A form of service packaging where a core service is enhanced by a rules-based service system that provides feedback and interaction mechanisms to the user with an aim to facilitate and support the users' overall value creation.</i>
Zichermann, 2011	<i>The process of game-thinking and game mechanics to engage users and solve problems.</i>
Lee, 2011	<i>The use of game mechanics, dynamics and frameworks to promote desired behavior.</i>
Deterding, 2011	<i>The use of game design elements in non-game contexts.</i>
Landers, 2011	<i>The addition of elements commonly associated with games (e.g. game mechanics) to an educational or training program in order to make the learning process more engaging.</i>
Terrill, 2008	<i>Taking game mechanics and applying to other web properties to increase engagement.</i>

Figure 2. Definitions of gamification.⁹

Gamification by non-narrative game elements

Like books or comics, digital games also often become an inspiration for other media formats, especially film and television. For example, the movie *Doom* (2005) is partially inspired by a theme and a story of the first-person shooter [FPS] series *Doom* (1993–2012), especially *Doom 3* (id Software, 2004). It is

⁹ The table contains the edited, supplemented and extended list of definitions collected by J. Simões (2014c).

possible to find a lot of references to game characters, places, guns and monsters in the movie that are related to the narrative layer of the game. Before the final battle scene there is a few minutes long sequence made completely in FPS style – aiming, weapon changing, reloading and moving features like jumping. In this case, film creators adapted the game mechanics and principles (thus the non-narrative layer of the game) in a non-gaming context to make viewers experience a more immersive experience that closely resembles a *Doom* game. In a certain sense, they gamified that part of the film at least on an aesthetic level, because interactivity was still absent.

It is necessary to differentiate between narrative and non-narrative game elements, because when a media format, including advertising, is inspired by non-narrative games, such as *Pac Man*, *Space Invaders* or the aforementioned *Tetris*, it actually uses their design principles and mechanics. According to the definitions, using such games for non-gaming purposes could be also considered a certain form of gamification. The only requirement not fulfilled is interactivity, but especially in marketing, interactivity does not depend only on the media type, but also on the level of mediation. For example, in 2012 Coca-Cola Zero promoted the release of the movie *Skyfall* (2012) by the following creative performance. Coca-Cola Zero vending machines at some train stations offered the chance to win exclusive free tickets for a new James Bond movie (after submitting the name on touch screen), but people interested in these tickets had to unlock the *007 box* placed at another platform in less than 70 second. They had to get through prepared obstacles and at the end even sing or hum the movie's theme song. A recording of this action was edited into two minute long advertising video and shared via YouTube as a secondary medium. This advertisement fulfills all six steps of a gamified system construction¹⁰ (Zichermann, 2013), even if the viewer did not take part in the live performance, but only saw the recording, i.e. the non-interactive video. Again, an absence of interactivity is the only objection to using the term gamification.

For the sake of future development of gamification, interactivity requirements should be reconsidered or possibly extended to cover a wider range of games or game aspects to be implemented, and thus the conceptualization of gamification should take into account the form of presentation, or the possibility of its mediation in any medium.

¹⁰ The gamified system according to G. Zichermann (2013) includes (a) desire, (b) incentive, (c) challenge, (d) achievement/reward, (e) feedback, (f) mastery.

Tetris within advertising

Since 2000, at least 23 advertisements¹¹ using *Tetris* (in any form) have been made by important advertising agencies all over the world. Most of them (40.9%) were used to promote car/car brands such as Honda, VW, Fiat, Smart, Toyota, Renault, Ford, Chevrolet and KIA. Other advertisements promoted furniture, cosmetics, pharmacy etc. *Tetris* has also been used in non-commercial campaigns of Red Cross or New Zealand Army. Besides visual elements, 45.5% have also used the original theme song and 27.3% the game's sound effects.

Although according to Janet Murray (in Bogost, 2007) *Tetris* is “*perfect enactment of the overtaken lives of Americans in the 1990s – of the constant bombardment of tasks that demand our attention and that we must somehow fit into our overcrowded schedules and clear off our desks in order to make room for the next onslaught*” (p. 207–208), the meanings of *Tetris* in advertising have been less metaphoric. The most common meanings in the previous analysis were being well organized and saving space (31.8%) and having enough or extra space (27.3%).

Central and Eastern European advertisements or promotional materials using *Tetris* are rarer. There are several possible reasons: not as strong tradition of digital games in this region (as, for example, compared to the U.S., where games are more culturally embedded); or low attractiveness of the gaming market, e.g. PlayStation Store is still not available for Slovakia. There are only a couple of examples. In 2009, it was the Project P.I.W.O.¹² The giant lightshow on building in Polish Wrocław took ten minutes and, besides *Tetris*, included *Pong*, *Dr. Mario* and Michael Jackson (June, 2009). Another one was 3D *Tetris* animation for Czech bank ČSOB in 2013 (Firemní televize, 2013).

Perception of advertisement using Tetris

Due to the increasing importance of gamification within marketing communication, it is necessary to investigate the attitudes of audiences toward advertisements which apply games or their elements as a way to mediate the advertising message. A comparison of perception of such advertisements with perception of conventional ads (not using game elements) could show the potential of using games for commercial purposes even outside of the game environment.

¹¹ Counts and other percentage ratios reflect the author's content analysis of advertising campaigns, which was possible to find by basic search, especially at <http://www.coloribus.com/adsarchive/search/?x=0&y=0&q=tetris> [cited 2015-01-10].

¹² *Powerful Index Window Display*; or B.E.E.R. [*Big Electronic Entertainment Renderer*].

The main research issue may be summarized in the following research question:

RQ: What is the difference between perception of ads using game elements to express advertising message and ads not using these?

Method and limitations

Because of the need to present audiovisual spots the questionnaire was made in online form and then submitted to Slovak respondents in the age group of 25 to 45. The age option was set to ensure that sample will contain only adults likely to be interested in the subject. The survey was conducted in September 2014.

For our research purposes, a total of three advertisements were selected. Two Slovak TV commercials had the same object – bank loans and preferred payments. *Prima Bank* ad [AD1] (*Prima banka*, 2014) was conventional, but *Tesco Financial Services* ad [AD2] (*MADE BY VACULIK*, 2014) used *Tetris* to express the advertising message (see Figure 3). The third ad was an advergame [AG] important for final comparison; nevertheless, it was not focused on the same object as TV commercials, because there was no such one based on *Tetris*. *Toyota Corolla* was the object of the advergame (*Zdenko Mago*, 2014).

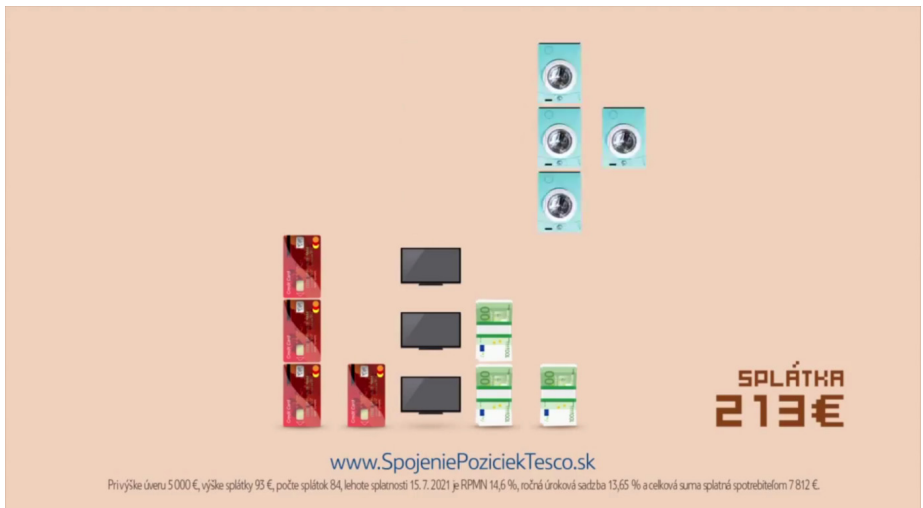


Figure 3. *Tesco Financial Services – TV commercial using Tetris* (source: screenshot)

In order to examine attitudes toward the selected advertisements a semantic differential with 12 pairs of bipolar adjectives on 7-point scale was constructed. According to Osgood (1969), adjectives represented three dimensions: evaluation, activity and potency. A part of the questionnaire was also focused on ad

recall and the gaming activity of participants.

The biggest limitation of the research was the narrow scope. Respondents of other Central and Eastern European countries could not participate because of the problem with perception of selected commercials. The ads were in Slovak, targeted to Slovak audience, so even if foreign participants understood them, ads would probably not be appealing to them due to cultural differences in the region. No suitable pair of international commercials was found.

Another limitation was related to the software used for the operation of on-line questionnaires. It did not support interactive media; therefore the adverage [AG] had to be presented in the form of a gameplay video. Loss of the possibility to play the game could significantly influence the respondents' perception and the attitude toward it.

Results

The questionnaire was filled out by 75 Slovak respondents (25 men, 50 women) in the required age group. The mean age of sample was 30.52 (standard deviation [SD] = 6.37, range = 20). 80% of participants were employed, the rest were students and unemployed. Even though 61.3% do not play any games, one third of them plays occasionally or very little. Only 8% admitted frequent playing.

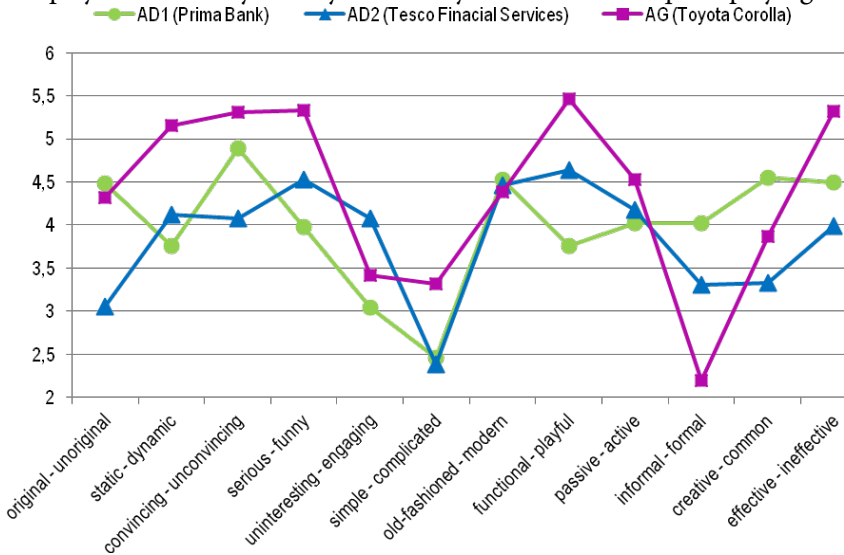


Figure 4. Semantic differential chart of perception of advertisements using/not using Tetris (N = 75)

The semantic differential chart (see Figure 4) shows attitudes toward the research dimension for each advertisement. There was no significant correlation between profiles of AD1 and AD2 ($r = .326, p > .05$), as well as AD1 and AG ($r = .386, p > .05$), but profiles of AD2 and AG were significantly related ($r = .642, p < .05$). In term of modernity, all ads were perceived almost the same. Big fluctuations were shown in the perception of functionality/playfulness, formality and efficiency, but the greatest fluctuation was in originality, where the difference between AD2 and other ads was 1.27.

A recall test was a part of questionnaire, following circa 1–2 minutes after viewing each advertisement. Expressive elements were recalled by most of the respondents in all three cases. Those were the green (corporate identity) color of *Prima Bank* in AD1 (24.6%) and *Tetris/game* in AD2 (44.9%) and AG (42.2%). The objects of the advertising messages were most often placed in the second place. All recalls with percentages are summarized in Figure 5.

AD1 (<i>Prima Bank</i>)	AD2 (<i>Tesco Financial Services</i>)	AG (<i>Toyota Corolla</i>)
green color (24.6%)	Tetris, game (44.9%)	Tetris, game (42.2%)
about object of ad* (20%)	about object of ad* (14.5%)	car (10.8%)
prison ball (20%)	Club Card, points (7.2%)	sound (10.8%)
bank, banker (13.8%)	appliances (5.8%)	colors (8.4%)
other** (21.6%)	other** (27.6%)	other** (27.8%)

* includes all statements relating directly to advertising messages

Figure 5. The most frequently recalled elements of advertisements (N = 75)

** includes all other minor statements

Discussion

According to the results, all three advertisements are modern and active. *Prima Bank* TV spot [AD1] was perceived as functional, but the most serious, uninteresting, formal and common. *Tesco Financial Services* TV commercial [AD2] received less negative responses. It was seen as the simplest, the most original, convincing, engaging, creative and effective. The adverage for *Toyota Corolla* [AG] was perceived as the most dynamic, funny, playful and informal, but unconvincing and ineffective, most likely due to respondents' inability

to actually play the advergame. Nevertheless, there is a significant correlation between AD2 (TV spot without interactive features) and AG ($r = .642, p < .05$). It means that AD2 is more related to the form of a game than that of a TV ad, while it might take advantage of both media to increase engagement, the level of motivation and loyalty, thus benefiting from using game mechanics (APM, 2014).

A comparison of recalled elements (see Figure 5) shows that respondents have not recalled the object of ads the most. The *green color* in AD1 dominated only slightly, but as a corporate feature of the advertiser, it marginally supported the brand. On the other hand, *Tetris* in AD2 and AG dominated significantly without apparent relation to the promoted brand. More than two fifths majority in the recall test shows that *Tetris* could cause a *vampire effect*.¹³ But in AD2 *Tetris* was directly used to express the advertising message in a creative way, which could support its acceptance and efficiency.¹⁴ Furthermore, almost half of respondents who do not play any games, were able to identify *Tetris* in advertisements.

As the sample of our survey was limited, results cannot be generalized on the whole population of Slovakia, but they definitely show an opportunity for improvement of the acceptance and efficiency of advertising messages with game elements in TV commercials perceived by Slovak audience. However, these results should be verified by the survey with a representative sample, designed to possibly include also younger or older age groups of participants, and applying a playable advergame.

Conclusion

Over the thirty years of its existence, *Tetris* (developed by Alexej Pajitnov in 1984) has become one of the best-selling video games of all times, accessible for play across multiple platforms including mobile and social network versions. It has been used even in advertising, carrying many features of gamification.

Gamification, as an application of game design elements in non-game contexts (Deterding, 2011), has been implemented in marketing communication to make sales more interesting, interactive and acceptable for recipients. In

¹³ *Vampire effect* is the decrease in brand recall (possibly in recall of an advertising message) in an advertisement for an advertising stimulus with a very expressive element. This is an adapted definition of Erfgen, Zenker and Sattler (2015).

¹⁴ Similar results could be assumed also in the case of AG, if the game was fully playable during the survey.

the context of *Tetris*, it is necessary to reconsider limits of gamification especially regarding game design, mechanics and principles of non-narrative games. Moreover, interactivity (or its absence) is an obstacle to a wider implementation of gamification into specific forms of marketing communication in general. So far, most of digital games' elements usage in advertising stays at the level of aesthetics and mediation via other media.

Since 2000, *Tetris* has been used for advertising at least 23 times by brands such as IKEA, Ford, Dior or non-commercial Red Cross. Within the Central and Eastern European region, advertisements using *Tetris* are less frequent due to different cultural traditions and possibly a low attractiveness of local gaming market for advertisers.

The survey focused on the perception of ads using and not using digital games to express advertising message has shown the difference between a conventional TV commercial (*Prima Bank*) and a TV spot using *Tetris* (*Tesco Financial Services*), although both have the same object, i.e. bank loans and preferred payments. The results have shown a significant relation between the *Tesco Financial Services* TV spot and the control advergaming for *Toyota Corolla*. Expressive elements like green corporate color and *Tetris* as a game were the most recalled elements by respondents. In the TV commercial for *Tesco Financial Services*, *Tetris* was directly used as a creative way to express the advertising message with the aim to support its acceptance and efficiency. Due to its significant domination in the recall test, so called vampire effect could be present, which would mean that the popularity of the game itself could distract from the object which was advertised. The biggest limitation of the survey was the fact that participants could not play the advergaming because of technical limitations of the online questionnaire.

In summary, using game design elements in non-game contexts, including advertising, has a certain potential to improve the perception of advertising messages by the Slovak audience, although the survey should be repeated on a representative sample. An opportunity for a future survey lies in adapting our research tool to allow the participation of a greater age range of respondents from a larger area of Central and Eastern Europe.

References

- 30 Years of Tetris (2014). Retrieved October 7, 2014 from <http://press.tetris.com/30-years-of-tetris/>.
- Association for Project Management (APM). (2014). *Introduction to Gamification*. Princes Risborough: APM.

- Bogost, I. (2007). *Persuasive Games : The Expressive Power of Videogames*. Cambridge, Massachusetts: MIT Press.
- Bogost, I. (2011). *Gamification is Bullshit*. Retrieved from http://bogost.com/blog/gamification_is_bullshit/
- Burke, B. (2012). *Gamification 2020 : What Is the Future of Gamification?* Retrieved from http://www.gartner.com/resources/237400/237457/gamification_2020_what_is_th_237457.pdf
- Deterding, S. et al. (2011). From game design elements to gamefulness: Defining “gamification”. In Lugmayr, A., Franssila, H., Safran, Ch. & Hammouda, I. (Eds.), *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments, MindTrek '11* (pp. 9–15). New York, NY: ACM.
- Domínguez, A. et al. (2013). Gamifying learning experiences: Practical implications and outcomes. *Computers and Education*, 63, 380–392.
- Duggan, C., & Shoup, K. (2013). *Business Gamification for Dummies*. Hoboken, NJ: John Wiley & Sons, Inc.
- Erfgen, C., Zenker S., & Sattler H. (2015). The Vampire Effect – Do Celebrity Endorsers Suck the Recall From the Brand? *International Journal of Research in Marketing*, 32(2). Retrieved from http://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID_2545071_code1827239.pdf?abstractid=2545071&mirid=3
- Firemní televize. (2013, September 10). ČSOB Tetris – 3D animace pro interaktivní hru [Video file]. Retrieved from <https://www.youtube.com/watch?v=EfUs-pipPUY>
- Guinness World Records (2013). *Guinness World Records 2014 Gamer's Edition*. New York, NY: Guinness World Records.
- Guinness World Records (2014). *Largest architectural videogame display*. Retrieved from <http://www.guinnessworldrecords.com/world-records/largest-architectural-videogame-display>
- Huotari, K., & Hamari, J. (2011). “Gamification”: from the perspective of service marketing. In *CHI 2011 Workshop Gamification, May 7–12, 2011*. Vancouver: ACM.
- Huotari, K., & Hamari, J. (2012). Defining Gamification – A Service Marketing Perspective. In Lugmayr, A., Franssila, H., Paavilainen, J. & Kärkkäinen, H., *Proceedings of the 16th International Academic MindTrek Conference, Tampere, Finland, October 3–5, 2012* (pp. 17–22). New York, NY: ACM.
- Johnson, L. et al. (2014). *NMC Horizon Report: 2014 Higher Education Edition*. Austin, Texas: The New Media Consortium.
- June, L. (2009). *Polish students take building light shows to the next lev-*

el [Video file]. Retrieved from <http://www.engadget.com/2009/05/14/video-polish-students-take-building-light-shows-to-the-next-lev/http%3A%2F2F20092F14%2Fvideo-polish-students-take-building-light-shows-to-the-next-lev%2F>

Kapp, K. (2012). *The Gamification of Learning and Instruction : Game-based Methods and Strategies for Training and Education*. San Francisco, CA: Pfeiffer.

Killian, E. (2013). *Briefing: An Introduction to Gamification*. Retrieved from <http://nebula.wsimg.com/5fcf34d4d0f2f3a08436880c71670d60?AccessKeyId=CC2B5D45EA8C7409F671&disposition=0&alloworigin=1>

Landers, R., & Callan, R. (2011). Casual social games as serious games: The psychology of gamification in undergraduate education and employee training. In Ma, M., Oikonomou, A. & Jain, L.C., *Serious Games and Edutainment Applications* (pp. 399–423). London: Springer-Verlag.

Lee, J., & Hammer, J. (2011). Gamification in education: What, how, why bother? *Academic Exchange Quarterly*, 15(2), 146–151.

Levy, K. (2014). *The Complicated History Of ‘Tetris’, Which Celebrates Its 30th Anniversary Today*. Retrieved from <http://www.businessinsider.com/tetris-history-2014-6#ixzz3EunlLkQz>

Made by Vaculik. (2014, September 2). *Tesco – Finančné služby – Konsolidácia* [Video file]. Retrieved from <https://www.youtube.com/watch?v=JvkMEJ-vwNo>

Marczewski, A. (2013). *Gamification : A Simple Introduction & a Bit More*. Seattle, WA: Amazon Digital Services, Inc.

Murray, J. (1997). *Hamlet on the Holodeck : The Future of Narrative in Cyberspace*. New York: Free Press.

Nelson, M. (2012). Soviet and american precursors to the gamification of work. In Lugmayr, A., Franssila, H., Paavilainen, J. & Kärkkäinen, H., *Proceedings of the 16th International Academic MindTrek Conference, Tampere, Finland, October 3–5, 2012* (pp. 23–26). New York, NY: ACM.

Osgood, C. E. (1969). On the whys and wherefores of E, P, and A. *Journal of Personality and Social Psychology*, 12(3), 194–199. doi: 10.1037/h0027715

Paralympic Games. (2014, March 16). *Closing Ceremony | Sochi 2014 Paralympic Winter Games* [Video file]. Retrieved from <https://youtu.be/ZVGOvV6bBWc?t=36m15s>

Powerful Index Window Display; or B.E.E.R. [Big Electronic Entertainment Renderer]. (2009). Retrieved from <http://www.piwo.pwr.wroc.pl/>

Prensky, M. (2001). Digital Natives, Digital Immigrants. *On the Horizon*, 9(5), 1–6.

- Prima banka. (2014, March 3). *Preneste si pôžičku do Prima banky a platte menej!* [Video file]. Retrieved from https://www.youtube.com/watch?v=W_ihbzWckvU
- Rughinis, R. (2013). Gamification for productive interaction: Reading and working with the gamification debate in education. In *Proceedings of the Information Systems and Technologies (CISTI), 8th Iberian Conference on Information Systems and Technologies* (pp. 521–525). Lisboa: IEEE.
- Simões, J. (2014a). *A Brief History of Gamification : Part I – The Origin*. Retrieved from <http://edulearning2.blogspot.pt/2014/03/a-brief-history-of-gamification-part-i.html>
- Simões, J. (2014b). *A Brief History of Gamification : Part II – The Name*. Retrieved from <http://edulearning2.blogspot.pt/2014/03/a-brief-history-of-gamification-part-ii.html>
- Simões, J. (2014c). *A Brief History of Gamification : Part III – The Definitions*. Retrieved from <http://edulearning2.blogspot.sk/2014/03/a-brief-history-of-gamification-part.html>
- Sisler, V. (2005). Krásný nový svět virtuální reklamy [The beautiful new world of virtual advertising]. *LEVEL*, 123, 22–31.
- Terrill, B. (2008). *My coverage of lobby of the social gaming summit*. Retrieved from <http://www.bretterrill.com/2008/06/my-coverage-of-lobby-of-social-gaming.html>
- The Telegraph (2014). *Top five : Tetris in real life*. Retrieved from <http://www.telegraph.co.uk/technology/video-games/10880156/Top-five-Tetris-in-real-life.html>
- Werbach, K., & Hunter, D. (2012). *For the Win : How Game Thinking Can Revolutionize Your Business*. Philadelphia, PA: Wharton Digital Press.
- Wolf, M. J. P. (2008). *The video game explosion : a history from Pong to PlayStation and beyond*. Westport, CT: Greenwood Press.
- Wu, M. (2011). *What is gamification, really?* Retrieved from <http://community.lithium.com/t5/Science-of-Social-blog/What-is-Gamification-Really/ba-p/30447>
- Zdenko Mago. (2014, September 23). *Tetris Blitz* [Video file]. Retrieved from <https://www.youtube.com/watch?v=fdVNgdhL8Vk>
- Zichermann, G., & Cunningham, C. (2011). *Gamification by Design*. Sebastopol, CA: O'Reilly Media, Inc.
- Zichermann, G., & Linder, J. (2013). *The Gamification Revolution*. McGraw-Hill Education.

Ludography

Bullet-Proof Software (1990). *Hatris*. Bullet-Proof Software.
Electronic Arts (2013). *Tetris Blitz*. Electronic Arts.
id Software, et al. (2004). *Doom 3*. Activision.
Maxis (2002). *The Sims Online*. Electronic Arts.
Maxis (2013). *SimCity*. Electronic Arts.
Pajitnov, A. (1984). *Tetris*. Soviet Academy of Sciences.
SoMa Play (2014). *Tetris Ultimate*. Ubisoft.
Zeithaml, J. C. (1994). *Lemris*. Autotech Software.

Acknowledgments

The study is a partial output of the scientific project UGA I-13-213-02 *Associations and Easter Eggs as marketing tools used in computer (video) games*.

Narratives of Spectatorship: E-sports in Poland

Mateusz Felczak

Jagiellonian University in Krakow

Abstract: This text is focused on the question of relations between players, video game enthusiasts as spectators, and fictional content introduced by the technology: software and hardware that support the ludic experience. The first topic of interest will be e-sports, or electronic sports: competitively played games, often involving dedicated gaming arenas and TV / internet live coverage. The second point of interest will be the players experiencing game content via streaming channels or internet TV (such as twitch.tv). In-depth analysis, based on participant observation, will cover a recent major event which took place in Katowice, Poland, namely the finals of the Intel Extreme Masters (IEM) World Championship of March 2014. The text focuses on a selected group of computer games, which have potential to connect both active players and spectators of the particular game in ludic experience (e.g., *StarCraft*, *League of Legends*, *Counter-Strike: Global Offensive*). The thesis of the paper states that by recognizing the features of selected modern computer games, which create a unique environment where on-screen actions are conducted through various technological means, TV-mediated ludic pleasure is 'transferred' from professional players (who, at a certain level, do it for the sake of money, not just for 'fun') to e-sports enthusiasts, the vast majority of whom also consider themselves as active gamers. Each game, apart from having a 'storyline' created in real life by the players, is culturally encoded by secondary and tertiary narratives stimulated by the viewers, commentators and in-game observers. Nowadays, similar situations occur outside the e-sports genre, involving players who are immersed in participatory, fandom-based practices and who experience numerous games before their actual release. Therefore, my main questions of interest on the topic

of e-sports relate to how and why they became so popular in Poland, and what impact they have on the ways that both gamers and non-gamers perceive modern video games. The community aspect of e-sports is also considered, with a focus on cultural (and national) diversity among e-sports enthusiasts.

Keywords: electronic sport, IEM Katowice, instrumental play, audition studies

Introduction

This paper deals with the topic of e-sports (electronic sports) in the context of Poland. The main research material is based on two events which took place in 2013 and 2014, the Intel Extreme Masters (IEM) Season VII Global Challenge and the IEM Season VIII World Championship, both hosted in the multiplex arena “Spodek” in Katowice. The analysis is focused on three main areas of interest, which in my opinion have the biggest impact on the e-sports phenomenon today and are crucial for describing the electronic sports scene in Eastern European countries. The first is e-sports perceived as instrumental play; second, the role of its fans; and third, the evolution of specific e-sports genres and their relation to the present forms of electronic sports as a spectacle. All of them contributed to the rapid growth of the e-sports scene in Poland during the last few years and are key concepts in understanding the potential ways of development of the whole scene in the eastern part of Europe. Methods used to gather data involved participant observation, including, but not limited to “active looking, (...) informal interviewing, writing detailed field notes” (DeWalt & DeWalt, 2002, p.vii).

Instrumental play and the mechanics behind the scenes

Before I start taking into account various media involved in the making of a modern e-sports spectacle, I have to repeat the now widely accepted general notion regarding ‘media’ as a whole:

“Media can no longer be dismissed as neutral or transparent, subordinate or merely supplemental to the information they convey” (Mitchell, 2010, p. vii).

This sentence, paraphrased by Mitchell after Friedrich Kittler, is an important milestone in understanding the electronic sports phenomenon. In e-sports, software is a means of communication, but it is supervised by many scrutinous

procedures so it is not prone to hacks, cheats and exploits. That being said, at the foundations of a successful electronic sports spectacle lies a certain unpredictability of play, which cannot be reduced to mere technical skill, but makes great use of improvisation, often conveyed “despite [the] computational structures” (Taylor, 2012, loc 1921).

Therefore it is important to note the changing models of play that are connected with different e-sports titles, and the role of fans, players and technology in establishing successful international events like the IEM tournaments in Katowice described here. In order to describe a specific approach to the analysis of computer games that lies at the foundation of modern electronic sports, it is crucial to observe two spheres that compose it: one that describes the medium itself (with mechanics, esthetics and interface) and secondly, one that deals with various practices of play and whole cultural artifacts concerning its use. Among many different conceptualizations of games (see Malliet, 2007) one of the most relevant in the case of electronic sports seems to be the proposition of Frans Mayra. He writes about the dual structure of games—the “core” which stands for gameplay, and “shell”, which can be understood as symbolic representation (Mayra, 2008, pp.16–17). One of the goals of this paper is to analyze e-sports as a multidimensional phenomenon, which derives its social and commercial power from widening the sense of Mayra’s “gameplay”, so it is nearly synonymous with its symbolic representation. The most striking manifestation of this phenomenon is the process of transmitting live video gameplay to an audience by multiplying, dividing and assessment of the video material.

The term “instrumental play” was recently used in one of the first academic books that deal with the topic of modern competitive video games, namely *Raising the Stakes* by T.L. Taylor (2012). It refers to both practices of play and practices of spectatorship, for the latter often involve as extensive a usage of software as ‘active play’ does. As Taylor declares, e-sports players employing instrumental play would “dynamically set goals and create scenarios that allow them to refine their skills while exploring the contours of the system” (2012, loc 1866). Taking this into account, one can observe that the biggest struggle in electronic sports nowadays lies not in the games themselves—these are constantly patched and altered if any problems with gameplay or game balance occur—but in the techniques used in transmitting the gamer’s on-screen play to the broader audience as seamlessly as possible, without hindering the spectator’s experience. The “core” according to Mayra would refer in the first place to a ruleset, often internalized in favour of more “visible” and socially meaningful parts of the game concerned with the “shell”. However, the set of rules is a constitutional feature of every e-sports ti-

tle, to the point where esthetics and meanings derived from on-screen representations take secondary roles in favor of scrupulous adherence to the game rules. One vivid example can be the game of *StarCraft II*, where even top-viewed streamers (who also happen to be professional competitive gamers) deliberately lower the graphics quality during broadcasted sessions, as it enables them and the majority of more rule-oriented viewers to easily follow the obscure tactical trivia that happen during fast-paced gameplay on high levels. During the Katowice IEM's *StarCraft II* competition in 2013, three screens were used, each covering different parts of gameplay. Two of them transmitted POVs of each player, and the third—the biggest one—presented material chosen by the game observer in strict cooperation with the commentators, which was simultaneously transferred to the official viewers of the internet stream channel. That one essential material was vastly different than the view of the game on each of the players' screens, as its main purpose was to highlight the most crucial part of the map (much bigger than the players' on-screen space) and entertain the viewers as well as inform them about the outcome of the match. The two additional screens require much less maintenance from the staff in order to be broadcast properly than the main screen, as the process of transmitting POV coverage is fully automatized in synergy with the game engine. Most professional players tend to employ very quick switches between different parts of the map views during their gameplay, which would probably be next to unwatchable without a built-in engine lag to smoothen such transitions for the viewers. During both of the IEM events in Katowice, the panel of pre- and post match experts was assembled to assist the stream viewers, as the audience in Spodek heard only the commentary from the two sportcasters taking care of live coverage during matches. That is also one of the differences between the European and Asian scene, where experts and commentators are usually the same people. One small, but notable innovation was introduced during the IEM in 2014, where *StarCraft*'s two POV-dedicated screens changed from horizontally to vertically oriented rectangles, thus presenting silhouettes of players' and sponsors' logos rather than actual gameplay. Taking into account the gradual loss of interest in the real time strategy spectrum of e-sports, this fact can be interpreted as a sign of switching from technically-oriented broadcast to a more entertainment-based approach.

Position of fans

Analysis of the role of audience in game studies actually has a long history, involving such breakthrough texts as John Fiske's *Video Pleasures* chapter in

Reading the Popular (1989, pp. 63–76), where “people watching others play video games” acquire an important role in establishing a new, subversive strategy of spending free time contrary to capitalistic principles that form foundations for the arcade machines’ monetization model. In the PC era numerous academics (see Newman, 2008; Scully–Blaker, 2014; Juul, 2010) started to see the spectators as important contributors to the existing model of gaming culture, but the complicated relationship between ‘players’, ‘viewers’ and ‘fans’ in the context of e-sports demands an approach that is able to describe the very specific media convergence needed to produce a successful electronic sports spectacle. I would argue that the “instrumental play” described above is a product of negotiation between those groups of interest and the technology, which simultaneously sets borders of play and encourages stretching them to their limits. Perhaps this ongoing struggle is a secret of e-sports’ success, though it would not occur if there was no active audience to support it—the community of fans. One of the major problems with e-sports is their very vague definition: though it is generally agreed that games pretending to that title must guarantee equality of chances to win for all participants, the most important feature for the genre still seems to be the possibility for various media convergence, including (but not limited to) live internet streaming and (internet) TV broadcast. It is crucial to note that a wide variety of electronic sport titles, which include games belonging to such different genres as real-time strategies and fighting games, are considered as such mainly because of their economic potential, which is strongly correlated to the number of their fans. E-sports nowadays are in a very different place than they were merely a few years ago—the phenomenon grew stronger due to the activity of fans, whose numbers attracted advertisers and investments. Fan support stimulated market growth of companies which focus on e-sport peripherals and equipment, simply because e-sport enthusiasts buy products aimed at the niche of competitive gaming (see Gaudiosi, 2014). However, Polish companies generally do not take advantage of this kind of commercial support, as they do not offer products in the electronic sports segment. The consequences of these facts were easy to observe during both of Katowice’s IEM tournaments in 2013 and 2014, which happen to be one of the most professionally organized e-sports events not only locally, but worldwide. After the successful IEM finals in January 2014, the Electronic Sports League decided to grant Katowice rights to organize the IEM World Championships in March 2015. At the time of writing this article, some reports (see Oelschlägel, 2015) show significant viewership increase for Katowice 2015’s major events, such as the *Counter-Strike: Global Offensive* tournament, which further supports

the thesis of steadily growing fan interest in the Polish e-sports scene. With the audience numbers estimated at round 73,000 (Johannes, 2014), the 2014 IEM's facilities were aimed at people not only interested in the media coverage, but in the strategies and craftsmanship employed by e-sport athletes. The blurry border between fan and player comes from something more than participation in affective economy environment, where fans are at the same time critics, gatekeepers and even content providers (see Jenkins, 2006). The difference between 'classic' fandom and e-sports enthusiasts lies in the specific media and social narration that helped e-sports to achieve its current status. Computer game fans often share their time, work and knowledge to improve the product they love and the titles they play, but in the market of e-sports' most successful games stem directly from fans' own inventions. This phenomenon goes beyond standard crowdsourcing techniques employed by other media corporations, be it TV stations or other providers of electronic entertainment. This notion goes as far as the fact that currently the majority of popular e-sport games are basically the product of fan invention. Perhaps one of the most telling examples involves Minh "Gooseman" Le and Jess "Cliffe" Cliffe, who in 1999 made a hugely popular mod for *Half-Life* named *Counter-Strike*. It proved to be one of the titles whose next iterations have a long history of presence in the e-sport environment. Similar cases are games like *League of Legends* and *Dota 2*, which both introduced new, team-based mechanics to the e-sports genre, and which trace their origins to a fan-made map for the real-time strategy game *Warcraft III: Reign of Chaos*. The impact of fans' modifications is visible also in one of the most popular e-sports games, as 'Dota' stands for 'Defense of the Ancients', a name of the aforementioned fan-constructed map and a modification of *Warcraft III*. Though *Warcraft III*, a successful e-sport title itself up until a few years ago, is no longer played at a high level, the games which stem from its fanbase's creativity helped to form a new genre—MOBA, Multiplayer Online Battle Arena. Both *League of Legends* and *Dota* belong to that genre. Having said that, several studios (including Blizzard and Electronic Arts) faced accusations that they were taking business advantage of players' modding activity, often described as a form of unpaid work (see Kücklich, 2005). Such actions are already a subject of criticism from left-oriented academics, who portray the major computer game companies as tools for the proliferation of social and economical inequalities in the global capitalist market (see Dyer-Witheford & de Peuter, 2009).

Local narrations, sportsmanship and barriers of entry

T.L. Taylor states that “the underlying structure of the scene is not based in locality”, so “constructing fandom (and thus spectatorship) looks quite different when the team is not actually from anywhere” (Taylor, 2012, loc 4252). Such an observation may be accurate in the context of the majority of mid and high-profile *StarCraft* tournaments such as MLG or DreamHack, where competing players are judged solely by their performance. If any additional factor influencing audience predilection is present, it often involves the individual character traits of each e-sport persona and in-game race (in case of *StarCraft*: Protoss, Terran and Zerg) they excel at. The case with both aforementioned events in Katowice is quite different, to the point of stirring outbursts of national pride normally unseen in the e-sports communities, even in the case of *StarCraft* tournament. In fact, one of the most spectacular events inspired by the audience was the presentation of a gigantic Polish flag on tribunes during the *StarCraft II* finals in 2014. It was even more special and against prevalent models of rivalry presented by T.L. Taylor, because at that time none of the Polish players was present on the stage. Here lies another layer of presenting Polish e-sports fandom specifics: despite its heavy usage of national symbols, it is primarily aimed at showing the world that Poland is a good place to organise e-sports events and to promote the electronic sports business. Such narration was also prevalent in the press coverage at that time (see Maziarz, 2012). The particular occurrence involving the exposure of the Polish flag (organized by NetWars, one of the most hard core Polish *StarCraft* communities) was quite successful, as it attracted the attention of streaming / TV cameras and was subsequently transmitted (and then commented on) to the thousands of online viewers of the event.

Hosting one of the major e-sports events in an Eastern European country like Poland provoked one particular incident involving a British e-sports journalist, Duncan “Thorin” Shields. He was supposed to be one of the main commentators for *Counter-Strike: Global Offensive* tournament at the Intel Extreme Masters World Championships in 2014, but was dismissed from this function by the Electronic Sports League after a series of racist and anti-Polish statements during a web talk preceding the event (see Mitchell, 2014). A swift and strong reaction from e-sports officials proved that the topic of ethnic or racial discrimination is taken very seriously, and the professional ethics of people officially involved in big media events like IEM would not be compromised. In the analysis of IEM events in Katowice it is essential to mention the differences in e-sports business models between Poland and USA, Korea and some other parts of Western Eu-

rope. The problem with developing quite hermetic community gatherings into a high-budget international tournament was dealt with by sacrificing half of the Spodek's space to the sponsors and entertainment section. The area behind the main stage was divided into stands of games and hardware companies, where attendees could play promoted titles and test new media technologies. Alongside this section there was a ministage for a small *World of Tanks* competition. All of these facilities were needed to attract sponsors, and many people from the audience actually visited the backstage that was organized in this way.

In juxtaposition with Katowice's business model, in the Pro Circuit Games for Major League Gaming hosted in North America, the companies which finance the tournaments are more interested in the constant presence of their logos during streamed broadcasts than the numbers of potential customers physically present at the place of the event. The lack of adequate business infrastructure is yet another reason that professional gaming receives a different kind of attention in Poland and Eastern Europe than in Western Europe or USA. Nowadays there is a disjuncture between the large number of fans and scarce interest in the e-sports industry from 'traditional' advertisers: companies producing computer peripherals like keyboard and mice dedicated to gamers. The prevailing reason for this is still low market penetration for equipment designed for electronic entertainment. Besides consoles and a few key components like graphic cards, the still growing niche of e-sports remains vastly unclaimed by the international corporations and big sponsor contracts, at least as far as the Polish market is concerned. Many pro players cave in to external pressure and have problems with playing according to set rules in the heavily competitive multiplayer environment of e-sports. That being said, in the past few years scandals involving top teams emerge much more often than a decade ago and have led to much bigger outcries in the fandom. One example is an exploitation of a previously uncovered map bug, the so-called 'pixel walk', during the 2014 DreamHack *Counter-Strike: Global Offensive* tournament (see Maiberg, 2014). In the aforementioned case, the surprisingly calm reaction from the official referees met with ferocious criticism from the spectators and e-sports enthusiasts, leading to a complete ban of the cheating party from big-money competitions such as DreamHack. This proves just how important implicit rules of the game are for the electronic sports audiences and, to some extent, explains their close relation to Mayra's "the core", that is the mechanical ruleset present in each title. Some of the e-sports titles played in the IEM Katowice World Championship have mechanics that not only encourage a particular type of play, but which also define the very structure of the viewership model.

Such is the case with *Counter-Strike: Global Offensive*, where ultra fast paced FPS gameplay is connected with strictly orchestrated strategies that require an extreme level of focus and game knowledge from players, commentators and spectators. In the broadcast, it leads to a situation where the first-person view from each of the team members must be taken into account only during mere seconds of gameplay when it matters the most, therefore making following a professional match practically impossible for a person not familiar with both the genre and rules of team-based gameplay. The in-depth analysis of CS:GO games reveals a broad range of skills that a player must master: “the highly localized and manually dexterous ‘ways of moving’ around virtual terrain; reading terrain ‘at-a-glance’; tacit coordination with awareness of other players; and, crucially in this case, exploitation of appearance by enemy players” (Reeves, Brown, & Laurier, 2009, p.12). It is important to note that *Counter-Strike* is therefore situated on the extreme side of team-based e-sports, and its long lasting popularity paved the way for more leisure-oriented team titles, somewhat easier to broadcast.

A more important issue regarding relations between players, spectators and content providers in e-sports is a relatively high level of entry for a newcomer to enjoy an e-sport spectacle. Basically, the more competitive the game is and the more its mechanics benefit solely a player’s skill, the more effort it requires from a spectator to enjoy it on a high level of play. Accordingly, the expansion of electronic sports in the last few years can be linked to the successful implementation of the free-to-play model in MOBA games. As well as having the highest viewership among e-sport titles on the streaming video platform Twitch.tv, the prevalence of *League of Legends* was visible also on the main stage during all of the IEM events in Katowice. While the *StarCraft* section occupied roughly one third of it, with three screens and several players’ stands, the *LoL* part sported an additional screen situated in the centre of the arena, resulting in an uneven divide of the audience space between these two major titles. The comparison between top teams in the 2014 *League of Legends* championship finals reveals significant differences in national diversity of its players. An additional reason for the growing popularity of team-based e-sports is that the Korean players are not as strikingly dominant as in other 1v1 e-sports, most notably the *StarCraft* series. In connection to the aforementioned facts, during the 2014 IEM World Championship a new game was introduced to the rather limited set of the tournament’s electronic sports games: Blizzard’s *Hearthstone: Heroes of Warcraft*. This title further develops the free-to-play model, implementing new mechanics of the collectible card game to the electronic sports scene. Facing

critique from the more conservative e-sports enthusiasts, *Hearthstone* nonetheless achieved moderate success despite being deprived of fast-paced gameplay and spectacularity. That being said, the new, carefully marketed Blizzard game also tries to appeal to the less strategy-oriented players, as it involves less decision making than a standard e-sports title and often favors careful, reactionary play at the cost of executing particular tactical moves. It is safe to state that the increased accessibility and drastically lowered entry point make *Hearthstone* a game that fully meets new business standards for an e-sport title, thus widening its potential playerbase.

Genres and evolution of e-sports titles

While new e-sports titles do not emerge so often due to the various technological and mechanical restrictions, the popularity of particular e-sports titles fluctuate constantly. Due to its connection to streaming technologies, a good way to measure the popularity of an e-sports title is to look at the statistics on the Twitch.tv channel. Such data bears a striking resemblance to the major tournaments' lineup, with the most popular titles occupying the biggest stages and gathering a significant audience both online and during live performances. At the time of the 2013 and 2014 Katowice IEMs one can observe two titles that provide the most marketing power for these events – *League of Legends* and *StarCraft II*. The first one is a free-to-play financed title that belongs to the already described MOBA genre, while the latter is a high-entry real time strategy, mainly focused on single player versus single player skirmishes. *League of Legends* is nowadays vastly more popular than its RTS competitor and apart from the aforementioned factors like a relatively low entry point, lack of necessary financial investments in the product and moderate speed of gameplay, *League of Legends* also provides surprisingly diverse competition involving players from different nations on higher levels of play. While in the case of the old hegemon, the *StarCraft* series, even regional World Cyber Games eliminations are dominated by Koreans (see official rules of SC WCS, 'About the StarCraft II World Championship Series [WCS]'), whereas the results of the 2014 IEM *League of Legends* finals include the team Fnatic (with players from France, Finland, Spain, Sweden, Germany and Estonia) and the fully American team Cloud 9 achieving second and third places respectively. With such a mixed roster of players it is arguably both easier for fans to associate with a favorite team/player and at the same time it is more convenient for big events organizers to conduct non-Korean centric enterprises, if just for the sake of logistics and business reasons. Although I still consider team-based electronic sports more independent

of region than ‘traditional’ team sports like football or volleyball, I would argue that such titles have to face potential problems concerning racial and national discrimination in an online environment, quite similarly to the *World of Warcraft* case described by Lisa Nakamura (2013). An e-sports player is a subject of constant, scrutinous observation from the audience, even in the events where physical spectators are not present as in the case of MLG Pro Circuit tournaments. Katowice’s Spodek is considered a covered stadium and has an impressive capacity, which must pose some pressure even on the most seasoned Korean e-sports veterans. In such circumstances the skill of accommodation to the new media and social environment was a crucial part of success. As T.L. Taylor notes, “whether it is in mastering one’s own reactions to the experience of competition or the nuances of embodied performance as it intersects video game play, understanding and managing yourself as an embodied actor is a central challenge for any professional gamer” (2012, loc 1824). During long tournaments such as Katowice’s 2013 IEM, there was however a place for more entertainment-oriented events, such as a *StarCraft II* multiplayer showmatch between some of the most recognizable e-sport personas, featuring both commentators and pro players, playing on stage in a non-competitive ‘free for all’ game mode. The presence of such pure entertainment-focused events involving the very professionalized and ‘serious’ e-sport that *StarCraft* is, proves that it is something more than just an inventive means of filling the time between ‘real’ matches. In the *Business of E-Sports* panel held at Georgetown University School during the 2014 Red Bull Battle Grounds tournament a group of renowned e-sports experts and practitioners talked about the requirements for a computer game to have the potential to become a popular electronic sports title (see Rubens, 2014). Among the participants were people involved in building the *StarCraft* e-sports community such as Sean “Day 9” Plott (video blogger, commentator and former professional *StarCraft: Brood War* player) as well as people responsible for business-oriented streaming and VOD services, like Ben Goldhaber, director of content marketing at Twitch.tv. They reached a conclusion that in order for an e-sport title to be successful, its gameplay needs to be relatively stress-free for new players, as this will enable them to emulate their favorite professional players as soon as possible after picking up a particular title. This discussion highlighted one of the most important factors that unite all of the electronic sports communities, which is the aspiration to play on as high a level as possible. This is of course vastly different from traditional sports, where fans rarely (if ever) find pleasure in copying the strenuous training routine of their idols. As a matter of fact, the gap between an average casu-

al player and an e-sport athlete is sometimes comparable to the gap between a Sunday jogger and an Olympics-level runner, but the medium of the computer game provides means to create a very compelling illusion of equal possibilities to play just as top Korean players do. The online e-sports communities, be it the international TeamLiquid site or Polish NetWars, dedicate much of their space to the analysis of various strategies and timings, based on actual pro players matchups, and given the fact that both fans and professionals play the same game, with the exact same rules on roughly the same equipment (for example, many top-rated Koreans still use classic mechanical keyboards from the 1990s). All of this contributes towards strengthening the fantasy of acting-like-a-pro.

Conclusion

The focus of the e-sports business seems to change from high-level entry, heavily competitive titles that are based on the 1v1 model, towards low-level entry (also in the pricing aspect), team-based and/or more casually oriented titles, the former being *StarCraft*, and the latter represented by *League of Legends* and *Hearthstone: Heroes of Warcraft*. The analysis of changes in marketing strategies and the adjustments in the IEM series portfolio of games confirm such tendencies, also proving the strong position of the fan-centered business model. The modern electronic sports games all belong to the high budget, AAA segment of the market, and their potential lies in the refined mechanics of play and the constant technical and community-targeted attention they get from the companies that are interested in promoting their popularity. The attention that the e-sports scene gets from sponsors and potential employers often results in surprising and innovative initiatives, like establishing special e-sport-related classes in one of the technical schools in Kędzierzyn-Koźle, a small city in southern Poland. It is still too soon to comment in detail on this idea, but the program of such studies involves combining the training of in-game performance with lessons about games architecture and other crucial informatics knowledge, such as programming (see Zimowska, 2015). In Simon Dor's account about the learning process behind *StarCraft: Brood War* we can read that "game researchers need also to comprehend how the game is seen strategically before analyzing and interpreting it from a representational, narrative, social, or political perspective" (Dor, 2014). As harsh as such a statement may look, it is even more accurate in the area of electronic sports, where strategy and decision-making procedures behind every second of gameplay are so tightly connected with the very basic pleasure of play. The rapid growth

of a whole electronic sports industry makes it impossible to predict what *modus* of play would eventually dominate over the others, but the true dedication and passion of its fans allows for a dose of optimism regarding its final quality.

References

- About the StarCraft II World Championship Series (WCS). (n.d.). Retrieved February 5, 2015, from <http://wcs.battle.net/sc2/en/about>
- DeWalt, K. M., & DeWalt, B. R. (2002). *Participant observation: a guide for fieldworkers*. Walnut Creek, CA: AltaMira Press.
- Dor, S. (2014). The Heuristic Circle of Real-Time Strategy Process: A StarCraft: Brood War Case Study. *Game Studies*, 14(1). Retrieved February 5, 2015, from <http://gamestudies.org/1401/articles/dor>
- Dyer-Witheford, N., & de Peuter, G. (2009). *Games of empire: Global capitalism and video games*. Minneapolis: University of Minnesota Press.
- Fiske, J. (1989). *Reading the popular*. Boston: Unwin Hyman.
- Gaudiosi, J. (2014, October 27). SteelSeries CEO Explains How Pro Gamers Can Help Gaming Companies. Retrieved April 10, 2015, from <http://www.alistdaily.com/news/steelseries-ceo-explains-how-pro-gamers-can-help-gaming-companies>
- Jenkins, H. (2006). *Fans, bloggers, and gamers: Exploring participatory culture*. New York: New York University Press.
- Juul, J. (2010). *A Casual Revolution. Reinventing Video Games and their Players*. Cambridge, Mass.: MIT Press.
- Johannes, S. (2014, March 25). Intel Extreme Masters in Katowice 2014: The Infographic. Retrieved February 5, 2015, from <http://www.eslgaming.com/article/intel-extreme-masters-katowice-2014-infographic>
- Kücklich, J. (2005). Precarious Playbour: Modders and the Digital Games Industry. *The Fibreculture Journal*, (5). Retrieved February 5, 2015, from <http://five.fibreculturejournal.org/fcj-025-precarious-playbour-modders-and-the-digital-games-industry/>
- Maiberg, E. (2014, November 29). Counter-Strike eSports Team Forfeits Victory After Using Map Exploit. Retrieved February 5, 2015, from <http://www.gamespot.com/articles/counter-strike-esports-team-forfeits-victory-after/1100-6423866/>
- Malliet, S. (2007). Adapting the Principles of Ludology to the Method of Video Game Content Analysis. *Game Studies*, 7(1). Retrieved February 5, 2015, from <http://gamestudies.org/0701/articles/malliet>
- Maziarz, P. (2012, October 5). Intel Extreme Masters 2013 w katowickim Spod-

- ku - turniej po raz pierwszy w Polsce. Retrieved from <http://www.benchmark.pl/aktualnosci/intel-extreme-masters-2013-turniej-polska-katowice-spodek.html>
- Mayra, F. (2008). *An Introduction to Game Studies*. London: Sage Publications.
- Mitchell, F. (2014, March 13). Esports journalist fired after anti-Polish tirade. Retrieved April 30, 2015, from <http://www.dailydot.com/esports/duncan-shields-thorin-poland-iem-fired/>
- Mitchell, W. J. T. (2010). *Critical terms for media studies*. Chicago: The University of Chicago Press.
- Nakamura, L. (2014). Don't Hate The Player, Hate The Game: The Racialization of Labor in World of Warcraft. In *Digital Labor: The Internet as Playground and Factory* (pp. 187-204). New York: Routledge.
- Newman, J. (2008). *Playing Videogames*. New York: Routledge.
- Oelschlägel, H. (2015, March 26). Record-breaking numbers: The ESL One Katowice infographic. Retrieved April 30, 2015, from <http://www.eslgaming.com/news/record-breaking-numbers-esl-one-katowice-infographic-1060>
- Reeves, S., Brown B., & Laurier, E. (2009). Experts at play: understanding skilled expertise, *Games and Culture*, 4 (3), 205-227. Retrieved from <http://bbproj.sics.se/mypapers/expertsplay.pdf>
- Rubens, A. (2014, September 19). Watch: The Business of eSports Panel at Georgetown. Retrieved April 15, 2015, from <http://www.redbull.com/us/en/esports/stories/1331679425215/watch-the-business-of-esports-panel-at-georgetown>
- Scully-Blaker, R. (2014). A Practiced Practice: Speedrunning Through Space With de Certeau and Virilio. *Game Studies*, 14(1). Retrieved April 15, 2014, from <http://gamestudies.org/1401/articles/scullyblaker>
- Swalwell, M. (2006). Multi-Player Computer Gaming: 'Better than playing (PC Games) with yourself'. *Reconstruction: Studies in Contemporary Culture*, 1(6). Retrieved February 5, 2015, from <http://reconstruction.eserver.org/Issues/061/swalwell.shtml>
- Taylor, T.L. (2012). *Raising the Stakes. E-Sports and the Professionalization of Computer Gaming* [Kindle Version]. Cambridge, Massachusetts, London, England: MIT. Retrieved from: Amazon.com.
- Zimowska, S. (2015, April 27). W Polsce powstanie pierwsze technikum e-sportowe. Retrieved April 30, 2015, from <http://www.chip.pl/news/wydarzenia/trendy/2015/04/w-polsce-powstanie-pierwsze-technikum-o-profilu-e-sportowym>

Ludography

Blizzard Entertainment. (2014). *Hearthstone: Heroes of Warcraft*. Blizzard Entertainment.

Blizzard Entertainment. (1998). *StarCraft*. Blizzard Entertainment.

Blizzard Entertainment. (2010). *StarCraft II*. Blizzard Entertainment.

Blizzard Entertainment. (2002). *Warcraft III: Reign of Chaos*. Blizzard Entertainment.

Riot Games. (2009). *League of Legends*. Riot Games..

Valve Corporation. (1999). *Counter-Strike*. Sierra Studios.

Valve Corporation. (2012). *Counter-Strike: Global Offensive*. Valve Corporation.

Valve Corporation. (2013). *Dota 2*. Valve Corporation.

Wargaming. (2010). *World of Tanks*. Wargaming.

Author biographies

Stanisław Krawczyk is a PhD student at the Institute of Sociology, University of Warsaw; his earlier background is in psychology and Polish literature. He is interested in the sociology of literature (especially fantastic literature) and, more broadly, in cultural sociology. His dissertation concerns the social field of fantastic fiction in Poland in the 1980s and 1990s, with a focus on literary magazines. He published several papers in Polish on tabletop roleplaying games, but his current interests within game studies lie in other areas: the Polish reception of the *Baldur's Gate* series, the history of games research in Poland, and the ways psychologists study on-screen aggression. In recent years he has been an assistant to the editor in the academic journal *Homo Ludens*, as well as a member of the organizing committee of the annual conferences of the Games Research Association of Poland.

Tomasz Z. Majkowski holds a PhD in literary theory for a dissertation on sword and sorcery fiction. He is an assistant professor at the Department of Literary Anthropology and Cultural Studies at the Faculty of Polish Studies of Jagiellonian University, in Krakow, Poland. He is fascinated by historical interactions between popular culture and ideologies. He is a Bakhtinist, currently working on a Bakhtinian framework for video game analysis. In free time, he researches fairy tales, works of H. P. Lovecraft, fandoms, and national ideologies in popular culture.

Justyna Janik is a PhD student at the Institute of Audiovisual Arts at Jagiellonian University, interested in game studies and popular culture theory, currently fascinated by posthumanism. She holds MAs in Comparative Studies of Civilizations and Cultural Anthropology.

Jan Švelch is a PhD candidate at the Institute of Communication Studies and Journalism at Charles University in Prague. He received his BA and MA in Journalism and Media Studies, respectively. His research focuses on video game paratexts, glitches, fan communities and fan cultures. His thesis will explore the reception of paratexts to analog and digital games. Besides research, he works as a freelance journalist covering video games for several Czech magazines.

Eszter Tóth studied art history, education and Spanish philology in Budapest, Freiburg and Barcelona. Currently, she is working on her PhD at the HafenCity University in Hamburg. In her research, she focuses on games which foster youth participation in urban transformation processes. In Hungary she is working in the field of built environment education. As a founder and chair of the kultúrAktív organization, she publishes children's books about cities, organizes projects and conducts research on architecture, urban development and youth. She is also the chairwoman of MitOst in Berlin, an international association which promotes cultural exchange and active citizenship in Europe and its neighboring regions.

Zdenko Mago is an assistant professor (post-doc) at the Faculty of Mass Media Communication of the University of Ss. Cyril and Methodius (UCM) in Trnava. He works in the field of game studies in relation to marketing communication, focusing on game-based marketing, especially advergaming. He holds a PhD from the Department of Mass Media Communication and Advertising, Faculty of Arts, University of Constantine the Philosopher in Nitra. In the last few years, he has participated in several international conferences and has published advergaming studies in scientific journals in the USA and Poland.

Mateusz Felczak is a PhD candidate at the Institute of Audiovisual Arts, Jagiellonian University. He is a member of the Games Research Association of Poland, interested in cognitive capitalism, e-sports, Fluxus, object-oriented philosophy and the mechanisms of modeling the reception and distribution of computer games, especially in the AAA segment. He is a member of the research/artistic group "ETC" and editor of the video games section in "EKRAŃY". He writes for the "Glissando" magazine about chiptunes and Polish experimental BM scene. He has published articles in the journals "Kultura Popularna", "Homo Ludens", "Praktyka Teoretyczna" and "Ha!art".



muni
PRESS

ISBN 978-80-210-8044-7



9 788021 080447