

The background of the cover is a close-up photograph of a board game. The board is blue with orange and grey sections. There are several cylindrical pieces in green, yellow, red, and dark blue. Some pieces are on the board, while others are in the background. There are also some cards or tokens with numbers and symbols on them. The lighting is soft, creating a slight shadow on the board.

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Cover: prototype of the board game *VivaJava* (T. C. Petty, III; 2012). Photo by Chris Norwood. Board Game Geek. Creative Commons Attribution 3.0 Unported license.

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Our layout follows several ideas developed by Edward R. Tufte.¹

¹. See, for instance, Edward R. TUFTE (2006). *Beautiful Evidence*. Cheshire (CT): Graphics Press.

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Editorial

A beginning is the time
for taking the most
delicate care that the
balances are correct.

Princess Irulan
(DUNE, by Frank Herbert)

It is a distinct pleasure to see the fruits of one's efforts. So much the better if these fruits actually result from the efforts of many people.

Acta Ludica began as an idea shared by a group of Brazilian researchers. What they had in common was an abiding interest in game studies, even before this expression was in current use. Their perspectives were very diverse; whether hailing from Philosophy, Design, Arts, Information Sciences, or any other of a number of academic subjects, their common object were **games**.

It has now been some years since they first discussed creating a journal. But *Acta Ludica* is indeed the fruit of these years of effort and discussions, brought about by all those diverse perspectives. As such, *Acta Ludica* is rather inclusive in its outlook. We have in games a common research object, but we are open to many different perspectives on this object.

As the editor of this journal, I have embraced a few ideals. The first one is to adhere to a high standard of excellence, both in my work and in the quality of published articles.

The second one is a strong commitment to not allow *Acta Ludica* to become a one-man show. I'm the first editor of *Acta Ludica*, but in two year's time I'll gladly help another to take this position. In the mean time, I will not submit articles to *Acta Ludica*, and I will not interfere in the review process.

This first issue presents two articles. The first one, by Phan Quang Anh and Vanessa Tan, from the National University of Singapore, discusses the role of profanity in video games. The second article, by Mari Erika Koskela, from the University of Jyväskylä, presents her proposal of a model for categorizing game studies publications. Both articles are followed by comments from the reviewers.

When playing a game, it is quite rewarding to spend some time preparing a great coup, that moment when all the preparatory moves come together, revealing what you expect to be a master stroke. Sometimes, this can indeed

bring about your victory.

Sometimes, the other players play their own coups and master strokes, and the thrill of the challenge climbs up a few notches.

I have played my first hand, but this game will take a long time.

Your turn. Surprise me!

And thank you for playing.

Luiz Cláudio Silveira Duarte

Editor

Play with Bad Words: A Content Analysis of Profanity in Video Games

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Abstract

This study uses content analysis as the primary method to touch upon the use of profanity in video games through a sample of 28 units released in 2015, across multiple platforms and genres. The selected games used to test are listed in the database of global top-selling games of the year and are narrative-based, with gameplay reached using walkthroughs published on YouTube. The results reveal that profanity could be used as a predictor for sales, and that profanity is dependent on the genre of video games played. In addition, with gender and video game content sharing a long history — in terms of research on the mutual bond within the two — this study provides more insights into this matter, with results revealing the use of profanity in games is also dependent on the gender of characters.

Keywords: profanity; video games; content analysis.

Introduction

From humble beginnings as a niche market in the 1980s, video games have developed to become a multi-million dollar-a-year business with a massive global influence. In 2014, the U.S. Market spent USD 22.41 billion on video games while the global market recorded USD 91.5 billion.¹ In addition, over 262 million units of video game consoles have thus far been sold, and there are approximately 900 million PC gamers worldwide.²

As well, the demographics of video gamers have also been changing. While previously video gamers have been predominantly male, now female gamers make up 48% of the gaming population, and adult women at 36% (in comparison to adult males at 35% and teenage boys at 17%) occupy the largest demographic segment in the gaming industry.³ Video games are being increasingly played by all ages, and by both genders.

It is this reason why many researchers have looked into examining the content and effects of video games, as they acknowledge that video games can potentially be a powerful influence on individuals.⁴ But, while researchers have studied violence,⁵ the stereotypical representations of gender and race — men are dominant, women are submissive, the majority of characters are Caucasian, and sexualization is rampant in video games⁶ — far less attention has been devoted to studying profanity. With research suggesting that exposure to profanity can lead to relational aggression in adolescents,⁷ it is more important than ever to examine this area of video games. Thus, the purpose of this present study was to contribute to database of knowledge regarding profanity in video games.

1. ENTERTAINMENT SOFTWARE ASSOCIATION, *2014 Sales, Demographics, and Usage Data* (2015).

2. EVANGELHO, *As Global PC Game Revenue Surpasses Consoles, How Long Should Console Makers Keep Fighting?* (2014).

3. ENTERTAINMENT SOFTWARE ASSOCIATION, *2013 Sales, Demographics, and Usage Data* (2014).

4. DILL and THRILL, "Video Game Characters and the Socialization of Gender Roles: Young People's Perception Mirror Sexist Media Depictions" (2007); DILL, BROWN, and COLLINS, "Effects of exposure to sex-stereotyped video game characters on tolerance of sexual harassment" (2008); HENNING et al., "Do Stereotypic Images in Video Games Affect Attitudes and Behavior? Adolescent Perspectives" (2009).

5. GLAUBKE, MILLER, and PARKER, *Fair play? Violence, Gender and Race in Video Games* (2001); DIETZ, "An Examination of Violence and Gender Role Portrayals in Video Games: Implications for Gender Socialization and Aggressive Behavior" (1998); GENTILE et al., "Mediators and Moderators of Long-term Effects of Violent Video Games on Aggressive Behavior" (2014).

6. SHARRER, "Virtual Violence: Gender and Aggression in Video Game Advertisements" (2004); BEASLEY and STANDLEY, "Shirts vs. Skins: Clothing as an Indicator of Gender Role Stereotyping in Video Games" (2002); BESSENOFF, "Can the Media Affect Us? Social Comparison, Self-Discrepancy, and the Thin Ideal" (2006); BARTLETT and HARRIS, "The Impact of Emphasizing Video Games on Body Image Concerns in Men and Women" (2008).

7. COYNE, STOCKDALE, et al., "Profanity in Media Associated with Attitudes and Behavior Regarding Profanity Use and Aggression" (2011).

An Overview of Profanity

In social stereotypes, profanity has been given a wide range of names, including swearing, foulness, cussing, vulgarity, obscene words, and irreverence, to name a few. Furthermore, a number of obscene gestures, which either is a movement, position, or shape of any body part that expresses vulgar meanings in some cultures could also be considered a type of non-verbal profanity, since such gestures tend to sexually and offensively be indicative — The Finger and The Corna are some examples.⁸

As utilized as a part of this study, the term profanity alludes to any profane, hostile, unthinkable, or revolting dialect as considered by society in general.⁹ It ought to be noticed that there are degrees of profanity, with a few words considered more hostile than others. A few words are viewed as minor employments of obscenity, though a few sorts are considered so extreme that they are banned from television programs. Patrick,¹⁰ who demonstrated a pioneering effort to answer why individuals swear and what procedure would incorporate which sorts of words, broke profanity down into seven classes — four of which regard religions and beliefs, one about the future, one about vulgar words, and the last, about expletive words. This strategy for arrangement appears slanted towards different sorts of faith and thus, it is not a comprehensive portrayal.

Pinker,¹¹ a linguistics scholar who tried to touch upon the motivation behind utilizing profanity, proclaimed that from a very much timed rage to an ordinary outcry of incredulity, swearing has a great deal of employments and a considerable measure of clarifications. He then offered a brief and compact typology with five sorts.

The first type is abusive swearing, which is coordinated towards another person in a deprecatory manner, whether in discussion, argument exchange, a way to express a discourteous behavior, or the utilization for insults, intimidation, or offending of others. The second, dysphemistic swearing, is the accurate inverse of euphemism — it compels the audience to consider things in a negative or provocative matter. The third, emphatic swearing, vows to stress something by either portraying its size, stature, or relationship to things around it. The fourth is cathartic swearing, and it gives receivers some mental alleviation through the open articulation of compelling feelings or a provisional escape from a distressing circumstance (i.e. swearing when coffee spills). Finally yet importantly, idiomatic swearing is the use of profane

8. ROSEWARNE, *American Taboo: The Forbidden Words, Unspoken Rules, and Secret Morality of Popular Culture* (2013); LEFEVRE, *Rude Hand Gestures of the World: A Guide to Offending without Words* (2011).

9. JAY, *Cursing in America: A psycholinguistic study of dirty language in the courts, in the movies, in the schoolyards and on the streets* (1992); KAYE and SAPOLSKY, “Taboo or not taboo? That is the question: Offensive language on prime-time broadcast and cable programming” (2009).

10. PATRICK, “The psychology of profanity” (1901).

11. PINKER, *The stuff of thought: Language as a window into human nature* (2007).

words without truly referring to the matter. Individuals who utilize this sort of swearing are simply using words to stimulate enthusiasm, to flaunt or to express to people around them that the setting is not formal.

The utilization of profanity is regularly seen as socially unsatisfactory and is viewed as an issue conduct in young people. In fact, profanity is incorporated into a few psychological tests for children or pre-adult issue conduct registration,¹² since it can be seen as the root of social externalization and self-isolation. Besides, when irreverence is utilized with the goal to hurt others, it has been distinguished as a type of verbal hostility.¹³ To explain this behavior in youths, Bandura's social learning theory has often been cited. Bandura¹⁴ noticed that the process of securing regularizing behaviors does not require direct encounter but rather can be shaped indirectly through media. Potential components identified with behavioral displays incorporate the social and physical elements of the characters, the degree to which young viewers relate to or act like them, the simplicity with which watched practices are ordered, and desires for outcomes from considered behaviors. Despite the fact that this problem is disputable, Huesmann and Eron¹⁵ assert that the "taking in" they get from the media can persevere for a long time. Within the scale of this research, video games play the role of the medium through which profanity is introduced.

In the context of video games, while recent research seems to focus on the impact of physical aggression found in its content on gamers, no exact studies have analyzed whether there are comparative and parallel impacts of verbal hostility seen under the form of profanity. In a content analysis of popular computer games, profanity, in the form of bad words, was found in around 1 in 5 games.¹⁶ In games that contained swearing acts, it had a tendency to happen often. As Potter¹⁷ clarifies, media users will more likely emulate verbal hostility in comparison to physical aggression since it is less demanding for them to model, and a few types of verbal aggression may bring about long haul mental harm. As well, a recent study conducted by Coyne and other researchers in 2011 found that young people's introduction to profanity in computer games and television was connected to their taking part in both physical and social hostility. In light of those correlational discoveries, researchers must examine the causal impacts of profanity on hostility.¹⁸

12. ACHENBACH, *Manual for the Child Behavior Checklist 4 – 18 and 1991 Profile* (1991).

13. INFANTE and WIGLEY, "Verbal aggressiveness: An interpersonal model and measure" (1986).

14. BANDURA, "Social cognitive theory of mass communication" (1994).

15. HUESMANN and ERON, *Television and the aggressive child: A cross-national comparison* (1986).

16. WILLIAMS et al., "Good Clean Fun? A Content Analysis of Profanity in Video Games and Its Prevalence across Game Systems and Ratings" (2009).

17. POTTER, *The 11 myths of media violence* (2003).

18. COYNE, STOCKDALE, et al., "Profanity in Media Associated with Attitudes and Behavior Regarding Profanity Use and Aggression" (2011).

Research Questions

Our study attempts to understand the prominence of profanity in video games. This research hopes to address a number of questions.

Profitability (through units sold) is a good indicator of video game popularity, as the higher the sales, the more times the video game was purchased and played, and thus the wider its spreading scale of influence which could also include profanity.

RQ1: Do video games with higher amounts of profanity have higher sales figures as well?

Since a number of recent studies examining the mutual relationship between violence in the content of video games and aggressive behaviors¹⁹ have been conducted, an initial thought would be that profanity might be linked to particular games genres. The more condensed violent acts and stressful footage in some genres, the higher chance to encounter profanity. Nonetheless, that does not mean that other genres of games cannot share the same probability of containing bad words in their narratives. That leads us to the second question:

RQ2: Do different genres of video games contain different amounts of profanity? If so, which ones?

Furthermore, research into profanity in the media has neglected to analyze the impact of logical variables on language expressions. Elements such as a speaker's sexual orientation, social position, financial status, age range, educational level, and engaging quality may all add to the utilization of profanity and the probability of imitation.²⁰ A large proportion of writing in Psychology concerning profanity concentrates on how males and females contrast in their utilization and views of irreverence. Scholars have recorded that men tend to swear more than women.²¹ However, even when men utilize profanity with more prominent recurrence, it does not mean that women are exceptions, showing no interest in using profanity, as Bate and Bowker²² note that females are increasingly utilizing more vulgar words than before. Nonetheless, despite the fact that use of profanity amongst women might be on the rise, it is still viewed more socially adequate for men to swear than for women.²³ Moreover, utilization of profanity is more profoundly affected by the sex of the recipient, according

19. SHERRY, "The effects of violent video games on aggression: A meta-analysis" (2001); ANDERSON and BUSHMAN, "Effects of violent video games on aggressive behavior, aggressive cognition, aggressive affect, physiological arousal, and prosocial behavior: A meta-analytic review of the scientific literature" (2001).

20. COYNE, CALLISTER, et al., "'A helluva read': Profanity in adolescent literature" (2012).

21. FOOTE and WOODWARD, "A preliminary investigation of obscene language" (1973).

22. BATE and BOWKER, *Communication and the sexes* (1997).

23. KAYE and SAPOLSKY, "Offensive language in prime time television: Four years after television age and content ratings" (2004).

to which Jay²⁴ asserts that profanity is more pervasive in same-sex communications than in blended sex communications. These statements mentioned above would lead to the third research question, which concerns the relationship between gender and profanity seen in the context of video games.

RQ3a: Are male characters or female characters more likely to use profanity?

RQ3b: Are male characters and female characters using profanity for different purposes?

Methodology

In order to address these research questions, a content analysis was employed. In terms of video games, this research method includes a number of techniques such as coding, specifying, and dissecting different components and qualities of the game's content, including viciousness, criminal content, hostile dialect, sexual action, sex, and racial comprehensiveness, to name a few, by using statistics, with which an interpretation of the results will be provided accordingly. While content analysis still has some weaknesses, as its procedure is mostly manual, and has a tendency to be tedious, monotonous, and heavy in terms of workload and focus, with the possibility to create or gather an extensive volume of information,²⁵ yet it is invaluable in giving a quantitative evaluation of diversions to supplement more subjective investigation.²⁶ In that capacity, content analysis is a vital instrument to researchers of Game Studies in particular, as well as other media issues, and it also helps administrators both in public and private sectors manage issues of regulation, evaluations and control; assists therapists in managing media impacts; engineers and distributors in delivering recreations; and folks, instructors and players in utilizing these games wisely.²⁷ For the purposes of our study, a content analysis was selected, as it would allow us to study the detailed content of video games, to record individual occurrences of profanity use, and explore relationships between profanity and other variables.

24. JAY, *Cursing in America: A psycholinguistic study of dirty language in the courts, in the movies, in the schoolyards and on the streets* (1992).

25. HOLSTI, *Content analysis for the social sciences and humanities* (1969); NEWMAN, *Videogames* (2004).

26. BOGOST, *Unit operations: An approach to videogame criticism* (2006).

27. BULLEN, KATCHABAW, and DYER-WITHEFORD, "Automating content analysis of video games" (2007).

Sampling Method

Analyzing the content of video games is often a very complex and complicated process.²⁸ Video games are massive digital worlds with enormous amounts of content, and can typically take upwards of 50 hours to complete. To analyze every second of several contemporary video games could take months to complete. Therefore, video game content analysis researchers must be selective, not only purposefully choosing games which meet certain criteria that would answer their research questions, but also deciding which is a representative section of the game to analyze as well.

Our study was no different — we also opted for purposive sampling, with some criteria inclusions borrowed from previous video game studies.²⁹ In order to examine how the video game industry uses profanity in contemporary video games, the following criteria was used for video game selection.

Sampling Criteria

Sampling by Sales. Following the lead of previous video game research, video game sales were used as one criterion for selection. Choosing profitability as a criterion for selection also excludes more niche genres of video gaming, such as “indie games,” which are developed by individuals or small teams without the financial support of the larger video game publishers (e.g. AAA industry).³⁰ Indie games were excluded from the sample as, while they can enjoy surges of popularity, they are usually limited to only a few countries (because of distribution rights, or the lack of funds to distribute it to more countries), and are generally not widely played around the world. Sampling by sales will help to exclude niche genres and smaller games that only target a small segment of the gaming market, allowing us to see the prominence of profanity in video games that have been played the most times.

Video games selected for analysis in this study have therefore been chosen based on their global sales records. To select these games, a list of Top 100 best-selling video games from 2015 was obtained from VGChartz. VGChartz is a “business intelligence and research firm” which uses different data points (e.g. game hardware sales, software sales, in-store sales) to calculate overall video game sales figures.³¹ It has been often used and cited by international news websites (i.e. Forbes, CNET,

28. JANSZ and MARTIS, “The Lara Phenomenon: Powerful Female Characters in Video Games” (2007); S. L. SMITH, “Perps, pimps, and provocative clothing: Examining negative content patterns in video games” (2006).

29. JANSZ and MARTIS, “The Lara Phenomenon: Powerful Female Characters in Video Games” (2007); SCHMIERBACH, “Content analysis of video games: Challenges and potential solutions” (2009); WILLIAMS et al., “Good Clean Fun? A Content Analysis of Profanity in Video Games and Its Prevalence across Game Systems and Ratings” (2009); DOWNS and S. SMITH, “Keeping Abreast of Hypersexuality: A Video Game Character Content Analysis” (2010).

30. DILL and THRILL, “Video Game Characters and the Socialization of Gender Roles: Young People’s Perception Mirror Sexist Media Depictions” (2007); JANSZ and MARTIS, “The Lara Phenomenon: Powerful Female Characters in Video Games” (2007).

31. *About VGChartz.*

International Business Times, Bloomberg) as well as popular gaming news websites (i.e. Gamespot).³² The sample list was generated by taking the global Top-100 best-selling video games from 2015 and applying the additional criteria listed below.

Lastly, because video game titles often appear multiple times on best-selling lists (due to being distributed on multiple gaming platforms, such as console or PC), any game title that was repeated was only analyzed once. We took the first mention/highest-rank of the video game, and coded that entry. For example, *Call of Duty: Black Ops 3* appeared four times on the 2015 global Top-100 bestsellers list, due to the fact it was released for *PlayStation 3*, *PlayStation 4*, *Xbox 360*, and *Xbox One*, but we only took the first mention/highest rank of the video game (which was #1, released for the *PlayStation 4*), and used only that entry for coding.

Narrative Focused Games. Like other forms of mass media, such as television and film, video games are categorized into several different genres, based on their gameplay interactions and game structure. The list of video game genres and subgenres can be endless, so we followed the lead of previous video game studies and used the genre list set by the Entertainment Software Ratings Board (ESRB), which is the main ratings organization in the video game industry. Action-Adventure, Fighting, Role-Playing Games, Racing, Strategy, Shooter, Survival, and Sports, are some of the main genres identified by the ESRB. Some of these genres are heavy in narrative storytelling and character development, while others are more “level-based,” casual games, requiring no long-term commitment to play — players can start and stop a game any time they choose (because there is no end goal to the game).

Jansz and Martis³³ discussed excluding certain genres from their study, namely Sports, Racing, and Fighting games, because they are “level-based,” offering no narrative from which content can be analyzed. For our study as well, we chose to exclude these genres, because with no narrative, or even dialogue, we would be unable to analyze the prominence of profanity in video games. Furthermore, we also researched each individual video game to ensure the presence of a narrative, as well as dialogue. In our research, we excluded three more titles (*Star Wars: Battlefront*, *The Elder Scrolls Online: Tamriel Unlimited*, and *Rainbow Six: Siege*), because even though they met the criteria for genre, they were purely multiplayer, meaning that it was “level-based” and had no narrative or

32. ALPEYEV and AMANO, *Nintendo Co joins smartphone era with new deal to develop games for mobile devices made by others* (2015); REISINGER, *PlayStation now brings game streaming to the PS3 at last* (2015); PEREIRA, *Best-Selling PS4, PS3, and PS Vita Games on PSN in April Revealed* (2015); FORBES, *Can Call of Duty: Black Ops III Outpace The Performance Of Previous Black Ops Titles?* (2015).

33. JANSZ and MARTIS, “The Lara Phenomenon: Powerful Female Characters in Video Games” (2007)

dialogue.

Gaming Platforms. Similar to the selection of video games by sales, top-selling video games platforms were included in the study because they also reach the largest segment of our video game playing audience. The video games analyzed in this study came from the five top-selling video game platforms: *PlayStation 3*, *PlayStation 4*, *Xbox 360*, *Xbox One*, and *PC*. Mobile games were an exclusion criterion as they are often “level-based” casual games, meaning that they do not include my narrative storytelling or dialogue.

Units of Analysis

In examining previous research studies, it can be seen that many researchers have tried to tackle what an adequate unit of analysis should be in video games. As analyzing the entire game can be time-consuming, some researchers have suggested using cinematic sequences³⁴ or the first 30 minutes or first 60 minutes of the game.³⁵ For our study, we took into consideration the suggestions of previous research studies, and chose to analyze the video game in two different sections.

The first section selected for analysis was the first 30 minutes of the video game (e.g. from the start screen or the introductory cinematic sequence). Selecting to code the introduction of the game made logical sense to us — the start of the game not only introduces the gameplay, but also information about the game world, its main characters, and the main storyline. If profanity was part of the game (e.g. how the main character spoke, or how the game narrative unfolded), then it would likely appear in the introduction of the video game.

A second section in the latter half of the video game was selected for analysis, because only examining content from the beginning of the game would be unrepresentative — there could be new characters introduced later on in the game, or there could be a change in narrative structure (i.e. the game could be told in flashbacks). The second section selected for analysis was a 30-minute segment, starting from the 85% of the video game. To obtain which second segment of the game to analyze, a random number from 50 to 100 was generated — 85, which was then translated to a percentage. Percentage was chosen as game lengths and total completion times differ — using percentage (85%) instead of time (85th minute) would allow for consistency and standardization (i.e. coding the same point in every game).

34. JANSZ and MARTIS, “The Lara Phenomenon: Powerful Female Characters in Video Games” (2007).

35. WILLIAMS et al., “Good Clean Fun? A Content Analysis of Profanity in Video Games and Its Prevalence across Game Systems and Ratings” (2009); DOWNS and S. SMITH, “Keeping Abreast of Hypersexuality: A Video Game Character Content Analysis” (2010).

In total, with both sections, 60 minutes from each video game selected was coded for analysis.

Data Collection

In examining previous research on video games, almost all researchers opted to capture video gameplay by playing the video games themselves and recording footage for coders to analyze. This is a time-consuming process that not only limits sample sizes — to get to the end of the game, the researchers would need to spend hours playing it — but also makes the material captured inconsistent, as it depends greatly on the skill of the person playing it.³⁶

Since the completion of most of the previous research on video games, however, the way in which video gameplay is captured and made accessible to others has been revolutionized. Previously, researchers had to personally capture footage, because there was not a public database of video game footage. Now, game content can easily be accessed through consumer videos that are uploaded to the Internet. Called “walkthroughs” by the video gaming community, these videos are created by expert gamers to assist others in progressing through various games. In a walkthrough, a skilled gamer “walks” through the entire game from start to finish, showcasing not only how to complete the main narrative but also side missions and any collectables there may be. Walkthroughs therefore offer video game researchers a complete recording of the gameplay, showcasing all possibilities, as well as consistency — these expert gamers are likely to know how to play most games.

To obtain these video game samples, we went on YouTube and searched for the highest-rated, most-viewed walkthrough videos of the games *without* commentary, since we are examining the content of the games, not what the walkthrough gamer is narrating.

Coding

To answer our research questions, each video game was analyzed for profanity, where each profane act constituted one unit of analysis. For the purposes of this study, profanity is defined as any offensive words or gestures, or behavior showing disrespect.³⁷ Profanity can be non-verbal physical actions (i.e. using the middle finger), verbal actions (i.e. abusive words), and nonverbal text (i.e. text on a prop, sign, or part of a text introduction).

36. SCHMIERBACH, “Content analysis of video games: Challenges and potential solutions” (2009).

37. MERRIAM-WEBSTER DICTIONARY, *Profanity* (2016).

Every instance of profanity was considered one profane act, and was coded as one entry. For example, a character saying “damn you” to another character is considered one profane act. If the second character responded by holding up their middle finger, that is considered a new profane act, and a new entry was created to be coded. In the case of words, since profanity is a fluid concept, and words which can be considered profane change from time to time, a glossary — a list of more than 1,300 English terms that could be found offensive — created by Luis von Ahn³⁸ was used as a reference. Although this list was initially built to be used as a database for a profanity filter tool that could be embedded in websites, forums, and blogs to help administrators and moderators control the content, its richness and diversity helped to identify profanity more rapidly and avoid potential disagreements during the coding process.

³⁸. AHN, *Offensive/Profane Word List* (n/d).

Variables Coded

The variables used in our analysis were also determined by our research questions, and our codebook consisted of the following variables: ESRB Rating, Genre, Sales, Game Variable, Type of Profanity, Purpose of Profanity, and Character Gender.

ESRB Rating. Each video game was coded for what age group they were deemed appropriate for by the ESRB. It was coded by the ratings identified by the organization, which were “Early Childhood,” “Everyone,” “Everyone 10+,” “Teen,” “Mature,” “Adults Only,” or “Ratings Pending.” To ensure all categories were exhaustive, we also included a “No Rating,” in the scenario that a video game was not rated at all by the ESRB.

Genre. Coders also recorded the genre of the video game as listed by the ESRB. This was done to explore if profanity was genre-specific (RQ2). The genres coded were “Shooter,” “Action-Adventure,” “Role-Playing Games,” “Strategy,” and “Survival.”

Sales. To explore if games with higher recorded amounts of profanity had higher sales figures (RQ1), yearly sales figures for each video game was also coded. Coders were asked to record the exact yearly sales figures as listed by VGChartz.

Game Variable. To explore which level profanity occurs most in-game, coders recorded the setting in which the profanity occurred. It was coded as “Game Dialogue” if profanity was verbally spoken/spoken aloud

by a character in-game, “Game Text” if the profanity is within the game text (not subtitles) as part of the game description (i.e. billboards or signs in-game, or intro cards), “Game Scene,” if the profanity is non-verbal physical actions (i.e. gestures), or “No Profanity Present.”

Type of Profanity. To explore the degree of profanity used in-game, we coded the different types of profanity used. Profanity was coded as “Mild” if the profane act is typically used in everyday life, and is only offensive to some (such as Damn, hell, boo, etc.); “Strong” if the profanity used triggered strong reactions which can deal with anatomy (i.e. asshole, dickhead), or race (i.e. nigger, negro, pinoy, chink), gender (i.e. bitch), or sexual orientation (i.e. faggot, dyke).; “Seven Dirty Words & Their Derivatives,” if the profanity used was highly inappropriate to be used in public ((i.e. Shit, Piss, Fuck, Cunt, Cocksucker, Motherfucker, Tits); “Non-Verbal Gestures” if the profanity was nonverbal, and “No Profanity Present.”

Purpose of Profanity. To explore why the profanity was used, coders also recorded possible reasons why the profane act occurred. Borrowing categories from Pinker,³⁹ it was coded as “Dysphemism” if the profanity was used to force the player to think about negative and/or provocative matters, “Abusive” if the profanity was used for abuse, to insult others, or intimidation, “Idiomatic” if the profanity was used to show off, “Emphatic” if the profanity was used to emphasize another action, “Cathartic” if the profanity was used to showcase that the character was experiencing negative emotion, and “No Profanity Present.”

Character Gender. To explore if profanity had an association with gender (RQ3a and RQ3b), character gender was also coded. It was based on a character’s physical appearance or any additional information made available to the coder in-game (i.e. another character saying “her” or “him”). Characters were coded as “Male,” “Female,” “Non-Human” (i.e. aliens, supernatural creatures, etc.), and “Can’t Tell” and “No Profanity Present.”

³⁹. PINKER, *The stuff of thought: Language as a window into human nature* (2007).

Reliability

In order to ensure reliability between the two coders, a period of training took place. Both coders worked together to create the codebook and define the units of analysis as well as the variables being coded. Once coders agreed upon the codebook, we conducted a practice test using *Watch Dogs* — an action, third-person shooter game. We selected this game because it met all the requirements

of the study, with the exception of Year — the game was released in 2014 instead of 2015. We used this game as training until a minimum score of Cohen's Kappa (k) = 0.80 was reached, and then coding for the study samples began.

Both coders coded all 28 video games selected for analysis. 6 out of the 28 games (21.42%) (*Call of Duty: Black Ops 3*, *Uncharted: The Nathan Drake Collection*, *Halo 5: Guardians*, *Gears of War Remastered*, *The Last of Us Remastered*, and *LEGO Jurassic World*) were used to test reliability. For almost all the variables, the reliability was $k > 0.90$. The only variable that fell below $k = 0.90$, was Game Variable ($k = 0.80$). These results suggest that all variables coded are reliable.

Results

A total of 28 video games met the selection criteria and were coded. Those titles are *Call of Duty: Black Ops 3*, *Fallout 4*, *Batman: Arkham Knight*, *The Witcher*, *MTG 5*, *Assassin's Creed Syndicate*, *Bloodborne*, *Battlefield: Hardline*, *The Order 1886*, *Destiny: The Taken King*, *Dying Light*, *Assassin's Creed Unity*, *Destiny*, *Evolve*, *Far Cry 4*, *Final Fantasy Type-0 HD*, *Halo: The Master Chief Collection*, *Just Cause 3*, *Mad Max*, *Middle-Earth: Shadow of Mordor*, *Rise of the Tomb Raider*, *Until Dawn*, *Gears of War: Ultimate Edition*, *Call of Duty: Advanced Warfare*, *Lego Jurassic World*, *Halo 5 Guardians*, *The Last of Us*, and *Uncharted: The Nathan Drake Collection*.⁴⁰ From the 28 video games, a total of 631 acts of profanity were identified. Approximately four-fifths of the games in the sample (82.14%, $n = 23$) were rated M for mature by the ESRB. The next most common rating was T for teenagers age 13 and older (10.71%, $n = 3$) and E for everyone (3.57%, $n = 1$). Units sales varied from \$10,740,583 (*Call of Duty: Black Ops 3*) to \$813,021 (*Lego Jurassic World*). The sales distribution was positively skewed ($g^1 = 2.93$, $SE = .097$), with a mean for units sold ($M = \$2,437,860.68$, $SD = \$2,303,086.69$) is greater than the median (\$1,735,885) and the mode (\$1,923,752).

The majority of the games in the sample (92%, $n = 23$) did contain profanity in the coded segments. Of the games that contained profanity, profanity had the highest frequency in game dialogue (98.4%, $n = 621$). Profanity in game text was found to be less than 1% ($n = 5$). Results show that profanity was most often used as cathartic means (38.2%, $n = 241$) or as empathetic means (23%,

⁴⁰ The full list of links to walkthrough clips can be found at <https://goo.gl/Teh04H>.

$n = 145$). More male characters were also coded for usage of profanity (82.7%, $n = 522$) in comparison to females (15.8%, $n = 100$). The genre with the most amount of profanity was “Action-Adventure” (46.9%, $n = 296$), while the genre with the second-highest amount of profanity was “Shooter” games (40.1%, $n = 253$).

The mean overall frequency of profanity per game for the entire sample was 22.54 instances per segment. Among the 23 games that included occurrences of profanity, the mean occurrences per game was 27.43. The “Seven Dirty Words” were found in 16 games (57.14%). The entire sample’s mean “Seven Dirty Words” occurrences per game segment was 11 (SD = 17.94, 95% CI = 4.04–17.96). Among games that contained “Seven Dirty Words” occurrences, the mean occurrences per game was 19.25 (SD = 20.24, 95% CI = 8.46–30.04). Other “Strong” profanity was found in 14 games (50%). The entire sample’s mean occurrences of other “Strong” profanity per game segment was 2.46 (SD = 3.69, 95% CI = 1.03–3.89). Among games that contained other “Strong” profanity, the mean occurrences per game was 4.93 (SD = 3.89, 95% CI = 2.68–7.18). “Mild” profanity was found in 22 games (78.57%). The entire sample’s mean occurrences of “Mild” profanity per game segment was 8.89 (SD = 10.17, 95% CI = 4.95–12.84). Among games that contained “Mild” profanity, the mean occurrences per game was 11.32 (SD = 10.21, 95% CI = 6.79–15.85).

A test of univariate analysis of variance (ANOVA) was conducted on profanity and sales to see if profanity was a predictor of video game sales. The results show that profanity and sales is statistically significant, $F(3, 627) = 7.80, p < 0.005$. A Post Hoc Tukey HSD test conducted revealed that games with higher levels of “Strong” profanity is predicted to have higher sales in comparison to games with “Mild” profanity ($p = 0.01$) and games with “Seven Dirty Words” ($p < 0.005$).

A chi-square test of independence conducted on genre and profanity showed that profanity is dependent on genre, with statistically significant results, $\chi^2(9, n = 631), p < 0.05$.

A chi-square test of independence was also performed to examine the relationship between type of profanity and gender. The relationship between these variables was significant, $\chi^2(12, n = 631) = 634.49, p < 0.05$. In addition, a chi-square test of independence was also performed to examine the relationship between purpose of profanity and gender. The relationship between these

two variables was significant, $\chi^2 (20, n = 631) = 644.18, p < 0.05$.

Discussion

This study's results indicate that profanity is largely present in the majority of top-selling game content. Only five games in the sample list did not contain any forms of profanity. Additionally, the results show that all types of profanity were present in some games rated T, and were also relatively abundant among games rated M.

The results of this study is a stark contrast to the study that inspired it — Williams, Martins, Consalvo, and Ivory's 2009 content analysis of profanity in video games — where it was reported that profanity was largely absent from the majority of video games examined. This may signal a trend towards the increasing prominence of profanity in video games over time, but more evidence is needed to support this statement. Future research should replicate this study in a larger scale, including games from the past 10 years, and begin to track changes in the prominence of profanity over time as new games are published.

The ANOVA test provides us the result that profanity could be used to predict the sales of game titles. The Tukey post-hoc test reveals that there is a significant difference between games that contain "Strong" profane words and games which consist of "Mild" and "Seven Dirty Words." That means games which include "Strong" profanity might have a better chance to have more units sold.

The results also show that there is an association between profanity and genre, with higher frequencies of all types of profanity in Shooter and Action-Adventure games. As mentioned above, since violence and profanity have a mutual relationship, the density of brutality-related acts in those two genres could build up a suitable context for profanity. However, although Ivory and Kaestle⁴¹ assert that profanity embedded in the game's content might suggest the tendency of releasing gamers' hostility expectation, the results also reveal that in most cases, characters in games would use profane words for expressing their negative emotions and emphasizing rather than utilizing bad words for directly provoking other characters, or even worse, for insulting or abusing them. This direction leads us to think that although other empirical studies did point out that the origin of

41. IVORY and KAESTLE, "The Effects of Profanity in Violent Video Games on Players' Hostile Expectations, Aggressive Thoughts and Feelings, and Other Responses" (2013).

aggressive behaviors could be traced back to the profanity in the game's content, neither those bad words *directly* irritate or kickstart violent behaviors, nor they intend to activate hostility from the beginning.

Profanity is also reported to be dependent on gender, which matches observations and assertions made by other scholars as mentioned above. However, it is important to note that computer games, especially those made for Western market and/or have Western context, normally show a tendency of male dominance. Males' taste of selection, cultural assumptions and their consumption habits have been prioritized to depict in the game content.⁴² Thus, the trend of having violence, muscle-related acts, and profanity utilization are preferred to be included,⁴³ which could be seen as a way to explain why gender has a decisive position when dissecting profanity in video games.

Conclusion

Echoing Williams, Martins, Consalvo, and Ivory,⁴⁴ there is a real need for further research on the effects of profanity on video game players. While there have been a few studies conducted exploring if there is a relationship between profanity and aggression, there needs to be more empirical research and evidence of the degree to which profanity affects players, especially since the majority of today's video games contain profanity and have characters that use it with extreme frequency. With profanity-laced games indicating that they are a predictor for higher sales, it is indispensable to examine the effects of profanity. Since our study was conducted in such a short time, the time frame did not allow us to include more data from other years in order to sketch out a bigger picture. As well, since our focus is on console games, due to their popularity in terms of profitability, further research could replicate this study by including upon handheld or mobile games. Last but not least, although narrative-based games were selected due to their content richness, level-based games might also shed new light on the matter; thus, those games should also be taken into consideration for future works.

42. PERRY and GREBER, "Women and computers: An introduction" (1990).

43. HARTAS, *The Art of Game Characters* (2005).

44. WILLIAMS et al., "Good Clean Fun? A Content Analysis of Profanity in Video Games and Its Prevalence across Game Systems and Ratings" (2009).

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Reviews

Editor's note: *Acta Ludica* is an open peer review journal. What follows are the reviews for *Play with Bad Words: A Content Analysis of Profanity in Video Games*. The authors have submitted a revision of their original paper after reading the reviews.

Reviewer: Ricardo Nakamura
(University of São Paulo)

Is this submission relevant for *Acta Ludica*, according to our focus and scope?

The research questions are relevant, deal with current issues, and may provide grounds to other research. The research method is well-defined and consistent with the research questions, requiring only a few clarifications.

The research questions and theme of the paper are clearly within the field of game studies. The paper includes new and relevant contributions.

Is the submitted text clear and well-organized? Is it well written?

There are no significant issues regarding the overall organization and clarity of the text; there are some questions about methodology, which are presented later in this review.

Does the submitted text present innovative ideas or results?

The results bring updated information about the prevalence of profanity in video games, and the research method could also be applied to further research to find trends in the amount, purpose and other variables related to profanity in video games over the years.

Further comments

The authors present a study of the prominence of profanity in video games. They have applied content analysis on walkthrough videos of 28 top-selling, narrative-based video games released in 2015. Several interesting results

are presented, especially on the purpose of profanity employed by game characters. However, there are some points that require clarification or revision, as follows.

1. It should be noted that the numbers cited by Evangelho⁴⁵ refer to the sales of one specific set of (previous generation) video game consoles; stating that "[...] 262 million units of video game consoles have thus far been sold[...]" is vague and possibly misleading. In any case, information about the number of children and adolescents playing video games would be more relevant to the discussion.
2. Coyne et al.⁴⁶ explicitly state that "[...] the current analyses do not provide evidence of causation[...]" between profanity and aggression. However, the authors cite that paper as "[...] research suggesting that exposure to profanity can increase levels of aggression[...]" This should be corrected.
3. Section "An overview of Profanity" discusses profanity only in terms of verbal expression; however, the authors have also included non-verbal physical actions in their analysis. Neither the relevance of those actions or the reasons for also including them in the analysis are discussed.
4. Since the authors mention Psychology studies when presenting research questions RQ3a and RQ3b, those questions should clearly state that they refer to male and female characters, not players.
5. The authors should also discuss the limitations of their approach and further clarify some of their decisions, especially regarding sampling. The following questions should be addressed:
 - When discussing the issue of repeat entries (from multiple platforms) it is not clear whether the authors only used videos from the corresponding platform. For instance, if only videos for the Playstation 4 version of *Call of Duty: Black Ops 3* were considered (in the example given in the paper.)
 - It is not clear how the Gaming Platform criterion influenced the sampling; furthermore, since the selected games were analyzed to ensure the presence of narrative, it is not clear why the same could not be performed in the case of mobile games, instead of stating that those are "[...] often 'level-based' casual games[...]"

⁴⁵. EVANGELHO, *As Global PC Game Revenue Surpasses Consoles, How Long Should Console Makers Keep Fighting?* (2014).

⁴⁶. COYNE, STOCKDALE, et al., "Profanity in Media Associated with Attitudes and Behavior Regarding Profanity Use and Aggression" (2011).

- A list of the analyzed YouTube videos should be provided (in the paper or as a link to an online resource).
 - Walkthrough videos often focus on completing missions, choosing the most efficient actions. The sample includes several "open-world" games. Isn't it possible that exposure of players to profanity may be higher than that observed in the walkthrough videos, as they interact with the game world in a less systematic way?
 - The first 30 minutes of gameplay might include tutorial sections, which in turn may not be typical interaction, or may not employ the same style of language (and thus profanity) as the rest of the game.
 - How did the authors measure 85% of game completion in the case of nonlinear games? Does that correspond to 85% of the playing time of the walkthrough video?
 - Which non-verbal actions were considered profanity? Did they correspond to a significant portion of the coded profanity acts?
 - How was the purpose of profanity assessed? Among the coded variables, type of profanity and purpose of profanity depend on the coder's interpretation. The authors imply that some type of coding guide was established for the type of profanity. The instructions provided for how coders should classify purpose of profanity are not clear.
6. The authors state that "[...] results indicate that profanity is largely present in the majority of game content." however their sample is limited to top-selling games, intentionally excluding independent games, mobile games.
 7. The authors do not discuss how their sampling and analysis methods relate to the ones by Williams et al.,⁴⁷ in order to allow the comparison in the Conclusion.
 8. The results from the ANOVA test on the gathered data indicate a relationship between profanity and unit sales, but the causality indicated by the authors, "[...] games which include "Strong" profanity might have a better chance to have more units sold", is arguable.

47. WILLIAMS et al., "Good Clean Fun? A Content Analysis of Profanity in Video Games and Its Prevalence across Game Systems and Ratings" (2009).

Reviewer: Rui Lopes
(Instituto Politécnico de Bragança)

Is this submission relevant for *Acta Ludica*, according to our focus and scope?

The use of profanity in video games is assessed through a rigorous and methodic content analysis. The main highlight and strong point of the article is the methodology, revealing a thorough and well supported process that leads the authors to answer the research questions using statistical analysis.

The analysis of cultural expression in video-games is within the focus of the Ludica Journal. The paper is related to the content analysis of video-games so relevant to the publication.

Is the submitted text clear and well-organized? Is it well written?

The paper is well written and well structured, composed of an introduction, an overview and definition of concepts, the definition of the research focus, the methodology and the results. The concepts and issues are introduced and used with an increasing degree of detail and complexity. The writing is logical and sequential, allowing the reader to be fully aware of all the steps of the research, the authors' options and results.

Does the submitted text present innovative ideas or results?

Although it is not very frequent the analysis of profanity in video-games, it is not a new concept. Many forms of human activity and cultural expressions are used to build the narrative of video-games, to replicate or appeal to specific target group. All of these may influence the player or the community and many have been subject to analysis.

Are the methodology and protocols described in the text adequate, and clearly presented?

The methodology is rigorous, detailed and well specified. It does not raise any question or obstacle to the replication of the experiment.

How and Why to Categorize Game Studies

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Abstract

In this paper, I discuss the existing research in the field of game studies by proposing a model that can be used in categorizing the existing studies. By categorizing the studies, the question of “What is game studies about?” can be discussed further. I have constructed a model called the 3 + 1 model, that builds on the divisions Mäyrä¹ and Juul² use in describing the game studies.

According to the 3 + 1 model, all the studies that are game studies study either game, player, or context, or the intersections of each category that are game & player, game & context, and player & context, or the nexus of all the three, play(ing). This study tests the 3 + 1 model by analyzing a set of 24 articles from the following four journals: *Eludamos*, *Game Studies*, *Games and Culture* and *ToDIGRA*. The articles are categorized according the mentioned categories, and thematized in order to discuss the themes in each category.

In result, the 3 + 1 model needs some further refining which is proposed in the results. However, the preliminary results indicate that the model could be a valid tool in perceiving the field of game studies, but both the qualitative and the quantitative analysis are needed to further evaluate this.

Keywords: categorization; meta study; game studies

Introduction

Today, “game studies” can typically be placed in two or more fields of science: the other one of them is obviously game studies, but the other or others are oftentimes the ones a researcher or a research team has. Until very recently, there has not been people graduating with a game studies degree due to the field’s young age and only recently established study programs. Although the diverse background helps in building a cross-disciplinary field of studies, the cons include a somewhat fragmented cohesion of the current topics discussed and also challenges in harnessing the fast topics across the field. In this article, I discuss the related literature and share strategies for how the field could be unified by means of categorizations.

In this article, I discuss the categorization of the game studies. This article is a summary that continues the discussion opened by the recent master’s thesis of mine, “Studying the Field of Game Studies: A Proposal Model

1. MÄYRÄ, *An introduction to game studies* (2008).

2. JUUL, *Half-Real* (2011).

to Categorize Game Studies”.³ In my master’s thesis, I represented a categorization that helps to conceive the field of game studies which builds on the thoughts of Mäyrä and Juul. I call the constructed model *the 3 + 1 model*, which was developed through a meta-analysis of research published in top game study journals. While Juul mentions two key study subjects of game studies, game and player, and Mäyrä adds the contextual frames that surround both the player and the game, the 3 + 1 model has 7 categories all together: In addition to Game, Player, and Context, there are the categories of PLAY and the intersections that are Game and Player, Player and Context and Game and Context. I call the categories by their abbreviations, thus, player is a person who plays a game while P is the player category in the 3 + 1 model. Similarly, G stands for game category and C for context category, and any combination of them (GP, GC, PC) for categories in the intersections, and the PLAY category is written with upper case (fig. 1).

3. MARI ERIKA KOSKELA, “Studying the Field of Game Studies - A Proposal Model to Categorize Game Studies” (2016).

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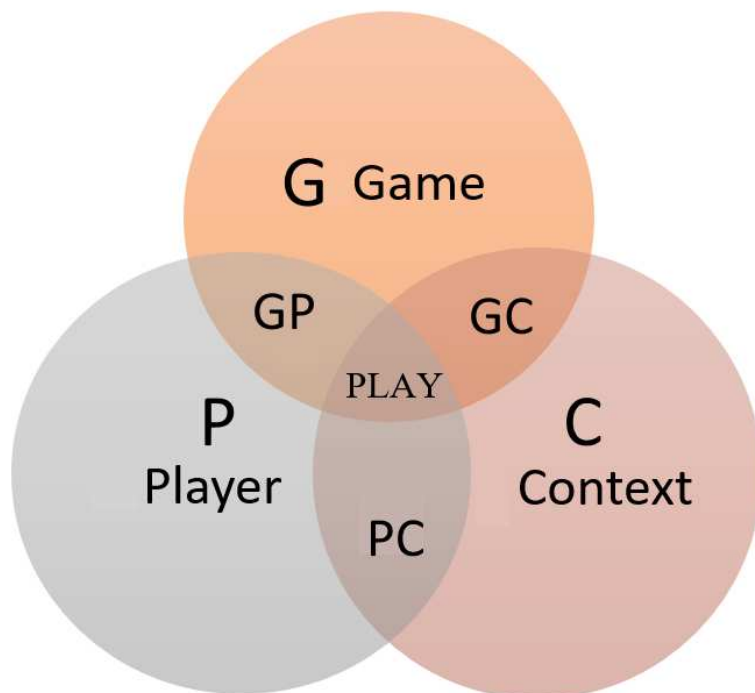


Figure 1: The 3 + 1 model.

My research material consisted of 24 articles gathered from *Game Studies*, *Eludamos*, *Games and Culture* and *ToDIGRA*. In addition to categorizing the studies according to 3 + 1 model categories, I did a thematization of articles, which helped to identify the themes that have been studied in any of the categories. My presumption was that all the chosen research articles could be categorized with the

3 + 1 model. Thus, they all would belong in any one of the following categories found in the 3 + 1 model: game, player, or context, or in the intersections of them: game and player, game and context, player and context, or play. Because of my presumption, my research questions included the following:

1. Can all the examined research articles be categorized in to the 3 + 1 model categories?
2. How do the identified themes fit into their categories?
3. Should the model be modified further, and if so, how?
4. Is the 3 + 1 model a valid tool to perceive the field of game studies?

Research Process

To analyze the validity of the proposed 3 + 1 model, I used a selection of game studies journals as sources of research material to the analysis. Melcer et al.⁴ compiled a list of current core game studies journals which were used to guide material selection. These journals included: *Game Studies*, *Games and Culture* and *Eludamos*. In addition, *ToDIGRA* which is published by DiGRA, the Digital Games Research Association, was included because of its prominence in the field. From these journals, I analyzed the first issues or numbers of 2015. In cases where there were no issues in 2015, the latest issues were studied. By choosing the first issues of the year 2015, I wanted to ensure that the articles were rather new, thus reflecting the current discussed questions of the field.

One early observation was that despite the fact we constantly discuss “game studies”, all of the sources focused mainly on digital games, only occasionally publishing non-digital game articles. *ToDIGRA* specifies “digital” in its name (Digital Games Research Association), and in *Game Studies* Aarseth states the computer game oriented nature of the journal in the introduction.⁵ *Eludamos* is named “*Eludamos. Journal for Computer Game Culture*” which strongly suggests that the focus is on computer game studies. Finally, *Games and Culture* is formally named “*Games and Culture: A Journal of Interactive Media*,” which can be interpreted to exclude non-digital games like poker or Scrabble. After choosing the research materials, I also noticed that the volumes of *ToDIGRA* and *Eludamos* are special issues, first one publishing selected

4. MELCER et al., “Games Research Today: Analyzing the Academic Landscape 2000-2014” (2015).

5. AARSETH, “Computer Game Studies, Year One” (2001).

articles from the DiGRA Australia conference, and the second focusing on digital seriality.

The study I conducted is a literature review that uses qualitative study methods. After collecting the research material that consists of game study articles, the research material was read and analyzed, and then the analyzed research material was categorized according the 3 + 1 model categories and thematized to be able to describe the contents and potential questions of each category in more detail.

In my study, I also introduced a concept of *variable*, which I used to describe the following thing: the question of whether one article can be categorized as a game, player, play or context study, or if it belongs to the intersection of some of these categories, can be answered by identifying variables in each study. These variables are the components of the study that are examined: basically, they answer the questions of whom or what were studied to acquire the answer to the research question. Thus, in a study that explores how children learn mathematics through playing, the subject of study is games' ability to teach children mathematic, while the variables may be "player", "game" or "play" depending on the way the research questions are formatted: For example, if the study asked questions like "what age group benefits most of playing games that teach mathematics" the player would be the variable, whereas if the variable was game, the study could ask questions like "what type of games are best in teaching mathematic skills" and so on. To distinguish the potential articles that were not game studies on the first hand, I asked the following question in relation to each article: Does this article produce new information about games?

I did the analysis by selecting the sentences from each article that stated the article's focus. The authors' statements of what the article is about, along with the metadata and research questions found in each article defined in which category I placed each article. An overview of the study findings can be found in table 1.⁶

6. Cf. p. 36.

Magazine	Title	Authors	Category
<i>ToDIGRA</i> 2 (1), 2015	Remembering & Exhibiting Games Past: The Popular Memory Archive	Helen Stuckey, Melanie Swallow, Angela Ndalians, Denise de Vries	C
<i>ToDIGRA</i> 2 (1), 2015	Conceptualising Inspiration Networks in Game Design	Xavier Ho, Martin Tomitsch, Tomasz Bednarz	C
<i>ToDIGRA</i> 2 (1), 2015	“Blackout!” Unpacking the Black Box of the Game Event	Steven Conway, Andrew Trevillian	PLAY or GPC
<i>ToDIGRA</i> 2 (1), 2015	Tokimeki Memorial Girl’s Side: Enacting femininity to avoid dying alone	Tina Richards	GC
<i>ToDIGRA</i> 2 (1), 2015	Affect, Responsibility, and How Modes of Engagement Shape the Experience of Videogames	Kevin Veale	GP
<i>Game Studies</i> 15 (1), 2015	Self-Reflexivity and Humor in Adventure Games	Krista Bonello Rutter Giappone	GP
<i>Game Studies</i> 15 (1), 2015	The Demarcation Problem in Multiplayer Games: Boundary-Work in EVE Online’s eSport	Marcus Carter, Martin Gibbs, Michael Arnold	PC
<i>Game Studies</i> 15 (1), 2015	Me and Lee: Identification and the Play of Attraction in The Walking Dead	Nicholas Taylor, Chris Kampe, Kristina Bell	PLAY
<i>Game Studies</i> 15 (1), 2015	No Mastery Without Mystery: Dark Souls and the Ludic Sublime	Daniel Vella	G
<i>Eludamos</i> 8 (1), 2014	From NES-4021 to moSMB3.wmv: Speedrunning the Serial Interface	Patrick LeMieux	PLAY
<i>Eludamos</i> 8 (1), 2014	“Tap, tap, flap, flap.” Ludic Seriality, Digitality, and the Finger	Till A. Heilmann	PLAY
<i>Eludamos</i> 8 (1), 2014	Prolonging the Magic: The political economy of the 7th generation console game	David B. Nieborg	GC
<i>Eludamos</i> 8 (1), 2014	Finishing the Fight, One Step at a Time: Seriality in Bungie’s Halo	Jens Bonk	GC
<i>Eludamos</i> 8 (1), 2014	“Did you shoot the girl in the street?” — On the Digital Seriality of The Walking Dead	Maria Sulimma	GC
<i>Eludamos</i> 8 (1), 2014	Seriality’s Ludic Promise: Film Serials and the Pre-History of Digital Gaming	Scott Higgins	C
<i>Eludamos</i> 8 (1), 2014	Types and Bytes. Ludic Seriality and Digital Typography	Lisa Gotto	G
<i>Eludamos</i> 8 (1), 2014	Digital Seriality as Structure and Process	Dominik Maeder, Daniela Wentz	C
<i>Eludamos</i> 8 (1), 2014	The Eternal Recurrence of All Bits: How Historicizing Video Game Series Transform Factual History into Affective Historicity	Tobias Winnerling	G
<i>Eludamos</i> 8 (1), 2014	Gandalf on the Death Star: Levels of Seriality between Bricks, Bits, and Blockbusters	Rikke Toft Nørgård, Claus Toft-Nielsen	C
<i>Games and Culture</i> 10 (1), 2015	Art Video Games: Ritual Communication of Feelings in the Digital Era	Carlos Mauricio Castaño Díaz, Worawach Tungtjicharoen	GP
<i>Games and Culture</i> 10 (1), 2015	When Life Mattered: The Politics of the Real in Video Games’ Reappropriation of History, Myth, and Ritual	Sun-ha Hong	G
<i>Games and Culture</i> 10 (1), 2015	User-Generated Video Gaming: Little Big Planet and Participatory Cultures in Italy	Francesca Comunello and Simone Mulargia	P
<i>Games and Culture</i> 10 (1), 2015	From Discussion Forum to Discursive Studio: Learning and Creativity in Design-Oriented Affinity Spaces	Vittorio Marone	P
<i>Games and Culture</i> 10 (1), 2015	Beyond Today’s Video Game Rating Systems: A Critical Approach to PEGI and ESRB, and Proposed Improvements	Damiano Felini	C

Table 1: List of articles used in the research.

Analysis

In this section I present a review of the categories and their contents. Discussion focuses on describing each category and considering how the contents of each category are related. In addition, I add a brief discussion of what could be typical content in each category, how the boundaries are set — if that is necessary — and how the categorized articles relate to these.

Game

There are four articles among the research materials that are placed into this category. Let us consider the game as a category for a while: what are the contents that can be placed into this category? As the analysis proved, the history-related game study is present. This category included four articles:

- “The Eternal Recurrence of All Bits” (WINNERLING, 2014)
- “When Life Mattered The Politics of the Real in Video Games’ Reappropriation of History, Myth, and Ritual” (HONG, 2015)
- “Types and Bytes. Ludic Seriality and Digital Typography” (GOTTO, 2014)
- “No Mastery Without Mystery” (VELLA, 2015)

Both the two first articles study history-related issues, as “How games represent history?” and “history in games” are the two themes identified in these studies. If these are questions that can be asked in the G category, surely history is not the only topic. Instead, by replacing the term *history* with other words, (How games represent religion? How games represent women? Travelling in games. Poor people in games.) we can understand what kind of topics could be placed into each category, even if the topics are not studied yet.

The same applies with two other articles. The themes identified within these two articles are “interrelation of text and icon in digital games” and “aesthetics and ludic sublime in a game.” Again, we can replace the “text and icon”, and instead, study some other phenomena like the interrelation of *atmosphere and graphics* in digital games or *literature and ludic joy* in a game — and discover new subjects that fit into this category. Returning to

the original research question concerning the contents that can be placed into this category, the answer is: various, and the amount of them is countless. However, they all have a common feature — they study a game, its contents, and the way the game represents various phenomena and the world. Interestingly, these are only few examples.

Nevertheless, there are some topics that did not appear in the analysis, most notably, all the technical research is absent. This is attributed to the selection of articles included in the analysis. By studying different articles, there could have been technically oriented articles. Most likely, technical articles would have been in G category: but the studies of games with the technical orientation are not a homogenous group of studies of one type, but instead they include a wide variety of studies from game engines to 3D coding and everything in between. Thus, although there is a possibility they would have been placed in this category, it does not mean that they are all the same, but rather that this categorization may have problems with more specific themes, and may require a more fine grain categorization. Despite the lack of some themes, we can see that the present articles categorized into this section are alike and logical, and this category is useful and can help to define subjects of study.

Player

In this category, there were two articles:

- “User-Generated Video Gaming Little Big Planet and Participatory Cultures in Italy” (COMUNELLO and MULARGIA, 2015)
- “From Discussion Forum to Discursive Studio: Learning and Creativity in Design-Oriented Affinity Spaces” (MARONE, 2015)

In this analysis, there is a curious detail in research materials: both of the articles that study the player, research the topic in a context of the same game, Little Big Planet. Even so, the approaches of the articles differ. The two identified themes are “participatory practices among the players” and “learning through games”. While many of the potential themes are missing due to the little amount of research material, these two subjects are central and discussed topics.

Context

There are six studies that can be placed into this category altogether:

- “Conceptualising Inspiration Networks in Game Design” (HO, TOMITSCH, and BEDNARZ, 2015)
- “Beyond Today’s Video Game Rating Systems A Critical Approach to PEGI and ESRB, and Proposed Improvements” (FELINI, 2015)
- “Gandalf on the Death Star” (NØRGÅRD and TOFT-NIELSEN, 2014)
- “Digital seriality as structure and process” (MAEDER and WENTZ, 2014)
- “Seriality’s Ludic Promise” (HIGGINS, 2014)
- “Remembering & Exhibiting Games Past” (STUCKEY et al., 2015)

That makes the C category the biggest one, but since the amount of research material is limited, no generalizations can be made based on it. As discussed in this study, the C category is the most obscure one in a sense. “Context” as a concept does not define too well the studies categorized into it, but as it can be noticed from the analyzed articles, it is hard to define this category with any concept that would be more specific. Nevertheless, this is a little bit problematic, since it is tempting to try to fit all the studies that won’t fit in any other category into C category, even if they should not belong into C category either, and could thus prove the 3 + 1 model faulty. Thus, it is possible that this can be a reason why this category is a bit emphasized, and not necessarily representing the real situation in the field. However, there is also a possibility that this category is emphasized due to the reason found from the research material choices: When talking about a journal called *Game and Culture*, for example, it can be assumed that the cultural and thus contextual dimensions are present in articles. In addition, it is also a possibility that the amount of C category studies is the highest.

Themes involved in this category provide an interesting evolution of the history of games. In this category are topics such as a “prehistory of digital games” and “player memories of games”, as well as games’ media related connections, like in “digital seriality in web-based media” and “playful seriality across different mediums”. The only

article addressing game design can also be positioned into this category. “Conceptualising Inspiration Networks in Game Design” (HO, TOMITSCH, and BEDNARZ, 2015) discusses the “inspiration in design process.” The approach in this article is human-centric and thus the article cannot be categorized in the G (Game) category, which may seem to be a more natural placement. This is why titles alone cannot determine categorization and instead, article descriptions must be considered.

Finally, there is a good example of a C category study that is indeed game studies, but should not be positioned into either of G nor P categories: “Beyond Today’s Video Game Rating Systems A Critical Approach to PEGI and ESRB, and Proposed Improvements” (FELINI, 2015) which discusses “digital games’ age limits” as thematized and suggests new guidelines in rating the games.

Even an analysis of a limited amount of research material can show that this category is quite fragmented and consists of many different approaches. However, the analysis also suggests that there is a lot of research going on in relation to games and players, but not directly about each one of them. Therefore, the C category is necessary. With a deeper meta-analysis, it could be possible to explore what amount of studies can be placed into the C category.

Play/GPC

Articles in this category are the following:

- “‘Blackout!’ Unpacking the Black Box of the Game Event” (CONWAY and TREVILLIAN, 2015)
- “Me and Lee” (CHRIS BELL, 2015)
- “From NES-4021 to moSMB3. wmv” (LEMIEUX, 2014)
- “‘Tap, tap, flap, flap.’ Ludic Seriality, Digitality, and the Finger” (HEILMANN, 2014)

The PLAY category is indeed one of the most interesting ones in the light of this research. The original hypothesis included an assumption that the PLAY category and GPC are one and same thing. In other words, my operating assumption was that if a study of play is present, it has all three components of game, player and context. In contrast, this could be interpreted that a study in which all the three components are present is actually a study of play. However, this analysis suggests that there can be a study that includes all the three components — GPC — but is not about play. This is the case with “‘Blackout!’ Unpacking the Black Box of the Game Event” (CONWAY and TREVILLIAN, 2015). While the theme is the “game’s essence”, the article examines this concept through the lens of what’s referred to as a “Game Event.” This Game Event is not a study of play but rather of all the three components of player, game and context. This suggests that PLAY and GPC are not one and same category after all. However, the question of what defines play as play, if these three components are not sufficient to do that, is outside the extent of this study. This study is neither able to prove, that these three elements are always needed, even if that seems to be the case based on this study.

“Me and Lee” (CHRIS BELL, 2015) is a good example of this category as it discusses the decision making during playing. This article alone can suggest that PLAY category is necessary: While the player is the one making the decisions, the game is quite naturally a vital component affecting these decisions. Apart from this study, we can also assume that the context in which the play occurs can impact on decisions as well as the hardware that are used during the play. Let’s think about this a short while. The *Sims* is a digital sandbox game where you can build and decorate houses and towns, and have human characters that you *play house* with and educate and evolve their relationships. Let us now think that someone

buys the game and plays *Sims* for the first time. Most likely, in-game decisions along with reasons to make these decisions during the first play session are very different in comparison to decisions that are made, after a significant amount of game time, or if the *Sims* is played with a group, or played to consider different floor plans. With this example, it is easy to imagine how the context affects the decisions as well.

In addition to these two articles, there are the articles “From NES-4021 to moSMB3. wmv” (LEMIEUX, 2014) and “‘Tap, tap, flap, flap.’ Ludic Seriality, Digitality, and the Finger” (HEILMANN, 2014), in the PLAY category. The identified themes in these two are “seriality in speedruns” and “digitality in games and digital media.” Speedrunning means playing a game in a way that enables the fastest possible playthrough, and thus belongs in this category. With this notion, we can conclude that probably different types or styles of playing could be placed into this category. The other article discusses the concrete action of playing, including the finger movements. The physical action of playing can be a great matter of interest, when considering for instance the interconnection of sport scientists and game studies. Therefore, this category could also include “playing as a physical action” themes. No doubt there are multiple other topics that could be placed into this category as well, but even this analysis is able to indicate that the play study is an important part of the field of game studies.

Game and player

The three articles positioned into this category are

- “Affect, Responsibility, and How Modes of Engagement Shape the Experience of Videogames” (VEALE, 2015)
- “Self-Reflexivity and Humor in Adventure Games” (GIAPPONE, 2015)
- “Art Video Games Ritual Communication of Feelings in the Digital Era” (DÍAZ and TUNGTJITCHAROEN, 2015)

Of the identified themes, one included an obvious topic to this category that is “Player expectations and humor in games.” Player expectations is exactly one of the reasons why this kind of category is needed. First, it might appear that the connection between player and game is always play, but as I have discussed, it seems that play requires the third category of context (and maybe even something more than that). However, that is not the only existing connection between the player and the game, but the players’ expectations is one of the obvious, studied subjects. In addition to that, the emotions a game can create in a player is another link between these two. Both topics are studied in Giappone’s article.

Other themes identified in the analysis are “representation and communication in (art) games” and “player engagement”. Both these two themes discuss the player and game relation. The one big missing theme, which could possibly be discovered in the game and player context, is learning. Can the learning theme be categorized into this category, and are there some other missing themes? This should be studied further, with a larger amount of studies.

Game and context

In game and context category, there are four articles.

- “Tokimeki Memorial Girl’s Side” (RICHARDS, 2015)
- “Prolonging the Magic” (NIEBORG, 2014)
- “Finishing the Fight, One Step at a Time” (BONK, 2014)
- “Did you shoot the girl in the street?” (SULIMMA, 2014)

When I was formatting my master’s thesis, and designing the categories, I first considered what could be the best example of each category. One of the reasons why the 3 + 1 model is designed as it is, is that I encountered studies like “Tokimeki Memorial Girl’s Side” (RICHARDS, 2015), that discuss of a game and its impact on culture. A study of this kind is not only a contextual study, but a study of a game: but simultaneously, it is not just a study of game, but it discusses the culture and society level topics. This article is thematized with “game’s impact on culture”, but a more specific theme could be “how games modify females’ dating behavior in real world”, which is the topic it discusses. Again, this kind of a topic could be replaced with other phenomena that can be studied in relation to games. “How games modify aggressive behavior” might be one of the most asked questions in its different forms.

In addition to that article, there are three more articles in this category. All of these articles, “Prolonging the Magic” (NIEBORG, 2014), “Finishing the Fight, One Step at a Time” (BONK, 2014), and “Did you shoot the girl in the street?” (SULIMMA, 2014), discuss a specific game and examine the relation of that game to society, culture or other contextual frame. The discovered themes are “the nature of triple A-games”, “seriality in one game series” and “seriality in production, reception and game-play”. As these themes indicate, one of the analyzed journals, *Eludamos*, was a theme number of serialization. Putting that aside, we can notice that GC category includes articles that discuss not only game contents, but the game as a product and a product distribution from the designers’ end to the customers’ consumption as well as how this product can be valued. Although there are only four articles in this category, they give a good general review of what could be placed in this category.

Player and context

Finally, there is a player and context, alias PC category. The article placed in this category is

- “The Demarcation Problem in Multiplayer Games”
(MARTIN ARNOLD, 2015)

It discusses the “demarcation of social rules in MMORPG’s” (MMORPG is an abbreviation of “massively multiplayer online role-playing game”) as it is thematized. Again, we can replace some words and end up with themes like “negotiating play tactics in PVP’s” to understand what kind of themes could be placed into this category. What kind of other studies could have been placed into this category? “How players tell about the games they play to other players and to non-playing friends?” could, for example, be among the topics within this category. The limited number of articles positioned in this category might be only random and not an aggregated reflection of the field, since the sample size is small, however this provides entry to another area of future study. Although the number of articles in this category is very limited in this analysis, it seems that PC category is not unnecessary, and a further research can discover new kind of approaches to it.

Findings

In this analysis, the focus has been on individual articles. While the articles were chosen for the analysis without a previous knowledge of the contents of each journal, there are certain limitations within this method: For example, can we be certain in advance that the analyzed studies are game studies? As the purpose of my analysis was to test and discuss the 3 + 1 model's validity, we must be certain that the research materials consist of game studies: otherwise, the results could indicate that some of the research material articles could not be categorized. We would not know if this is due to a flaw in the model or because the article was not indeed a game study, and the model worked properly. Of course, we can also discuss if the model should even be used to analyze individual articles, or merely kept as a theoretical presentation of the field. What is the value of analyzing individual articles? Although these questions were beyond the scope of this study, the value of analyzing individual articles hopefully extends beyond validity testing of the no 3 + 1 model to also aiding in the positioning of one's study to the field. This could potentially also help highlight the connections and relations it may have in relation to other studies in the field of game studies.

I attempted to construct my study and the 3 + 1 model in a way that any issue published in any given year would qualify within the framework. Thus, replication is possible with any given research materials. Analyzing the articles was not as straightforward as I expected. The three separate subjects of study — game, player and context, are overlapping⁷ for a reason. In many of the articles, it is hard to tell the subject of the study precisely, because it can have elements of all the three, and sometimes the different variables are inseparable. A misinterpretation can have an effect on the results.

⁷ MÄYRÄ, *An introduction to game studies* (2008).

Discussion

How does a chance of misinterpretation affect the results of the study, then? The purpose of this analysis lays within testing the 3 + 1 model, and not within doing a categorization to these exact articles. Being mistaken, then, however unfortunate, wouldn't overly skew the results, unless there was a recognizable pattern of misinterpretations. In that case, the misinterpretations should of course be discussed in relation to model's validity. In the more extensive analysis included into my master's thesis, I try to explain how I positioned each article to their categories, but in addition to misinterpretations, it is in a nature of qualitative studies that somebody interprets the contents differently. Fortunately, the study and the analysis were not so much about categorizing a certain set of articles, but about creating a model and testing it in practice.

Throughout the analysis I followed the next principle: if the studies focused on the player as someone who plays a game, I placed the study in the P category. Likewise, if the focus of study was on players and their actions or attitudes etc. as a community or on a cultural level, the studies were most often positioned into the C category. Is this a rational division? With this analysis, the question cannot be answered. It can be assumed, that this kind of a division positions methodically similar articles to their own groups, but further research must be made to find out if this is the case.

So far, I have discussed about the subject and variables of each study. However, the analysis revealed that there can be more issues that should be considered when analyzing the articles and categorizing them. An example of this is an article: "Prolonging the Magic" (NIEBORG, 2014). This study discusses Triple-A games and uses *Call of Duty* as an example. While this study produces information of *Call of Duty* branch, it does not examine *Call of Duty* as a game, but as an example of serialization and an object belonging into triple-A class. Is this a G category study then? Or does it belong to C category? In the analysis, I concluded that it belongs to GC category. However, different interpretations are possible. I categorized the articles based on the variables, as explained in the methodology section. It is not always easy to define the subject of study and the variables: For this evaluation, I asked if the study produces additional information about its subject. In this article, additional information of a game, *Call of Duty*, is produced. However, other inter-

pretations could be possible as well. The way in which the subject of study is positioned in the article affects the categorization: player is not always in a player position, but sometimes a forum writer, designer or something else. When categorizing articles, the position of both, subject and variables, should be considered as well.

Both the volume of *ToDIGRA* and the volume of *Eludamos* were unique considerations. The theme of seriality seems over emphasized in my data, and that is because the *Eludamos* analyzed volume was a special issue of digital seriality. The analyzed volume of *ToDIGRA* was a collection of articles from the Australian DiGRA conference. How could a different kind of research material have affected to the study? Because this is not a quantitative study, the number of topics in certain categories is not interesting. Choosing different research materials could have affected the way the studies are situated in different categories, but since that is not significant in the context of this study, the research material chosen for this study served its purpose despite its area specificity. It must still be noted that the themes reflect the research materials' contents rather than the topics of game studies. They should not be considered to represent the field of game studies.

An additional limitation associated with the C category, is that it is too wide, which makes it difficult to describe the studies belonging to C category. It would be advantageous to explicitly define why an individual study belongs to the C category, but too often the reason seems to be that it won't suit any other category, and still is a study that produces additional information of games, playing or players — or all these three. Quite obviously, a question like “how does the gamer community treat women” belongs to issues that should be, and is, understood as a content of the field of game studies. But a question of this kind cannot be categorized into a P or G or PLAY categories, there must be an additional category that includes this kind of questions. Therefore, the C category is necessary, even if it resembles a trashcan where all the topics that cannot be categorized into any other category are dumped. Is that a problem, then? It is, and it is not. To help the new researchers and students develop a comprehension of the field, there should not be a category of “others”, at least not a wide one: thus, while the intersections (PC and GC) help in defining the subjects of study with a greater accuracy, there is still a wide variety of “context” studies.

Perhaps the most significant limitation of the 3 + 1

model lies at the intersection of all the three categories, GPC or PLAY. After analyzing all the articles and discussing all the categories, it appears that the PLAY has all the three dimensions: There is a player, and a game, and a context in which the playing happens: This context is both physical and psychological, it is individual and social; it can be various things. The research material supports this claim, as the studies categorized into the PLAY category did indeed have all the three mentioned dimensions. However, with the limited sample size, this topic must be further examined. In addition, the other way around there seems to be studies that discuss all the three categories of game, player and contexts, but the actual PLAY component is missing or non-significant. The limitations discussed in this section provide a rationale for re-evaluating the model's visualization.

Revised 3 + 1 Model

A revised version of the 3 + 1 model can be found in fig. 2. This depiction, which was designed based upon a careful analysis of the prior version's limitations, more effectively illustrates the connections in the field and their interrelations. In this model, the PLAY is surrounded of all the three elements, but is not equal to them. The intersection of GPC categories is not necessarily play, as it was in the original version. Thus, the model is better able to describe how different sections are positioned in relation to each other. With this modification, the intersection of all the three categories can examine player, game and context even if the focus is not on playing.

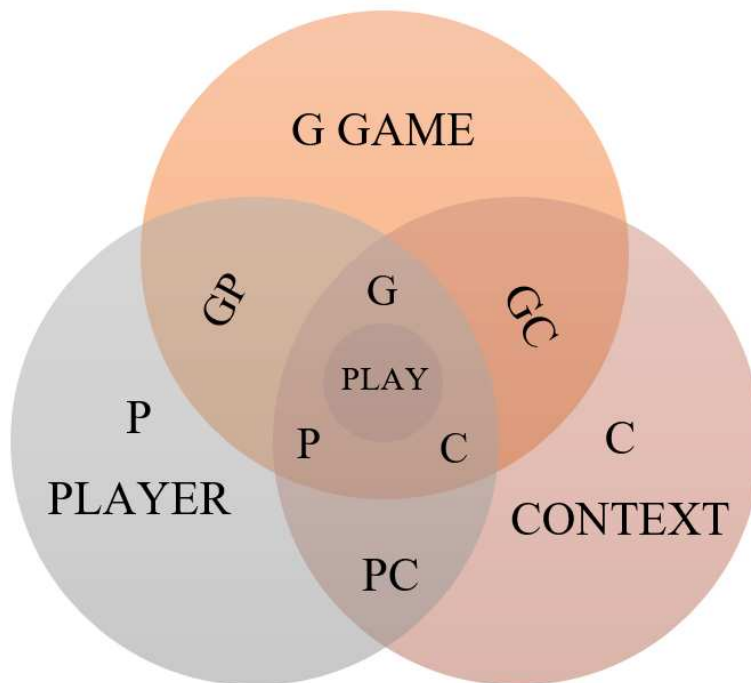


Figure 2: Revised version of the 3+1 model.

Conclusion

Playing seems to be a profound part of our lives. Yet, only one form of playing was discussed within this study. As digital games are still a young form of entertainment, and constantly reforming with new inventions such as augmented reality games and some of the older inventions finding their route to market — 3D glasses as an example of this — it is obvious that a study focusing on articles discussing digital games in late 2010's will soon be outdated in a way or other. Does this notion mean that it is not even worth of try to conceptualize a field but rather we should wait and see when the development stops? Certainly not. Rather, any model or visualization developed to capture and describe the field should be either able to follow its time and respond into changes, or kept as a portrayal of the times when it was constructed. The constant change in study fields and in the world we live in must be acknowledged and responded to. As discussed earlier in this study, we can assume that the subjects of study are somewhat stabile, but are they eternal? Definitely not. Thus, the categorizations illustrate the current situation in the field of game studies.

As Aarseth⁸ writes, game studies is a field that is hard to define. Making a definition can, however, be beneficial, if it can be successfully made. By this preliminary categorization, I hope that I can help in defining game studies, and throughout the definition, help to develop the field further by sparking conversations over the categorization model. We are — still — safely nested in our home bases, as Williams⁹ writes. Maybe it is time to start exploring, not only in the virtual worlds (but in them, too!), but also in the real world where we can build fruitful connections and offer new perspectives to the field of game studies by collaboration.

8. AARSETH, "Meta-Game Studies" (2015).

9. WILLIAMS, "Bridging the methodological divide in game research" (2005).

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Reviews

Editor's note: *Acta Ludica* is an open peer review journal. What follows are the reviews for ***How and Why to Categorize Game Studies***.

Reviewer: Nelson Zagalo
(Universidade do Minho)

Is this submission relevant for *Acta Ludica*, according to our focus and scope?

The article presents an approach to the categorisation of papers in the domain of Game Studies.

This is a metaper on game journals.

Are the methodology and protocols described in the text adequate, and clearly presented?

The model presented is not wrong, but it cannot also be right, and this is a major handicap of the paper, more than of the model itself.

The author should have stated why this model is needed, because models serve causes, not abstractions.

The model is very broad, and categories are not enough discussed. The paper would gain with an in-depth discussion on the building of the model itself.

The case to support the model is very thin, only 24 papers. More even because the study of each object is done at surface, so no problem in running the test in a hundred or more papers.

Further comments

The article presents an approach to the categorisation of papers in the domain of Game Studies. At first sight it could be relevant, but the author never explains why it is important, even if stated in the title.

The paper presents a set of problems, that make the decision to accept it or not difficult.

As it is, we've only an approach to the categorisation, its lacks motivation, lacks model theoretical support, lacks enough empirical base.

Reviewer: Thiago Schaedler Uhlmann
(Pontifícia Universidade Católica do Paraná)

Is this submission relevant for *Acta Ludica*, according to our focus and scope?

This paper describes an exploratory study about a possible methodology for game studies categorization, based on three main elements: game, player and context (and interactions based on these elements). This methodology (3 + 1) proposes this categorization based on an essentially qualitative analysis of research paper content, such as subjects and objectives.

The author analysed 24 papers from 4 game research journals: *Eludamos*, *Game Studies*, *Games and Culture* and *ToDIGRA*, and performed a categorization of these papers. The author concluded on proposing an enhanced model, and on the need for further game research definition and categorization studies.

This paper does not propose to be a conclusive study — it proposes the exploration of a possible method for game studies categorization, which can be improved or tested in further research. The relevance of the study is that the proposed method (3 + 1) can be used, for example, as an accessory tool in systematic reviews in game design, being of interest for researchers in game design or game development methods.

Is the submitted text clear and well-organized? Is it well written?

The author should use a more objective text style — instead, she uses a more personal and intimist language, which can generate, in more conservative readers, erroneous interpretations about the credibility of the analysis.

Does the submitted text present innovative ideas or results?

The author proposes one possible method for game research analysis — but this method reflects a perception of the author about how game studies can be classified, and may not be suitable in other situations (ex.: serious games analysis). Further tests, preferentially conclusive tests, considering wider samples, should be done.

Are the methodology and protocols described in the text adequate, and clearly presented?

The author should clarify the methods used to classify the research papers on each category. As she suggests in the text, this classification was predominantly based on the personal experience and perceptions of the researcher.

Further comments

As mentioned before, the author should clarify the methods used to classify the research papers on each category. As she suggests in the text, this classification was predominantly based on the personal experience and perceptions of the researcher.

Reviewer: André Luiz Battaiola
Universidade Federal do Paraná

Is this submission relevant for *Acta Ludica*, according to our focus and scope?

The submitted article presents a systematic categorization of Game Studies. The three root categories in this system are Game, Player, and Context, which may be combined to create other categories.

In my opinion, this article allows for a better formalization of game studies, contributing to a better understanding and to a greater precision in these studies.

Does the submitted text present innovative ideas or results?

The departing point for this research was the work of Mäyrä¹⁰ and Juul.¹¹ Since these references are over five years old, it would be useful to emphasize the originality of the proposal in the submitted article.

¹⁰. MÄYRÄ, *An introduction to game studies* (2008).

¹¹. JUUL, *Half-Real* (2011).

Are the methodology and protocols described in the text adequate, and clearly presented?

The research methodology is not presented clearly in the text. For instance, the research included a systematic literature review, but this is not discussed in a clear manner.

Further comments

The article is quite interesting and it may be published as is. However, it lacks emphasis on the originality of the proposal, and it also lacks a clear exposition of the methodology.

<https://actaludica.com/>