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

Phan Quang Anh
phanquanganh@u.nus.edu
National University of Singapore

Vanessa Tan
tansvanessa@gmail.com
National University of Singapore

Acta Ludica
International Journal of Game Studies

Vol. 1, nº 1
June 2017


Bibtex: @article{phan2017profanity, author = {Phan Quang Anh and Vanessa Tan}, issn = {2527-0257}, journal = {Acta Ludica}, month = {jun}, number = {1}, pages = {7–30}, title = {Play with Bad Words: A Content Analysis of Profanity in Video Games}, volume = {1}, year = {2017}}

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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 videogames played. In addition, with gender and videogame 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.


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


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 Corn 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

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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, 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. To explain this behavior in youths, Bandura’s social learning theory has often been cited. Bandura 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 Eron 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. In games that contained swearing acts, it had a tendency to happen often. As Potter 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.

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 behaviors 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. 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. 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 Bowker 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. Moreover, utilization of profanity is more profoundly affected by the sex of the recipient, according


to which Jay 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, yet it is invaluable in giving a quantitative evaluation of diversions to supplement more subjective investigation.

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.

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.

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Sampling Method

Analyzing the content of video games is often a very complex and complicated process. 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. 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). 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. It has been often used and cited by international news websites (i.e. Forbes, CNET, etc.)
International Business Times, Bloomberg) as well as popular gaming news websites (i.e. GameSpot). 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 Martis 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
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 sequences or the first 30 minutes or first 60 minutes of the game. 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).

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

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, 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.”

**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. 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%,
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 Kaestle 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

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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. Thus, the trend of having violence, muscle-related acts, and profanity utilization are preferred to be included, 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, 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.
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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 Evangelho 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. 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[...]”

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• 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., 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.

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.