SAVE THE PRINCESS: DEPICTIONS OF GENDER IN INDIE VIDEO GAMES

by

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ABSTRACT

Since their initial development in the 1960s, video games have grown to become one of the most economically and culturally significant forms of media in modern society. Due to the interactive nature of video games, where players assume the role of the main character in the story, researchers have found that video games can significantly influence players. Typically, games created by large video game developers are used in these studies while independent or "indie" games have received little attention. Indie games are created outside of the formal structure of major, corporate development studios. In this thesis, I analyzed the depiction of gender in 15 of the most financially and critically successful independent video games from the past decade. More specifically, I examined two aspects of indie video games—depictions of gender and the makeup of the development team—using ethnographic content analysis within the theoretical framework of Pierre Bourdeau's concepts of field, habitus, capital, and symbolic violence. I find that most of the indie games present normative gender roles common in games from larger studios, including the hypermasculinization of male characters, hypersexualization of female characters, and the narrative trope of the damsel in distress.

I. INTRODUCTION

Since its inception in the 1960s, the video game industry has grown into a culturally, socially, and economically important form of media in modern society. Rivalling film and television, video games are played by millions; the highest grossing film of all time, *Avatar*, made $1 billion in 17 days; *Grand Theft Auto V*, the highest grossing video game of all time, reached the $1 billion mark in three days (Wallace 2014). According to the Entertainment Software Association (ESA), a U.S. based association of 33 of the largest publishers, developers, and hardware companies in the video game industry, U.S. sales of video games have more than doubled since 2006, with global sales of $71 billion in 2015 (Entertainment Software Association 2016). But with this growth has come criticism. The lack of female developers, stereotypical depictions of women, and highly-publicized controversies have all shaped the video game landscape (MacCallum-Stewart 2014; Near 2013). The prevalence of these issues continues to grow as the player-base grows. In the U.S., 63 percent of households have at least one person who plays video games regularly and 65 percent own a device that is used to play video games (Entertainment Software Association 2016). Video game players are also more gender diverse than ever before; 59 percent of game players are male and 41 percent are female (Entertainment Software Association 2016). Scholarly study has only just begun to demonstrate the social importance of video games and video game culture, but as the number and diversity of players increases, it is necessary to understand what messages the games are communicating (Dyer-Witheford and Sharman 2005).

In 1985, a plumber named Mario went on a quest to save a princess as part of a new video game. While not a wholly new or original premise, when combined with engaging game mechanics, fun characters, and a lighthearted setting, the result was one of the most culturally important video games of all time: *Super Mario Bros*. (Goldberg 2011; Harris 2014). *Super Mario Bros*., as well as its numerous sequels, helped establish Nintendo as one of the largest and most successful video game hardware and software producers over the past thirty years. I, like millions other children born in the 1980s, grew up playing the Super Mario series. As a child, the story and themes of the games were secondary to the enjoyment of playing the game; yet, upon further evaluation, these lighthearted games also helped cement specific gender norms in the foundation of game culture (Downs and Smith 2009; Harris 2014; Sheff 1994).

Although there has been a significant amount of sociological research done about the lack of women employed in the media, there is little research on women in video game development (Rudy, Popova, and Linz 2010; Smith, Choueiti, and Pieper 2014). Despite the fact that many women play video games, their participation in the creation of those games is very limited (Johnson 2013). Furthermore, most sociological research focusing on gender and video games discusses the gendered portrayal of characters in the games developed by large, "triple A game" (AAA) studios (Consalvo and Dutton 2006; Downs and Smith 2009; Jansz and Martis 2007; Lynch et al. 2016; Near 2013) and player's experiences (Cote 2015; Martey et al. 2014, 2014; Stabile 2013; Stermer and Burkley 2012). Independent, or indie, video games and their development are of sociological interest because they represent a less constrained environment than

larger development studios. Unlike games from large companies, indie developers are relatively free to create the games they want, with the visual style and mechanics they want, without the need for corporate approval. This means that indie developers can create games about topics that big studio games cannot or will not (Deuze 2007; Kondrat 2015).

This thesis focuses on the portrayal of gender in indie video games by addressing the following three questions: (1) How do indie games portray gender? (2) What gender norms are reinforced or subverted in indie games? (3) What do the portrayals of gender in indie games say about indie game development? Following the introduction to my research in Chapter I, I briefly describe the video game industry and summarize the literature related to gender in video games in Chapter II. I also provide the theoretical framework used for this project, describing Pierre Bourdieu's concepts of field, habitus, the forms of capital, and symbolic violence in Chapter II. In Chapter III, I explain the methods used to analyze the portrayal of gender in the selected indie video games. More specifically, this chapter outlines how ethnographic content analysis (ECA) was used to evaluate the portrayal of gender in three areas: narrative, player and non-player characters, and gameplay. Chapter IV contains the results from the ECA. In Chapter V, I discuss what the results mean within the broader sociological context.

II. LITERATURE REVIEW AND THEORY

The growth of the video game industry has led to more scholarly study of video games over the last decade; however, video games are still one of the least studied areas of modern culture. In 2010, Rudy, Popova, and Linz conducted a meta-analysis of 393 content analyses of gender published in 64 publications from 1978 to 2009 (Rudy et al. 2010). Upon further analysis, Rudy et al. found that *Sex Roles*, an interdisciplinary journal that has published scholarly work for almost five decades, contained the most gender focused quantitative content analyses, with 114 articles published (Rudy et al. 2010). Traditional forms of media—television, magazines, books, and newspapers—accounted for 86 percent of all gender-focused content analyses; only two articles analyzed video games (Rudy et al. 2010). While Rudy et al.'s study did not include qualitative content analyses, the disparity between the study of video games and other forms of media is striking. The two aspects of video games studied by most scholars are violence and gender. While there is occasionally overlap between these two topics, this thesis will focus on the literature pertaining to gender. The scholarly study of gender and video games can be broken into three main categories: the developers, the games, and the players.

THE DEVELOPERS

The structure of the video game industry, like many other creative fields, is best described as an hourglass (See Figure 1; Deuze, Martin, and Allen 2007). The top of the hourglass includes a small number of large, multinational corporations, such as hardware manufacturers and publishers. These corporations employ hundreds or even thousands of people, have annual profits that can exceed $1

billion, are publicly traded, and often release games in both digital and physical formats (Deuze et al. 2007; ESA 2015). The center of the hourglass includes a relatively small number of mid-sized companies that can function as either a tool for the large corporations at the top of the hourglass, or an independent agent that develop their own product. The bottom of the hourglass includes thousands of small independent studios and service agencies. Independent, or Indie, studios are made up of small groups or even individuals, do not typically release games annually, rarely provide sales data, and only distribute digital versions of their games (Deuze et al. 2007).

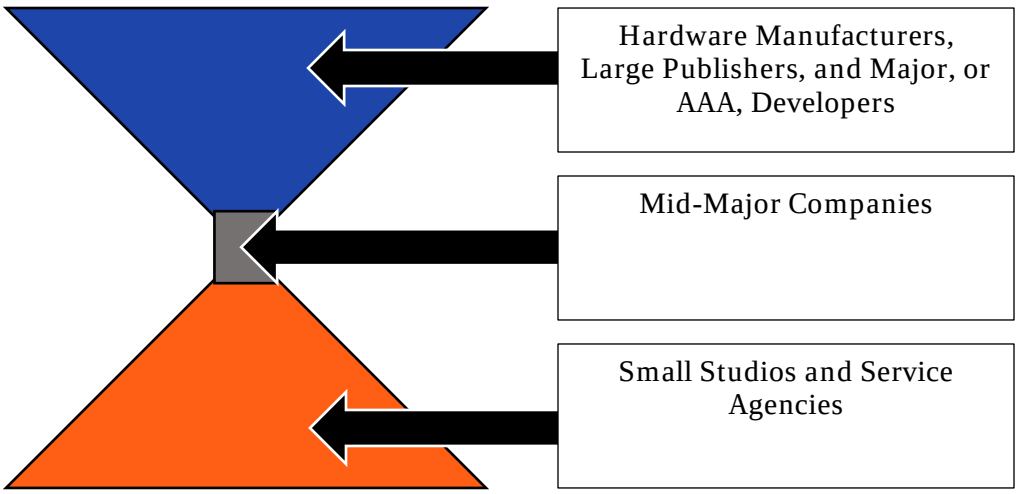


Figure 1. The Hourglass Structure of the Video Game Industry.

Within the industry, a further distinction can be made between publishers and developers. Developers create the games that are then distributed by publishers. This relationship can be complicated. Some development studios are owned by a publisher, others partner with a publisher to create a single game (or a series of games), while others may simply develop the game and release it themselves. Developers also range in size. Major, or AAA, developers are

corporations that create one or two games a year, have large budgets that can exceed $100 million, and employ hundreds of people that can be part of multiple teams working on different projects simultaneously (Deuze et al. 2007). The term AAA is "a compounded rating based on variables such as the budget and investments used for the development of the game, the quality of the production and testing process, and the performance of the game in terms of reviews and sales" (Deuze et al. 2007:336). Like the film industry, these developers are large companies or owned by large corporations, and they typically make games that appeal to a large audience. The games are released by a publisher who either owns or is in a partnership with the developer. Most major developers release physical retail copies (i.e. disc copies) as well as digital copies of their games for consoles and PCs.

Independent or, as they are more commonly known, indie developers include fewer people in the development process and create games that are much smaller in scope, budget, and length than those created by the larger developers. Because indie developers do not require huge profits to remain in business, they are able to make games that do not necessarily appeal to everyone. For example, a AAA game typically retails for $60 at the time of release. If the game had a budget of $100 million, the studio would have to sell over 1.7 million copies of the game before it was profitable. An indie game with a budget of $50,000 that retails for $20 would only have to sell 2,500 copies before it made a profit. Consequently, unlike AAA developers, indie developers do not have to make games for a mass audience. Additionally, as the technology required to make video games has become relatively inexpensive and more accessible over the last

decade, the number of indie developers has increased. The democratization of technology has also allowed developers to create and then publish their own games online on digital stores, such as Steam and Good Old Games (GOG), or partner with small independent publishers who provide marketing and distribution support for the developer (Figure 2).

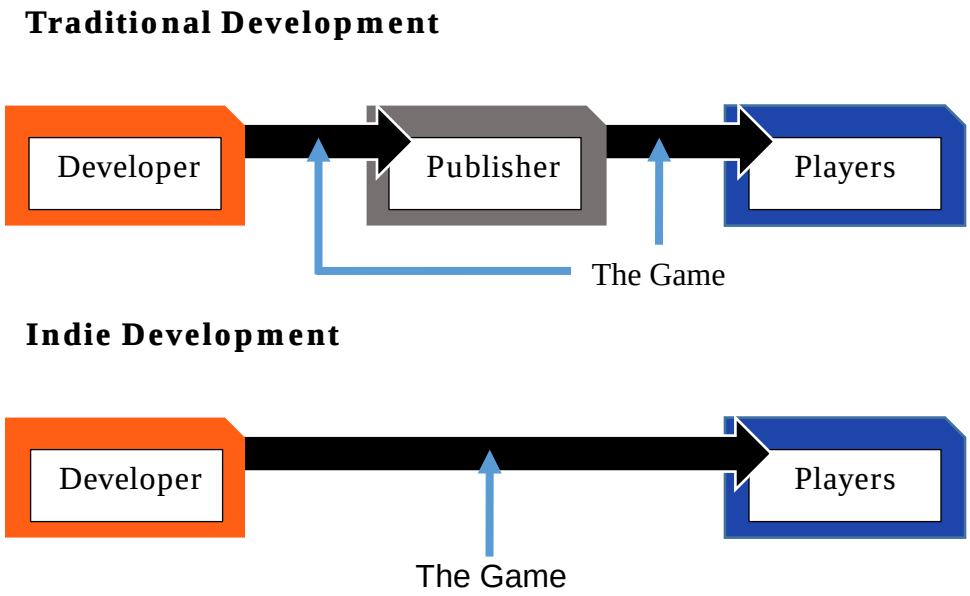


Figure 2. The Contrast Between Traditional and Indie Development.

The Independent Game Developers Association (IDGA), the largest global, professional association for individuals employed in the video game industry, conducts a survey each year to measure industry trends. With 2,928 respondents, the 2015 "Industry Trends and Future Outlook Report" provides information for four groups: developers, managers, students, and those in administrative roles. In the most recent report, the largest category of respondents, developers, made up 54 percent of the sample. Managers, students, and administrative roles made up 39 percent, 20 percent, and 7 percent, respectively (Andrei-Gedja and

Weststar 2016). Across all categories, the most prominent group was white males under 34; 75 percent of respondents identified as male, 22 percent identified as female, 2 percent identified as transgender, and 1 percent identified as other. Although the age of respondents ranged from 16 to 81, 51 percent were under 34. As for ethnicity, 76 percent of respondents identified as Caucasian, 9 percent identified as East/South-East Asian, 7 percent identified as Hispanic or Latino and 3 percent identified as black/African/African American (Andrei-Gedja and Weststar 2016).

Women make up only 4 percent of the technical positions, such as programming, in the video game industry (Miller 2013). Female participation is higher in the industry as a whole, with estimates ranging from 15 to 22 percent, but it is still low when compared to other forms of media (Andrei-Gedja and Weststar 2016; Prescott and Bogg 2013). When contrasted against other occupations that are typically considered to be male dominated—such as lawyers and doctors, where women make up between thirty and forty percent of the workforce—this small percentage makes game work highly gendered (Deuze et al. 2007; Paaßen, Morgenroth, and Stratemeyer 2016).

To better understand gender identification in the video game industry, Prescott and Bogg (2013) surveyed 454 women working in development roles, such as programmer, and non-development roles, such as human resources, in Europe and North America. Of these participants, 82 percent felt they had to be less feminine and more masculine at work. These women recognized that their gender affected their ability to work in a male-dominated workplace, and felt that, to be more successful, they would have to act more masculine. This was

particularly true in the U.S. where participants had stronger masculine identities. The literature shows that women who work in male dominated occupations are at a severe disadvantage to their male counterparts; these women often have lower incomes (Williams, Muller, and Kilanski 2012) and face more discrimination (Wingfield 2013). Unlike other male dominated professions, women who work as developers today actually make more money than their male counterparts, with an average salary of $96,000 for women versus $92,000 for men (Miller 2013). However, the fact that women tend to make more money than men in video game development is overshadowed by the fact that they make up such a small percentage of the overall workforce. Female developers may not be underpaid like many women in other industries, but they do face problems associated with working in a male dominated field (Prescott and Bogg 2011; Wingfield 2013).

One of the most significant issues for women working in a gendered environment is the perception that they are being segregated, either intentionally or unintentionally (Krais 2006; Pratt, Gill, and Spelthann 2007; Prescott and Bogg 2011, 2013). Being seen as the “other” by coworkers who are a different sex can make it difficult to connect and feel comfortable in the workplace (Cote 2015; Dyer-Witheford and Sharman 2005; Johnson 2013). This inability to connect can lead to difficulty in career advancement. In her ethnographic study of Dynevolve, a medium sized video game studio with approximately 75 employees, Johnson (2013) found that female respondents often described the video game industry as an "old boys club.” When asked why female developers seemed to face so much difficulty, their male counterparts argued that women do not have “the right

ideas” to be successful as developers and they were hired because it looked good to have some women on staff (Johnson 2013).

An androcentric world-view shaped the way developers interacted and worked in Johnson's (2013) study of Dynevolve. The male developers would often take breaks from work to play military themed games such as Call of Duty and Company of Heroes. But masculinity influenced more than just the choice of leisure activity in the studio. A majority of the artists who worked at Dynevovle were male. Within a video game studio, artists play an important role in establishing the aesthetic of the game. They help determine what the characters and game world will look like. Johnson (2013) found that the Dynevolve artists often made characters based on their own experiences and perceptions, resulting in art that was distinctly masculine. However, art is only one part of the process of creating a video game.

Johnson (2013) also found that Dynevolve’s engineering team, which was mostly men, used a cultural code common to physical sciences, computer science, and technology: technomasculinity. Technomasculinity is "associated with mastery over nature and machines through technology" and, like hegemonic masculinity, devalues femininity (Johnson 2013:591). Essentially, a technomasculine worldview assumes that men are more capable than women in technical and scientific fields.

After interviewing video game developers in Canada, Dyer-Witheford and Sharman (2005) found that the technomasculine mindset was present throughout the video game industry. Many male developers cited the "feedback loop" of games as an explanation for the lack of female developers. These male

developers argued that there are so few women in the industry because video games are made by mostly men and are played by mostly men, so it is unsurprising that there are few women who wish to enter the industry (Dyer-Witheford and Sharman 2005). The perception of video games as a male-centered profession and pastime leads to occupational segregation which, in turn, the reinforces the technomasculine mindset, discouraging women from entering technical fields and further entrenching the androcentric world-view (Prescott and Bogg 2011, 2013).

Both private foundations and government organizations have attempted to break the feedback loop through education and incentive programs. For many, teaching video game development is a way to increase participation in technical occupations (Andrei-Gedja and Weststar 2016; Dyer-Witheford and Sharman 2005; Hayes and Games 2008; Johnson 2013). In an analysis of game design education, Hayes and Games (2008) described how programs, such as Rapunsel, and Girls Creating Games, were used to increase female participation in information technology (IT) and technology education. Government programs are another potential avenue through which more women could become video game developers. Canadian provincial and federal governments offer subsidies and financial incentives for video game development (Dyer-Witheford and Sharman 2005). The effect these programs will have on the industry will take decades to fully understand; however, they do represent a growing trend of inclusion in game design beginning at a young age (Hayes and Games 2008).

THE GAMES

One of the most studied aspects of the scholarly research of gender in video games is depictions of gender. Despite the growing number of female players over the last decade, video game characters are typically white, heterosexual males (Downs and Smith 2009; Lynch et al. 2016). In a study of the 20 most popular games available on video game consoles in 2003—Microsoft X-Box, Sony PlayStation 2, and Nintendo GameCube—, Downs and Smith (2009) analyzed depictions of sexuality for male and female characters. Across all consoles, 419 of 489 (86 percent) of all characters were male and 70 (14 percent) were female. A similar pattern emerged when Downs and Smith evaluated the sex of primary characters; 88 percent of primary characters were male and 12 percent were female. In a more recent study of female game characters, Lynch et al. (2016) found that the number of primary female characters has remained relatively stable since the 1990s; however, the sexualization of female characters increased throughout the 1990s and early 2000s. This is partially due to the improved graphical capabilities of modern computers and gaming consoles; older technologies were incapable of rendering photo-realistic, 3D models common in contemporary AAA games. Instead, until the mid-1990s, game developers relied on color, hair length, and exaggerated features to convey the character's sex (Lynch et al. 2016). The shift to more sexualized characters is typified by Lara Croft.

Tomb Raider was released in 1996. Lara Croft, the protagonist of the popular Tomb Raider series, is often cited as one of the few, early female protagonists in video games (Downs and Smith 2009; Jansz and Martis 2007;

MacCallum-Stewart 2014). The Tomb Raider franchise has been praised for the inclusion of a strong, bold, independent female protagonist. However, the Tomb Raider franchise has also been criticized for the sexualized portrayal of its main character. Before the game was released, promotional materials drew attention to Lara Croft's appearance by focusing on her short shorts, tight shirt, large breasts, and thin waist (Jansz and Martis 2007; Lynch et al. 2016). Lara Croft is the quintessential unrealistic, hyper-sexualized portrayal of the female body within video games, and critics have compared Lara's hypersexualized appearance to the unrealistic body type of Barbie (Jansz and Martis 2007). But the Tomb Raider franchise is not the only video game series to sexualize female characters.

In their study of characters in video games, Downs and Smith (2009) used six indicators to identify hypersexualization: sexually revealing clothing, partially or totally nude, unrealistic body proportion, and inappropriateness of attire were used for male and female characters while female characters had the additional categories of waist and breast size (voluptuous). For female characters, 41 percent wore sexually revealing clothing, 43 percent were partially or totally nude, 25 had unrealistic body proportions, 40 percent had a small waist, 26 percent had large breasts, and 16 wore clothing that was inappropriate for the task at hand (Downs and Smith 2009). When compared to male characters, female characters were significantly more likely to be sexualized. Furthermore, secondary female characters are even more likely to be sexualized, stripping them of any real personality and reducing the character to their physical appearance (Lynch et al. 2016). The decrease in the sexualization of primary characters over the last decade does indicate some level of growing awareness within the video game

industry, but the objectification of secondary and tertiary female characters is still a concern (Lynch et al. 2016; MacCallum-Stewart 2014).

Unrealistic depictions of the male body are potentially as problematic as the unrealistic expectations that are often attributed to women (Downs and Smith 2010). While the idealized example of a woman's body primarily focuses on sexuality through physical appearance such as large breasts, a thin waistline, and little to no body fat, portrayals of the ideal male tend to focus on muscularity as well as personality traits such as aggressiveness and a willingness to commit acts of violence (Downs and Smith 2009; Jansz and Martis 2007; Lynch et al. 2016; Near 2013). The research that focused on male body image tended to look more at avatar selection, particularly in game genres such as massively multiplayer online role-playing games (mmorpg's) like *World of Warcraft* (Eklund 2011; Stabile 2013), and video game covers (Fox and Tang 2014; Lynch et al. 2016; Near 2013). Based on a sampling of images of the male body from video game art and game covers, the "perfect" man is tall, over six feet tall, with large, defined muscles (Downs and Smith 2009; Fox and Tang 2014). Avatars are player created, digital representations that the player uses to interact with the world of the video game. This literature shows most male players choose to create white, tall, and muscular avatars, either intentionally or because the game lacks the option to choose a nonwhite or female character, (Downs and Smith 2010; Dietrich 2013) and box/cover art for video games reflects this trend (Fox and Tang 2014; Near 2013).

The game's genre also affects how it is gendered (Consalvo and Dutton 2006; Kondrat 2015; Vermeulen and Looy 2016). Genre classifications in video

games play a similar role as those in film; video game genre indicate general gameplay mechanics (i.e., how the game is played) and character selection and/or creation (Elverdam and Aarseth 2007). Popular video game genres include Action, Action Adventure, Adventure, Role Playing, Strategy, and Casual. Genres with stereotypical portrayals of gender and violence, such as Action and Role-Playing games, as well as those viewed as more technical and demanding, such as Strategy games, are perceived by players as more masculine (Kondrat 2015; Vermeulen and Looy 2016). Genres that are less violent, include fewer hypersexualized characters, and are less technical, such as Casual and Adventure games, are seen as less masculine, and thus, they are seen as more acceptable for female players (Downs and Smith 2009; Kondrat 2015; Vermeulen and Looy 2016).

THE PLAYERS

According to the Electronic Software Association (ESA), the average video game player is a 35-year-old male who has played video games for 13 years (ESA 2015). The perception of the average video game player as a socially awkward, adolescent, white male dates to the early days of the video game industry (Paaßen et al. 2016). Yet, this image of the average player does not accurately represent the reality. While 56 percent of players are male, females are one of the largest growing portions of the video game playing population and now represent over 40 percent of the video game market (ESA 2015). The disparity between the perception of video game players and the reality is further reinforced by the sexualized, unrealistic portrayals of the human form common throughout video games.

As the most interactive form of entertainment, video games require the player to become involved in the story by taking on the role of the character (Stermer and Bukley 2012). Because the player is asked to enter the game world and adopt the character persona, this involvement has a greater impact on individuals than other forms of media. Television and film suffer from similar stereotypical gender portrayals as video games, but video games require active participation whereas film and television are passive (Fox, Bailenson, and Tricase 2013; Smith et al. 2014). This active participation has the power to influence the player. Stermer and Bukley (2012) found that games with sexist messages, both subliminal and explicit, increased men's negative views of women. Players, both male and female, can internalize what they experience while playing video games (Fox and Tang 2014; Stermer and Bukley 2012; Summers and Miller 2014). If the player is subjected to blatant hyper-sexualized or unrealistic portrayals of the human body, or if the game subliminally treats women as inferior to men, the player is being trained to accept stereotypes (Fox and Tang 2014; Holz Ivory et al. 2014).

By playing the game and adopting the persona of the player's character, the player is also adopting the gender role assigned to that character. In online games, such as Blizzard's *World of Warcraft*, the adoption of these roles can be more freeform and social (i.e., direct communication with another human player through the player's avatars), or the role can be strictly dictated in a single player experience. For example, in Arkham City players can play as either Batman or Catwoman. When playing as Batman, the player engages in hand-to-hand combat with numerous, nameless enemies, occasionally growling or speaking short,

threatening sentences in a low, gravelly voice. When playing as Catwoman, players slink and flirt while fighting. The hypermasculinity visible in the physical appearance and actions of Batman are contrasted against the highly sexualized Catwoman (Lavigne 2015). These types of hypersexual and hypermasculine characters can be problematic for players.

Unrealistic portrayals of the human body can negatively affect the viewer (Downs and Smith 2009; Fox and Tang 2014; Lynch et al. 2016; Pulos 2013). Video game portrayals of unrealistic or idealized bodies can lead to unrealistic expectations for male and female player's self-image (Streeter et al. 2012) as well as issues such as low self-esteem and depression (Barlett and Harris 2008; Robertson 2011). How one sees themselves, or their body image, is "the internal, subjective representations of physical appearance and bodily experience" (Robertson et al. 2011). This internal perception is not always accurate and the process of internalizing stereotypical images and other representations of an unrealistic or unobtainable body can lead to serious psychological issues including depression, eating disorders, low self-esteem, and even an increased risk of suicide (Dill and Thill 2007; Fox et al. 2013; Mitchell et al. 2015; Royse et al. 2007).

The spread of the internet and mobile platforms, such as telephones and tablets, has made it easy for people to play together online. Thirty-six percent of people who play games do so on their smartphone (ESA 2015). However, social, online play can also negatively affect one's self-image. In Eklund's (2011) study of female *World of Warcraft* players every respondent chose to play using a character that was female. Men playing as female characters was considered

normal, but women tended to select a character they can relate to or feel kinship towards (Eklund 2011). Thus, women were much more likely to choose to play characters with the same sex. In many video games, the selection of character sex is a completely aesthetic choice made by the player. The sex of the character usually does not actually affect gameplay, but it does affect how other payers react. Eklund's (2011) respondents described two ways they used gender while playing. In some instances, they felt they had to disguise their gender to be respected by male players. At other times, they used their gender to influence, take advantage of, or gain assistance from male players. Yet, despite these types of gender performances, the respondents still described WOW as a free space where they could be equal to men. All characters, regardless of sex, begin at the same level. This means that one's sex does not limit mastery of the game, but the player's experiences and gender expectation influenced the way they played the game (Eklund 2011).

Beyond individual reactions to the games themselves, another major aspect of the video game industry is video game culture. Contemporary media creates "a continuous blurring between the boundaries of work, life and play, as well as between production and consumption" (Deuze 2007:259). Media in general, and video game development in particular, are typically classified as either open or closed depending on the amount of transparency in the creation process (Deuze 2007). AAA developers are closed media; they announce projects a year or two after development begins and rarely share information about the development process with the public. AAA studios are releasing early, or beta, builds of their games more often, but the marketing materials (i.e., trailers, art,

and game descriptions) are all filtered through marketing departments. Indie developers are more transparent during and after the development process; often, they release detailed post-mortems online or participate in interviews (Figure 3). As indie developers are typically more open with the production process—releasing unfinished versions of the games for consumers to play in order to receive feedback about the game before its final release—, they are susceptible to influence from the broader video game culture and fandom.

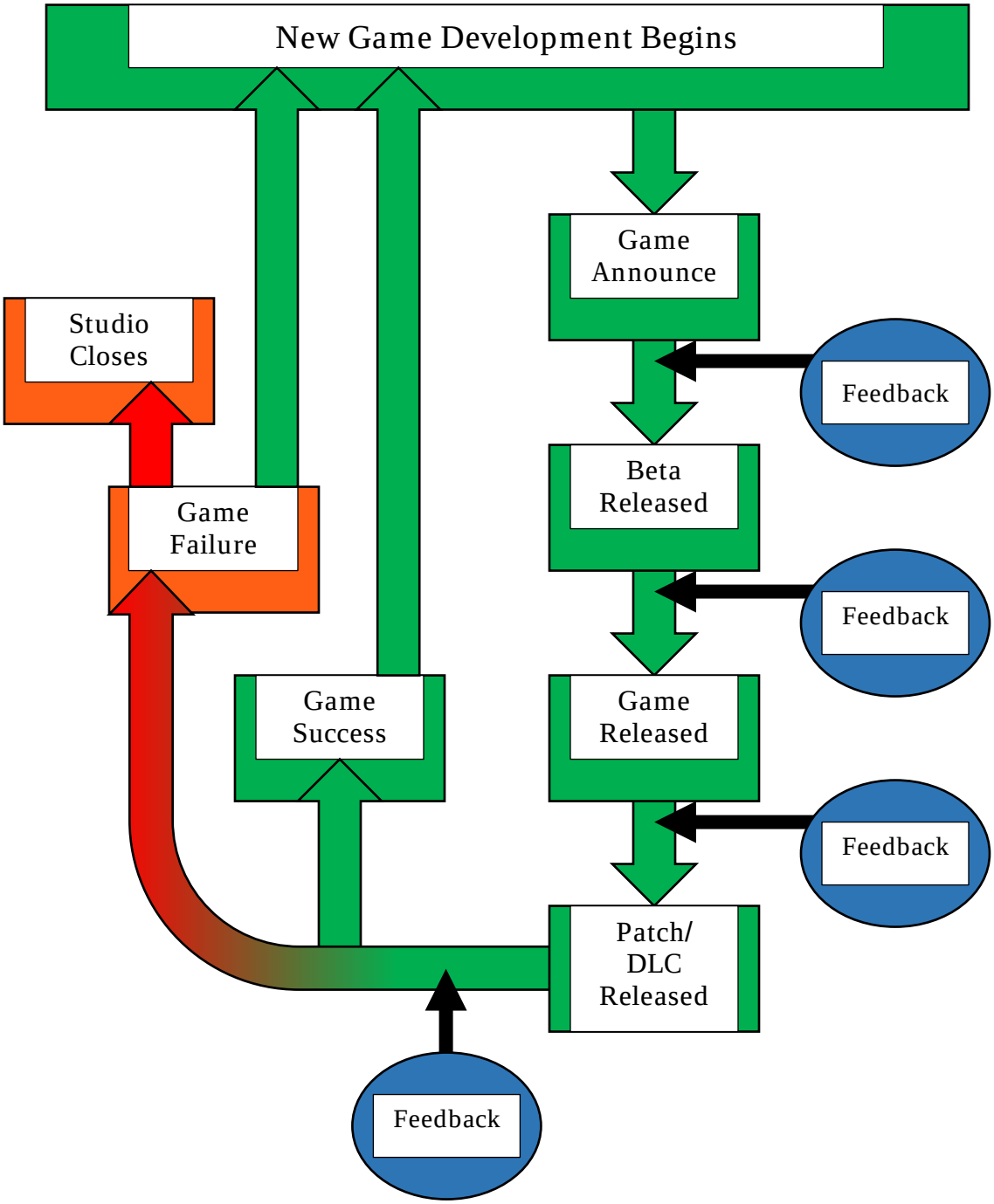


Figure 3. The Video Game Development and Feedback Cycle.

Two controversies involving the video game industry made headlines over the last several years. In 2010, Penny Arcade, a company that began with a web comic and has now spread into journalism and conventions, published a comic parodying video game quests titled the "Sixth Slave" on their website (Salter and Blodgett 2015). In the "Sixth Slave," creatures with phalli for limbs called Dickwolves are described as raping slaves until they fall asleep. Shortly after its publication, the controversy began, and journalists, bloggers, and the general public all began to weigh in. Some argued that the joking about rape was inappropriate and reinforced the "rhetoric of sexual violence within gaming culture" (Salter and Blodgett 2015:406). Others leapt to defend Penny Arcade, saying the comic was a joke that did not encourage rape and the outrage people were expressing was misplaced. The debate became even more heated after Penny Arcade released a second comic mocking those who were offended. Over time, the controversy surrounding Penny Arcade and the Dickwolves lessened, but it was soon followed by another video game controversy: gamergate.

The gamergate controversy is best illustrated through the experience of Zoe Quinn. After releasing an indie game called *Depression Quest*, Zoe Quinn was subjected to numerous professional and personal attacks online, many of which were personal and explicitly angry or even violent (Parkin 2014). A blog post written by an ex-boyfriend that exposed a relationship between Quinn and a game journalist led to a public debate over journalistic ethics and independent video game coverage on social media and the creation of #gamergate (Parkin 2014). Even though the journalist had not reviewed the game, only announced its release, individuals using #gamergate criticized Quinn for her "manipulation" of

the game's coverage. More specifically, the debate surrounding *Depression Quest* almost entirely centered on Zoe Quinn and not the male journalist with whom she had the relationship. On the online discussion board 4chan, one user stated that the "Next time she shows up at a conference we...give her a crippling injury that's never going to fully heal.... I'd say a brain damage, but we don't want to make it so she ends up too retarded to fear us" (Parkin 2014: para 1). Since the release of *Depression Quest*, Quinn has been threatened with sexual assault, rape, assault, and even death (Parkin 2014). Some of these threats were posted online alongside her personal information, including her home address and social security number (Parkin 2014). But Quinn is not alone. Other women in the video game industry have been subjected to similar treatment by those using #gamergate. Brianna Wu, head of development at Giant Spacecat, and journalist Anita Sarkeesian also face harassment on a daily basis (Collins 2014; Dewey 2014). Depending on one's point of view, gamergate has now become either a social movement calling for journalistic integrity or an attempt to justify sexual harassment targeting women in the video game industry (Parkin 2014). As much of the "criticism" from those using #gamergate uses violent rhetoric, or is only critical of women in the industry, the latter seems to be more accurate.

The growth of the mod community helps further explain the interaction between producers and consumers in what is termed convergence, or participatory, culture (Deuze 2007; Dutton, Consalvo, and Harper 2011). Mods are gameplay expansions or alterations of games created by the fans (Wallace 2014). Some developers release mod tools alongside for PC versions of games, allowing fans to extend their gameplay experience with little to no cost for the

developer (Deuze 2007). It also blurs the line between media producer and media consumer and helps create a hierarchy among fans; the more mods one creates, the more dedicated they are perceived to be within the game's community (Deuze 2007; Dutton et al. 2011).

Identities based on one's relation to the fan base, such as those who identify as "alpha fans," shape the video game community's reaction to game culture. Fandom falls along a spectrum, with dedicated or alpha fans on one end and casual fans on the other. Only the most dedicated alpha fans create mods, but, as seen in the gamergate scandal, when alpha fans feel a video game they enjoy or video game culture in general is threatened, they can also create "discord through misogynist, rage-filled and boorish activities" (Dutton et al. 2011:303). Gender also influences an individual's status as a fan. Similar to the stereotype of technomasculinity seen in the development of video games, male players are automatically assumed to have an affinity for video games; this is likely due to the perception of video game's close association with computer science (Bain and Rice 2007; Dutton et al. 2011). To gain capital, women must work harder than their male counterparts to be seen as equals within the video game community (Leonard 2006; Stabile 2013).

THE GAPS IN THE LITERATURE

Studies of gender in video games fall into two broad groups. The first group of studies are quantitative analyses with a sample of 30 or more games (Downs and Smith 2009; Lynch et al. 2016; Near 2013). These studies typically analyze easily categorized variables, such as the number and physical appearance of male and female characters, while ignoring the narrative and interactions

between characters. The second group of studies are in-depth, qualitative analyses of a single game (Dutton et al. 2011; Lavigne 2015; Lynch et al. 2016; MacCallum-Stewart 2014; Miller 2008). None of the literature focusing on gender portrayals in video games directly address indie video games. As independent video game development has only become common in the last decade, this lack of research is unsurprising, but it is an area that should be addressed (Dyer-Witheford and Sharman 2005; Johnson 2013; Romero, Usart, and Ott 2014). Developing a video game is inherently a creative and interactive process, between developer and developer as well as between the developers and the players (Deuze 2006, 2007). Therefore, understanding the way gender is portrayed in successful games sheds light into the perpetuation of gender inequality in the media (Dyer-Witheford and Sharman 2005; Hayes and Games 2008; Johnson 2013; Leonard 2006).

THEORY

Studies of gender portrayals in video games tend to use theoretical frameworks to pursue one or more of the following four research objectives: "(1) to support feminist claims about gender-based inequities, (2) to examine the equivalence (or lack thereof) between reality and its media representations, (3) to provide a basis for theory and research into effects that messages have on audiences, and (4) to provide a basis for theory and research into effects that message producers have on message content" (Rudy et al. 2010:707). When pursuing these research objectives, many researchers use feminist, media-effects, rational action, or social learning theories to explain how gendered portrayals affect players. Less often, researchers use theories of cultural production, such as

the production of culture perspective, to gain a more holistic view of how developers, publishers, players, and the broader social context all interconnect and shape the construction and perception of an individual game or group of games (Dutton et al. 2011; Near 2013; Rudy et al. 2010). In this thesis, I used the latter approach by applying the theories of Pierre Bourdieu.

Bourdieu's theories help to explain the power dynamics within society (Coles 2009; Krais 2006; Thorpe 2009). Although Bourdieu typically focused on class, he published one book focusing on gender: *Masculine Domination*. Furthermore, Bourdieu's theoretical approach has been adopted by a number of gender and feminist theorists because it is flexible, balances individual agency and structure, and bridges the gaps between theory and practice (Bourdieu 2001; Coles 2009; Krais 2006). For Bourdieu, traditional structuralist approaches failed to account for the individual's ability to make choices that defy social constraints (Coles 2009; Thorpe 2009). These attributes make it ideal for studying complex topics, such as indie games, because indie games are created outside of the structure of formal game development.

The major components of Bourdieu's theory of social construction are field, habitus, capital, and symbolic violence. Fields serve as representations of the different locations people are a part of, contextualize the power relationships between individuals, and are centered around different arenas of production (Bourdieu 1977; Coles 2009). Bourdieu conceptualized fields as dynamic structures that shift and change over time (Bourdieu 1977). Habitus "refers to the ways in which individuals live out their daily lives through practices that are synchronized with the actions of others around them" (Coles 2009:34).

Essentially, fields shape the structure in which habitus takes place (Bourdieu 1984; Coles 2009). One of the primary actions for individuals is the accumulation of capital. In "The Forms of Capital," Bourdieu (1986) identified three fundamental forms of capital:

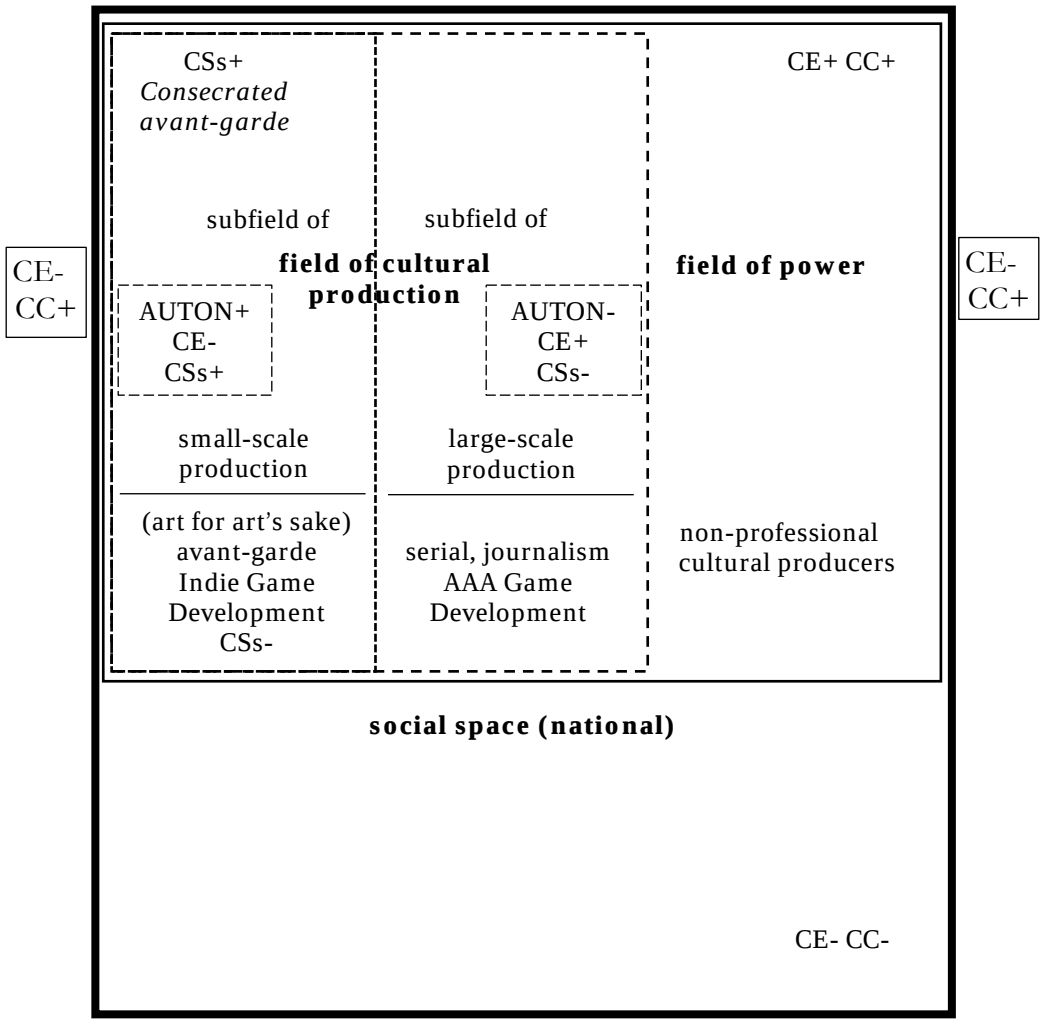
> Economic capital, which is immediately and directly convertible into money and may be institutionalized in the forms of property rights; cultural capital, which is convertible, on certain conditions, into economic capital and may be institutionalized in the forms of educational qualifications; and social capital, made up of social obligations ('connections'), which is convertible, in certain conditions, into economic capital and may be institutionalized in the form of a title of nobility. (P. 243)

Bourdieu later added a fourth form of capital called symbolic capital (Bourdieu 1996). Symbolic capital is the honor, acclaim, and/or recognition one gains (Bourdieu 1996; Hesmondhalgh 2006). Essentially, Bourdieu described capital as a measure of one's relative position within society and a tool with which one can improve one's position. If the field is the game and habitus is the way the game is played, then the various forms of capital can serve as both the goal as well as the equipment used to play.

Bourdieu and the Video Game Industry

As the locus of creative and artistic creation, the field of cultural production is particularly important when applying Bourdieu to the topic of portrayals of gender in indie games. The field of cultural production is divided into two sub-fields: large-scale and small-scale production (Figure 4). Large scale

production is defined by a low degree of autonomy and symbolic capital, but it allows for a greater amount of economic capital. For example, commercial art, while profitable, is not seen as having the same level of cultural cachet as fine art. Small-scale production has more autonomy and symbolic capital, but less economic capital. The division between AAA game developers (large-scale) and indie game developers (small-scale) fit into this dichotomy within the field of cultural production and explains the different goals of the two types of developers. Games made by AAA developers, with their higher level of economic capital, have the ability to reach a larger audience than games from indie developers. Consequently, the vast majority of the scholarly study of video games focuses on AAA games, while indie games have been largely ignored. But indie games provide an interesting opportunity for study. As small-scale producers in the field of cultural production, indie developers can make games that AAA developers cannot. Indie developers, while interested in accumulating economic capital, are primarily focused on creating interesting games that they themselves would like to play. When interviewed as part of the documentary film Indie Game: The Movie, Edmund McMillen, one of the lead developers of *Super Meat Boy* and *The Binding of Isaac*, said that indie games are about making the developer happy, and while it would be nice to succeed financially, that is secondary to the act of making a good game. This avant-garde attitude, combined with the proliferation of the tools used to make video games, make indie games an interesting subject for analysis.



Key

Social space

Field of power

Field of cultural production

Subfield of small-scale production

CE – economic capital

CC – cultural capital

CS – symbolic, specific capital

AUTON+ High degree of autonomy

AUTON- Low degree of autonomy

Figure 4. The Field of Cultural Production in the Field of Power and in Social Space. Adapted from Bourdieu (1996).

Sex and gender identification are an inherent part of one's habitus. For Bourdieu, gender distinctions are socially constructed as part of a life-long process (Bourdieu 2001). The process begins in childhood through the

observation of gender roles in the home, becomes more social and moves beyond the family unit in school during adolescence and early adulthood, and then continues to evolve as the adult progresses in their professional career (Bourdieu 2001). The internalization and perpetuation of gendered portrayals is meaningful in the context of indie game development because the games become another avenue for the acquisition of gender norms.

Symbolic violence "consists of both the objective hardship and the subjective experience of self-blame, hesitation, self-censorship and so on" (Samuel 2013:402). The small acts of unconscious discrimination that collectively exclude women from positions of authority, allow for the blatant sexualization, and reduce women to their physicality are all forms of symbolic violence (Bourdieu 2001:59). This also explains why male developers in Dyer-Witheford and Sharmon's (2005) study perceived video game development as a male occupation; the stereotypical depictions of hypermasculine characters as dominant and hypersexual female characters as submissive reinforce the androcentric worldview.

Symbolic violence is pervasive and problematic in field of cultural production because the internalized stereotypes become an inherent part of the products they create, such as video games. While playing the game, players internalized the sexualized and stereotypical portrayal of characters, which can inform how the players perceive themselves (Mitchell et al. 2015; Terlecki et al. 2011; Yang, Huesmann, and Bushman 2014). Because the literature has only analyzed portrayals of gender in AAA games, this study provides the opportunity

to understand how game studios with more autonomy may counter or commit acts of symbolic violence.

RESEARCH QUESTIONS

To address the lack of an empirical, theoretically grounded scholarly study of indie games, I sought to answer the following questions using ethnographic content analysis:

1. How do indie games portray gender?
2. What gender norms are reinforced or subverted in indie games?
3. What do the portrayals of gender in the selected indie games indicate about indie game development?

IV. METHODS

ETHNOGRAPHIC CONTENT ANALYSIS

Video games are inherently interactive; when playing, the player becomes immersed in a virtual world. Yet, how information is presented to the player through the game's art style, mechanics, characters, and narrative can vary widely from game to game. No two games are identical, and no single approach to game analysis has been widely adopted. These factors make the scholarly study of video games a difficult task (Consalvo and Dutton 2006).

Ethnographic content analysis (ECA) is a reflexive methodology created to analyze media (Altheide 1987). Like quantitative content analysis, ECA seeks to document and understand meaning in content. However, ECA is more reflexive, requiring the researcher to be "systematic and analytic but not rigid" (Altheide and Schneider 2013:26). The sample is selected purposely based on a theoretical foundation making it ideal for theory-based content analyses (Altheide 1987). Numerical and narrative data are collected and coded to better understand the "various modes of information exchange, formant rhythm and style, e.g., aural and visual style, as well ... other nuances" present in the sample (Altheide 1987:68). ECA was an ideal method to use for this analysis because required a theory-grounded approach, allowed for both quantitative and qualitative data collection, and was flexible enough to permit for variations between game genre and art style.

GAME SELECTION

Indie games were selected for ECA based on five criteria. First, I only selected games if they were "indie games." There is no single definition for what makes a video game "indie"; however, as part of the IDGA DSS 2015, respondents from the game industry were asked to identify the major most important aspects of an indie game. The six most important factors were creation and control over IP (76 percent), self-funded (46 percent), not funded by publishers (46 percent), self-publishing (46 percent), innovation in games made (34 percent), and spirit of counter-culture (30 percent; Andrei-Gedja and Weststar 2016). Using this data as well as definitions from major video game centered publications, including Kotaku, Giantbomb, IGN, Polygon, PCGamer, and GameSpot, I defined an indie game as a game created by a small team that is self-funded and exists outside of the traditional developer/publisher system.

Second, the games had to be published between 2008 and 2015. Microsoft's Xbox 360 was the first video game console to release official tools for developing digital-only games. These games were initially released as Xbox Live Community Games, but in 2009, Microsoft changed the name of the program to Xbox Live Indie Games (Fahey 2009). Although indie developers were able to create and release games on personal computers before the release of the Xbox 360, the ability to sell games on a console provided a new, large audience that had never been previously available for independent developers (Martin 2008; MacDonald 2013).

Third, each game had to be critically and/or financially successful. Success is an important qualifier in sample selection because it is indicative of cultural

relevance (Downs and Smith 2009; Lynch et al. 2016; Rudy et al. 2010). Including the requirement for critical or financial success was also necessary due to the large number of indie games released each year. Using data from major video game publications and websites, including those listed above, I selected games that were included on "Best of" lists or received high review scores, were released on a number of platforms, or sold over 250,000 copies. Because many of these games were sold by individuals or small studios, and therefore do not have to report sales statistics to shareholders, determining the exact number of copies sold was difficult. Thus, releasing on several platforms was used as an indicator of financial success when firm sales numbers were not available (Marsh 2008).

Fourth, because the purpose of this thesis is to investigate the portrayal of gender in indie games, I eliminated games that did not include characters divisible into two or more genders. Games featuring non-human gendered characters were included if clear gender distinctions existed. To determine whether a game included male and female characters, I reviewed information from GiantBomb, MobyGames, and IGN (Lynch et al. 2016).

Finally, I only included single player games. The player's experience and gameplay can vary widely between multiplayer and single player games; multiplayer games emphasize player-to-player interactions and can evolve over time, whereas single player games are rigid and gameplay is determined by the developer (Pulos 2013; Yang et al. 2014). Using these criteria, I selected the 15 games for my sample and purchased the Windows PC version of each game through the digital stores Steam or GOG Galaxy (see Appendix 1 for a full list of the selected games).

PROCESS

Each game's portrayal of gender was analyzed using ECA. Data collection in ECA relies on the use of a protocol. Like quantitative content analysis, this protocol helps categorize variables and guides the data collection process. However, unlike quantitative content analysis, the protocol is flexible in ECA and changes throughout data collection as new themes and variables emerge (Altheide and Schneider 2013). Essentially, the protocol "is a way to ask questions of a document", or in this case, a video game (Altheide and Schneider 2013:44). The final protocol I developed included four sections: game information, characters, narrative, and character interactions.

Before playing each game, information, including developer, release date, platform, genre, art style, and the game's credits, was gathered from the developer's websites and the online video game databases GiantBomb, MobyGames, and IGN (Lynch et al. 2016). Priority was given to information from each developer's website while information gathered from GiantBomb, MobyGames, and IGN was crosschecked to ensure reliability. The development team, including programmers, artists, and writers, were counted and categorized based on sex. Individuals who could not be identified using these methods were categorized as "unknown."

The in-game analysis began with five hours of gameplay. Gameplay was recorded using the free game recording software built in to Windows 10. I played for five hours or until the main storyline was completed, whichever came first. As most players do not finish games and the average length of video games is less than ten hours, playing for five hours provided enough information about the

games and the characters for analysis (Allford 2015; Moriarty 2014) and is longer than the 5 to 20 minutes used in other studies (Downs and Smith 2009; Lynch et al. 2016). This timeframe did not include the examination of the developer team or the character selection process.

While reviewing the recorded gameplay, I developed a protocol that included two primary units of analysis. The first unit of analysis was the characters, which was further divided into player characters, named non-player characters, and unnamed non-player characters. In games where the player selects a character, I first counted the number of male and female default characters and then counted the additional characters available for selection. Each character was coded as an individual unit (Altheide 1987; Babbie 2010). The literature suggested that visual resolution and realism affect the ability to evaluate character's appearance; the level of graphical detail in video games varies (Downs and Smith 2009; Jansz and Martis 2007; Lynch et al. 2016; Martins et al. 2009). Resolution, or the sharpness and clarity of the images on-screen, was coded as low (i.e., pixelated graphics, irregular outlines, and choppy character movement), medium (i.e., smoother graphics, clearer outlines, and more life-like character movement), and high (i.e., full 3D graphics, detailed character models, and fluid motion; Downs and Smith 2009). The realism of the portrayal of the human figure was assessed using two categories based on the amount of detail: little to no detail and detailed (Martins, Williams, Harrison, and Ratan 2009). Body type (muscular, heavy, normal, and thin) was also coded for each player character (Jansz and Martis 2007; Lynch et al. 2016). To evaluate whether or not player characters were sexualized, I adapted the sexualization

index used by Downs and Smith (2009) and Lynch et al. (2016). The index included four indicators: sexually revealing clothing, partially or totally nude, unrealistic body proportion, and inappropriateness of attire. Using these indicators allowed me to evaluate whether the character was sexualized or not: characters who did not have these indicators were marked “none”. While reviewing the gameplay recordings, I also counted the number of male and female characters and coded them using the same process that used for player characters.

The second unit of analysis was the gameplay. Gameplay included the narrative, character interactions, and the game mechanics (e.g., how far a character can jump or the difference between characters’ abilities). The narrative of each game, including the main storyline, main quest, and/or side quests, was important because it guided the path through the game (Consalvo and Dutton 2006). For each game, I summarized the narrative and then analyzed each summary for themes. Themes for each game were then compared and grouped with other games. To evaluate if the narrative itself was gendered, I played as both male and female characters when possible to determine if playing as different characters afforded different opportunities. I evaluated dialogue between characters and latent content, such as body language and facial expression and coded each character’s relative position (dominant, equal, or submissive) and role (hero, friend/ally, villain/enemy, or victim) within these interactions (Beasley and Collins Standley 2002; Jansz and Martis 2007). Together, these units of analysis allowed me to evaluate the portrayal of gender in the 15 selected indie games.

V. RESULTS

THE DEVELOPERS

Of the 15 games included in the sample, six (40 percent)—*Braid*, *Super Meat Boy*, *The Binding of Isaac*, *Spelunky*, *Rogue Legacy*, and The Banner Saga—had development teams that were made up entirely of men. The game with the highest male-to-female ration, *To the Moon*, was created by five women and three men. *Gone Home*, the game with the second highest male-to-female ration, was developed by three men and three women. Across all 15 games, 171 (84 percent) of the developers were male and 24 (12 percent) were female (Table 1). I was unable to identify the sex of six (18 percent) individuals for *Trine 2* and two (10 percent) for *Divinity: Original Sin*.

Table 1. Number and Percentage of Developer Sex by Game and Studio.

Game	Studio	Male (%)	Female (%)	Unknown (%)	Total
Braid	Number None	4 (100%)	0 (0%)	0 (0%)	4
Torchlight	Runic Games	25 (96%)	1 (4%)	0 (0%)	26
Super Meat Boy	Team Meat	2 (100%)	0 (0%)	0 (0%)	2
Trine 2	Frozenbyte	23 (68%)	5 (15%)	6 (18%)	34
Cave Story +	Nicalis	9 (90%)	1 (10%)	0 (0%)	10
The Binding of Isaac	Edmund McMillen and Florian Himsl	2 (100%)	0 (0%)	0 (0%)	2
To the Moon	Freebird Games	2 (29%)	5 (71%)	0 (0%)	7
Guacamelee! Gold Edition	DrinkBox Studios	22 (88%)	3 (12%)	0 (0%)	25
Spelunky	Mossmouth	3 (100%)	0 (0%)	0 (0%)	3
Gone Home	The Fullbright Company	3 (50%)	3 (50%)	0 (0%)	6
Rogue Legacy	Cellar Door Games	5 (100%)	0 (0%)	0 (0%)	5
Don't Starve	Klei Entertainment	19 (90%)	2 (10%)	0 (0%)	21
The Banner Saga	Stoic	3 (100%)	0 (0%)	0 (0%)	3
Divinity: Original Sin	Larian Studios	42 (89%)	3 (6%)	2 (4%)	47
Transistor	Supergiant Games	7 (88%)	1 (13%)	0 (0%)	8
	Total	171 (84%)	24 (12%)	8 (4%)	203

THE CHARACTERS

The level of detail in the characters depended on the game's resolution and realism. Resolution ranged from low to high and realism based on the level of detail present. Four games had low resolution—*Super Meat Boy, Cave Story+, The Binding of Isaac,* and *To the Moon*—, nine games had medium resolution—*Braid, Torchlight, Trine 2, Guacamelee! Gold Edition, Spelunky, Rogue Legacy, Don't Starve, The Banner Saga,* and *Transistor*—, and two games had high

resolution—*Gone Home* and *Divinity: Original Sin*. The four games with low resolution also had little to no detail while the remaining 11 games had more detailed characters.

Table 2. The Visual Presentation of Character Resolution and Realism.

Game	Resolution	Realism
Braid	Medium	Detailed
Torchlight	Medium	Detailed
Super Meat Boy	Low	Little to no detail
Trine 2	Medium	Detailed
Cave Story +	Low	Little to no detail
The Binding of Isaac	Low	Little to no detail
To the Moon	Low	Little to no detail
Guacamelee! Gold Edition	Medium	Detailed
Spelunky	Medium	Detailed
Gone Home	High	Detailed
Rogue Legacy	Medium	Detailed
Don't Starve	Medium	Detailed
The Banner Saga	Medium	Detailed
Divinity: Original Sin	High	Detailed
Transistor	Medium	Detailed

Player Characters

There were 132 player characters, 80 (61 percent) were male and 52 (39 percent) were female. Six games—*Braid*, *Cave Story+*, *To the Moon*, *Gone Home*, *The Banner Saga*, and *Transistor*—did not allow for character selection. Ten games (67 percent)—*Braid*, *Torchlight*, *Super Meat Boy*, *Cave Story+*, *The Binding of Isaac*, *Guacamelee! Gold Edition*, *Spelunky*, *Rogue Legacy*, *Don't Starve*, and *The Banner Saga*—had male default characters, three games (20 percent)—*To the Moon*, *Gone Home*, and *Transistor*—had female default characters, and two games (13 percent) had multiple default characters. *Divinity: Original Sin* had two default characters, one male and one female, and *Trine 2* had three default characters, two male and one female, for a total of 18 default

characters (Table 3). Of these default characters, four male characters (31 percent) depicted seven sexualization indicators: four unrealistic body proportions, two partially nude, and one inappropriateness of attire. Three female characters (60 percent) represented five sexualization indicators: two unrealistic body proportions, one sexually revealing clothing, one partially nude, and one inappropriateness of attire.

Table 3. Default Player Character Body Types and Sexualization Indicators.

		Male (%)	Female (%)	Total
Body Type				
	Muscular	4 (100%)	0 (0%)	4
	Heavy	1(100%)	0 (0%)	1
	Normal	5 (63%)	3 (38%)	8
	Thin	2 (50%)	2 (50%)	4
	Total	12 (71%)	5 (29%)	18
Sexualization Indicators				
	Sexually Revealing Clothing	0 (0%)	1 (100%)	1
	Partially/ Totally Nude	2 (67%)	1 (33%)	3
	Unrealistic Body Proportion	4 (67%)	2 (33%)	6
	Inappropriateness of Attire	1 (50%)	1 (50%)	2
	Total	7 (58%)	5 (42%)	12
No Sexualization Indicators		9 (82%)	2 (18%)	11

Of the nine games that allowed character selection—*Torchlight*, *Super Meat Boy*, *Trine 2*, *The Binding of Isaac*, *Guacamelee! Gold Edition*, *Spelunky*, *Rogue Legacy*, *Don't Starve*, and *Divinity: Original Sin*—, all nine allowed the player to select a female character. *Divinity: Original Sin* also allowed for character customization. Character customization was limited to sex, voice, skin color, head, hair, hair color, and underwear. Collectively, *Super Meat Boy*, *Guacamelee!*, *Rogue Legacy*, and *Spelunky* accounted for 103 (78 percent) of all playable characters for two reasons. First, *Rogue Legacy* is a roguelike, a

subgenre of role playing games where player character death is permanent. Each time the player dies in *Rogue Legacy*, they must select one new character from a procedurally generated list of three potential characters. By the time my five-hour limit had ended, I had played as 43 different characters, and, because each character was unique, I coded each one as a separate unit. Second, *Super Meat Boy*, *Guacamelee!*, and *Spelunky* had 20, 24, and 16 characters respectively. Each of these games allowed players to select the character they wished to play as once they completed game-specific challenges or objectives with the default character.

The most common body types for all selectable characters were muscular and normal (Table 4). There were 57 muscular characters; 36 (63 percent) were male and 21 (37 percent) were female. However, *Rogue Legacy* accounted for all 21 muscular female characters. Male and female characters in *Rogue Legacy* had the exact same physical appearance, with large upper-body muscles and a thin waist, so they were all coded muscular. Forty-four characters had a normal body type, split evenly between male and female characters. Of the 16 characters with the heavy body type, 13 (81 percent) were male.

Of the 83 identified sexualization indicators, 70 (84 percent) were unrealistic body proportions. Unrealistic portrayals of the human body were not limited to a single sex; 34 (49 percent) of the characters with unrealistic body proportions were male and 36 (51 percent) were female. *Guacamelee!* had the most sexualized playable characters. Of the 11 playable female characters, all 11 had unrealistic body proportions (i.e., they had very thin waists and large breasts and buttocks). The male characters were also more sexualized; 11 (85 percent)

had unrealistic body proportions (i.e., very large torso and arm muscles, small waists, and a thin lower body) and four (30 percent) were categorized as partially nude because they were dressed as luchadores and the only clothes they wore were masks and tight pants.

Table 4. All Selectable Player Character Body Types and Sexualization Indicators.

		Male (%)	Female (%)	Total
Body Type				
	Muscular	36 (63%)	21 (37%)	57
	Heavy	13 (81%)	3 (19%)	16
	Normal	22 (50%)	22 (50%)	44
	Thin	9 (60%)	6 (40%)	15
	Total	80 (61%)	52 (39%)	132
Sexualization Indicators				
	Sexually Revealing Clothing	0 (0%)	2 (100%)	2
	Partially/ Totally Nude	8 (89%)	1 (11%)	9
	Unrealistic Body Proportion	34 (49%)	36 (51%)	70
	Inappropriateness of Attire	1 (50%)	1 (50%)	2
	Total	43 (72%)	40 (48%)	83
No Sexualization Indicators		43 (72%)	15 (28%)	58

Non-Player Characters (NPCs)

The level of detail in and the number of NPCs varied from game to game. Of the 234 NPCs, 142 (61 percent) were male and 92 (39 percent) were female (Table 5). *Guacamelee!*, *The Banner Saga*, and *Divinity: Original Sin* had the most NPCs, accounting for 58, 33, and 66 respectively. All 50 muscular and half (15) of the thin NPCs were male. Female characters made up a majority, 65 (55 percent), of the 97 normally proportioned NPCs. Very few NPCs were sexualized. The only sexualization indicator with more than 10 entries was unrealistic female body proportions with 16. In total, 204 (87 percent) of NPCs showed no sexualization indicators.

Table 5. Non-Player Character Body Types and Sexualization Indicators.

		Male (%)	Female (%)	Total
Body Type				
	Muscular	50 (100%)	0 (0%)	50
	Heavy	24 (67%)	12 (33%)	36
	Normal	53 (45%)	65 (55%)	97
	Thin	15 (50%)	15 (50%)	31
	Total	142 (61%)	92 (39%)	234
Sexualization Indicators				
	Sexually Revealing Clothing	0 (0%)	5 (100%)	5
	Partially/ Totally Nude	8 (100%)	0 (0%)	8
	Unrealistic Body Proportion	8 (33%)	16 (67%)	24
	Inappropriateness of Attire	1 (33%)	2 (67%)	3
	Total	17 (41%)	23 (59%)	39
No Sexualization Indicators		132 (65%)	71 (35%)	204

THE GAMEPLAY

Narrative

After analyzing the narratives of all 15 games, three primary themes emerged that shaped the player's goals and objectives in each virtual world. The first common objective was to save the "princess." Six games had primary or secondary objectives focused on saving a woman in distress: *Braid, Super Meat Boy, Trine 2, Cave Story+, Guacamelee!,* and *Spelunky*. In *Braid, Super Meat Boy, To the Moon,* and *Guacamelee!*, the main objective was saving the woman who was the player character's love interest. In *Trine 2, Spelunky* and *Cave Story*, saving the woman was a secondary objective undertaken while pursuing another goal. The second major theme in the narratives was the quest to save the land. The main storylines of *Torchlight, Trine 2, Cave Story, The Banner Saga,* and *Divinity: Original Sin* all centered on protecting a generally defenseless populace from some greater threat. *Guacamelee!* had elements of this theme; however, the primary goal for the main character was to rescue his love interest.

The third major theme was discovery; six games had storylines centered on making some sort of discovery. In *Gone Home,* the main objective for the protagonist Katie is to find out what happened to her family. In *Don't Starve,* the player character is transported to a strange world where a well-dressed man tells them "*Don't Starve*" before disappearing. The gameplay of *The Binding of Isaac, Spelunky,* and *Rogue Legacy* all required the player makes their way through a different, procedurally generated world following each death. In *Transistor,* the protagonist, Red, seeks to find the group who murdered her lover. Characters held different positions and fulfilled different roles within these various narrative structures.

Character Position and Role

Character position was categorized as dominant, equal, or submissive depending how they interacted with other characters. Characters who were aggressive, pushy, and dominating were categorized as dominant. Characters who were passive and submitted to others requests or commands without question were categorized as submissive. Equal was used when the character was an equal blend of dominant and submissive or for character's whose actions and dialogue choices were controlled by the player. Role was used to describe the character's part in the story. Categories included hero, friend/ally, villain/enemy, and victim.

Player Character Position and Role. Player characters were overwhelmingly dominant and filled the role of the hero (Table 6). Only one character, the wizard Amadeus in *Trine 2,* was submissive. All other player characters, both male and female, held the position of dominant or equal. Of the

132 playable characters, 112 (85 percent) were dominant and 19 (14 percent) were equal. Sixty-eight (61 percent) of the dominant characters were male and 44 (39 percent) were female. Characters with the equal position were more evenly distributed between male and female, with 11 (58 percent) and 8 (42 percent) respectively. All 132 player characters played the role of the hero.

Table 6. Player Character Positions and Roles.

		Male (%)	Female (%)	Total
Position				
	Dominant	68 (61%)	44 (39%)	112
	Equal	11 (58%)	8 (42%)	19
	Submissive	1 (100%)	0 (0%)	1
	Total	80 (61%)	52 (39%)	132
Role				
	Hero	80 (70%)	52 (30%)	132
	Friend/Ally	0 (0%)	0 (0%)	0
	Villain/Enemy	0 (0%)	0 (0%)	0
	Victim	0 (0%)	0 (0%)	0
	Total	80 (61%)	52 (38%)	132

NPC Position and Role. The most common position of NPCs was equal, with 84 (59 percent) male and 58 (41 percent) female characters filling those positions. NPCs with equal position to the player character often filled the role of friend/ally by serving as merchants (e.g., selling items or providing some service) or guides and quest givers (e.g., directing the player character to their next objective). Dominant NPCs had the role of villain/enemy most often.

Table 7. Non-Player Character Positions and Roles.

		Male (%)	Female (%)	Total
Position				
	Dominant	39 (70%)	17 (30%)	49
	Equal	84 (59%)	58 (41%)	127
	Submissive	19 (53%)	17 (47%)	27
	Total	142 (61%)	92 (39%)	234
Role				
	Hero	8 (73%)	3 (27%)	11
	Friend/Ally	96 (61%)	61 (39%)	157
	Villain/Enemy	26 (68%)	12 (32%)	38
	Victim	15 (54%)	13 (46%)	28
	Total	145 (62%)	89 (38%)	234

VI. DISCUSSION AND CONCLUSION

DISCUSSION

Sexism in the workforce is not a new phenomenon; however, in creative industries such as film and video game development, an androcentric worldview is problematic because the sexism within the workforce can influence the product being created (Lynch et al. 2016; Smith et al. 2014). To this point, researchers have focused almost exclusively on AAA games, finding significant levels of sexualization of female characters, disproportionately low numbers of female characters, and an abundance of white male characters in positions of authority and power (Beasley and Standley 2002; Dietrich 2013; Dill and Thill 2007; Downs and Smith 2009; Geraci and Geraci 2013; Lynch et al. 2016). While these findings are important, they ignore how the growing number of indie games have portrayed gender. After selecting and analyzing a sample of 15 games using ethnographic content analysis, I discovered that 13 (87 percent) of the selected indie games did include stereotypical representations of gender. Six games included gendered portrayals of player character's physical appearance and seven games included a gendered narrative or plot point.

Save the Princess!!!

The legacy of *Super Mario Bros.* was present throughout the 15 indie games. Saving a "Princess" or "damsel in distress" was part of the main storyline in *Braid*, *Super Meat Boy*, and *Guacamelee!*. In *Braid*, the player character, Tim, is seeking to understand why his relationship with his former partner, called the Princess, fell apart. Throughout the game, the Knight, the Princess's new partner, is portrayed as stealing the Princess away from Tim. Half of the final level is Tim

trying to save the Princess by pursuing the Knight who is carrying the Princess over his shoulder. In the opening cutscene of *Super Meat Boy*, Meat Boy, the player character, and Bandage Girl, Meat Boy's love interest, are attacked by Dr. Fetus, the villain. Following this attack, Dr. Fetus takes Bandage Girl. Each level ends with Bandage Girl being carried away by Dr. Fetus just as Meat Boy reaches them. In *Guacamelee!*, following the abduction of El Presidente's Daughter, Juan, the player protagonist, spends the game learning new abilities and becoming more powerful so that he can fight Carlos Calaca, the antagonist, and take her back. In all three games, the abduction of the main character's love interest by the antagonist serves as the problem that the player spends the game trying resolve.

In *Trine 2*, *Cave Story+*, and *Spelunky*, the mission to save the "princess" is secondary to the main storyline. In *Trine 2*, the players are tasked with saving the kingdom from an army of invading goblins. While pursuing this mission, the player characters discover that the crown princess was abducted and hidden away by her sister. To save the literal princess, the player characters must confront her sister. In *Cave Story+*, the player character, Quote, is a soldier with amnesia. Upon entering a village, he witnesses a female character, Toroko, being kidnapped. As part of the greater quest to defeat the villain, named The Doctor, Quote rescues Toroko. These events take place during the early part of the game and are used to demonstrate of The Doctor's villainy. Of the three games with a secondary mission to save a "princess," *Spelunky*'s is the most problematic. Health is a very limited resource in *Spelunky*; characters begin each run in the game with three heart-shaped life bars that can be lost quickly. One of the only

ways to restore health is to find the “damsel” within each level and take her to the exit. If a damsel is successfully deposited at the exit, she will appear between levels, kissing the hero, and restoring one heart-shaped life bar. The damsel can also be sacrificed on an altar in exchange for an item. The damsel’s only function in the game is to serve as an object for the player character. She is disposable and completely lacks any characterization beyond that of “damsel.”

Two games did attempt to subvert the trope of damsel in distress. In *Super Meat Boy*, once the player defeats Dr. Fetus and rescues Bandage Girl in the final level, another world with more levels open up to the player. Before playing these levels a brief cutscene plays that is the same as the opening scene, except it shows Meat Boy being taken by Dr. Fetus instead of Bandage Girl. The player may then play as Bandage Girl with the goal of rescuing Meat Boy. In *Braid*, the first half of the final level scrolls from left to right and makes it seem like the Knight is taking the Princess from Tim. But the second half of the level requires the player to play through the level again, moving from right to left. From this perspective, Tim is pursuing the Princess and the Knight is the one who saves her. This twist is extended through journal entries, the only textual means the story is communicated, that describe the end of Tim and the Princess’s relationship. The subversion of the “save the princess” quest, popularized by *Super Mario Bros.*, is laudable, but as the subversion comes at the end of each game, it is possible many players never saw it, lessening its impact.

The presentation of women as weak, one-dimensional characters only serves to reinforce traditional gender stereotypes (Hesmondhalgh 2006; Krais 2000; Lavigne 2015; Summers and Miller 2014). The issue with this type of

storyline is that it makes the female character an object to be won, instead of an actual individual with agency and a unique personality. The female characters in *Braid* and *Guacamelee!* are not even named; the female character in *Braid* is called the Princess and the female character in *Guacamelee!* is only known as El Presidente's Daughter. Consequently, the female characters are confined to minor, passive roles stripped of all autonomy or agency while a male player character fills the role of hero.

Sexy Women, Strong Men

Studies of the portrayal of gender in video games typically find that female characters are more sexualized than male characters (Downs and Smith 2009; Jansz and Martis 2007; Lynch et al. 2016). Based on the sexualization indicators used, I found this was also the case for the selected group of indie games. Of the 52 female player characters, 36 (69 percent) had unrealistic body proportions. Twenty-one of these indicators were identified in *Rogue Legacy*. However, unlike the sexualized appearance of other female characters with thin waists, prominent breasts, and large buttocks, every male and female character in *Rogue Legacy* had the same oversized upper body with broad shoulders, thick arms, and a thin waist. The only way to differentiate between male and female characters was the name, male characters were called sir and female characters were called lady, and the presence of a hair bow for female characters. The adoption of a masculine stereotype as the default appearance is similar to the concept of "white habitus" where whiteness becomes normalized because it is treated as the default or standard choice (Bonilla-Silva, Goar, and Embrick 2006; Dietrich 2013). More specifically, white habitus is a "racialized, uninterrupted socialization process

that conditions and creates whites' racial tastes, perceptions, feelings, and emotions and their views on racial matters" (Bonilla-Silva, Goar, and Embrick 2006:104). The presentation of masculinity in *Rogue Legacy* mirrors this concept of white habitus. By presenting male and female characters almost identically, the developers of *Rogue Legacy*, who are all male, reinforce an androcentric world view that to be heroes, the characters must appear masculine. The presentation of female characters as masculine, while problematic, was not as common as hypersexualization.

Four games—*Torchlight, Trine 2, Guacamelee!,* and *Divinity: Original Sin*—included sexualized female characters. The 15 sexualization indicators present in these games conformed to more stereotypical hypersexualized depictions of women, large breasts, thin waists, and large buttocks, were similar to the hypersexual portrayals identified in AAA games (Downs and Smith 2009; Jansz and Martis 2007; Lynch et al. 2016). Lacking strong characterization, the sexualized appearance of these characters was their defining characteristic; however, when compared to studies of AAA games where a majority of female characters were sexualized, female characters in this study were much less likely to be sexualized. Only one third of the selected games included female player characters with sexualization indicators. This is due, in part, to the limited graphics of the indie games. Only two games, *Gone Home* and *Divinity: Original Sin*, had both a high resolution and significant detail. The remaining 13 games used more simplified graphics that were blocky/pixilated or illustrative. As Lynch et al. (2016) identified, the rise in the sexualized appearance of female characters corresponded to the increased graphical capabilities of computers in the mid-

1990s. The lack of detailed, 3D graphics is likely related to the smaller percentage of sexualized female characters in these indie games.

Of the 80 male player characters, 36 (45 percent) were muscular. Male characters also exhibited 52 percent of all sexualization indicators. Across the four sexualization indicators, male characters exhibited 43 indicators, with a majority, 34, coming in the form of unrealistic body proportions. This was largely due to the 21 indicators identified in *Rogue Legacy* and the 11 in *Guacamelee!*. In *Guacamelee!* the main character begins the game as an average sized man but is transformed into a muscular, oversized hero by putting on a luchador mask. Equating physical strength to virtue and heroism is a common issue identified throughout the literature on video games (Downs and Smith 2009; Geraci and Geraci 2013; Lynch et al. 2016; Near 2013). The message these characters convey is that to be a hero, one must first be muscular and physically powerful.

NPCs were less sexualized than player characters. This is different from the sexualization of secondary characters seen in AAA games (Downs and Smith 2009; Lynch et al. 2016). For male NPCs, eight characters had two sexualization indicators, partially nude and unrealistic body proportion. All of these characters were luchadores in *Guacamelee!*. There were 16 female NPCs with unrealistic body proportion in *Torchlight*, *Trine 2*, and *Divinity: Original Sin*. With 92 total female secondary characters, this ratio of sexualization indicators to no indicators was lower at 23 percent than that for player characters, 33 percent. Although the difference in NPC gender portrayal from AAA games may be explained by the smaller teams and budgets of indie studios, it does mean that players are exposed to fewer sexualized characters while playing. There was more variation in

position and role for NPCs than there was for player characters. For player characters, 112 (85 percent) held dominant positions and 132 (100 percent) played the role of hero. For NPCs, 56 (24 percent) were dominant, 142 (61 percent) were equal, and 36 (15 percent) were submissive. The majority of the NPCs were present in three games—*Guacamelee!*, *The Banner Saga,* and *Divinity: Original Sin*—and many of them lacked any real depth, rarely saying more than a few sentences, their physical appearance seemed to be the priority for the developers. Fortunately, very few of these NPCs were sexualized.

The Developer Habitus

The developers' personal perceptions of gender, part of their habitus, shape the types of stories they tell as well as the characters and worlds they create. Nine of the studios in the sample had at least one woman on the development team, but only two games, *Gone Home* and *To the Moon*, were developed by a studio where women made up more than 15 percent of the team. Both games had female default characters and focused on character development and narrative. In *Gone Home*, the player plays as Katie who has just returned home from a trip to find her mother, father, and sister missing from their home. The lack of reason given for Katie's family's absence creates to a sense of suspense, leading the player to believe that, as would happen in a horror game, something nefarious had occurred. But as the player progresses, they discover that *Gone Home* is actually the story about Katie's teenage sister exploring her sexuality and falling in love with another woman. *To the Moon* explores themes of love and loss. By solving puzzles, the player to moves through a man's memories to help him fulfill his promise to his deceased wife to "meet her on the

moon" if they are ever separated. Neither of these games included combat, focusing instead on developing character's motivations and telling a story. With a greater proportion of female developers, the result is a pair of player characters that are thoughtful and do not conform to the stereotypical, hypersexualized portrayal of female common in video games from AAA developers (Downs and Smith 2009; Jansz and Martis 2007; Lynch et al. 2016).

Six games had all-male developers in programming or art roles: *Braid*, *Super Meat Boy*, *The Binding of Isaac*, *Spelunky*, *Rogue Legacy*, and *The Banner Saga*. *Braid* and *The Banner Saga* both had characters with personality and well-developed narratives; however, both game also included elements of violence, unlike *Gone Home* and *To the Moon*. In *Braid*, the player plays as Tim, a man who is trying to figure out why an unnamed woman, who is called "the Princess," left him for another man, called "the Knight." To accomplish this task, Tim uses his ability to rewind time to progress through an increasingly difficult series of puzzles while avoiding, or destroying, enemies. *The Banner Saga* tells the story of several caravans of people and giant humanoids, called the Varl, trying to survive the invasion of a hostile race named the Dredge following the death of the gods. Gameplay consists of dialogue trees, where the player can influence the story, and combat, where players fight enemies in turn-based combat. Although story is integral to these games, they both include gendered portrayals of women. In *Braid*, the Princess is treated as an object to be won back from the Knight. At the end of the game, it is revealed that she left Tim because she was unhappy, not because she was stolen away by the Knight. In *The Banner Saga*, Rook, the player character, is asked by the recently slain chieftain's wife,

Oddleif, to be the leader of those who survived the Dredge's attack on their village, saying. "They [the people in the caravan] won't follow a woman. Families would leave. Our banner [people] would be divided." The player has the option to decline, but Oddleif persists, arguing that, "This isn't the time for pretend." The implication is that, in the world of the game, women are unable to ascend to positions of authority.

Four of the games developed by all-male teams—*Super Meat Boy*, *The Binding of Isaac*, *Spelunky*, and *Rogue Legacy*—focused more on gameplay and game mechanics than story. In *Super Meat Boy*, the story is conveyed primarily through short, non-interactive videos, also known as cutscenes, at the beginning and end of each world (i.e., groups of levels). These cutscenes convey that Meat Boy must save his love interest, Bandage Girl, from the villain, Dr. Fetus; however, the player spends the majority of the game attempting to make it through increasingly complex and difficult platforming levels. In *The Binding of Isaac*, the default character is Isaac, a young child being abused by his religious mother who believes she is hearing the voice of God. The player progresses through the story by using their tears as projectiles to clear rooms full of enemies, such as spiders and sentient piles of feces. In *Spelunky*, the objective of the game, to retrieve a golden idol from a mysterious mountain, is told through a single cutscene shown before the game's title screen. The gameplay consists of navigating from the entrance to the exit of procedurally generated levels by whipping enemies, platforming, and using items. *Rogue Legacy* also has a cutscene at the beginning of the game, but there are also journal entries spread throughout the procedurally generated castle that tell the story of the Legendary

Knight going to fight the immortal, evil ruler. As a descendent of the Legendary Knight seeking revenge for his presumed murder, the player must clear rooms of enemies and defeat bosses using swords and magic to open a door that leads to the King's Hall. In all four of these games, the story is incidental to the gameplay and serves more as a justification for the general premise of the game than an attempt to tell a well-developed story.

Male developers, consciously or subconsciously, tend to make games for male players, reinforcing male habitus within society (Deuze et al. 2007; Johnson 2013). This means players, regardless of sex, are exposed to the developer's perceptions of gender norms. These perceptions can take many forms. Whether it is Oddleif's submission of power to Rook in *The Banner Saga* or the sexualized appearances of female character in *Torchlight* and *Divinity: Original Sin*, video games can reinforce the symbolic domination of male over female, mirroring that found in the development industry. The perceived natural affinity for technology assigned to men in the technomasculine worldview and the absence of women in game studios shape the games developers make, which in turn can shape the player, reinforcing masculine domination (Hesmondhalgh 2006; Johnson 2013).

CONCLUSION

Indie game development provides an opportunity for developers to work outside the gendered structure of traditional development, providing them with the opportunity to subvert gender norms. Based on the results of this study, that does not seem to be the case for all indie developers. Although there was more diversity game-to-game when compared to AAA games, only two of the indie games did not include sexualized or stereotypical characters and six games had

narratives that were gendered, casting a male character in the role of savior of a female character. With so few female developers listed in the game credits, the lack of diversity within the games is unsurprising.

Playing a video game is an inherently interactive activity. The player interacts with characters, pursues goals, and makes choices within the virtual world created by the developer. As the creation of an individual, or group of individuals, the virtual world is shaped by the developers' habitus. Unfortunately, when the games include numerous gendered portrayals, or ask the player to undertake gendered quests, they become acts of symbolic violence. This is not to say the developer is at fault. We are all shaped by the societal structures we are a part of, and the social structure within video game development is inherently masculine. For male developers, these structures serve to reinforce their male habitus, causing them to unconsciously perpetuate masculine domination. For female developers, these structures are obstacles teach them to submit to the path of least resistance, cooperation, submission, and finally the adoption of the masculine. Yet, there is room for optimism.

The games with the greatest proportion of female developers were also the least gendered. Masculine domination, within fields of production specifically and broader society in general, is at its strongest when unchallenged. As more women enter the field of video game development, it is likely the gendered nature of video games, both in development as well as the broader gaming culture, will continue to become more inclusive (Fox and Tang 2014; Lynch et al. 2016).

Limitations

There were two primary limitations to this study. The first limitation was the lack of additional coders. Most scholarly studies of video games employ between three and five additional coders to ensure consistency and reliability (Downs and Smith 2009; Lynch et al. 2016). With only one coder, the possibility that my results are not reliable does exist, but my reliance on theory and previous research methodology do increase the validity of the findings.

The third limitation to this study was the gameplay sampling. Although there are established methods for sampling characters (Downs and Smith 2009; Jansz and Martis 2007; Lynch et al. 2016) and promotional materials, such as box art (Near 2013), there is no widely accepted method for sampling gameplay. When gameplay from multiple games is studied, which is rare, the researcher usually only looks at 5 to 20 minutes of gameplay and reviews gameplay recorded by someone else, such as a steamer on YouTube (Consalvo and Dutton 2006; Lynch et al. 2016). Unlike film or television, video games do not have fixed lengths; the length of a video game is largely dependent on the player's ability and/or desire to complete all objectives. This means the gameplay length depends on the researcher's judgement or how much video is available from other sources. Consalvo and Dutton (2006) attempted to address this issue by developing a methodological approach for game study, but this approach does not address sampling methods for gameplay and is more applicable to Games Studies than Sociology. A quantitative analysis of sales and player data from the major hardware manufacturers—Microsoft, Nintendo, and Sony—as well as digital distributors such as Steam and GOG, would allow for a more standardized

approach. I attempted to resolve this issue by playing each game for five hours after looking at the average completion time for games, roughly ten hours, and the fact that most players to not finish games. However, it is possible my previous experiences with some of the games and my skill playing each game may have influenced my sample.

Directions for Future Research

A quantitative analysis of gender portrayals focusing on a large number of indie video games would provide a better understanding of how gender is portrayed in video games. Many of the studies of AAA games include characters from 50 or more games, allowing the researcher to conduct statistical analyses. A similar study of indie games would expand the literature and offer more generalizable information about indie games, which would allow for more direct comparisons between AAA and indie games.

More in-depth interviews and surveys of game developers would also be of sociological value. A majority of the literature on video games focuses on the players and the games themselves. A qualitative study including both AAA developers as well as indie developers would provide insight into what difficulties these two groups may face. Understanding the experiences and views of the people who make the games could help contextualize the literature that already exists while providing insight into a highly gendered field

APPENDIX SECTION

APPENDIX 1

Ethnographic Content Analysis Game List

Game	Developer	Date Published
Braid	Number None	2008
Torchlight	Runic Games	2009
Super Meat Boy	Team Meat	2010
Trine 2	Frozenbyte	2011
Cave Story	Nicalis, Studio Pixel	2011
The Binding of Isaac	Edmund McMillen and Florian Himsl	2011
To the Moon	Freebird Games	2012
Guacamelee!	DrinkBox Studios Inc.	2013
Spelunky	Derek Yu	2013
Gone Home	The Fullbright Company	2013
Rogue Legacy	Cellar Door Games	2013
Don't Starve	Klei Entertainment	2013
The Banner Saga	Stoic	2014
Divinity: Original Sin	Larian Studios	2014
Transistor	Supergiant Games	2014

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