

# Violence, Sexuality, and Gender Stereotyping: A Content Analysis of Official Video Game Web Sites

[Tom Robinson, Mark Callister, Brad Clark and James Phillips](#)

[WJMCR 13 \(February 2009\)](#)

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## Abstract

To promote video games, game manufacturers create official Web sites for their games that are designed to attract consumers' attention and push them to purchase. This paper examines the messages that these Web sites send to the public regarding violence, sexual content, drug and alcohol use, and racial and gender representations. Results show that male characters outnumber female characters, that female characters are shown in a more stereotypical and sexualized manner, and that Hispanic characters are grossly underrepresented. The majority of game Web sites display violent acts that include actual shootings with blood and that no significant difference exists between the number of violent acts on the Web sites for games rated (T)een and games rated (M)ature. Given the violent depictions, stereotyping, and sexualized portrayals on these Web sites, parents should be as vigilant in monitoring their children's exposure to the Web sites as they are to the video games. Video gaming is a mainstay of American children's leisure time. Today, video games have become a multibillion-dollar industry, with combined computer and video game sales topping \$7.4 billion and selling over 240.7 million computer and video game units in 2006.<sup>1</sup> This amount nearly matches the \$9.7 billion generated by the 2007 movie box office.<sup>2</sup> As for gaming equipment, 85% of teens and 77% of preteens in the United States say they own a video game console.<sup>3</sup> Moreover, teens play electronic games an average of 9 hours per week, with male teens playing 3.5 times more hours per week than female teens (14 hours compared to 4 hours). Children ages 6 to 11 are equally engaged, playing an average of 10 hours per week, with boys playing 13 hours and girls playing 5 hours.<sup>4</sup> Clearly the video game industry has become a major force in the worlds of both business and entertainment.

## Introduction

With so much at stake in terms of profitability, game manufacturers seek new ways to advertise and promote games to players of all ages. One essential and increasingly popular marketing tool among manufacturers is the Internet. Gaming companies create official Web sites that, at their core, are interactive advertisements designed to attract, dazzle, and direct consumers to purchase their products. These sites experience heavy traffic as potential buyers sample games, examine graphics, test features, explore story lines, interact with characters, and experience the overall atmosphere of each individual game. These easily accessible sites have few if any entrance restrictions (occasionally asking for the easily manipulated birth date), thus attracting consumers of all ages. Nevertheless, while the often violent and salacious content of video games has drawn criticism and concern from a growing number of parents, researchers, social critics, and policy makers, examination of the content from easily accessible official game Web sites

has been largely ignored.

A careful examination of official Web sites would provide a more comprehensive understanding of the messages and strategies employed in the video gaming industry. This research documents the messages that these widely popular but loosely regulated video game Web sites send to the public-including young children-regarding violence, sexual content, and gender representations.

### *Video Game Advertising*

Because official video game Web sites are used to advertise and promote the games to potential buyers, the advertising content that so successfully drives sales, is worthy of careful examination. Advertising for video games comes in many forms, including television commercials, newspaper and magazine advertisements, Internet ads, point-of-purchase displays and packaging (i.e., jacket covers). Beyond oral and written appeals, these advertising messages use engaging graphics and visuals to introduce the characters, show snapshots of the action, and demonstrate the different attributes of the game-all with the purpose of involving consumers and enticing them to buy. Because these ads are so easily accessible to children and adolescents when they are alone or in a store contemplating a purchase,<sup>5</sup> the potential presence of distorted, objectionable, and even harmful material is of great concern. Violent and sexual content in these ads, for instance, can carry an attractive and persuasive force that appeals to young viewers while gender and racial portrayals contribute to the overall cultural messages communicated in the media.

Past research of video game advertising reveals some areas of concern. Scharrer,<sup>6</sup> for instance, conducted a content analysis of video game advertisements in top three gaming magazines and found that, just like the games themselves, the advertisements contained more males than females, violence appeared in more than half of the ads, and more than a third involved shooting as the most frequent violent act. In addition, Scharrer reported the prevalence of weapons and sexual content appearing in the ads. Similarly, Provenzo's<sup>7</sup> examination of video game jacket covers found that men outnumbered women 13 to 1 and that men were shown initiating or dominating the action. In games that did have female characters, they were typically shown in a provocative light.<sup>8</sup> A later study examining jacket covers<sup>9</sup> found that over a third contained violent copy, nearly three quarters visually depicted physical violence and violence with weapons, half included scenes of partial nudity, and a small number containing images of sexual behavior.

With evidence that violent and sexual content and gender stereotyping are emphasized in video game advertisements and jacket covers, the question arises: What content and strategies are employed on the increasingly popular, yet less restricted and regulated, official game Web sites? Arguably, advertising on video game covers and gaming magazines receives greater parental scrutiny and restrictions than official game Web sites. With 83% of game players turning to the Internet for information when making decisions about entertainment choices, official game Web sites are a highly valuable medium for both gamers and game manufacturers.<sup>10</sup>

Each game's official site is, in effect, an advertisement that "is likely to depict the most exciting, stimulating, potentially provocative and attention-grabbing elements or representations of the game."<sup>11</sup> Internet Web sites are able to combine a host of

features (e.g., trailers, screen shots, and reviews by critics and players) that include the elements Scharrer mentions and encourage game sales. Consumers depend on this visual and written information when making purchasing decisions. But beyond product decisions, as viewers sample and experience these Web sites, the consumed images and messages also have the potential to influence their perceptions of issues relevant to game content. Viewer attitudes and perceptions of such societal issues as gender representations, violence and sex, and substance abuse are informed and formed, to some extent, through video game Web site content.

## **Theoretical Framework & Related Literature**

Given that this study explores the elements of violence, sexuality and stereotyping present in video game Web sites, the theoretical foundations and relevant literature for each of these content areas will be examined separately. The first will review media violence literature and will draw upon the General Aggression Model and social cognitive theory to explain potential media effects stemming from exposure to violent content. Social cognitive theory will also provide a theoretical framework from which to understand sexual media effects, in addition to masculinity ideology theory. Finally, social comparison theory, third-person effects, and the presumed influence model will be reviewed to understand the potential effects of media stereotypes.

### *Violence and Media Effects*

Generally theories of media violence are divided into short-term and long-term effects, with some theories spanning both.<sup>12</sup> Theorists believe that short-term effects stem from priming, arousal, and imitation, and long-term effects flow from desensitization and observational learning.<sup>13</sup> The General Aggression Model (GAM) seeks to incorporate both short- and long- term effects theories into a more comprehensive theoretical framework.<sup>14</sup> The General Aggression Model (GAM) is not a violent media effects theory per se as it deals more generally with human aggression, but it is helpful in explaining the influence of violent media.<sup>15</sup> GAM postulates that a variety of aggression related "scripts" are activated in memory after viewing violence in the media. When activated, these scripts are used as a guide to interpret the effectiveness and appropriateness of aggressive behavior. According to the GAM, children and adolescents are particularly vulnerable to the effects of viewing violence in the media because they are still developing scripts relating to aggression. As a result, violence viewed in childhood and adolescence is likely to have a greater impact on aggressive thoughts and behavior than violence viewed in adulthood when script formation is more established.

Another often cited theory applied to violent media content is Bandura's social cognitive theory. This theory posits that observational learning and imitation can lead to long-term effects from exposure to media violence.<sup>16</sup> These effects include the development of hostile problem-solving scripts, negative attribution biases, and normative beliefs deeming aggression appropriate. Humans can be shaped by both direct experience and observation; thus, video game players who identify with game characters, as well as see those characters regularly solve problems via violence or receive rewards for hostility, are more likely to develop normative beliefs regarding the positive nature of aggression in dealing with real life problems and social interactions.<sup>17</sup>

## *Violent Video Games Literature Review*

Several factors related to both game content and technology moderate the influence of violent video games on aggression. Higher amounts of blood in violent video games increased physically aggressive intentions,<sup>18</sup> as well as amplified levels of arousal and weapons usage in the game.<sup>19</sup> Therefore, the more hostile the game genre and the more realistic the gaming environment is, the greater the degree of presence felt and the higher the level of expected hostility from others in social conflicts. Bartholow, Anderson, Carnagey and Benjamin<sup>20</sup> discovered that mere pictures of weapons prime aggressive thoughts in people, and Carnagey and Anderson<sup>21</sup> found that individuals who played games that rewarded the use of violence displayed enhanced aggressive feelings and hostile thinking, which led to an increase in aggressive actions.

The violent content in video games has been a significant area of concern for both scholars and policy makers. As the technology supporting video games has improved, violence in video games has evolved from the blasting of asteroids in space to graphic gunfights with associated blood and gore.<sup>22</sup> In many games, violence increases as players advance through the various levels, thus "using violence as a problem-solving technique"<sup>23</sup> or as a reward.<sup>24</sup> Researchers have determined that nearly 80% of all video games contain some form of aggression or violence as part of the strategy or objective,<sup>25</sup> and intentional violence was seen in 64% of the games rated (E)veryone,<sup>26</sup> 98% of the games rated (T)een,<sup>27</sup> and 100% of the games rated (M)ature.<sup>28</sup> Interestingly, Thompson et al.<sup>29</sup> also found that games rated (T)een had significantly more time dedicated to violent gameplay (36%) than did games rated (M)ature (22%).

Another area of violence in video games, which is rated by the Entertainment Software Rating Board (ESRB), is the use of profanity and profane gestures. Profanity and profane gestures in language, writings, and song lyrics appeared in 27% of the games rated (T)een.<sup>30</sup> In a more recent study of 147 (M)ature-rated video games, Thompson et al.<sup>31</sup> found strong language, writings, and gestures in 67% of the games, which is an average of 17 uses of profanity per hour of gameplay.

### *Sexual Content and Media Effects*

Beyond violent content, many video games and their corresponding Web sites are replete with sexual content. In content analyzing the game Web sites, two theories—social cognitive theory and masculinity ideology theory help to explain the potential impact that the sexual material on these sites may have on viewers.

### *Social Cognitive Theory*

As previously noted, Bandura's social cognitive theory (or cognitive social learning theory)<sup>32</sup> focuses on the impact of observational learning on behavior. Factors that enhance observational learning are the status of the model (attractive, powerful, popular, etc.), the possibility of performing the observed behavior, and the type of reward associated with the modeled behavior.<sup>33</sup> Environmental, cognitive, and attitudinal factors are considered bi-directional.<sup>34</sup> Thus, video gamers who simultaneously observe and engage via proxy in sexual behavior in a game context, with such behaviors being rewarded or suffering no serious negative consequences, are more likely to engage in similar behavior if future situations provide an

opportunity. Finding evidence of bidirectionality between factors, Somers and Tynan<sup>35</sup> noted that increased exposure to sexual content and dialogue boosted amounts of sexual behavior, but that adolescents already engaging in higher levels of sexual behavior were also more attracted to media content containing more sexual content and dialogue. Consequently, both factors were simultaneously at work in shaping adolescents sexual attitudes, behaviors and media consumption.

### *Masculinity Ideology Theory*

Masculinity ideology theory postulates that men internalize cultural standards for masculinity, adapting their behavior and attitudes to cultural masculine norms.<sup>36</sup> Some of these masculine standards in American society are independence, toughness, and sexual virility, among others.<sup>37</sup> As men and boys are exposed to media depictions of masculinity, particularly sexually powerful and promiscuous role models, they are more likely to see such behavior as the definitive ideal for their gender, and adopt such practices. Researchers have found that higher levels of media usage and engagement did increase the degree of traditional masculine ideology found in men.

### *Literature on Sexual Media and Adolescents/Children*

The empirical data about the effects of sexual content in the media on users has begun to accumulate, signifying that:

Overall, evidence indicates that frequent and involved exposure to sexually oriented [media] is associated with greater acceptance of stereotypical and casual attitudes about sex, with higher expectations about the prevalence of sexual activity and of certain sexual outcomes, and, even occasionally, with greater levels of sexual experience.<sup>38</sup>

More specifically, sexual media lead to accelerated maturation, with youth exposed to higher amounts of sexual content exhibiting the sexual behavior of those nine to seventeen months older.<sup>39</sup> Another study found that about 11% of seventh- and eighth-grade students' media consumption contained sexual content, and exposure to sexual content was positively and significantly correlated with both current sexual activity and future plans regarding sexual behavior.<sup>40</sup> Various factors influence the degree to which adolescents and children seek out sexual media, including gender, one's degree of sensation seeking, life satisfaction, sexual interest, past levels of sexual media use, and the age of one's friends.<sup>41</sup>

As for sexual content in video games, Thompson et al.<sup>42</sup> examined 36 (M)ature-rated video games and determined that 36% of their sample contained sexual themes and that sexual themes were depicted for 4.9% of the gameplay time. Prostitution was also shown in six (17%) of the games. In (T)een-rated games, 13.9% of the games contained sexually suggestive themes and 1.3% contained more mature sexual themes.<sup>43</sup> Scharrer<sup>44</sup> observed 11 sexual acts in the advertisements for video games. The sexual acts included intimate touching, sexual words, sexual innuendo, disrobing, and one instance of implied sexual violence.

### *Media Stereotyping*

Scholars have utilized numerous theories to help explain potential effects of exposure to stereotypes in the media, including social identity theory and gender

identity theory,[45](#) social-cognitive theory,[46](#) self-discrepancy theory,[47](#) and ambivalent sexism theory and hegemonic masculinity theory.[48](#) However, the theories most relevant to this study and having the greater empirical support explaining stereotyping effects from the media are social comparison theory, third-person effects, and the presumed influence model.

### *Social Comparison Theory*

Social comparison theory[49](#) initially posited that people seek to know where they stand in comparison to similar others on such categories as knowledge or skill levels and beliefs. Others have refined the theory, noting that unintentional comparisons often occur, including with those who are quite different from oneself,[50](#) other areas of comparison exist, including appearance,[51](#) whether one compares to someone considered better or worse influences the emotional result of the comparison,[52](#) and comparisons to people from more universal sources, such as mass media, induce greater pressure to adopt unrealistic standards than do comparisons to more particular sources, such as family and friends.[53](#) Thus, video game players, according to social comparison theory, will be likely to compare their physical appearance to the more realistic characters in the games they play, and given that the comparison is to a more universal target, and likely an upward comparison, both negative affect and pressure to have a body more like the observed characters will be experienced.

Several studies have found support for social comparison theory in testing for negative media effects. Morrison, Kalin, and Morrison[54](#) found that adolescent males frequently exposed to mass media images of the idealistic male physique were much more likely to engage in universal social comparison, leading to self-esteem problems, weight-gaining diets, and steroid use. Adolescent girls with higher exposure rates to mass media ideal body types also practiced more universal social comparison, resulting in self-esteem issues, dissatisfaction with body type, weight-loss dieting, and harmful weight control behaviors. Engeln-Maddux[55](#) discovered that women who make upward comparisons to images of attractive female models in print advertising were more likely to experience lower satisfaction levels with their physical appearance, as well as to internalize the thin body type. Similarly, Tiggemann and McGill[56](#) noted in their study that women who made social comparisons to thin, attractive body types in the media experienced higher levels of negative mood and body dissatisfaction. The presence of the thin ideal for females and the muscular physique for males across numerous media creates the stereotype for body types that are difficult, if not impossible for most to achieve. According to social comparison theory, such comparisons invite harmful comparisons that may lead to body dissatisfaction.

**Presumed Influence Theory and Third-person Effects** Because of the theoretical similarities between the presumed influence model and third-person effects (in fact, the former derives from the latter), these two theories will be looked at together. Both theories posit that media has indirect yet powerful effects on attitudes and behavior. The third-person effect (or sometimes, third-person perception) contends that people believe that negative mass media has a greater impact on others than on themselves.[57](#) This view—a self-serving bias—stems from the tendency of people to see themselves in the most optimistic light possible.[58](#) Hence, a video gamer would be liable to perceive that the stereotypical characters and images found in video games would be more likely to negatively influence others than him or herself.

The presumed influence model builds on the third-person effects with a few changes. First, the presumed influence model does not require identification of whether or not the media effect is negative or positive; second, one does not have to consider whether or not the message has any effect on oneself.<sup>59</sup> Thus, the presumed influence model argues that an individual will perceive that mass media influence others, and that an individual will then change his or her attitudes or behaviors because of the presumed influence on peers or society at large.<sup>60</sup> In a video-gaming context, a player might believe that others will see the thin, attractive female characters (if the gamer is a girl), or the masculine, aggressive male characters (if the gamer is a boy), and think that such a body type is the ideal physical appearance for that gender. That player may then attempt to adopt that body type (or personality), not because he or she believes it is ideal, but because others do.

Park<sup>61</sup> found that female college students who read fashion and beauty magazines believed that the ideal thin body type was widespread in the media, which led to the supposition that others, both men and women, would be influenced by this and would then prefer the thin body type. This causal chain resulted in these magazine-reading women feeling pressure to be thin themselves. Similarly, Thomsen<sup>62</sup> discovered that reading magazines replete with thin, attractive models boosted women's beliefs about men's expectations of thin women, resulting in increased worry about their own body type. Others<sup>63</sup> have determined that in both men and women, distinctions in perceptions of media influence on both self and others predicted belief in normative thin body types for women. Additionally, Chia<sup>64</sup> noted that the total perceived media effects on both self and peers explained women's plans to lose weight, but the difference between perceived effects on self and others was negatively correlated with dieting intentions.

### *Literature Review of Media Stereotypes*

In examining the influence on adults of stereotypes on the media, researchers have found statistically significant negative effects on both women and men. For women, exposure to thin body types was positively correlated with dissatisfaction with one's body, internalizing the thin ideal, and eating attitudes and practices.<sup>65</sup> Furthermore, after exposure to images of the thin body ideal, women experienced increased levels of anger, anxiety, body dissatisfaction and depression, which levels were positively associated with desires to be thin and symptoms of eating disorders.<sup>66</sup> Exposure to images of the ideal male body type likewise increased dissatisfaction with one's body for men,<sup>67</sup> which correlated with the drive for increasing one's muscularity.<sup>68</sup> In addition, as men feel pressured by the mass media to have an ideal body type, they have lower levels of body satisfaction, body esteem and self-esteem, and they also suffer more psychological disorders, such as depression, and engage more in unhealthy behaviors, such as extreme exercising.<sup>69</sup>

Adolescents and children are also not immune from body image stereotyping. Clark and Tiggemann<sup>70</sup> found that peer and media influences interacted to create an "appearance culture" that caused 9- to 12-year-old girls dissatisfaction with their body and increased their desire to be thinner, with Dohnt and Tiggemann<sup>71</sup> making a similar finding among 5- to 8-year-old girls. For adolescent boys, media influenced the degree they experienced symptoms of muscle dysmorphia—an obsession with the idea that one is not sufficiently muscular.<sup>72</sup> Interestingly, both boys and girls were equally found to develop beliefs that women are sex objects as

they experienced exposure to increasingly explicit sexualized media<sup>73</sup>; and boys regularly exposed to the thin female ideal body type in the media are more likely to evaluate physical attractiveness as important and expect such in a girlfriend, evidencing an indirect effect of idealized female body types on girls via boys' assessments and anticipations of girls' body types.<sup>74</sup>

Several content analysis studies have focused specifically on gender stereotyping in video game-related materials. Miller and Summers<sup>75</sup> coded forty-nine articles from gaming magazines in the United States. Of the 115 characters found, males tended to be the main, heroic characters, were more powerful and muscular, and had greater abilities and higher weapons' use. Female characters, on the other hand, were generally secondary characters, were sexier in appearance and more innocent in nature, and wore more revealing clothing than male characters. Jansz and Martis,<sup>76</sup> in looking at the introductory films of video games, found just as many leading female characters as male characters, but female characters were more sexualized than their male counterparts. Ogletree and Drake<sup>77</sup> found that both genders viewed female game characters as weaker, passive, and sexually provocative.

Researchers have consistently found a disparity in the number of male versus female characters appearing in video games, with 60% to 73% of the games featuring male characters compared to only 2% to 12% featuring females.<sup>78</sup> Burgess, Stermer, and Burgess<sup>79</sup> analyzed 225 video game covers, finding male characters four times more likely to be featured than females, and male characters. Additionally, "female characters were more likely to be portrayed with exaggerated, and often objectified, sexiness,"<sup>80</sup> and covers matched sexiness and violence for female characters more often than violence and muscularity for male characters. Finally, Dill and Thill<sup>81</sup> performed a content analysis of American video game magazines. Not surprisingly, males were more common than females, with female characters portrayed sexually more often than male characters (60% compared to 1%), more scantily clad (39% of the time versus 8%), and more frequently displaying a mix of sex and aggression (39% versus 1%). In sum, these findings show a marked lack of female representation, suggesting, "players are more likely to have an opportunity to play a non-human character than a female."<sup>82</sup>

While the issue of under representation is troubling, perhaps the issue of greater concern is the presence of gender stereotyping in video games. Most studies acknowledge that female stereotypes abound in video games.<sup>83</sup> Female characters are portrayed as more sexualized and attractive than male characters, and they are significantly more likely to be engaged in sexual behaviors or shown partially nude.<sup>84</sup> Dietz<sup>85</sup> found that female characters were "shown as visions of beauty with large breasts and thin hips," with the majority of female characters wearing clothing that brought attention to their bodies by exposing their breasts, buttocks, and midriffs.<sup>86</sup> When cleavage was examined, researchers found that 2.82% of female characters were flat-chested, 56.34% were average, and 40.85% were voluptuous with unrealistically large breasts.<sup>87</sup> Interestingly, of those females with voluptuous breasts, 31% were in games rated (E)veryone.<sup>88</sup>

While female characters in video games are often sexualized, male characters are portrayed as "hypermasculine," with over-exaggerated physical strength, virility, and masculinity.<sup>89</sup> Male characters are typically void of all emotions, making them far less likely than their female counterparts to share, help, or nurture.<sup>90</sup>

Portraying male characters as aggressive, hostile and violent is not only acceptable but seen as normal. For example, male athletic characters in sports games are more likely to show physical and verbal aggression than other characters.<sup>91</sup> Heintz-Knowles and Henderson<sup>92</sup> found that the primary male character role in the top video games was that of "competitor" (47%). The two primary roles for female characters in video games were either "victim" (or "damsel in distress") or the "evil obstacle" that the hero must conquer to achieve the goal of the game.<sup>93</sup>

**Addictive Behaviors and Substance Use in Video Games** The use and presence of addictive substances in video games is the least studied area in video game research, even though many of the categories that the ESRB use to rate video games, referred to as "Content Descriptors," fit into this area (e.g., use of drugs, alcohol, or tobacco; sexual themes; and gambling).<sup>94</sup> Researchers observed depictions of addictive substances in 15% of (T)een-rated games and in 58% of (M)ature-rated games.<sup>95</sup> This included 47% of the games depicting alcohol use, 22% depicting tobacco use, and 14% depicting illicit drug use. This is an area of research that is understudied and while substance use is not a primary focus in this study, some attention is given since such content does exist in video games.

## **Hypotheses and Research Questions**

With this background in mind, understanding how video game companies present these issues on their official game Web sites can provide important insights into the nature of the images and content that can be viewed by audiences of all ages and is used to attract attention and sell video games. The following research questions and hypotheses will guide this study to further the understanding of video game content:

RQ1: Will more male characters or female characters be portrayed on official video game Web sites?

H1: Regarding physical characteristics, female characters will be portrayed more stereotypically than male characters.

RQ2: To what extent are male characters shown with large muscular bodies?

H2: Female characters will be more sexualized than male characters.

RQ3: How much sexual content is present on video game Web sites?

RQ4: How much violent content, in terms of the number of violent acts, the number of weapons, and the amount of blood shown, is present on video game Web sites?

H3: The amount of violent acts on game Web sites will increase as game rating categories become more restrictive.

RQ5: How many addictive substances and behaviors are shown on video game Web sites?

RQ6: How much profanity is present on video game Web sites?

## **Method**

### *Sample Selection*

The sample for this study was taken from GameSpot.com's listing of the most popular video games of 2005 and 2006 that operate an official game Web site. GameSpot is listed as the top site for video games by the Google search engine's ranking feature.<sup>96</sup> The site is considered the Web's most innovative gaming community, reaching millions of gamers each week with news stories, game previews, video streams, cheats, hints, and more. GameSpot.com is unique because it offers users a list of games that are currently the most popular and whose sites are receiving the most visits. Any game that did not feature an official game site (e.g., *Dead or Alive 4*, *MVP Baseball 2005*) was eliminated from the sample, leaving a total of 47 games (see [Appendix A](#)). For each official game Web site, the game's rating ([E]veryone, [T]een, and [M]ature) and genre (Sports, Puzzle, Fantasy-Odyssey, Action Adventure, War Strategy, and Other) were also coded.

### *Coding Scheme*

A coding instrument was created using information from past research methods for observing video game content.<sup>97</sup> The coders were instructed to code only the characters that were an integral part of the storyline or game such as major characters who were listed on the Web site as a main character or they were a recurring character throughout the game, or a minor character who appeared in at least two different scenes, helped develop the storyline but was not central to the plot. Characters who were part of a large group of henchmen or background warriors and were identical in look and design were coded only once as one unique individual character. For each individual, the coders first identified the character's humanity (human, nonhuman, or humanoid); gender (male, female, or unknown/other); role (hero, villain, other, or unknown); and approximate age (young, teen, young adult, middle aged, young old, or old).

The coders then rated the character's level of attractiveness as "not attractive," "average," or "extremely attractive"<sup>98</sup> and their level of muscularity as "weak," "average muscles," or "large muscles."<sup>99</sup>

The sexuality of each character was coded in terms of the character's cleavage (female characters only), type of clothing worn, body size, and overall sexuality. The cleavage for each female character was coded as "flat," "average," or "voluptuous."<sup>100</sup> Categories for attire included "fully clothed, loose fitting clothes"; "fully clothed, tight fitting clothes, revealing body shape"; "no shirt, midriff showing, low-cut shirt, cleavage showing"; "legs bare, mini skirt, shorts"; "bathing suit,"<sup>101</sup> "exposed majority of breast, buttocks, or genitals"; or "naked."<sup>102</sup> The body size of each of the characters was determined by comparing the character's body size to Thompson and Gray's<sup>103</sup> Contour Drawing Rating Scale, where figures are shown as "very thin," "thin," "average," "overweight," or "obese." Finally, the coders determined the character's overall sexiness as "not sexy at all," "average sexuality," or "very sexy."<sup>104</sup>

In addition to the sexuality of each character, the sexual content contained on each Web site was also coded. Coders counted the instances of passionate kissing, physical touching, intimate touching, disrobing, nudity, implied intercourse, and actual intercourse. The inclusion of sexual words and sexual innuendo were also recorded.

For violent content, coders counted the number of violent acts, the number of

weapons, and the amount of blood shown on each Web site. Violence was defined as "acts in which the aggressor causes or attempts to cause physical injury or death to another character."<sup>105</sup> Each violent act was counted once with the following stipulations: (a) continuous attacks or violent acts without pause in a melee were coded as one violent attack; (b) when a character was able to hit other characters multiple times in an attack, such as in a spinning attack or with violent magic, the attack was coded as one violent attack; (c) intentional acts of physical force representing normal play in sports games were not counted as violent acts; (d) punches and kicks in boxing and wrestling games were coded as a violent attack because the intention of these acts was to cause injury; and (e) battles of eight or more characters engaged in some form of melee were coded as one battle rather than counting each individual violent act.<sup>106</sup> The number and type of any weapons shown or used on each Web site were also counted. A weapon was considered to be any device used by a character to inflict injury or death on an opponent (e.g., sword, club, knife, gun, etc.). Only weapons that could be positively identified as a weapon and those where the type of weapon could be determined were counted. One way to determine the amount and level of violence in a video game is to code for the amount of blood that exists on a Web site; therefore, coders were asked to count all existing and original instances where blood was shown. Blood was defined as "a red fluid originating from an injured human or any colored fluid originating from an injured creature."<sup>107</sup> The level of blood was coded as "animated blood" (discolored and/or unrealistic depictions of blood), "realistic blood" (realistic-looking blood that is red in color), or "blood and gore" (realistic blood and the mutilation of body parts).<sup>108</sup>

The final two variables counted by the coders were the portrayal and use of addictive substances and behaviors (alcohol, tobacco, illegal drugs, and gambling) and the use of profanity (spoken, written, or in song lyrics). Profanity was considered the "use of abusive and vulgar language (including mild language and four-letter words), anatomical references without the use of words, and obscene gestures."<sup>109</sup>

In order to determine intercoder reliability, two independent coders each coded 10 (21%) of the 47 official game Web sites, and a Cohen's Kappa was calculated to determine reliability. No results from the reliability check fell below 81%, which was within the acceptable range. After reliability was established, one coder examined the remaining 37 Web sites.

## **Results**

There were a total of 839 characters in the 47 official video game Web sites. Twenty-eight characters were coded as nonhuman, 163 were coded as a humanoid, and 648 were coded as human. Sixty-six of the characters were coded with an unknown gender, leaving 773 gendered characters. In response to RQ1, male characters outnumbered female characters 3 to 1 (577 male characters to 196 female characters). Even for games where players could pick the character's gender (e.g., *The Sims 2* and *Guild Wars*), there were still more male characters (60%) than female characters (40%) on the Web site.

H1 posited that female characters would be stereotyped in terms of their physical characteristics more often than male characters. Female characters were shown 80% of the time as being "very thin" or "thin," with 57% having an "average" chest size and 31% having a "voluptuous" chest size. Females were found to be

significantly younger than males ( $X^2 = 172.945$ ,  $df = 65$ ,  $p < 0.000$ ), with 89% of female characters compared to 57% of male characters coded as "young adult" or "teen." Female characters were also portrayed as significantly more attractive than male characters ( $X^2 = 195.308$ ,  $df = 2$ ,  $p < 0.000$ ), with 72% of females and only 18% of males coded as "extremely attractive." In contrast, 23% of males and 6% of females were coded as "not attractive." One area that may not be a typical female stereotype was the roles female characters were given. A large percentage of female characters were portrayed as "heroes" (83%) compared to other characters, including the "villains" (17%).

RQ2 examined the extent to which male characters were shown with large muscular bodies. Thirty-five percent of the males were coded as having "large muscles and very well defined," and another 64% were coded as having "average muscles and body size."

H2 predicted that female characters would be more sexualized than male characters. In terms of sexiness, 37% of females were coded as "very sexy" while only 6% were coded as "not sexy." Females were significantly more likely to appear with fewer clothes or in tighter fitting clothing than males ( $X^2 = 165.907$ ,  $df = 6$ ,  $p < 0.000$ ). For example, 17% ( $N = 31$ ) of female characters appeared in a bathing suit, compared to only 2% ( $N = 7$ ) of male characters. Additionally, 20% of females ( $N = 42$ ) appeared in shorts or miniskirts, and 20% ( $N = 42$ ) were shown in low-cut shirts. Only 25% ( $N = 49$ ) of females were portrayed fully clothed and in loose-fitting clothes, while 70% of males ( $N = 403$ ) were pictured fully clothed and in loose-fitting clothes. Fifteen percent of (M)ature games also included characters that were coded as being naked or having exposed breasts, buttocks, or genitals. Of the characters coded as "naked," 88% were female. These results clearly indicate that there is a difference in how female and male characters are portrayed in terms of sexuality.

For RQ3, Table 1 shows the number of Web sites that portrayed the different sexual acts. Only a small number of video game Web sites contained sexual acts; however, for those that did contain sexual acts, physical touching, sexual words, and sexual innuendo were the most common. The largest number of sexual innuendos were on the Web sites of Grand Theft Auto: San Andreas ( $n = 19$ ), Grand Theft Auto: Liberty City ( $n = 12$ ), and The Sims 2 ( $n = 7$ ). Grand Theft Auto: Liberty City also had the largest number of sexual words ( $n = 15$ ) followed by The Sims 2 ( $n = 6$ ). There were no instances of actual intercourse.

**Table 1: Number of Game Sites with Sexual Acts**

SEXUAL ACT	NUMBER OF SITES (N=47)	%
physical touching	7	14.9
sexual words	6	12.8
sexual innuendo	5	10.6
implied intercourse	4	8.5
disrobing	4	8.5
intimate touching	4	8.5
passionate kissing	2	4.3
nudity	2	4.3

actual intercourse 0 0.0

RQ4 looked at the amount of violent content on the Web pages in terms of the number of violent acts, number of weapons, and the amount of blood shown. The results indicate that 100% of both (M)ature- (N = 15) and (T)een- (N = 20) rated game Web sites and 60% (N = 7) of (E)veryone-rated game Web sites contained some form of violence. Table 2 shows the percentage of games that featured each of the different types of weapons. Star Wars III: Revenge of the Sith had the largest number of weapons (538), followed by Star Wars Battle Front II with 525 and Halo 2 with 366 weapons. Surprisingly, a one-way ANOVA found no significant difference for the number of weapons on (T)een sites or (M)ature sites.

**Table 2: Number of Game Sites with Weapons**

WEAPON	NUMBER OF SITES (N=47)	%
guns	26	55.3
explosives	23	48.9
swords	18	38.3
sharp objects	16	34.0
blunt objects	14	29.8
knives	11	23.4
violent magic	10	21.3

As would be expected with such a large percentage of guns, the highest percentage of violent acts (see Table3) was shootings (59.6%) followed by stabbings (36.2%). Both of these extremely violent acts occurred more often than punching (36.2%) or kicking (21.3%). The amount of blood depicted on the Web pages was limited, with over half (57%) of the pages showing no blood at all. Animated blood was shown on 4.3% (n = 2) of the pages, and realistic blood was shown on 10.6% (n = 5) of the pages. Thirteen of the 47 Web pages (28%) had depictions of blood and gore, which included both realistic blood and the mutilation of body parts. The Web site with the largest number of violent act was Star Wars III: Revenge of the Sith, with 255 acts of violence, followed by Guild Wars with 202 and God of War with 180 acts of violence.

**Table 3: Number of Game Sites with Violent Acts**

VIOLENT ACT	NUMBER OF SITES (N=47)	%
shooting	28	59.6
stabbing	17	36.2
punching	17	36.2
kicking	10	21.3
hit with object	10	21.3
cartoon violence	4	8.5

For H3, a comparison was made between the number of violent acts and the different game ratings. A one-way ANOVA was calculated between the different ratings and violent acts and found a significant difference between the games rated

(E)veryone (n = 48) and both the (T)een (n = 1,132) games (p < 0.03) and the (M)ature (n = 837) games (p < 0.04). However, there was no significant difference between (T)een games and (M)ature games for the number of violent acts that appeared on the Web sites. In fact, overall there were more violent acts portrayed on the (T)een game Web sites than on the (M)ature game Web sites. A significant difference was found between the Web sites of (T)een- and (M)ature-rated games when comparing the depictions of blood (p < 0.03; (T)een = 5 and (M)ature = 15 instances of blood and blood and gore) and the use of profanity (p < 0.02; (T)een = 2 and (M)ature = 82 instances of profanity).

RQ5 looked at the amount of addictive behaviors shown on the official game Web sites. Less than 20% of the Web sites included a reference to or depiction of drugs or alcohol. Both (M)ature- and (T)een-rated games' Web sites contained the same percentage (25%) of addictive behaviors. Table 5 shows different addictive behaviors and the percentage of Web sites displaying those behaviors. The use of alcohol was the highest (10.6%), followed by illegal drugs (8.5%) and the use of tobacco (8.5%).

For RQ6, less than half of (M)ature games' Web sites (n = 7, 47%) and only 10% (n = 2) of (T)een rated games' Web sites contained profanity. There were no (E)veryone games with profanity. The Web site with the highest number of profane expressions was for the (M)ature rated game F.E.A.R., which had 30 different incidences of profanity. The second highest were the two Grand Theft Auto Web sites, which had 20 incidences each.

**Table 4: Number of Game Sites with Addictive Substances and Behaviors**

ADDICTIVE SUBSTANCE or BEHAVIOR	NUMBER OF SITES (N=47)	%
alcohol	5	10.6
illegal drugs	4	8.5
tobacco	4	8.5
gambling	3	6.4

## Discussion

Early video games were seen as an adult medium, with characters such as the yellow circle man, caterpillars constructed out of green dots, and black boxes depicting tanks. These games required players to accomplish goals such as moving through mazes, eating dots, and shooting white globs. Since that time, video game technology has made it possible for games to contain beautifully depicted scenes and characters-ranging from muscle-bound heroes to chainsaw-wielding psychopaths-who are often required to accomplish goals such as stealing cars, destroying evil warlords, confronting the police, successfully completing drug deals, or partying with scantily clad women. Players have more choices than in the past as they create their own characters, do battle with an enemy, engage in realistic situations, and encounter any number of good or bad behaviors. These games are found in almost every household across America and are considered, by a large portion of the population, to be children's toys.

To introduce potential players to these games and create a desire for individual

purchase, manufacturers have created official game Web sites that present many of the aspects and features of the games. The content of video games rated (E)veryone, (T)een, and (M)ature can be viewed and played by anyone, including children, who has access to the Internet. The results from this content analysis indicate that the content of the official game Web sites is similar to the content found from the research of video games. For example, just as with the games themselves, official game Web sites underrepresent female characters (40% of all characters). However, when compared to the percentages of females in video games, where females represent anywhere from 13% to 17% of the characters<sup>110</sup>, Web sites do contain a greater number of female characters (25%). This may be due to an increase in female game players or to the manufacturers' desires to use more females in an advertising medium.

The results also support the findings from video game research that female characters are shown in a more stereotypical or sexualized manner than male characters.<sup>111</sup> Viewers of the Web sites see a female character who is young, thin, attractive, and wearing little or no clothing. Male characters are stereotyped as having large, well-defined muscular bodies. According to social cognitive and masculinity ideology theories, such misrepresentations could cause both male and female gamers to have unrealistic expectations about their own bodies or to become dissatisfied with realistic bodies of the opposite sex. Today, adolescents are being exposed to thin female images and muscular male images more than any previous generation.<sup>112</sup> This has been shown to contribute to lower self-esteem, social anxiety, and eating disorders as they overvalue the physical attributes of characters displayed onscreen.<sup>113</sup>

In addition to their physical appearance, female characters in video games Web sites are also presented in a more sexualized manner than male characters. A large portion of the female characters were portrayed as "very sexy" and were shown scantily clad in tight-fitting clothes. Male characters, on the other hand, were most often shown fully clothed or in loose-fitting clothes. Besides the possibility of exposing young children to these images, this type of role model for young girls is troubling because, as Smith describes, "the hypersexualized and disproportionately thin females may be teaching young girls ideals about beauty and thinness that are damaging to their socioemotional or physical health."<sup>114</sup>

The amount of violence documented on official video game Web sites is also similar to the amount of violence found in video games.<sup>115</sup> The majority of game Web sites displayed at least one violent act, and sites for games rated (M)ature contained the most violence. Guns were the weapons of choice, and many Web sites showed actual shootings. One of the most interesting findings was that there was no significant difference between the number of violent acts shown on the Web sites for games rated (T)een and those shown on sites for games rated (M)ature. Players and parents would expect there to be a difference in the amount of violence in these games, but clearly those visiting sites rated (T)een are still being exposed to a large amount of violence and weapons. The biggest difference in (T)een- and (M)ature-rated Web sites was the amount of blood that appeared. Both had instances of blood, but the (M)ature sites displayed more blood and gore.

As the technology supporting video games and video game Web sites improves, the results of these violent acts will become even more realistic. Children and teens who visit these Web sites will be exposed to not only an increasing amount of violence but to blood and gore similar to what is seen in the theatre. An additional

concern for society is the submessage that violence is an acceptable means of solving problems, and that it can result in positive rewards as part of gameplay. This reinforcement may suggest to some players that hostility is an acceptable answer to tough situations. Many may not understand that the amount of violence in games is not taken into consideration for each game rating. Instead, when a game is rated, the ESRB examines the type of violence portrayed, its depiction in the scene, and the overall realistic nature of the violence in order to make its decision. For video games, the ESRB ratings have helped audiences understand what type of content exists in the games, but game rating restrictions are not available for official game Web sites.

This study of official Web sites contributes to our understanding of the messages and strategies employed in the video gaming industry. This research documents the messages that these video game Web sites send to the public, including young children, regarding violence, sexual content, drug and alcohol use, and racial and gender representations. Given the violent depictions, stereotyping, and sexualized portrayals, parents, social scientists, and policy makers should take more interest in the potential effects of children's exposure to these Web sites. As Sheldon Brown, visual arts professor and director of the Center for Research and Computing of the Arts at the University of California, San Diego, said, "Whether we like it or not, [video games are] the medium of our moment. It is a medium that is telling our cultural story, and the fact that it is a primary tool of youth and adolescents means it will have a tremendous impact on how the next generation or two plays itself out." [116](#)

#### **Appendix: Video Games of Web Sites in Sample**

GAME	RATING	GENRE
Grand Theft Auto: San Andreas	(M)ature	Action Adventure
Command & Conquer: The First Decade	(T)een	War Strategy
Age of Empires: The Age of Kings	(E)veryone	War Strategy
Tales of Legendia	(T)een	Fantasy-Odyssey
Resident Evil Deadly Silence	(M)ature	Action Adventure
World of Warcraft	(T)een	Fantasy-Odyssey
God Of War	(M)ature	Action Adventure
The Sims 2	(T)een	Life Simulation
Drakenguard 2	(M)ature	Action Adventure
Grand Theft Auto: Liberty City	(M)ature	Action Adventure
The Movies	(T)een	Life Simulation
Battlefield 2	(T)een	War Strategy
Crystal Quest	(E)veryone	Action Adventure
Bejeweled 2 Deluxe	(E)veryone	Puzzle
Street Fighter Alpha 3 Max	(T)een	Action Adventure
Grandia III	(T)een	Fantasy-Odyssey
World Soccer: Winning Eleven 9 Nation	(E)veryone	Sports

WWE Smack Down vs. Raw 2006	(T)een	Sports
Halo 2	(M)ature	Action Adventure
Civilization IV	(E)veryone	Life Simulation
Need for Speed Most Wanted	(T)een	Sports
Guild Wars	(T)een	Fantasy-Odyssey
F.E.A.R. (First Encounter Assault Recon)	(M)ature	Action Adventure
Age of Empires III	(T)een	Action Adventure
Full Auto	(T)een	Sports
Shadow of the Colossus	(T)een	Fantasy-Odyssey
Bet on Soldier Blood Sport	(M)ature	War Strategy
Half-life 2	(M)ature	Action Adventure
Americas Army: Special Forces	(T)een	War Strategy
Pokemon Emerald	(E)veryone	Fantasy-Odyssey
Dragon Quest VIII: Journey of the Cursed King	(T)een	Fantasy-Odyssey
Resident Evil 4	(M)ature	Action Adventure
Land of the Dead: Road to Fiddler's Green	(M)ature	Action Adventure
Doom 3	(M)ature	Action Adventure
Perfect Dark Zero	(M)ature	Action Adventure
Call of Duty 2	(T)een	War Strategy
WWII Tank Commander	(T)een	War Strategy
Prince of Persia Two Thrones	(M)ature	Action Adventure
Animal Crossing Wild World	(E)veryone	Other Simulation
Heroes of the Pacific	(T)een	War Strategy
Madden NFL 06	(E)veryone	Sports
Gran Turismo 4	(E)veryone	Sports
NCAA Football 06	(E)veryone	Sports
Star Wars: Battle Front II	(T)een	Action Adventure
Star Wars Episode III: Revenge of the Sith	(T)een	Action Adventure
NBA Live 06	(E)veryone	Sports
Lego Star Wars	(E)veryone	Action Adventure

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Tom Robinson and Mark Callister are faculty members in the Department of Communications at Brigham Young where Brad Clark and Jams Phillips were graduate students when this study was done.

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