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21. THE REPRESENTATION OF GENDER AND ETHNICITY IN DIGITAL INTERACTIVE GAMES

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ABSTRACT

The actual content of games is an understudied area in social scientific research about digital interactive games (DIGs). This paper aims to contribute to the understanding of game content, in particular with respect to the portrayal of men, women, and people of different ethnic origin. Earlier studies by Provenzo [14], Gailey [8], and Dietz [6] concluded that games were dominated by stereotypic male characters with a few stereotypic females in minor roles. Nowadays, quite a few DIGs have women in leading parts. We want to establish if this change resulted in a multiplicity of meaning in the representation of gender and ethnicity [10]. This paper reports a content analysis about the ways in which gender and ethnicity are represented in the game. We concentrate on the portrayal of the leading character, and supporting role in the introductory film of the DIG. Our sample consists of 12 games that run on 'Next Generation Consoles' (PS2, X Box, Game Cube). Among the titles studied are games with a female leading character (for example, Tomb Raider, Parasite Eve), and with a male leading character (for example, GTA ViceCity, Splinter Cell). Characters in supporting roles are diverse: colored, and non-colored men, as well as colored and non-colored women

KEYWORDS

Computer games, content analysis, gender

INTRODUCTION

In this paper we report a descriptive analysis of the manifest content of a dozen contemporary video- and computer games. We will use *digital interactive games* (DIGs) as a general nomen to include video-games that are played in arcades or on game consoles (e.g., Playstation2, X-box, GameCube and the Gameboy), computer games played on PCs, and on-line games on the Internet. We subjected the introductory film of each game to a content analysis in order to establish how gender and ethnicity were represented. In the past decades, representational issues have been subjected to research on a regular basis, but most research was dedicated to the representation of men, women, and ethnic minorities in film, television shows, and advertisements [9, 21]. The scientific attention for game content has thus far been limited. There is a small tradition of investigating gender roles and ethnic portrayals in a sample of DIGs [3, 6, 8,

14, 20]. Other authors concentrated on a detailed analysis of the text of one specific game [10, 19].

Our reasons for studying game content are both substantial and contextual. On a substantial plane, anyone slightly familiar with DIGs must note the advance of tough women in recent years. In the 1990s, Lara Croft seemed to have paved the way for adventurous, tough, and competent female protagonists. This new gender position raises questions about the proliferation of this shift away from the traditional, dependent female role, as well as about likely changes in the representation of masculinity within DIGs. Our contextual reason for a concentration on game content has to do with the incessant worries about DIGs. The increasing popularity of games has produced considerable public concerns, revolving around a variety of issues, such as the omnipresence of violence (particularly in the aftermath of the Littleton, USA and Erfurt, Germany school shootings¹), and the addictive properties of games [13, 18]. In the context of this paper, the concerns raised about the stereotypical representation of women and non-white ethnic groups in most games are particularly relevant [2, 6]. In the public debate, it is often argued that games are special in the way they influence perceptions and attitudes of their audiences. Their interactive nature requires effort, and focused attention [12]. As a result, gamers are immersed in the DIG, and thus prone to internalize its omnipresent stereotypical portrayals of women and ethnic minorities [17].

Our research aimed to advance scientific knowledge about games, and also aimed to feed public discussions by investigating the representation of gender and ethnicity in a dozen contemporary, state of the art games. We used a content analysis to count male and female characters, and characters from different ethnicities, and we ascertained whether game characters were stereotyped. Before we explain why and how we executed this content analysis, we will first outline a general trend in research about the representation of gender and ethnicity in traditional entertainment media, such as, film and television.

GENDER AND ETHNICITY REPRESENTED IN ENTERTAINMENT MEDIA

Entertainment media are used to satisfy a variety of needs. Most needs are concerned with relaxation and diversion, but some are of a different kind [11, 16]. For many, using entertainment media is gratifying because media enable users to understand and evaluate their own identities [11]. Media are an inexhaustible resource of identities. They represent publicly a diversity of identity options regarding, for example, gender, ethnicity, lifestyle, but also feelings, behaviours and attitudes. The diversity of representations results in a complex array of dominant identities, marginal ones, as well as many contradictions [1].

Film and television

The actual representation of identities has been studied in a number of projects. Most research was devoted

¹ The adolescent boys who shot their fellow pupils in Littleton USA (April 1999), and the 19 year old who murdered his school mates in Erfurt, Germany (April 2002), happened to

spent a lot of time playing the violent games Doom, Duke Nukem, and Counterstrike, which was immediately identified as a likely cause of the shootings.

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ed to the portrayal of women in film, and television fare. A rather clear picture emerged from studies covering the 1950s to the early 1980s: Women were generally represented in a caring role, preferably as mothers, or housekeepers. They were also portrayed as sex objects, trying to be as attractive as possible for male spectators [21]. The dominant trend was never monolithic, as for example illustrated by the intelligent women, and (over)sensitive men in Woody Allen's *Annie Hall* (1977) en *Manhattan* (1979) [9]. A further, and more radical diversification of femininity occurred in recent decades. Successful professional women were at center stage in the TV series *Ally McBeal* (1997-) and *Sex and the City* (1998-), whatever their preoccupations with relational issues. In the same period, films as *The Matrix* (1999), *Hannibal* (2001), and, of course, *Lara Croft: Tomb Raider* (2001) underlined the shift from the private to the public domain. The protagonists were independent, intelligent, professional experts, and skilled fighters, too. In general, female roles in 1980s and 1990s were tougher, and many women were portrayed as young, and single in a work environment, although there still were many women forefronted as 'housewives' in domestic sitcoms [7]. The representation of masculinity on screen has been less subject to change. Contemporary heroes retained the 'cool' single mindedness of their predecessors in the 1960s, although nowadays, male characters sometimes show glimpses of their sensitivity [9]. Apparently, media trends are similar to socio-cultural ones: The female gender position changed, and diversified, the male far less so [5].

Digital interactive games

Digital interactive games hold a special position among media in the context of representation. Their interactive nature enables gamers to enact, or *perform*, identities in the most literal sense of the word. The gamer can actually 'be' his character in a playful virtual reality. The opportunities for playfully prob-

ing identities are unique, and hardly ever encountered in other (media) contexts. For example, in the game *007 / Nightfire* one can choose to play the part of James Bond, which takes it one step beyond passively witnessing the actions of the hero on a movie screen.

The ways in which men, women, and ethnic minorities were represented in DIGs was investigated in a small number of studies. In 1991, Provenzo published his research about Nintendo games. He concentrated his content analysis on the covers of the boxes of 47 games. He counted 124 human individuals in the cover illustrations. A vast majority of 92% was male (115 characters), and 8% female (9 characters). Twenty four percent of the men were represented in a dominant position, whereas none of the women were. By contrast, three out of the nine women were portrayed in a submissive pose, and none of the men were [14].

A couple of years later, Dietz analysed 33 games on the Nintendo and Genesis game-consoles. Thirty percent of the games did not have a female character in either the leading part or supporting role. When the game did contain a female character, she was in 21% of the cases portrayed in a submissive, stereotypical position. Only 15% of the females attained the status of a hero in the game. The other female characters were princesses, wise old women, typically in a position to be released by the leading male character. Overall, Dietz noted, DIGs were dominated by masculine themes as, for example, action, war, violence, competition and sports. She added that almost all characters were "Anglo" [6].

A similar pattern was found in a recent study about the representation of identities in games [3]. The researchers of Children Now analysed the content of 70 DIGs and found a wide range of traditional, if not

stereotypical men and women portrayed in the games. A meager 16% of their sample contained female characters. Men in the games were competitors in 47% of the games, and 50% of the women functioned as bystanders - they did not engage in the action. The characters were predominantly white, especially the heroes who were all white (Children Now, 2001).

The last study to discuss is the expanded replication in 2002 of the Provenzo study by Urbina and his colleagues [20]. Their research embraced more than Provenzo's: They also studied covers of 87 PC-games in addition to a set of 79 console games. The researchers scored 286 human characters in the cover illustration. Like in the Provenzo and Dietz studies, the vast majority is male (239, is 83 %). Further, 71% of the male characters appeared in a dominant position, and 34% of the female characters in a submissive one. A radical change occurred among female characters: 50% of the women were represented in a dominant position, which is far more than the small group of female 'heroes' in Dietz' research. Finally, five male characters were portrayed in a submissive position.

In conclusion, we should first note that it is somewhat hazardous to compare the results in detail, because of the divergence in samples. As we have seen, some researchers focused on console games, others included PC games too. To complicate matters further, the studies span a decade, which means

that the availability of games changed drastically. The samples were also drawn in different ways. One sample, for example, consisted of best sellers in a local store, another used national sales charts. If we cautiously draw conclusion from the subsequent results we note first that DIGs were dominated by a traditional representation of gender relations with women in submissive roles. It also evident that most characters were white. The submissive position of female characters in DIGs was underlined by two other studies. First, by Gailey, who found that women were underrepresented in games. If they were present, they were forefronted as objects for male fantasies [8]. Second, by Trunel's detailed analysis of *Final Fantasy IX* in which it was concluded that women in the game functioned as a side show [19]. The dominant trend should not blind us for the fact that the results of a recent study showed some change. Urbina and his team reported that 50% of the female characters held a dominant position, and they also found a tiny number of 5 submissive men [20]. The trend toward female dominance was exemplified by the icon of female toughness in the 1990s, Lara Croft [10]. This raises the question how gender and ethnicity are represented in games that are on the market in the early 21st century.

METHOD; WHAT DID WE DO?

We subjected twelve games to a content analysis in the social scientific tradition [15]. We choose content analysis as a method for two reasons. First, our research question is concerned with the representa-

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tion of gender and ethnicity in general, that is across games. We are not particularly interested in unique representations in specific games. A quantitative description of a limited set of variables in several games is most likely to contribute to an answer about the portrayal of gender and ethnicity. Second, we wanted to be able to relate the results of our research to earlier research about this issue. Our predecessors used content analyses to quantify and report their observations, and so did we [3, 6, 14, 20].

A sample of games was drawn for the games available in 2002-2003. The sample was non-random because we used the following criteria for inclusion:

1. the game has both male and female characters
2. the characters in the game are ethnically diverse
3. the game is popular
4. the sample is limited in number for practical reasons
5. the game is available on console

The first and second criterium were used to guarantee that the game provided material about the representation of different groups. We did, for example, not include sportsgames as *Fifa2000*, or race simulations as *Gran Turismo*. The characters in those games are either all male, or hardly developed in a role position. The third one served to prevent that we would be occupied with games in a niche of the market, that were possibly unique in their representation of gender and ethnicity. The two last practical ones resulted from considerations about the available time for this project, and the accessibility of the relevant DIGs. Our final sample consisted of the following twelve games:

Charlie's Angels
Devil May Cry 2
Enter the Matrix
Final Fantasy X
GTA Vice City
Metal Gear Solid 2: Sons of Liberty
Parasite Eve 2
Primal
Shadowman 2: The Second Coming
Silent Hill 3
Splinter Cell
Tomb Raider: Angel of Darkness

Unit of analysis

A fundamental decision in any content analysis is about the units that are subjected to analysis. DIGs are multi-layered products, that provide an enormous amount of material. It is hardly conceivable to analyse twelve complete games. Earlier content analyses of games solved this problem by taking the illustrations of the boxes of games as their units of analysis [14, 20]. We decided to be as selective as our predecessors, but not to confine ourselves to static pictures. We concentrated on the introductory films of the games. This film provides a clear outline of the game, its main characters and the dominant storyline. It is, in other words, an adequate summary of the game, its purpose and content. Our research question about gender and ethnicity directed us towards the human characters. Animals, monsters, and objects were not analysed. In each film we concentrated on the dominant, or leading character (the protagonist), and on one character in a supporting role.

We designed a codebook that enabled us to determine the representation of gender and ethnicity in the games. Scoring gender was largely based on the physical features of the character, with respect to ethnicity, the judgment about appearances was supplemented with the language spoken by the character. Ethnicity was difficult to categorize. The earlier studies generally

employed a rather gross differentiation between a so called 'white' group and 'non-white' minority groups. In our codebook we differentiated between African descent, Latino or South American, and Asian. Because many games were set in a more or less American context, we also included a group of 'white' US minorities of European descent (for example, Russians, Poles and Italians). To differentiate this group from the dominant white group we used 'Caucasian' as a label for the dominant whites.

The game characters were further scored with respect to their position in the game (Dominant, Submissive) and the actual part they played (Hero, Evil character, Tough character ('macho'), Mother, Housewife, Princess, Helper or friend, and Victim). A final set of variables was concerned with the physical features of the characters: Attire, Bodyshape, Length, Hair, Legs, Buttocks and Breasts.

Procedure

Two coders scored the introductory films using our codebook. The first coder was one of the researchers (RGM), the second one a woman with no background knowledge about this project. Both coders were trained, and discussed the codebook which resulted in a slight revision of some variables. The final version of the codebook was used to test intercoder reliability. Three games outside our selection of 12, notably *Devil May Cry*, *Maximo: Ghosts to Glory* and *Rygar: the Legendary Adventure* were scored by both coders. Cohen's Kappa was used to establish intercoder reliability [15]. The mean Kappa across variables was good (.86). The coders then scored the introduction films of the 12 selected games. Each coder analyzed a set of six games.

RESULTS

Our sample of 12 games was dominated by male characters. Thirteen out of 22 game characters (about

60%) were masculine. A difference appeared between characters who had a leading part in the game, and the ones in a supporting role. Among the leading characters there was an equal gender distribution (50% male; 50% female), but supporting characters turned out to be 70% male and 30% female.

With respect to the ethnic background of the characters, we observed a white, or more precisely put a Caucasian, background in about 55% (12 out of 22 characters). Leading characters showed a majority of 67% Caucasians, with examples like Solid Snake in *Metal Gear Solid2*, and Sam Fisher in *Splinter Cell*. Supporting roles were a little more diverse, although the Caucasian group was with 40% again the largest one. If we concentrate on gender differences within the ethnic groups, our analysis shows that a large majority of women in leading parts were Caucasian (83%). Leading male characters were divided equally between the Caucasian group and the three other groups. For example, Mike Le Roi in *Shadowman 2: The Second Coming* is of African American descent and Tommy Vercetti of *GTA Vice City* is portrayed as an Italian. In the supporting roles there were no Caucasian females, among the men a slight majority of Caucasians was discernable (4 out of 7) (57%). Ghost in *Enter the Matrix* and Bosley in *Charlie's Angels* illustrate the diversity in characters in supporting roles: They are of Asian and African American descent.

It comes as no surprise that the leading roles, or protagonists, in the games held a dominant position with respect to other characters. It should be noted though, that there was no difference in this respect between male and female leaders. The supporting roles showed an interesting contrast. First, female supporters held either a dominant or an equal position in the game. In other words, we did not observe a female character in a submissive position. Second,

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there were three male supporters (43%) observed in a submissive position, one held an equal position, and 5 were dominant. The three men in supporting roles that had a submissive position functioned as a helper, or a friend, but not as a victim. In our sample of games, the two victims turned out to be male, and not female, and they held a dominant position in the game. This seems paradoxical, but it is not. Sometimes, the leading character of a game is seriously injured by a monster. For example in *Shadowman*. Thomas Deacons is a tough and muscular police officer who falls victim to a monster, but succeeds to escape.

Stereotypes are often linked to social positions and roles. With respect to the roles played in the games the hero role was observed in 60% of the cases. This was followed by the friend or helper role (18%), the victim's role (9%), evil character (9%) and tough character (5%). A result counter to traditional gender stereotypes is that all females in leading roles played the part of the heroine. Among the males, Tommy Vercetti from *GTA Vice City* was the exception to the rule: He was scored as a 'tough guy', rather than a hero. The other dominant males were heroes in the game. Male characters in supporting roles were generally friend or helper. Women in supporting roles played a diversity of roles: Heroine, evil character, and helper/friend.

Physical features are important markers of gender and ethnicity. Our observations confirm the importance that is generally attributed to breasts in a game context. All female characters had explicitly shaped breasts, Lara Croft and Jennifer from *Primal* were portrayed with large breasts. Buttocks also were difficult to ignore. A large majority of female characters (83%) had well proportioned shapes, but about 50% of the male characters also appeared with eye catching behinds. In our sample, men gen-

erally had broad chests, whereas women had a normal body shape. Both men and women, however, were 'thin', that is to say, they had well shaped, athletic bodies. Really muscular bodies were the prerogative of men, women had bodies with a rather normal set of muscles. The legs of our characters were in most cases long rather than normal, but the largest contrast between normal and long legs occurred among male characters. Finally, sexy attire was mainly, though not exclusively observed among female characters. The male figure Dante (*Devil May Cry 2*), for example, was presented in an explicit, sexy and seductive outfit. The clothing of Lucia from *Devil May Cry 2* or Jennifer from *Primal* confirmed the common stereotype about sexy attire.

CONCLUSION AND DISCUSSION

Our content analysis of twelve introduction films of games confirms the trend observed by earlier research: games are dominated by male characters [3, 6, 14]. In our study, however, the number of female characters was far larger than before. This is of course partly due to our selection. We deliberately choose state of the art contemporary games with a diverse population. So, the fact that all games in our sample had female characters is not surprising. Two results were however surprising. First we found that women and men were distributed equally in the class of leading characters. This is altogether different from the exclusively male leading characters in the studies by Provenzo and the Children Now team [3, 14], and quite different from the tiny percentage (15%) of female heroes as found by Dietz [6]. The trend toward stronger and dominant female roles was first signaled by Urbina and his colleagues [20]. The second remarkable result of our work was that we found no submissive female characters at all. This contrasts with the presence of submissive females in all other studies. Like Urbina and his colleagues we found a small number of submissive male

characters. The example of Jennifer in *Primal*, who must embark on a journey to rescue her boyfriend Lewis illustrates that men in contemporary DIGs can be victims who must be saved by a female character.

The overrepresentation of Caucasian characters is in line with the observation of a vast "Anglo", or white majority, as observed by Dietz and the Children Now team. In both studies heroes belonged exclusively to the white ethnic group, like in our sample.

The physical features of male and female characters in our study were stereotypical. It is difficult to compare gender stereotyping exactly, because the earlier studies do not report exact figures about attire and appearance. Both Dietz and the researchers from Children Now report, though, that female characters appear in stereotypical, and hypersexualized dress. We can safely assume that visible markers of gender were as stereotypical as in our sample. One aspect of the gender role may have changed: We found that some male characters were presented as sexy as their female counterparts.

The set of studies about game content in the past dozen of years, including the project reported here, allows us to conclude that DIGs are predominantly populated by characters from a Caucasian background. They are generally male. The role men and women play in games has changed in recent years: As leading characters, women hold a position they never had before. It seems that the representation of men

has been less subject to change, although some of them emerged recently in non-dominant positions. Gender stereotypes are particularly robust with respect to physical features. Men are still represented as hyper muscular characters, and women hyper sexualized characters. In other words, quite a few women became leaders in games, but they continue to function as 'eye candy' for their consumers, the gamers.

As a final note, we submit that the limitations of this study are obvious. We choose a content analysis for good reasons, but are well aware of the disadvantages of this method. Analysing a limited set of variables in the introductory film is rather static. It does not allow to study the complexities of gender and ethnicity. We do not know how serious this problem is, because we concluded that representations in the introductory films are pretty straightforward, if not one-dimensional. A more fine tuned analysis of the film's text may conclude otherwise. The exclusive focus on game content evidently limits the range of our results. We can now feed the public debate with the notion that women and men in DIGs are represented stereotypically, but somewhat less so than earlier. This study did not address the possible detrimental effects of these stereotypes on the perceptions and attitudes of gamers. A reception study about the ways in which gamers use and appreciate the stereotypical characters is needed. It may very well show that the gap between what is enjoyed in a virtual media context, and what is practised in real life is far larger than expected.

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