Killing Like a Girl: Gendered Gaming and Girl Gamers' Visibility

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Published as: Bryce, J. & Rutter, J., 2005. "Gendered Gaming in Gendered Space", in Raessens, J. & Goldstein, J. (eds) <u>Handbook of Computer Game Studies</u>, MIT Press, pp.301-310.

ABSTRACT

Approaches to gender and computer gaming have been dominated by textual and content analysis at the expense of broader understandings of gaming. This paper examines computer games through gendered game content, game spaces and activities. The paper suggests that despite the popular stereotype of the computer gamer as an antisocial male teenager, there is increasing evidence of female gaming. This suggests the need to examine the relationship between gender and this activity in greater depth and within everyday contexts. The authors examine the possibility of computer gaming as a potential site for challenging dominant gender stereotypes, relating this to the production and consumption of contemporary leisure.

Kevwords

Gender, leisure spaces, gendered technology, computer games

INTRODUCTION

Although boys and male adolescents appear as regular gamers in self-report investigations of the frequency of gaming in schoolchildren, even studies from the early and mid 1990s suggest that a large percentage of females report playing computer games for approximately 1-2 hours a week. For example, Funk [16] found that 75% of females, compared with 90% of males played computer games in the home and Colwell *et al.* [9] showed that 88% of the 12-14 year old females surveyed played computer games on a regular basis. Similarly, contemporary research reported by Interactive Digital Software Association. (IDSA) [27] suggests that 43% of US gamers are female.

While we may question the methodologies of commercial research and its market agenda, such figures point towards a growing representation of women in computer gaming activities. Given such figures, why do societal attitudes and academic research on computer gaming continue to align the leisure pastime with boys, violence and a masculine culture? Why are females assumed

not to play with the "boys' toys" and female participation in and consumption of gaming marginalised? Why are we still having problems locating the **invisible girl gamer**?

The aim of this paper is to examine gendered aspects of contemporary computer gaming. Over the past twenty years there have been frequent debates concerning the lack of female uptake and representation in gaming. This is often cited as one of the problematic aspects of this leisure activity. From this perspective it has been claimed that the representation of females within computer games is consistently sexualised and stereotypical, potentially reinforcing societal objectification of women and use of sexual violence. While not taking issue with such findings, this paper broadens out some of these arguments, examining computer gaming in three key respects: game content, gaming spaces and gaming activities.

This paper provides a context to contemporary computer gaming by offering a brief overview of the popularity and profitability of the industry, along with a summary of the major concerns raised over the consequences of computer gaming. Using the aspects of gaming outlined above, we suggest that the gendering of computer gaming is consistent with the reinforcement and reproduction of societal gender roles, and the gendering of particular leisure activities. However, we build upon this by taking a more complex view of both gender and gaming, suggesting that the activity also provides possibilities for resistance to traditional conceptualisations of masculinity and femininity. The paper demonstrates that issues relating to the gendering of computer gaming have often been oversimplified, ignoring the range of game genres and gaming spaces, and the complexity of the leisure activity in relation to broader societal gender dynamics.

Our arguments aim to challenge the self-perpetuating myth of gaming as a male only activity and argue that female gamers do exist but are often rendered "invisible" by male-dominated gaming communities, the games industry and academic research.

A RESEARCH CONTEXT

Within both academic and popular discourse computer gaming has been marginalised as a leisure activity restricted to male children and adolescents and been strongly associated with media effects discourse. This recurring discourse suggests that the consumption practices associated with

computer gaming are solitary and male, that their gaming is domestic and part of a transitional phase of leisure interest – something boys will grow out of. Research has consistently taken a media effects or text-based research perspective which fails to interrogate the everyday practices of being "a computer gamer" or being excluded from being so.

Commercial research has demonstrated the significance of computer gaming consumption by suggesting a far larger and more diverse consumer community for leisure software and gaming hardware. For example ScreenDigest & the European Leisure Software Publishers Association (ELSPA) [37] have shown that the market for leisure software is worth \$5.8 billion in Europe alone. Further, between 1996 and 2000 in the UK the leisure software market grew by an average of 22% per year. Recent research suggests that over 40% of US gamers are female and online the gender split is approximately 50/50.

However, this growing popularity of computer gaming and its strong association exclusively with children and adolescents has been frequently been constructed as problematic by parents, politicians, teachers, and the media. Relatives of a teacher killed in the shooting at Columbine High School in the USA recently named twenty five companies in a lawsuit claiming \$5 billion dollars worth of damages from the games industry. Although the case was unsuccessful it is notable that is was rejected not because of any perceived failure to link gaming and violence, but because the court decided that producers of games could not have foreseen the future events that occurred in the "Columbine Massacre". This demonstrates the complex cultural and legal attitudes towards children, masculinity and violence which form the media effects discourse.

In more mundane terms, a number of negative consequences are regularly offered as indications of the unhealthiness of gaming. These include suggestions that gaming precipitates aggressive behaviour in real life, reduces involvement in social and educational activities, and reinforces gender stereotypes [12]. Research concerns have also focused on the physical effects of the use of gaming technologies, and the effects of lack of physical exercise and addiction in those spending significant amounts of leisure time playing computer games [18, 32, 38]. Further, concerns have also been raised over the educational consequences of over-reliance on computer gaming as a leisure activity, although the claim that children and young adults who spend a significant amount

of their leisure time playing computer games may truant, neglect homework and generally be less interested in their education is largely unsubstantiated [10, 19].

Elsewhere we have provided a detailed critique of the media effects model of computer gaming literature [2]. We have argued that the existing literature which claims to support the hypothesised negative consequences of child and adolescent computer gaming is conflicting, lacking cohesion and far from conclusive. (See also, [20, 23]). We have also suggested the need to move beyond traditional media effects perspectives on computer gaming to a focus on its motivational, experiential, and social dimensions. It is our belief that gender dynamics form an important part of this.

This conference paper extends our previous work by providing a constructive rereading of various gaming literatures to offer a more complex and context sensitive view of gender and gaming. Through examining gendered game content, activities, and game spaces we demonstrate an apparently straightforward reproduction of gender stereotypes and roles. We then highlight inconsistencies in these arguments and consider evidence that females do play computer games and may resist the notion of computer gaming as a gendered activity. While computer gaming may be perceived as a masculine activity, its complexity regularly offers sites for female participation and resistance to societal gender roles and conceptions of masculinity and femininity.

The paper aims to develop an analytic framework through which gender and gaming can be examined from the perspective of gamers and gaming activities, as well as one which incorporates possibilities of resistance. This an important aspect of constructing a theoretical position on gaming and gender

GENDERED GAME CONTENT

Analysis of the relationship between gender and computer gaming generally focuses on two issues: representation of females within games and the focus on male game themes. The first of these issues takes a textual approach to the analysis of game content as embodying gendered, patriarchal and stereotypical representations of females. Content analysis has highlighted a general

lack of female game characters, and the sexualised and stereotypical representations of those included female characters [2, 11, 18, 29, 30].

This research has demonstrated that female game characters are routinely represented in a narrowly stereotypical manner; for example, as princesses or wise old women in fantasy games, as objects waiting on male rescue, or as fetishised subjects of male gaze in first person shooters [4, 11]. Repeatedly female characters in computer games fulfil roles linked to stereotypes of 'feminine' skills and characteristics [17]. Such roles emphasise female passivity against male action and investigations into gaming texts often parallel work done on gender roles in children's books [13, 15, 39]. Similarly there has been a highlighting of the dominance of 'masculine' game themes (e.g., war, competition, sports, acquisition, etc.), as well as high levels of game violence [11, 18, 29, 30]. This contributes to the perception that computer games embody masculine interests and activities, making computer games at best unappealing, or at worst offensive, to females.

However, there is a danger in extrapolating research on specific games which are not representative of the current range gaming texts, genres and formats. Individual games, characters and violent representations must be considered in relation to the diverse variety of game genres and representations of violence in the contemporary games market. Within Europe and elsewhere a range of both mandatory and voluntary systems of game certification have developed to regulate game content and themes by offering guidelines on the appropriateness (or otherwise) of content ranging from innuendo to sexual violence; derogatory ethnic characterisations to portrayal of tobacco and alcohol use. These, largely industry developed, guidelines go someway to officially regulating sexualised representations of female game characters and depictions of violence towards women (ELSPA Advertising Standards, 1997).

Given the regulation of contemporary game content, it is has been claimed that levels of game violence have been overestimated. Academic literature on the prevalence of game violence suffers from a lack of conceptual clarity in defining game violence and its measurement, with studies using vague and varying definitions of violence and its prevalence in computer game content [2]. Recent figures provided by ELSPA [37] suggest that over 90% of all the games rated by the UK's Video

Standards Council in the year 2000 were suitable for anyone up to the age of 15, and a large proportion of games published in the UK (69%) are deemed suitable for the age range 3-11.

Moving beyond gender representation to its consumption, it has been argued that the gendering of game content, and the focus on violence have made computer games unappealing to females.

The determinist view of gaming texts and the associated perceptions of gender differences in the popularity of computer gaming led to debates of whether games producers should attempt to produce games with a recognisably 'feminine' theme in order to encourage female gaming. Such linear thinking brought about the release in 1991 of the pink version of Nintendo's Gameboy - predictably enough labelled the Gamegirl - and a series of attempts to cash in on the "new" girl gamer market after the success of Mattel's *Barbie Fashion Designer*. As one might imagine the majority of attempts to exploit the female gamer market by the larger publishers have been firmly based within a discourse that seeks to work within and reproduce contemporary gendered stereotypes of what may be "appropriate" for female gamers.

This debate is highlighted by differences in the opinions between 'girl gamers' and 'grrrl gamers' as examined by Cassell and Jenkins [6]. 'Grrrl gamers' claim that a significant amount of female gamers have similar game preferences, interests and aptitudes in regard to 'masculine' game themes as male gamers. They also disagree with the production of computer games which specifically target females [6]. Although this does not directly engage with the literature from leisure studies, such a viewpoint is consistent with the decreasing differentiation between male and female leisure activities. This is discussed in greater detail in the next section.

Such contention highlights the need to consider the complexity of gendered representations in contemporary computer games and their reception. The noted stereotypical representations of female game characters takes a passive view of the meanings constructed in relation to representations of masculinity and femininity in games.

The linking of text or authorial intention and audience reading is problematic. Post-structuralist reading/audience theory and work influenced by the Birmingham Centre for Contemporary

Cultural Studies has since the mid-1980s demonstrated the manner in which people take oppositional or even self-contradictory stances to texts while still enjoying them. In the context of gender and gaming it is overly deterministic to assume that there is a causal relationship between female representation in a text, and the nature of consumption of that text by female gamers.

Further, claims about the gendering of texts, while structurally verifiable, fall into a similar trap as right wing approaches to representations of game violence: namely that they generalise from a unverified sample. With games based on licenses such as "Who Wants to be a Millionaire", "Pokémon" and "Weakest Link", along with strategy games such as The Sims outselling first person shooters and football games across gaming platforms, exclusionary arguments become somewhat difficult to maintain.

Recent research examining constructions of the meaning of media content has illustrated gender differences in the productive consumption of texts [1, 28, 35]. It is possible that females construct different meanings in relation to the themes of computer games [3], may play computer games in a masculine fashion, and/or may construct their own oppositional reading of game texts. This is consistent with research conducted by Gailey [17] suggesting the active interpretation of cultural messages within games by children in relation to both class and gender.

Yates and Littleton [42] also provide evidence of the productive consumption of game texts by male and female gamers, suggesting that female gamers construct non-voyeuristic perspectives on Lara Croft. They argued that female gamers distinguish "between structural elements (e.g. problem solving, strategy) with the representational elements (e.g. characters and graphics)" (p.576), the effect of which was (amongst players of both genders) a diverse set of readings. Their research also highlights the need to examine the social construction of computer gaming in the context of everyday life and leisure practices, which can itself provide further understanding of the gender dynamics of computer gaming. Such an approach moves from textual exegesis and places gaming within a real-world context in which gaming practices are negotiated in real time and space.

GENDERED SPACES

Overlooked in textual content and media effects research, is the real world context and social environment within which gaming takes place. Computer gaming has most regularly been associated with 'bedroom culture' [33, 34]. Originally conceived as female use of domestic space, bedroom culture highlights the manner in which girls are restricted from full access to many social spaces and are instead left on the periphery of public social spaces (such as playgrounds). This concept has helped to argue against notions of the lack of female youth subcultures, as compared with the male youth subcultures described by Hebdige [24], and examine the presence of female youth subcultures within the domestic rather than highly visual, public environments.

With the increasing encroachment of public and masculine spaces into domestic environments (such as through the domestication of ICTs and consumption practices) and the growing privatisation of childhood, the idea of bedroom culture has become less gender specific while still pointing toward an useful concept for understanding the space allocated young people for expression, leisure and gaming practice [31].

However, this is only one strand of the development of computer gaming and, as we have argued, gaming has a much broader demographic than its positioning as solely a children's toy. In mainframe computer labs, arcades and bars public computer gaming has predated domestic gaming in both chronology and technology. While lab-based and textual research has assumed an individual asocial space for gaming, it is impossible to neglect the fact that much gaming is social and played with friends in the playground and arcades, or with family in front of the TV. This suggests the concurrent existence of domestic gaming with developments and changes in leisure-related and competitive public gaming.

We would argue that in many public gaming spaces it is the environments that are male-dominated and this gender asymmetry works towards excluding female gamers at a stage prior to the gendering of gaming texts. Our view is consistent with the gendering of public leisure spaces, and their association with masculinity [25] in which women are granted limited access and assume particular roles.

Public gaming spaces such as gaming competitions or LAN parties follow similar patterns and can therefore easily be considered to be masculine – i.e. male dominated – spaces. This perception contributes to a constraint on female access and participation in public gaming activities. Such exclusion may be reinforced by the stereotypical and offensive behaviour of males towards females in public game spaces ranging from belittlement as "only girls", to patronising female competitors through the well meaning provision of prize giving, or objectification via the display of pornography at the event.

The gendering of public game spaces is consistent with preliminary ethnographic research conducted by the authors at the UK Console Championships (UKCC) and various UK LAN parties. The UKCC was undeniably a male event in both organisation and competitor membership. The majority of females who did attend appeared to fit into acceptable non-gamer roles. They were mothers who brought their sons to the competition (sometimes across a large part of the country) and who sat in the hotel foyers looking bored but offering support, encouragement or sympathy when necessary. They played the role of girlfriends who, like mothers, were there to provide support and a listening ear but were displayed to enhance the cultural capital of the gamer (see also [19]). Even female competitors appeared marginalised regardless of the gaming aptitude. As with the playground proximics alluded to above, at the UKCC female competitors appeared to be relegated to the periphery of the events and often stood side-on to the consoles while watching others play rather than the face-on stance of the male gamers intent on watching play.

Of course, to extrapolate from the invisibility of females at public gaming events to making assumptions about female domestic participation in computer gaming is problematic. Given the level of female gaming mentioned above, it would seem reasonable to hypothesise that the invisibility of female gaming is a product of the general gender dynamics of public gaming, rather than a verifiable lack of interest by females in computer games.

Indeed there is growing evidence that many females prefer to participate in gaming within domestic contexts with friends, families and partners [5, 21]. This suggests that computer gaming may form part of joint leisure activities within existing social networks. Given the claimed importance of the social aspect of leisure for females, developments in multiplayer gaming may also encourage female

participation, and this is borne out by IDSA's [26] research which suggests that female gamers actually make up the majority of online gamers (53%).

Indeed, public game spaces are only one of many contemporary game spaces. Gaming now occurs in spaces which are multiple and provide simultaneous immersion in public and private leisure spaces [3]. One profound aspect of the increasing merging of gaming platforms and network technologies is the manner in which online gaming offers the potential to extend social networks and allow public gaming in a domestic context.

As networked gaming increasingly allows competitive leisure activity in the domestic context, there are implications for the spatial organisation of leisure and the blurring of geographical and game space. In these situations gaming is neither entirely domestic nor entirely public, occurring in virtual, social and technologically mediated space.

Online gaming provides the opportunity to compete without the limitations of geographical location but, generally, within the limitations of temporal location (the obvious exception here are games such as email chess). This allows the formation of online communities around game skills and competencies [3]. For female gamers, the anonymity of virtual game spaces provides the opportunity to compete against male opponents free from the markers of gender, reducing stereotypical behaviour towards female gamers. Participation in these spaces may consequently lead to greater female participation in public competitive game spaces by building confidence in gaming skills and abilities which enable females to feel they can compete on a socially equal basis with male gamers.

GENDERED ACTIVITIES

Given that computer gaming is routinely claimed to be more popular and more frequently engaged in by males [5, 8, 11, 18, 21, 29], it is seems a reasonable extrapolation that the activities and practices which constitute computer gaming are also gendered. Indeed, these are the activities which define computer gaming as a social practice. It is the negotiated experiences of everyday gaming which give a reality to game texts and realise the socially situated nature of gaming activities.

The gendering of gaming experiences is, in part, related to perceptions of gendered game content and notions of gender roles and appropriate leisure activities [3]. It has been suggested that females are more affiliative and nurturing, preferring leisure activities which have a stronger social aspect [22]. This, when linked to a general (but largely empirically unsupported) perception that gaming is not a social activity, but a solitary activity for male 'nerds' or 'geeks', seems to quite neatly offer a model for understanding gendered gaming. However, such an argument is essentialist and circular in nature, ignoring the actual negotiation and resistance which occurs within gaming strategies. This raises two issues which relate to the gendering of computer gaming: firstly access and participation in gaming activity is restricted and exclusion is experienced at a local level. Secondly, that exclusion creates expectations of rejection which, together with the identification of gaming as a male activity, discourages women from attempting to enter into gaming practices or associating themselves with being "a gamer". Indeed comparative studies of the frequency of gaming in males and females may also reflect a lack of self-identification as a gamer by females who may perceive themselves as casual or infrequent gamers who have a more casual commitment to the activity.

While neither of the propositions outlined are inaccurate, the circular relationship argued to exist between them does not offer a position for gamers and researchers to examine the origins of, or a means to break out of the cycle. Indeed, as was previously argued, when we look at gaming developments there is little doubt that computer gaming is an increasingly social and public leisure activity and one that is cross-gender. This is highlighted by the development of gaming communities and networks.

It is apparent that gaming practices are undergoing rapid social and technical changes and at the same time it is noticeable that gendered perceptions of gaming are changing. This is demonstrated by groups such as 'grrl gamers', female online gaming clans and web communities, all of which have been successfully discussed elsewhere. This is not a phenomenon unique to gaming and is consistent with the increased participation of females in other leisure activities which have been previously perceived to be 'male' (e.g., football, rugby and extreme sports). In such activities female players and gamers are not only seeking parity with male counterparts, but are adopting and enacting oppositional stances to categorisations of gender appropriateness, access to leisure

activities and consumption. Although we do not wish to argue in a Fiskian sense [14] that all gaming is an act of political challenge, it is possible to understand female gaming within a context of resistance to the constraints placed on female leisure in contemporary society. This is most clear in areas where visible female participation in 'masculine' leisure activities challenges dominant gender stereotypes [41].¹

Crucially however, it is not necessary to look towards spectacular acts of opposition or web-based presentations of the self to see evidence of the gendering of gaming activities and the routine exclusion of female gamers. Schott & Horrell [36] successfully begin to unravel the routine and everyday manner in which gaming is negotiated in domestic settings. They demonstrate how even in homes in which the gaming machine belongs to a female member of the family it is fathers, brothers or cousins who take control of the technology as part of what they claim to be "support or collaborative play" (p.41). Access to the technology and the gaming is controlled by the male player who assumes the role of expert by interpolating the female gamer into a subordinate role. The technology and its use creates an environment in which girl gamers are reproduced as not being skilled or technological competent enough to compete with the boys.

Such behaviour reproduces the perception of computer gaming as a masculine activity and its relationship to its technological nature. Indeed it has been effectively argued that technology incorporates masculine culture and as such excludes females through the promotion of the idea of female technological inferiority and the gendering of technological artefacts [7, 40]. Given that such technologies are central to computer gaming practices and activities, their perception as masculine is a vital, but often ignored, aspect of the gendering of gaming. Like the experience of gendered spaces it is a form of gendered exclusion which is experienced, negotiated and reproduced at a routine and everyday level and further contributes to the lack of visibility of the female gamer.

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¹ Of course, the challenge of gender role is not necessarily a one way street. It is also possible to consider the resistance of dominant conceptualisations of masculinity by male gamers and speculate on the way male gamers may be constructing an alternative masculine role which challenges the emphasis on physical strength and competition in the traditional conceptualisation.

This critical evaluation of the gendering of computer gaming suggests that despite evidence of the gendering of activities and spaces associated with computer gaming, there is growing evidence that females do play computer games and this may be altering the perception of this activity as masculine. This may also provide a means of challenging the dominant view of female technological inferiority by changing gendered perceptions of technological abilities.

This places emphasis on the ability to use technological skills and knowledge whilst emphasising competition in a variety of leisure spaces. The negotiation and reconstruction of gender identities through computer gaming is consistent with the notion of leisure spaces and activities as sites of resistance to dominant concepts of masculinity and femininity [41].

CONCLUSIONS

In this paper we have attempted to demonstrate that the relationship between gender and computer gaming is complex and operates at a number of different levels. We have argued not only is it important to see gendered gaming situated beyond the game text but that it is also important not to take an overly deterministic approach to the influence of gender. Instead we have tried to recognise that masculinity and femininity are not themselves unitary and static concepts but are given form and meaning through gendered interaction. We have argued for the need to recognise the local management and negotiation of gaming situations, as well as the possibility of resistance to dominant concepts of masculinity and femininity.

Throughout this paper we have tried to argue against, and resist the temptation ourselves, of fetishising gaming texts or technologies. In exploring a form of leisure consumption such as computer games it is all too easy to give priority to the technology over the people who use it and begin to see technology as an autonomous agent acting upon the gendering of gaming. Like gaming texts, technologies are created within and incorporate specific cultural values but these values are open to resistance, negotiation, rereading, ironicising, reproduction or valorisation only through their use. This use is, we have argued, always situated and specific.

Using such an understanding in relation to gendered aspects of computer gaming can offer a valuable starting point from which to develop a more detailed understanding of both societal

gender dynamics and computer gaming. This paper represents a foundation for our development of further theoretical and empirical research on gender and computer gaming. Building on the arguments developed here, we intend to develop our situated perspective through recognition of other factors likely to influence the experience of gaming such as age, class, ethnicity and personality.

We recognise that this paper has in many ways raised more questions that it has answered. This is indicative both of the range of issues that relate to gender and gaming, and to the relative youth of research on computer gaming as a cohesive body of academic work. This paper has taken a tripartite analysis of themes relating to gendered aspects of computer gaming, but this is not intended to be exemplary or exhaustive taxonomy. However, this seems to be a legitimate and empirically useful starting point for exploring gendered experience, the reproduction of masculine forms of gaming, and resistance towards the dominant conception of computer gaming as a masculine activity.

AUTHOR BIOGRAPHY

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The authors are currently working on the Digiplay Initiative (www.digiplay.org.uk), a broad ranging investigation of computer gaming as a contemporary leisure activity from the perspective of the individual, community and computer games industry. They have recently co-ordinated the international conference "Playing with the Future: Development and Directions in Computer Gaming" and are currently editing a series of publications on computer gaming.

REFERENCES

- 1. Abercrombie, N. and Longhurst, B. Audiences. Sage, London, 1998.
- Bryce, J. and Rutter, J. Computer and Video Gaming: Academic Perspectives, Positions and Research Resources CRIC Discussion Paper, University of Manchester, Manchester, IP 2002.
- 3. Bryce, J. and Rutter, J., In the Game In the Flow: Presence in Public Computer Gaming. in *Computer Games and Digital Textualities Conference*, (IT University of Copenhagen, 2001).
- 4. Bryce, J. and Rutter, J. Spectacle of the Deathmatch: Producing Character and Narrative in Multiplayer. in King, G. and Krzywinska, T. eds. *ScreenPlay: Cinema-videogames-interfaces*, Wallflower Press, IP 2002.
- 5. Buchanan, D.D. and Funk, J.B. Video and computer games in the 90's: Children's time commitment and game preference. *Children Today*, 24, (1996), 12-15.
- Cassell, J. and Jenkins, H. From Barbie to Mortal Kombat: Gender and Computer Games. MIT Press, London, 1998.
- Cockburn, C. Material of male power. in Feminist Review ed. Waged Work: A Reader,
 Virago, London, 1986.
- Colwell, J., Grady, C. and Rhaiti, S. Computer Games, Self-Esteem and Gratification of Needs in Adolescents. *Journal of Community and Applied Social Psychology*, 5, 3 (1995), 195-206.
- 9. Colwell, J. and Payne, J. Negative Correlates of Computer Game Play in Adolescents.

 British Journal of Psychology, 91, (2000), 295-310.
- Creasey, G.L. and Myers, B.J. Video Games and Children Effects on Leisure Activities,
 Schoolwork, and Peer Involvement. Merrill-Palmer Quarterly-Journal of Developmental
 Psychology, 32, 3 (1986), 251-262.
- Dietz, T.L. An examination of violence and gender role portrayals in video games:
 Implications for gender socialization and aggressive behavior. Sex Roles, 38, 5-6 (1998),
 425-442.
- 12. Dill, K.E. and Dill, J.C. Video game violence: A review of the empirical literature.

 *Aggression and Violent Behavior, 3, 4 (1998), 407-428.

- 13. Ernst, S.B. Gender issues in books for children and young adults. in Lehr, S. ed. *Battling Dragons: Issues and Controversy in Children's Literature*, Heinemann, Portsmouth, NH, 1995.
- 14. Fiske, J. Understanding Popular Culture. Routledge, London, 1989.
- 15. Fox, M. Men who weep, boys who dance: The gender agenda between the lines in children's literature. *Language Arts*, 70, 2 (1993), 84-88.
- 16. Funk, J.B. Reevaluating the Impact of Video Games. Clinical Pediatrics, 32, 2 (1993), 86-90.
- 17. Gailey, C.W. Mediated Messages Gender, Class, and Cosmos in Home Video Games. *Journal of Popular Culture*, 27, 1 (1993), 81-97.
- 18. Greenfield, P.M. Video games as cultural artefacts. *Journal of Applied Developmental Psychology*, 15, (1994), 3-12.
- 19. Griffiths, M. Amusement machine playing in childhood and adolescence: A comparative analysis of video games and fruit machines. *Journal of Adolescence*, 14, 1 (1991), 53-73.
- 20. Griffiths, M. Violent video games and aggression: A review of the literature. *Aggression and Violent Behavior*, 4, 2 (1999), 203-212.
- Griffiths, M. and Hunt, N. Computer Game Playing in Adolescence Prevalence and Demographic Indicators. *Journal of Community and Applied Social Psychology*, 5, 3 (1995), 189-193.
- Grusec, J.E. and Lytton, H. Social Development: History, Theory, and Research. Springer-Verlag, New York, 1988.
- 23. Harris, J. The effects of computer games on young children a review of the research *RDS Occasional Paper No 72*, The Home Office, London, 2001.
- 24. Hebdige, D. Subculture: The Meaning of Style. Routledge, London, 1979.
- 25. Hey, V. Pubs and Patriarchy. Tavistock, London, 1984.
- IDSA. State of the industry report 2000-2001, Interactive Digital Software Association, Washington, DC, 2000.
- 27. Interactive Digital Software Association. State of the Industry Report 2000-2001, 2001.
- Jenkins, H. Textual Poachers: Television Fans and Participatory Culture. Routledge, London, 1992.
- Kafai, Y.B. Electronic play worlds: Gender differences in children's construction of video games. in Resnick, Y.B.K.a.M. ed. Constructionism in Practice: Designing, Thinking, and Learning in a Digital World, Ablex, Mahwah, NJ, 1996, 25-38.

- Kinder, M. Contextualising video game violence: From Teenage Mutant Ninja Turtles 1 to Mortal Kombat 2. in Greenfield, P.M. and Cocking, R.R. eds. *Interacting with video*, Ablex, Norwood, NJ, 1996, 25-38.
- 31. Livingstone, S. and Bovill, M. (eds.). *Children and Their Changing Media Environment: A European Comparative Study.* Lawrence Erlbaum Associates, Mahwah, NJ, 2001.
- 32. Maeda, Y., Kitokawa, T., Sakamoto, K. and Kitamoto, I. Electroclinical study of videogame epilepsy. *Developmental Medicine and Child Neurology*, *32*, (1990), 493-500.
- 33. McRobbie, A. Feminism and Youth Culture: From Jackie to Just Seventeen. Macmillan, London, 1991.
- McRobbie, A. and Garber, J. Girls and Subcultures. in Hall, S. and Jefferson, T. eds.
 Resistance Through Rituals: Youth subcultures in post-war Britain, Hutchinson, London, 1976,
 209-222.
- 35. Radway, J.A. Reading the Romance: Women, Patriarchy, and Popular Literature. Verso, London, 1987.
- 36. Schott, G.R. and Horrel, K.R. Girl gamers and their relationship with the gaming culture.

 Convergence, 6, 4 (2000), 36-53.
- ScreenDigest and ELSPA. Interactive leisure software: New platforms, new opportunities,
 Screen Digest, London, 2000.
- 38. Spence, S.A. Nintendo Hallucinations a New Phenomenological Entity. *Irish Journal of Psychological Medicine*, 10, 2 (1993), 98-99.
- 39. Temple, C. If 'Beauty' had been ugly? Reading against the grain of gender bias in children's books. *Language Arts*, 70, 2 (1993), 89-93.
- 40. Wajcman, J. Feminism Confronts Technology. Polity, Cambridge, 1991.
- 41. Wearing, B. Leisure and Feminist Theory. Sage, London, 1998.
- 42. Yates, S.J. and Littleton, K. Understanding computer game cultures: A situated approach. *Information, Communication and Society*, 2, (1999), 566-583.