

Taming the Game

Children's Constructive Use of Social and Communicative Context When Playing Scary Computer Games

Ingrid Kjørstad, SIFO (National Institute for Consumer Research), Norway

Within recent childhood research, children are considered actors and interpreters of their everyday life, including the use of media. The research cited in this article builds on this perspective, and focuses on children's experiences with computer gaming. As for computer games, analysts point towards the need to include the context of gaming, in addition to the different elements of the games, into gaming analysis. The article therefore elaborates on the importance of the gaming context, by applying a domestication research perspective. The article presents results from a qualitative research project on children and gaming. Different elements constituting gaming contexts were discussed with 11-year-olds to identify if and why some gaming experiences were considered scarier than others. The research project concludes that the social aspects of the gaming context in this sense are very important and appreciated. In addition, children actively manipulate elements of the gaming context to reduce the "fear factor".

Keywords: action, children, computer games, domestication, game studies

This article aims to broaden the somewhat polarized debate on children's computer game consumption by suggesting solutions to the problems of "media effects research", and rather place focus on consumption contexts and practices. More specifically, it focuses on computer gaming and the contexts in which the children are positioned when gaming. The article

presents results from a qualitative research project on children and gaming (Kjørstad 2005). The first section presents a brief overview of Norwegian children's media use, previous research, and definitions of games and gaming. Secondly, contemporary discussions related to children's media consumption are presented, with a brief outline of the new sociology of childhood (along with some of the critique raised against it). This provides the background for the research project subsequently accounted for. Thirdly, a domestication research perspective is presented and applied to explore the research project's main results.

Use and Access

Norwegian children grow up having access to a lot of different technologies and using them heavily. In 2007, 49 percent of Norwegian children aged 9 to 12 and 44 percent in the age group 13 to 15 used electronic games (video or computer games) daily, according to Statistics Norway (Vaage 2008). 61 percent of the boys aged 9 to 15 used such games daily, compared to 32 percent of the girls (the latter actually an increase by 10 percent from 2005).

According to NSM,¹ there was a 12,6 percent increase in sales (from NOK 593 to 668 millions) of electronic games in Norway between 2007 and 2008 (NSM 2009). According to NSM's list of games sold in 2008, PlayStation3 (25,8%) and PC (19%) are the most used platforms, while other consoles such as Xbox360,² PS2, Nintendo DS, Nintendo Wii and portable consoles hold market shares (downward) from 15 percent (NSM 2009).

Many adults are not as familiar with the technology and games as are their children, and are somewhat ambivalent towards extensive use. On the one hand they encourage their children to use and amass technology competence through e.g. computer games, and on the other hand they are critical to and concerned by the possible negative influence of the games. This ambivalence is strengthened by – and reflects – the ongoing media debate on these matters. The picture might however be changing: in particular perhaps the fathers share a general technology interest with their children, and early generations of gamers are now reaching an age where they themselves become parents of young gamers.

Previous Research – Findings and Traditions

The development of computer games and computer game technology has been spectacular since *Spacewar* was introduced more than 40 years ago. Compared to other popular cultural phenomena such as television, film, and books, the history of computer games is fairly brief. We might however consider them as a continuation of traditional non-electronic games, and such a practice of gaming dates back to ancient times (Juul 2005). The question, according to Juul, is therefore “not whether video games are old or new, but how video games are games, how they borrow from non-electronic games, and how they depart from traditional game forms” (Juul 2005, 4). There is currently a variety of game genres and an enormous range of games available for the many different gaming platforms. The development of new technology constantly improves the games’ graphics, audio, and visual performances as well as the gaming equipment (hand controls, Internet access, multiplayer functions etc), which in sum could be strengthening the realism of the games.

Juul (2005, 1) points out that computer games consist of two things: *real rules* and *fictional worlds*, and his aim in the book *Half Real* is to integrate the implications of these two into a coherent theory of video games. Juul considers the playing of video games to be a fundamentally learning experience, because the primary activity is to improve skills and overcome challenges through learning the rules and structures of the games. This perspective is interesting, and can be closely linked to the domestication perspective applied in this article and presented further below.

According to Linderöth, Lantz-Andersson & Lindström (2002), computer games are studied by many academic disciplines, such as media research, post-modern perspectives, experimental psychology, informatics, educational technology, play theory, and semiotics. The authors also identify five discrete units of analysis:

- the analysis of computer games as a part of Western society;
- the analysis of the rhetoric about computer games;
- the analysis of the elements in computer games;
- the analysis of the effects of using computer games, and finally;
- the analysis of the activity of using computer games (Linderöth, Lantz-Andersson & Lindström 2002, 228).

Further on, their article provides detailed descriptions of what it is that characterizes these different units, in addition to examples of studies and research within each. Regarding the analysis of the activity of using computer games, it is said that this is possibly the least developed field of research – in terms of quantity. The research cited by the authors is in this case mainly tied to social theories of learning or game play activity. They highlight research that reveals significant differences between physical and virtual dimensions in children’s gaming situations, and argue that violent actions in the game do not necessarily contradict friendly peer relations in front of the game or screen (Johansson 2000). Finally, they conclude by citing Henry Jenkins (1999, in Linderoth, Lantz-Andersson & Lindström 2002, 245) who suggested that “we should be focusing our attention on what our children are doing with media” rather than the other way around.

Games and Gaming

According to Espen Aarseth, the term “computer game” is weak and hard to define, because it is quite generic and easily applicable to any kind of digital games (Aarseth 2003). He suggests instead that we use the term “games in virtual environments” in order to exclude all games that rather ought to be categorized as toys or dice and card games.³ A more specific definition of “game” is suggested in Jesper Juul’s article “The Game, the Player, the World: Looking for a Heart of Gameness”:

A game is a rule-based formal system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort in order to influence the outcome, the player feels attached to the outcome, and the consequences of the activity are optional and negotiable (Juul 2003, 5).

Aarseth summarizes the four types of gamers Richard Bartles (1996) describes, based on observations of motivations in MUDs (multi-user dungeons):

*The four types are **socializers** (players who play to enjoy the company of other players), **killers** (players who enjoy preying on and harassing other*

players), *achievers* (*players who like to win and triumph*) and *explorers* (*players who enjoy discovering the game's secrets and hidden mechanics, including discovering and exploiting programming errors*) (Aarseth 2003, 3).

This article does not build on this typology, which is cited rather to show that different types of gamers can and should be recognised – and to underline that social aspects and relations between the gamers can also influence the atmosphere and gaming context when gamers play together (online or/and in real life).

The aim of this article is to perform a *gaming* analysis rather than a *game* analysis. Aarseth (2003) underlines three elements that characterize all games, and that all game analyses should cover to some extent: *game-play* (the players' actions, strategies and motives), *game-structure* (the rules of the game, including simulation rules), and *game-world* (fictional content, topology/level design, textures etc). The social science perspective is suggested as particularly relevant to gameplay, and Aarseth underlines that "since a game is a process rather than an object, there can be no game without players playing" (Aarseth 2003, 2). Ørjan Nordhus Karlsson (2004) departs from Aarseth's game research typology, but argues that it is crucial to include and pay more attention to the gaming context when analysing computer games. He claims that the contextual aspect of computer games should be considered equally important to the other three elements of the game research typology, and should include the gamers' social activities and social relations – within as well as outside of the games.

Theoretical Foundation

This article addresses the ways in which computer gaming contexts influence children's computer gaming experiences, and the ways in which the children themselves use and manipulate both the course of the games and the gaming contexts. The Norwegian public media debate and much of media research has focused on what possible effects that different kinds of media use might have on children. The various discourses have to a large extent been based on a critical perspective, treating the child as an incompetent and passive media victim.

Many assumptions have been made regarding “digital childhood” and how it differs from that of earlier times. Frønes argues that the critical perspective is founded upon concerns about negative media content and its assumed effects on children (Frønes 1998). The terms *cybercritics* and *cybertopians* denote two extremes among the various perspectives on consequences of children’s ICT use (Papert 1997). Representatives of the cybercritics see technology and ICT competence as a threat to children, whereas the cybertopians applaud children’s new media competence and look upon it as representing the future (Holloway & Valentine 2001). Over the last decades, social scientists have embraced the idea that research should take children into more serious account as competent citizens – as *human beings* rather than *human becomings* (Qvortrup 1990).

Much recent research emerges from such perspectives in which children are seen as competent media users and active interpreters – i.e. *the new sociology of childhood*, later renamed *the new social studies of childhood* (Buckingham 2000; James, Jenks & Prout 1998). It is considered especially important to recognise the wide spectre of different childhoods as well as the role of children as social actors in the moulding of their own childhood experiences. There is however a tendency towards describing children using polarized dichotomies, such as active/passive, interpretative/incompetent, or beings/becomings, and towards viewing the consequences of media use as either good (technology competence building) or bad (i.e. related to violence and obesity). Buckingham points towards the need for researchers to include socio-cultural background and contextual factors when analysing children’s media consumption, instead of struggling to position themselves within the polarized debate on media effects on children (Buckingham 2000). According to him, it is important to consider a wider understanding of children’s relationship to media, focussing on their social lives, and applying new perspectives on childhood.

Walkerdine describes this polarization as “a classic split within cultural and media studies, between the passive consumer and the active maker of meaning” (Walkerdine 2007, 5). She underlines that it “is necessary to go beyond this distinction, which has cropped up a lot in recent discussions about video games and children” (ibid.). Although children are considered media competent and able to interpret the media content, it has been underlined that they do not automatically avoid

being influenced by ICT use (Buckingham 1998; Hagen 2003). The polarized debates have therefore to some extent been contested. Still, the nuances of children's media use and practices are easily lost within the quite black-and-white media debates on modern childhood. Although some question the novelty of the perspectives within the new sociology of childhood (Kampmann 2003; Ryan 2008; Walkerdine 2007), the focus on "children as active subjects operating within a social field rather than mere products of heredity and environment – in Prout's words, *social actors, with a part to play in their own representation*" (Ryan 2008, 555) – is nevertheless a fruitful starting point when researching children's media consumption. According to Olivia Freeman, contemporary social research on children is emphasising *children's experiences*, researching *with* the children, conceptualising them as *social beings* (Freeman 2006).

The research project recited in this article (Kjørstad 2005) was built upon the theoretical efforts of the new sociology of childhood, hence its focus on the context in which the computer gaming takes place. This article explores with what success the *domestication research perspective* can be applied to the analysis of some main findings within the project.

The Research Project and Methods

The project was funded in 2003 by The Norwegian Media Authority through a research programme aiming to enhance our knowledge of children's media use and their experiences of violence in the media

The project's focus is on the gaming context and on the children's perceptions of what elements might reinforce a scary gaming experience. The context characterizes and describes the children's gaming situation. Important elements are with whom the children are playing, as well as where, what and when they play. In addition, it was assumed that the characteristics of the games and their technical equipment might have an impact on the gaming experience. The aim of the project was to explore children's experiences of computer gaming, in order to broaden the polarised picture where violent behaviour or computer competence is seen as possible effects.

The data collection and analyses were conducted in 2004 and are based on qualitative interviews. Two school classes of 11-year-olds were visited frequently during a period of two weeks, and informants were

recruited on the basis of mapped interests in computer gaming. Interviews were conducted with ten children, some in pairs and others individually. All interviews were conducted in the children's homes, and started with an hour of gaming in order to melt the ice, and as conversations continued, we moved in and out of gaming together. This method of interviewing has previously been applied and proven valuable for engaging the children and constructing an equal levelled discussion (Kjørstad 2000). The interviews with the children lasted for approximately an hour and a half. The available parent(s) were briefly interviewed afterwards on what gaming regulations (if any) were applied in their home. All interviews were transcribed and anonymised, according to Norwegian regulations and interview agreements (Backe-Hansen & Vestby 1995).

On Scariness and Movie Theatre Resemblance

Based on a study of what it is that scare children on TV and in movies, Joanne Cantor (1998) claims that children see movies with children's eyes. Adults and children might see the same movie, but they experience it in completely different ways. When adults therefore try to anticipate which movies the children will perceive as scary, it is important but nevertheless hard to see the movie the same way children might do, she says. An assumption that this is also the case with computer games probably underlies the current development of PEGI, an age labelling system of games.

Cantor claims that small children in particular are sensitive to the characters' visual appearances in movies, while older children are more sensitive to other aspects, such as what the character says or does and with what intention. Further on, Cantor finds that the fear of fantasy movies fades with age, while the fear of realism increases. She distinguishes between three types of stories frightening for different age groups: the *fantasy story* which portrays the unrealistic that could not happen in real life, the *fiction* which is a product of others' imagination but based on incidents that could happen in real life, and the *documentary* which shows real life happenings.

The study on which this article is built focussed on elements in the games and in the gaming context that might possibly enhance or reduce what the children experienced as scary. Dimensions such as time, place,

and social or communicative context are highlighted, but elements in the game are also discussed, to some extent drawing on Cantor's descriptions of frightening movie elements. Many have discussed whether general media and audience theory can be applied to the study of computer games (and gaming). At times this is rejected due to the difference in story telling. Stories in movies have only one outcome, while computer games either emphasise the gamers' influence on the story or use narration merely as decoration or stage (i.e. progression vs. emergence games, cf Juul 2005). It is however the resemblance between typical scary elements that is of primary interest in this article, and as is evident from the interview citations below, children rank scariness in different media somewhat in line with Cantor's age scale. Also, it is evident that these children consider fiction of real life possibilities the scariest.

David: In a game you know that it's a fiction, but on TV it's like real people walking about kind of. And at the movies it's all much scarier, then you don't know because you see real humans, but in the game you can see that they are not real, but when there are people and monsters together it feels much more realistic.

Jarle: If the games are really realistic, then it can be too violent I think... It's like one game, I didn't play I only watched, called GTA Vice City, which I think is a violent game. You walk about shooting people on the street and such, and it's very realistic. It's like no exaggerations (referring to the characters looks), and you can get guns and such. Then you kill innocent people and so on.

The Domestication Perspective and Analysis of Research Results

In this section I briefly outline the *domestication research perspective*, with main attention to the domestication process and the moral economy of the home. Further on, I explore the use of this perspective in a tentative analysis of the main research results from the previously described research project.

The Domestication Processes and Moral Economy

When exploring what children find scary in computer games in particular, it seems essential to include the gaming context. An analysis of game content alone is not enough when trying to map out the meaning of gaming for children. Children's use of computer games is a part of their

everyday life, from which they attain meaning. The home can provide settings for many contexts, depending on different combinations of aspects such as time, place, and space. These three “parameters” can be represented by e.g. *when* children play, *where* they play, *with whom* they play, *what* they play, and *in-game elements*. It is assumed that different combinations of these constitute different gaming contexts, within or outside of the home context. The research project’s aim was to investigate how and to what degree contexts influence whether children consider games and the gaming experiences scary. Of research interest was the children’s interpretations of different elements of the games and the gaming context, and their strategies to control the level of scariness.

Jessen and Sørensen (2002) call attention to the importance of children’s everyday life when studying their media use, and draw on Silverstone’s (1994) work on television and media use. Silverstone and others place focus on the family and the household context when outlining a research perspective for media and ICT consumption. Silverstone focuses on media as embedded in social contexts, and underlines the need to consider this frame of media use. His project in the book *Television and Everyday Life* (Silverstone 1994) is to provide a framework for the analysis of the integration of mass mediation and media reception in people’s lives, because much of existing research “abstracts the dynamics of media reception from the social environment in which it takes place” (Silverstone 1994, 3).

Silverstone argues that audiences are individual, social, and cultural entities, “always present and in the present” (1994, 132). This is why it is crucial to recognise the context in which the audience is positioned, in order to understand the role of media in everyday life. Audience studies have to a large extent failed to recognise the audience as embedded in complex social and cultural relations. Silverstone claims that one needs to consider both the social and the individual dimensions related to media use. It is important to note that different viewers create different meanings, as they construct their own meanings from their individual experiences of common texts.

Children's Domestication of Scary Computer Games

When the children were asked to define what scary means, they mentioned evil monsters, violent actions, disgusting objects, frightening situations, and emotional and physical reactions as examples. Objects and behaviours that disgust them appear to some degree also to scare and frighten them. Mary Douglas' (1966) notion of "dirt as matter out of place" and her discussion of the disgusting can to some degree describe what children claim to be scary and disgusting. Misplaced body parts and human intestines are frequently used as examples of something disgusting and scary. Visible blood and organs, astray body parts, and chopped off heads are some examples of matter out of place that disgust the children. Douglas claims that what is categorised as disgusting will depend on both different contexts and categories. It seems that girls categorise misplaced body parts as disgusting but not so much frightening, while boys to a greater extent use them to define what can be scary. This gender difference might be closely linked to different experiences and game preferences regarding e.g. computer games. When Bjørn and Bård discuss a gaming experience with the game *Doom*, they underline the difference between fiction and fantasy in relation to the difference between disgusting and scary:

Bård: *It (Doom) is a shooter game, where you kill monsters with chainsaws and so on, and then blood splashes around... there are chainsaws with double knives on! And then you just see the head "fly" off. Do you remember that Bjørn? Then we chopped off a monster's head and it still lived and it just kept chasing us... and we had chopped off its arms as well...*

Bjørn: *yes, it's disgusting... Or if you shoot a human in its leg and it starts limping, like this afterwards.*

The study cited in this article shows that girls reject some computer games because they are disgusting, while boys to a greater extent find the same elements fascinating and/or scary. This study is rather small scale, and does not offer any answers as to what these gender differences might express. Further research might however find this an interesting starting point. Perhaps a practice perspective might give valuable insights. One could suggest that the girls are unfamiliar with these kinds of games, and

therefore focus primarily on the decorations and narrations, while the boys are quite familiar with such game elements and effects, and therefore are not bothered by them but rather find them exciting. This would then imply that the boys have domesticated such computer games while the girls have not.

As outlined above, Silverstone argues that people need to domesticate media and media technologies in order to make them fit into the home context, and the appropriation of commodities into domestic culture is how they are domesticated. Domestication “involve bringing objects in from the wild: from the public places. The transition, which is also a translation, of objects across the boundary that separates public and private spaces is at the heart of what I mean by domestication” (Silverstone 1994, 98).

Violent and scary computer games in this case represent the commodity which is to be domesticated, and my focus is on the children’s efforts in this process. Silverstone mainly implies that domestication processes are related to adults’ or parents’ appropriations of new technology, but I argue that in the case of computer games it is the children that are the primary actors. It seems evident that the children’s domestication of computer games depends heavily on experience, both with the individual game and the different genres of games.

Domesticating the Scary

Juul (2005) describes the activity of gaming as a learning experience, while this article considers it as part of a domestication process. In other words, how the game is appropriated and used is also considered. Computer gaming is a common activity among children (between friends, siblings or other relatives), and they often play games aimed at older age groups. Most of the children interviewed in the cited study refer to such games as the scariest – and the most exciting. In order to regulate their ambivalence towards these games, the children manipulate the gaming context in order to *tame* the games. The children normally choose between three types of actions: direct their focus towards the social gaming context, manipulate the course of the game and change focus in-game, or change the contextual framings (e.g. light and volume). Examples of the different actions are listed beneath.

1. Direct their focus to the social context

The most important fear reducing factor is to play physically together with other persons (as opposed to others online), or at least to play in a room nearby someone else (e.g. the parents).

2. Influence the course of the game and change focus in-game

Many in-game elements can be influenced in order to reduce fear factor when gaming. Many children mention the possibility to direct their in-game focus to other parts of the game (e.g. car chase and shopping in GTA [*Grand Theft Auto*]), or to change their point of view on the screen (from first to third person). Another option is to choose another mission, or to change game altogether. All children agree that it would be less scary to play new and scary games with others the first time they try it out. Some also suggest closing one's eyes or looking away for a while, and thinking of something else, or walking away from the game for a while reminding themselves it is only a game – or turning off the game completely.

3. Change the contextual framings (e.g. light and volume)

Many children suggest turning down or off the volume of the game if it becomes scary, as many games make considerable use of sound effects. Another option would be to switch on more light in the room, shut out the dark by closing the curtains and to play at day-time.

Most children claim that the scary parts are also the most exciting and funny. They enjoy being frightened or startled, and underline that most of the times it is only scary the first time. As previously discussed, gaming experience itself seem to be the practice through which children domesticate such games.

Silverstone argues that “domestication is a process of both taming the wild and cultivating the tame” (Silverstone 1994, 174). As for violent and scary computer games, this probably makes perfect sense to the children playing – or longing to play – them. One might consider the first experiences important regarding the taming process while playing a game over and over again would represent the cultivating process, where the child learns to know all parts of the game and hence becomes familiar with it. To visualise this, I should like to create a history of one child's

domestication process of his first computer game – within the violent and scary category. Imagine

Tom's excitement when he, at his 11th birthday, receives the GTA Vice City game from his uncle as a present. There is an immediate clash of thoughts in the room. His parents proclaim their ambiguity towards this game and towards him playing it – it is rated mature and is absolutely not suited for a boy his age. Tom on the other hand cannot believe the game is actually his, and is already wishing for his birthday guests to leave so he can start playing. He is also pondering on arguments in his head. His parents will not easily be persuaded, but he will be persistent and of course win them over in the end. Later that evening, Tom and his father are setting up the PS2 gear in front of the telly in the living room. Both the father's involvement and the chosen location are central parts of the deal Tom made with his parents. But it will not be long before Tom's parents direct Tom and his PS2 and GTA game to his own room – the noise and the violence are too much for the family living room, in which his father will stay behind. For a while Tom's use of GTA is somewhat regulated with respect to time consumption and social demands, but as other games enter the house Tom is free to play it alone – as long as his homework is completed, his sports activities attended to and his room made tidy.

This story in a way summarizes the research results, and its intent is to illustrate children's domestication process of violent and scary games. From the interviews it is evident that the children use such games in contexts where they can – and do – regulate or manipulate the fear factor according to their gaming experience. As one of the research results show, all children considered their first encounter with violent or scary games as the scariest one, due to its unknown history and not yet unfolded events. As they acquire experience and familiarity with the games, they are no longer startled by the surprises embedded in the games. The children in addition use their previous experiences with scary games in order to detect where surprises and unexpected scary events might occur. The children explain how in-game music often accompany and enhance scary elements and effects of the game.

This implies that time plays an important role in the children's domestication of such games, as experience and familiarity with a game drastically reduce their opinion of the game as scary.

Bård: *it is most scary the first time, and then afterwards it is fun, yes, then it gets more fun.*

Bjørn: *Because then you get used to it.*

David: *James Bond for example can be both scary and fun at the same time*

Daniel: *It is always scary and fun at once, kind of*

Jarle: *It is kind of fun when you get scared, otherwise it wouldn't be any fun to see it. I mean like, it's not very fun exactly at the time that you are startled, but afterwards when you think of it, it's quite funny*

Not many parents were present in the children's gaming contexts – although they consider it to be important. The children however consider sociality to be the single most important element of the gaming context when it comes to reducing fear. But they are not particular as to who is present. The most important thing is to have company, as this enables them to react to the violence with laughter and talk rather than with fear. As one child puts it, “it's always scary and fun at the same time”. If the children are playing scary games alone, they prefer that other family members are to be found elsewhere in the house. Although the social aspects of the gaming contexts are considered the most important, the children also use other strategies to reduce their fear. In fact my research results suggest that through their gaming experiences in adjusted gaming contexts, the children over time devalue the scariness of games. The scary impact of the game fades over time and becomes – literally – familiar, and the gaming element takes precedence. This demonstrates in short how the children domesticate the games.

All children claim that going to the cinema can be a much more scary experience than playing computer games. Watching films at the cinema or on the television offers a more realistic impression than playing the games does, and the watching context of the cinema is considered to be the scariest of all. To watch a scary movie at the cinema is scary because you feel alone in the dark, you are not allowed to speak, it is usually in the evening, the loudness is overwhelming, it is often real people who are

acting, you can not escape the event until it is over, and you can not influence the story, change the channel, turn it off, or press the fast forward button. Moreover, the content of the movie is novel since the children are not permitted the time needed to familiarize themselves with it. The children consider computer gaming less scary because they to a greater extent *can* control and manage different elements of the gaming context, and hence regulate the level of scariness. The use of computer games over time and the domestication of them are probably important factors for the children's consideration of games as the least scary, whereas movies at the cinema limit their possibilities to manipulate the viewing context in addition to presenting living people and an unknown story.

Ingrid Kjørstad is a sociologist and researcher at SIFO (National Institute for Consumer Research), Norway. Her research interests are within young people's usage of new media, with a focus on computer games. Ongoing research concerns adolescents' use of online computer games and online gambling services, in a contextual perspective.

E-mail: ingrid.kjorstad@sifo.no

Web page: <http://www.sifo.no>

Notes

1. NSM, The Norwegian Games and Multimedia Suppliers Association (Norsk Spill og Multimedia Leverandørforening).
2. Microsoft does not publish sales figures; hence parts of Xbox sales are not accounted for.
3. In this article (and the empirical research on which it builds) the terms TV games and computer games are used, but informants and researcher all agree on Aarseth's definition.

References

- AARSETH, ESPEN (2003). "Playing Research: Methodological Approaches to Game Analysis." *Melbourne DAC, the 5th International Digital Arts and Culture Conference*. Melbourne. <<http://www.spilforskning.dk/gameapproaches/GameApproaches2.pdf>> [2009-03-05]
- BACKE-HANSEN, E. & VESTBY, G. M. (1995). *Når barn bidrar i barneforskningen – Etske spørsmål*. (No. 2, NESH-skriftserie). Oslo.
- BUCKINGHAM, DAVID (1998). "Reconstructing the Child Audience." *Digital barndom*. Eds. I. Frønes & M. Haldar. Oslo: Gyldendal. 34–51.
- BUCKINGHAM, DAVID (2000). *After the Death of Childhood: Growing Up in the Age of Electronic Media*. London: Polity.
- CANTOR, JOANNE (1998). *Mommy, I'm Scared: How TV and Movies Frighten Children and What We Can Do to Protect Them*. San Diego, CA: Harvest/Harcourt Brace.
- DOUGLAS, MARY (1966). *Purity and Danger: An Analysis of Concepts of Pollution and Taboo*. Praeger, New York, New York, USA.
- FREEMAN, OLIVIA (2006). "'No Buts!': Researching Children's Consumption, an Exploration of Conversation and Discourse Analytic Techniques." *The 2nd International Conference on Child and Teen Consumption*. Copenhagen April 2006. <http://www.cbs.dk/content/download/41877/616573/file/Paper%2050_Olivia%20Freeman.pdf> [2009-03-05]
- FRØNES, IVAR (1998). "Mot en digital barndom?" *Digital barndom*. Eds. I. Frønes & M. Haldar. Oslo: Gyldendal. 12–22.
- HAGEN, INGUN (2003). "'Et liv utan media? Kjedeleg!' Om betydninga av media i barn og unge sitt liv." *Flyt og forførelse: Fortellinger om IKT*. Ed. K. Lundebj. Oslo: Gyldendal. 197–224.

HOLLOWAY, SARAH L., & VALENTINE, GILL (2001). "It's Only as Stupid as You Are: Children's and Adults' Negotiation of ICT Competence at Home and at School." *Social & Cultural Geography* 2.1: 25–42.

JAMES, ALLISON, CHRIS JENKS & ALAN PROUT (1998). *Theorizing Childhood*. 2nd ed. Cambridge: Polity.

JESSEN, CARSTEN & BIRGITTE HOLM SØRENSEN (2002). "Computerspil i børneperspektiv: Børn og medieviolence i ny belysning." *Nordicom Information* 24.1: 57–66.

JOHANSSON, BARBRO (2000). *'Kom och ät! Jag ska bara dö först.'* *Datorn i barns vardag*. Diss. Göteborg: Etnologiska Fören. i Västsverige.

JUUL, JESPER (2003). "The Game, the Player, the World: Looking for a Heart of Gameness." Paper presented at the *Level Up: Digital Games Research Conference*, Utrecht.

JUUL, JESPER (2005). *Half-Real Video Games Between Real Rules and Fictional Worlds*. Cambridge, Mass.: MIT Press.

KAMPMANN, JAN (2003). "Barndomssociologi: Fra marginaliseret provokatør til mainstream leverandør." *Dansk Sociologi* 14.2: 79–93.

KARLSSON, ØRJAN NORDHUS (2004). "Nye kulturelle uttrykk, sosiologien og dataspillet." *Sosiologisk tidsskrift* 12.3: 273–284.

KJØRSTAD, INGRID (2000). *Barn og Internettreklame: En studie av 12-åringers forståelse og kunnskaper om reklame på Internett*. (Report no. 7-2000). Lysaker: Statens institutt for forbruksforskning.

KJØRSTAD, INGRID (2005). *Skummelt gøy! En kvalitativ studie av hva barn opplever som skummelt ved tv- og dataspill*. Oslo: Statens institutt for forbruksforskning.

LINDEROTH, JONAS, ANNIKA LANTZ-ANDERSSON & BERNER LINDSTRÖM (2002). "Electronic Exaggerations and Virtual Worries: Mapping Research of Computer Games Relevant to the Understanding of Children's Game Play." *Contemporary Issues in Early Childhood* 3.2: 226–250.

[NSM] NORSK SPILL OG MULTIMEDIA LEVERANDØRFØRENING (2009-01-19). *Spillbransjen med nok et rekordår bak seg*. <<http://www.spillforeningen.no/nyheter/nyheter.asp>> [2009-03-04]

PAPERT, SEYMOUR (1997). *The Connected Family: Bridging the Digital Generation Gap*. Georgia: Longstreet.

QVORTRUP, JENS (1990). *Childhood as a Social Phenomenon: An Introduction to a Series of National Reports*. Esbjerg: University Centre of South Jutland.

RYAN, PATRICK J. (2008). "How New Is the 'New' Social Study of Childhood? The Myth of a Paradigm Shift." *Journal of Interdisciplinary History* 33.4: 553–576.

SILVERSTONE, ROGER (1994). *Television and Everyday Life*. London: Taylor & Francis.

VAAGE, ODD FRANK (2008). *Norsk mediebarometer 2007*. Oslo-Kongsvinger: Statistisk Sentralbyrå.

WALKERDINE, VALERIE (2007). *Children, Gender, Video Games: Towards a Relational Approach to Multimedia*. Basingstoke: Palgrave Macmillan.