

Estrid Sørensen (ed.)
Cultures of Computer Game Concerns

Editorial

Since the late 1970s, empirical science studies have developed into a key field of research at the intersection of science, technology and society. This field merges a repertoire of theories and methods stemming primarily from cultural anthropology, sociology, linguistics and history. Its main characteristic is the detailed analysis of scientific practices and epistemic cultures and how these become entangled with public discourses and everyday life. This focus tries to reveal specific, local configurations and their epistemological as well as social consequences. Beyond a mere deconstruction, science studies are constantly looking to engage with the fields in which they do their work. The goal of this book series is to offer to scholars a German and English speaking Forum that

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- encourages the formation of tandems through co-authorship. In particular, it supports, evaluates and comments on collaborative projects with colleagues from the natural and engineering sciences.

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ESTRID SØRENSEN (ED.)

Cultures of Computer Game Concerns

The Child Across Families, Law, Science and Industry

[transcript]

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Introduction: Computer Games and Children – Concerns, Infrastructures and Cultures¹

ESTRID SØRENSEN

Tell me about computer games. What are they?

How and where do you start talking about computer games? Do you talk about pixels and animations, about Boolean logic and programming? Do you tell about the thousands of hours you spent on *World of Warcraft* (Blizzard Entertainment, 2004)? Do you report about elves and dragons, about gloomy soundscapes and astonishing landscapes? About sad stories and impossible riddles? Do you emphasize how you struggle to get your daughter away from the screen and out to play? Do you tell about how *Grand Theft Auto* (DMA Design/Rockstar North, 1997) made her the most popular girl in class for several months, because only her parents allowed her and her friends to play it? Do you tell about the efforts it took to get through a bill to regulate children's use of games? Or about how regulators find out exactly how to classify a computer game? Do you warn about how iTunes, Google Play and Steam are about to take over the age regulation of computer games from democratically controlled organizations? Or do you tell about the surveys, interviews and participant observations that are conducted in order to get to

1 This book is a result of collective efforts of many people. I would like to thank all authors for having been extremely collaborative. Helen Walker has proof-read many of the book's chapters and Jessica Backwinkel's, Anna-Eva Nebowsky's and Andreas Warneke's help to set the book has been invaluable. Warneke's extraordinary patience with more than twenty author's different interpretations of the style sheet and his meticulous precision in formatting the manuscript has considerably improved the reading experience of this book.

know about children's use of computer games? What about starting with an explanation of the diagnosis of *Internet gaming disorder*? Or do you prefer to talk about how parents lack media literacy, or about nurseries' current implementation of iPads?

How to talk about computer games? What are your concerns? How do computer games affect you, what do they trigger? That depends, of course, who you are, what you do and how you relate to computer games.

CONCERNS

This book is about computer game concerns. The move to talk about *concerns* arose in recent discussions in *Science & Technology Studies* (e.g. Latour, 2004; Marres, 2012). It refers to the effects of a specific matter in a specific encounter; to how a matter may move, stir up, interfere, provoke, evoke or induce engagements, activities, practices, attentions, needs, worries or desires. Science is traditionally understood as engaged in producing facts about matter in the world without itself being moved or affected by this matter. For several decades social constructivists have spent their time showing that science is not at all indifferent to its matter, but follows both gender, ethnic and economic ideologies – even if often unaware of these. Instead of ideologies, Science & Technology Studies started looking at the situated micro-practices of science and technology development and came to realize that it is not simply human scientists and technology developers who affect the matter they study and build. The matter itself influences the process of scientific inquiry and technology development. It moves, stirs up, interferes, provokes, evokes or induces engagements, activities, practices, attentions, needs, worries or desires. It comes to concern those who are engaged with it. Among others, Bruno Latour (2004) has suggested a move away from focusing on *matters of fact*, which implies the idea of distant matter that is described by unaffected analysts (or in social constructivist terms it implies a shared understanding of equally distant matter) (cf. Verran, 2001). Instead, Latour has introduced the notion of *matters of concern*, which invites us to attend not to how matter exists in itself, but how it engages us, how it moves, stirs up, interferes, provokes, evokes or induces engagements, activities, practices, attentions, needs, worries or desires in practices of discovery, of analysis, of development, of use, play, regulation, repair, etc.: how it comes to be of concern. In other words, to be concerned with computer games means to be affected by computer games through engagement with computer games. This book inquires how computer games affect families,

legal and scientific practices and the game industry. It focuses around the *interrelation between computer games and children or young people*, as it is particularly when entering into relations with children that computer games become mobilized as objects of concern and that they start mobilizing activities in the domains of law, family, science and the computer game industry. How do computer games become matters of concern in these societal domains?

INFRASTRUCTURES

How do computer games come to concern practices and discourses? Where to start? Computer games are encountered in many domains throughout society. As the introductory lines above indicated, computer games are entangled in a variety of different practices, and people deal with them in very different situations, for different reasons and in different social, discursive and material arrangements. The notion of *infrastructure* is helpful in considering how computer game concerns emerge and develop in different ways in different societal domains. Star and Ruhleder (1996) first suggested infrastructures as an analytical term, which was taken up widely in Science & Technology Studies (e.g. Bowker & Star, 1999; Star & Bowker, 2006). It mobilizes the everyday understanding of infrastructures such as traffic, power or water infrastructures, which is an extended network of often technical and material components of heterogeneous kinds (roads, traffic lights, traffic jam alerts, etc. in traffic infrastructures) but also embraces standards and rules (e.g. breadth of lanes, road traffic acts).

While such elements are usually associated with infrastructures, Star and Ruhleder (1996) emphasize that other less ‘technical’ aspects which shape everyday practices are also part of the infrastructures. Among these is knowledge of how to use the infrastructure and how to interpret its signs, conventions (e.g. hand gestures to let other road users pass); taken-for granted realities (e.g. the expectation that the road in front of you will not suddenly collapse); ingrained habits (e.g. looking back over your shoulder when turning); and social structures (e.g. relationships between different types of road users). Star and Ruhleder thus point to the inaccurate and unhelpful understanding of infrastructures as “something upon which something else ‘runs’ or ‘operates’, such as a system of railroad tracks upon which rail cars run” (ibid., p. 112). That which circulates in an infrastructure is far from passive matter independent of the infrastructure that enables its circulation. On the contrary, what circulates (bikes, pedestrians, dogs, skaters, cars, trucks,

etc.) is part of the infrastructure and co-configures its workings. While infrastructures are socio-material pre-conditions for action, people, things and practices act *through* an infrastructure rather than *in* it.

An infrastructure is thus to be understood as a pattern of related situated socio-material practices, along with their objects through which these practices themselves unfold (Bowker & Star, 1999). The ‘patternness’ of infrastructures indicates a certain durability, while also pointing to the situated accomplishment of socio-material practices as themselves making up the infrastructure (cf. Sørensen, 2009). The endurance and stability of an infrastructure depends on the recurrent mutual actualisation, maintenance, repair and variation of the socio-material practices that constitutes it as well as their interconnections. While I have applied the well-known metaphor of traffic-infrastructure, it is important to note that infrastructures may be a Heideggerian *tool at hand* as well as large computer systems, traffic networks or power supplies (Korn & Wagenknecht, 2017). One of the extended infrastructures related to computer games in relation to children is the infrastructure of age-classification of games, which involves rules and standards as well as practices and conventions, habits of use, etc. But also every family and peer group have infrastructures for when, where and how to play or not to play computer games. Such infrastructures are partly configured through social components such as rules, habits and values about family and peer activities, but they also comprise material aspects such as the locations of computers or game consoles, the games themselves and the places and means through which they are purchased, etc.

INFRASTRUCTURES AND CONCERNS

Subscribing to this imagery of infrastructures points to computer game concerns as emerging out of the practical socio-material infrastructures which computer games encounter when moving to families, to legal contexts, to science, etc. Law, education, health, industry, trade, art, family and science all precede computer games by centuries. These domains were already in place when the first computer games were developed more than fifty years ago. They enabled exchanges in complex societies as well as helping to organize micro-practices. This is not to say that everything was smooth. An infrastructure is never ‘finished’ – it is maintained, repaired, varied, extended, cut back, merged with others, etc. Please note that these ‘technical’ terms are helpful to remind us of the very practical and ongoing efforts involved in “infrastructuring” (Star & Bowker, 2006), but that we should not forget that all kinds of social, normative and discursive aspects of infrastructures, as

described above, are also implied here. Now, with the legal, family, industry, scientific etc. infrastructures in place, imagine that a new device, a new media-technical offspring of our culture – a computer game – comes to enter into these infrastructures. What happens? How does it fit in? Can it connect to the infrastructures? How? Does it stir up infrastructures? Does it induce adjustments? What concerns emerge out of the encounter between computer games and infrastructures? Our analyses are not historical and they do not need to be. The work of adapting objects and infrastructures is ongoing.

The concepts of *concern* and *infrastructure* are introduced in this book in order to inquire into the specificities of the engagements, activities, desires, etc. that computer games evoke in relation to children, and into how these emerge and work through existing socio-material arrangements. It is the hope that this vocabulary will help orient readers in the heterogeneity of chapters and perspectives of the contributions, which more often than not apply different vocabularies. We have divided the inquiry into computer game concerns into the four domains of *game industry*, *law*, *family* and *science* because we expect different infrastructures to be at work in these different domains and accordingly different concerns to operate.

What difference does this vocabulary make? Let me return to the move from *matters of fact* to *matters of concern*. Not only public debates, but also expert discussions concerning computer games in relation to children, almost without exception apply a rhetoric that implies the expectation of arriving at some point at a singular, true – or factual – representation of this relationship (cf. Anderson, Gentile & Buckley, 2007; Barker & Petley, 2001; Kirsh, 2012)². While facts about computer games in relation to children are an extremely important and relevant basis for many decisions and actions in this area, the limits of the relevance of facts are also obvious in the endless debates – both scholarly and popular – about the good and bad relations between computer games and children. The attempt of this book is to situate the knowledges and practices that exist about computer games in relation to children and treat them symmetrically in the sense of seeking to understand how they emerge as concerns that make practical sense in and through the specific infrastructures through which they emerge. This implies that scientific knowledge about computer games in relation to children is considered as only one specific kind of computer game concern among many concerns that exist, and that each of these serve a specific and limited infrastructure.

2 Important exceptions are Otto (2008) and Pethes (2004) who, like this book, take a Science Studies perspective on contested media.

The notions of *infrastructure* and *matters of concern* save us from the somewhat futile conclusion that there are many different infrastructures and many different computer game concerns. Even though computer games connect to different infrastructures and evoke different concerns, the different domains deal with the same *matter* – computer games – through which they are also connected. Furthermore, even though infrastructures vary from domain to domain and from practice to practice, they also span across domains, which means that the domains are interconnected. The idea behind this frame of thought is that it is through the *matter* – the computer games – and through the *infrastructures* that it may be possible to connect concerns and the solutions they may require.

FOUR DOMAINS OF CONCERNS

The idea that the notions of *matters of concern* and *infrastructure* can connect discourses and practices was tested at the 2015 workshop *Cultures of Video Game Concerns in International Comparative View* held at Ruhr-University in Bochum (Sørensen, 2016), where the idea for this volume emerged. The workshop was co-funded by the German Research Foundation (DFG) and the Mercator Foundation and organized by Espen Aarseth and myself. It brought together psychological researchers on children's computer game use and on computer game effects, scholars with expertise in the legal regulation of computer games, game developers and colleagues researching how studies on computer games are done. The discussions at the workshop were fascinating, since for most of the participants it was the first time they met with people from the other domains, and the insights into the workings of their infrastructures and the specificities of their concerns gave rise to unexpected questions, a lot of laughter and modified concerns. It is the hope that this book will have similar effects.

Below, I provide a detailed presentation of the chapters of the book. I draw together the different contributions in each part and analyse the specificities of the infrastructures and computer game concerns in each of the four domains mentioned above. I do this also through comparison across the domains. However, the aim of the book is not a *scholastic comparison* (Sørensen, Marlin & Niewöhner, 2018) that takes comparability for granted or produces it prior to the study in order to present their different characteristics in relation to one and the same scale. Instead, it invites readers to search for *comparability* (Scheffer & Niewöhner, 2010), which is the inquiry about what aspects or dimensions may be at all relevant to compare. And as suggested through the notions of *concern* and *infrastructure*, the

book is also an invitation to *internal comparison* (Strathern, 2004; 2011), i.e. a search for the internal connections between domains.

More than simply contributions about the four domains, each of the four parts presents material from different countries; mainly from Denmark and Germany, but also from Austria, Finland, Norway and Spain. Some of the infrastructures of computer game concerns respect national borders (particularly in the legal domain and to some extent in the family domain) and lend themselves to national comparison. Others, however, follow infrastructures whose arrangements are less nationally bounded.

A third heterogeneity of the book is in its different formats. Most chapters follow the format of academic articles, but even those vary due to different approaches, methods, discourses and genre conventions in different disciplines. Two chapters are presented as interviews and one is a reprint of an official statement on violent media (Rothmund et al., 2018, this volume). In order to keep visible the particular genre of this text, the latter is kept in the original layout instead of converting it into the standard layout of this book.

Helen Verran (1999) points to the unfortunate tendency of the social sciences to resolve tension in their empirical material and leave the reader with an unambiguous idea of the phenomenon as being well-ordered (cf. Raasch & Sørensen, 2014). While the individual chapters in this book do comply with this ‘unfortunate’ tendency, the juxtaposition of the heterogeneous accounts leaves the book with enough tension and ambiguity as material for readers to consider together with us the characteristics, dynamics and relationality of computer game concerns.

THE CHAPTERS OF THE BOOK

Industry Computer Game Concerns

The first part of this book is on computer game concerns in relation to children in the game industry. It opens with Sandra Plontke’s ethnographic piece about computer game programming. Programming is only a minor aspect of computer game development and an even smaller part of what we may call the computer game industry. Apart from programming tasks such as graphic design, animation, concept design, script writing, storyline, character development, level design, software architecture, audio engineering, testing, moderating, producing, marketing, market analysis and sales, along with cleaning, cooking and legal, financial and staff management, etc. are just some of the many activities that make up what we may call the computer game industry. This also means that there are many and

diverse computer game concerns in the game industry. Obviously, this book can only present a few limited insights into the vast and varied endeavours of the computer game industry and into their concerns. Starting out with a piece on programming underlines that most of the activities in the game industry are highly specialized, as are the concerns. Plontke reports from her ethnographic studies of how an apprentice programmer develops a fighting system. She takes us line for line through a piece of code and explains how its Boolean logic requires the programmer to frame whatever happens in terms of chains of if-then(-else) causations. Because a computer game is not only about a computer executing specific operations, nor simply about the player pushing specific buttons that trigger specific actions in the computer, but about a seamless interaction between the game and the player, the programmer has to inscribe (cf. Akrich, 1992) the player into the game. He can only do this by leaving gaps in the Boolean code in terms of leaving pieces of the if-then(-else) open for the player to fill in. It would be a very boring computer game if the player was given only one option or if he or she was given several options and these had no consequence on what happened later in the game. In order to make a good computer game, the game developer must configure the gaps in the code in ways that makes it fascinating and exciting for the player to fill them. He has to envision how the player might make strategic decisions in the game that build on already performed acts and will have consequences that she will try to anticipate. In other words, the programmer needs an imaginary of the player as an autonomous, clever and strategic decision-maker who is entirely in control of his or her decisions. Basing his work on this imaginary of the player, it is unlikely that the programmer will be concerned about whether the computer game will harm a young player. A vulnerable player is implied by such a concern, which is contradictory to the way in which the programmer must necessarily think about the player in his work. Like all other people, the programmer is most likely able to imagine other players and children, who probably should not engage with his fighting system. But he will have to draw on other logics to do so. Thanks to Plontke's very detailed account we come to understand how a specific way of working – of programming computer games – implies a specific way of imagining the player, which on the other hand is incommensurable with the imaginary of an affected young player. The specific concern that arises out of this work is to offer adequate challenges to an autonomous, strategic and clever player. It provides a starting point for understanding why in some parts of the gaming industry you may search in vain for concerns regarding the relationship between computer games and children.

Liam Berriman takes us to a part of the gaming industry where children indeed are of concern. By assimilating the expanding discourse of children's rights, commercial firms increasingly seek to position themselves as recognizing children as market participants rather than as mere consumers (Nolas, 2015). Berriman has researched how children become of concern as participants at the Finnish online gaming virtual world platform *Habbo*³ (Sulake, 2000). He highlights that children's participation in ongoing design processes has become an important means of securing the future sustainability of this online game and virtual world. Participation, however, comes with certain limitations. Berriman reveals that game designers very clearly define when and on what terms children are able to make design contributions and which individuals are able to participate in that process. Accordingly, young gamers' participation in the design process is principally at the discretion of the *Habbo*'s designers. This conclusion resonates with Thorhaug's (2018, this volume) discussion of online game providers' regulation of children's access to games and her argument that the criteria for doing so diverges considerably from how democratically controlled agencies regulate computer games. Similarly, because *Habbo*'s core concern is financial gain, children's participation in design processes come to be arranged to meet this concern rather than to correspond to a conceptualization of participation based on a paradigm of children's rights.

The final chapter in this part presents a conversation between the Head of Safety at the children's online gaming and social media platform *MovieStarPlanet*⁴ (MovieStarPlanet Aps, 2009), Vernon Jones and myself. Being an online platform – comparable to *Habbo* – on which anyone can register, play, meet and chat online with other players, the game holds not only the potential for playing and having fun with other users, but also for bullying, racism, sexism, stalking and other kinds of abuse. For this reason, *MovieStarPlanet* has set up an extended system of moderation of both verbal conversation and the posting of pictures. Jones explains how this involves not only ongoing adjustment of the automated content management system that alerts moderators to inappropriate behaviour, but also recurrent training of moderators and supervision of *MovieStarPlanet*'s ongoing content development along with facilitating and maintaining cooperation with NGOs and other online game providers and with governmental and law enforcement agencies in the many countries in which *MovieStarPlanet* operates. As a commercial game provider, economic gain is of course a concern for *MovieStarPlanet*, as Berriman and Thorhaug also emphasize for the game developers and

3 www.habbo.com

4 www.moviestarplanet.com

game providers they analyse. However, Jones explains the details of how *Movie-StarPlanet* necessarily has to interrelate with a variety of different technical, social, governmental, legal and other concerns that are distributed across a wide number of different infrastructures. The economic concern of an online gaming platform for children can always only be one among many other concerns. The core concern of a Head of Safety of an online gaming platform for children is to manage, balance, weigh up and in practice organize the variety of concerns across the variety of infrastructures that all in one way or other overlap with the activities of the online gaming platform.

The three chapters about computer game concerns in the game industry reveal that these emerge out of quite different infrastructures that: a) are situated within the game industry (programming); b) are drawn into the game industry (children participants); and c) that the game industry become entangled with as actors in a society in which activities are highly interdependent. It is quite obvious that the relationship between computer games and children is not a core concern of the gaming industry. This, however, cannot only be understood with reference to the gaming industry as being primarily focused on profit nor with reference to the dominance of young men in the gaming industry, as is often argued (cf. Prescott & Bogg, 2014). The infrastructures through which concerns about children emerge in the gaming industry operate both in local technical tasks as well as extending across comprehensive institutions and actors in society.

Legal Computer Game Concerns

In passing I mentioned above how legal infrastructures intersect the work of the game industry. If we had no computer games, we would obviously not have any computer game concerns either. Next to the computer games themselves however, legal infrastructures are crucial for the emergence of computer game concerns, as the five chapters in this part of the book make clear. The first chapter is written by Stephan Dreyer and it provides insights into the extremely complex German system for computer game regulation. The regulation of computer games has high legal priority in Germany because it is – even if only indirectly – founded in the German Constitution. First, children have a constitutional right to personal development and since some computer games may be considered able to potentially impede children’s personality development, the state is obliged to be concerned about children’s computer game use. Second, parents have a constitutional right to educate their own children. Since some computer games may be contradictory to parents’ educational principles these games potentially interfere with parents’

constitutional right to educate their children. The state is constitutionally concerned about parents' rights, and to protect this right, it must prevent children's unlimited access to computer games. Third, freedom of expression is a constitutional right that protects the work of computer game developers. Even though Article 5 in the German Constitution on the freedom of expression states that this right finds its barriers in the provisions of the protection of minors, game developers' right to freedom of expression is obviously potentially in conflict with the two rights mentioned above. Due to these constitutional rights – of children to personality development, of parents to educate their children and of game developers to freedom of expression – computer games come to evoke specific legal concerns that were defined by the German legislative body long before the first computer game was ever developed.

In translating these quite abstract rights into actual laws legislators encounter challenges that adhere to the quite concrete and practical infrastructures of the legal system. Media laws and laws concerning telecommunication are separate jurisdictions in Germany. The former is taken care of by federal law, while the latter comes under the legislative power of the *Länder*. The material makeup of many computer games of being both stored on a media carrier and having online elements subject them at the same time, but in different ways, to two different jurisdictions. In his contribution about *The Legal Framework for Computer Games and Child Protection in Germany*, Dreyer reveals several other areas in which computer games are a mismatch with and irritate the legal infrastructures – and thus also the legal concerns – which they necessarily have to operate with as soon as they are located within the territory of the German nation-state.

Moving with Claus Hjorth to Danish legal territory provides a quite different image. His chapter on *The Political and Legal Basis for Labelling of Computer Games in Denmark* was originally written in 2016 as a contribution by the governmental Media Council for Children and Young People (*Medierådet for børn og unge*)⁵ to the Danish Ministry of Culture's investigation on child protection in relation to digital media. Having Dreyer's complex explanation of the German legal regulation of computer games in mind, an early sentence in Hjorth's contribution is astonishing: "No Danish rules have been set on the labelling of games" (Hjorth, 2018, this volume, p. 113). While computer games have provoked extensive concerns, legal activity and need for regulation in Germany, they have only moved the Danish state to subscribe to the European industry collaboration PEGI⁶, which age labels computer games. No legislation has been introduced to regulate

5 www.medieraadet.dk

6 Pan European Game Information – www.pegi.info

computer games. A core difference between the Danish and the German legal infrastructures lies in the fact that the Danish constitution does not define a right for parents to educate their children and neither does it state that the freedom of expression is limited by the protection of minors. It is by way of the constitutional care – in terms of protection – for parents’ rights and children’s personality development that the German state becomes sensitive to – and thus concerned about – computer games, while the Danish constitution offers no basis for the state to become concerned in these areas. As becomes clear in the comparison between Dreyer’s and Hjorth’s chapters, this fundamental difference in sensitivity has extensive consequences in terms of the legal, institutional and organizational concerns and efforts that are invested into the regulation of computer games in Denmark and Germany.

One might consider any computer game concern well-established in Germany due to their extended and detailed laws. However, regardless of the number and complexity of legislation, any individual application of laws requires unique situated considerations and negotiations in relation to the specificities of each particular case. Jan Schank’s contribution enquires into how age rating of computer games actually, practically and discursively unfolds. Contrary to legislation, which is mainly affected by computer games to start a cascade of legal and regulatory activities to build an appropriate legal system, computer games require the assessment officers of the German rating agency USK⁷ to move their attention towards the individual game itself and inquire about its character. Only by evoking a concern for the details of computer games is it possible for the USK to differentiate between individual games. There are many – probably endless – ways in which one can differentiate between computer games. Due to their task at hand, the USK does this in one very specific way, namely by defining any particular game in relation to a generalized aged player. Schank shows how computer games and the aged players come to be mutually defined and that categories at hand deriving from heterogeneous sources, such as educational psychology and the structure of the educational system, are applied as tools for doing so. Through the endeavour of age rating games, the nature of children is also determined and both games and children come to be treated as mutually defining entities.

Anne Mette Thorhaug draws attention to the global character of computer games and of their distribution and regulation. The first three chapters of this part on legal computer game concerns pay attention to how nation-states regulate computer games and the resulting concerns that thus develop in nations, but Thorhaug points to the limits and decrease in the power of nation-states to regulate computer

7 Unterhaltungssoftware Selbstkontrolle – www.usk.de

games. Non-governmental and commercial corporations are determined to regulate children's computer game use. Computer and mobile games are more and more often sold through commercial online platforms such as iTunes, Google Play or Steam, who, like any other shop, pre-select what they have on offer, how to present it to their customers and in the case of games also how to regulate the sale of games to children and youth. Following a neo-liberal logic, one may suppose that this development will lead to a spread and an increase of legal concerns and responsibility beyond governmental institutions when it comes to children's computer game use. However, Thorhauge argues that more than a simple quantitative expansion of regulation concerns the principles for age-regulation changes. Commercial regulation relies on expansion and growth and accordingly, it makes good sense to reassure parents through the extension of age regulation that they have nothing to fear when buying computer games for their children on this platform. However, Thorhauge underlines that concerns other than simply children's access or lack of access to computer games become inconspicuous in commercial regulation. These may be concerns about media literacy or about the quality of computer games based on other criteria than their commercial success. While the criteria for selecting video and audio products for broadcasting are under democratic control in public service channels, a public service platform has never existed for computer games. Countries without computer game regulation must find other measures if they want similar democratically controlled criteria for the quality of computer games and not to leave it in the hands of commercial actors. Thorhauge argues that it is important to uphold transparency and democratic control as to which principles that should govern the classification of computer games. In a globalized world, she points to the children's rights conventions as an apt basis for democratic control of computer game regulation. Computer games are, after all, crucial contemporary media for interpreting the conditions of our cultures (cf. Søndergaard, 2018, this volume) and societies, and accordingly, societies – not only markets – should be involved in their regulation.

Felix Raczkowski's contribution provides an insight into how state regulation of computer games is not only of a legal character. We already saw in Thorhauge's chapter how commercial regulation of computer games seems to be taking it out of the hands of legal actors. Similarly, the 'positive' regulation through recommendations, recognitions and prizes in Germany and Austria described by Raczkowski have their roots in legal concerns explained in Dreyer's chapter. They are new ways of dealing with the concerns that originally emerged out of the encounter between computer games and children's right to personal development, parent's rights to educate their children and the right to freedom of expression. While the multi-national commercial game providers that Thorhauge discusses apply the

same ‘negative’ regulation paradigm as do state regulation agencies in terms of limiting children’s access to computer games, Raczkowski describes regulative models that are ‘positive’ in the sense of marking specific computer games that are thus promoted over others. He describes how public services increasingly offer recommendations as to which games are of quality for children and interestingly, these recommendations draw on the same knowledge of developmental psychology as Schank (2018, this volume) shows the USK use in their age ratings. Thereby, the positive recommendations come to be a mirror image of the limitations provided by the age ratings and both co-define the game and the player in terms of a match between cognitive challenges and cognitive competencies. Raczkowski also describes a different ‘positive’ model that, through media education of parents, seeks to target and regulate the fears about computer games instead of regulating the games themselves. Finally, he discusses the German Computer Games Award, which is probably the most obvious attempt to regulate computer games positively. This award has sparked considerable public debate about the quality of computer games both when the public agrees and when it disagrees with the jury’s decision. Accordingly, the prize is crucial for the public negotiation and shaping of computer games concerns. However, while it has its roots and legitimacy in the legal computer game concerns, it has left the domain of legal regulation.

Across the contributions about legal computer game concerns we learn that regulation of computer games is founded on a legal infrastructure that was already well in place when the first computer games were developed. Computer games were born into a world, so to say, with an infrastructure of rules and values that came to embrace and define how the state is to deal with such games. At least, this was the case in Germany. In other countries, such as Denmark, no infrastructure was settled that required the state to be concerned about computer games in specific ways. The emergence of computer games into a world that was legally infrastructured as is Germany, sparked a wealth of activities to define new laws, new regulations, contracts, establish legal activities and institutions, etc. that made an already existing infrastructure develop further. In Denmark, on the other hand, there is little foundation for the state to feel legally concerned about the relationship between children and computer games. As if – metaphorically speaking – there has been little humus for legal computer game concerns to grow. Compared to a German ground that has been so saturated with ‘legal fertilizer’ that even the faintest germ of computer game concern could not help but grow a long stalk and numerous offshoots.

It is important to note, however, that even if a strong legal infrastructure was in place in Germany, it was probably also because computer games did not fit

smoothly into this infrastructure that it started growing so dynamically. No less than three foundational rights are touched by computer games and in partly conflicting ways. Additionally, computer games interfere with the division of jurisdiction. An elaborated legal infrastructure is, on the one hand, a strong foundation for the emergence and treating of concerns when new media technologies are developed. But this same infrastructure is also challenged and shows its inflexibilities and need for repair or innovation when new media technologies are different from what the law maker could possibly imagine and accordingly from what they inscribed into the law in the first place.

Schank, Thorhauge and Raczkowski point to how regulation is not a question of more or less, but rather a question of kind. When regulation moves from democratic organs to commercial entities, the criteria change, just as they do when the focus moves from restricting access to ‘bad’ games to promoting the use of ‘good’ games. How computer game concerns are shaped depends on who is given the right to speak on behalf of computer games and their suitability for children, and on who has the right to regulate them. Schank’s contribution indicates that variations in legal computer game concerns come about because the legal infrastructure is not sufficient for the actual enactment of regulation. Regulators need to draw on other infrastructures and they connect the legal infrastructure to infrastructures of psychological knowledge, of knowledge about the educational system, etc. This analysis gives us a hint of how the different domains of concern – legal, scientific, family and industry – are connected.

Family Computer Game Concerns

The first two chapters on computer game concerns as they exist in families – by Dorte Marie Søndergaard and Pål Aarsand – inquire how children and young people deal with computer games in their everyday lives. The three following chapters discuss parents’ computer game concerns. The opening chapter by Søndergaard provides a wealth of examples of how computer game play is an integrated activity in children’s lives in Denmark. It is not isolated from parents’ engagement, even though parents rarely play computer games with their children: children relate to parents’ concerns and integrate these in their assessment of games. Furthermore, parents’ allowing or forbidding their children to play games that are restricted or allowed in other families interferes with the constellation of peer groups, with who is popular and listened to and who is excluded from the social circles of classmates. Computer games become of concern in children’s lives when confronted with parents’ concerns and their regulations of children’s computer game activities. These are not simply restricting children’s peer relations, they are challenges

that children creatively handle and work around. The semi-legal PEGI age labels play a role in this in several ways: they guide parents' regulations; they arouse desire to engage with these forbidden games; they grant value to the games carrying the +18 labels; they function to differentiate between families that allow and those that do not allow the playing of +18 games, and with this they make some peers more popular than others.

Violence is one of the aspects of games that worry parents. Based on interviews, Søndergaard shows how violence and aggression of physical and psychological kind are aspects of children's lives also – indeed mainly – beyond computer games: in history lessons, in news about terror, political conflicts and natural catastrophes, in families, in schoolyards and in the classrooms, on social media and in stories, books, comics, etc. Thus, Søndergaard concludes that violent computer games seem an obvious activity to engage in in order to process and learn to deal with these difficult experiences.

Pål Aarsand takes up a specific concern related to computer games: that of time. Based on focus group interviews with Norwegian youth he analyses how they talk about and legitimize spending time on computer games in relation to spending time on other things. The analysis points to a moral infrastructure in the young people's talk in which spending time outdoors has a higher moral value than playing computer games, because the latter is an indoor activity. When it comes to computer game play they differentiate between purposeful gaming activities, such as playing e-sports, compared to gaming that is a "waste of time" (Aarsand, 2018, this volume, p. 192). Computer game play is not a "waste of time", however, if it is "fun". While fun is a legitimate reason for playing computer games the young people question the possibility of having fun for the longer period of time some computer games require. Only if a player is considered to be able to "manage" his or her time well do they accept extended computer game play. Aarsand's analysis is a fascinating account of how computer games evoke concerns about purpose, enjoyment, competence and control, and of how the teenagers struggle to manoeuvre these concerns and juggle to organize them in relation to each other.

Niklas A. Chimirri's chapter moves to inquire about the discourses of parents' concerns about their nursery children's engagement with computer games and other digital media. His analysis takes its point of departure in the EU-wide *Better Internet for Kids* strategy and looks at how, along with other initiatives, it is implemented and debated differently in nurseries in Denmark and Germany. In Denmark, nurseries strongly promote the pedagogical use of digital devices, while in Germany it is parents and families who are granted the crucial role in the development of digital literacy in their children. As became obvious in the part of this

book on legal computer game concerns and particularly in the comparison between Dreyer's (2018, this volume) and Hjorth's (2018, this volume) contributions, these differences in nurseries' priorities correspond to the differences in the two countries' legal concerns. Chimirri explains further the norm in Denmark, that nurseries cannot merely promote digital literacy to young children; they also need to teach digital skills to parents and nursery professionals. In Germany, by contrast, the nursery is first and foremost an institution that disburdens the working parents of the task of raising a *self-responsible* and *community-able* citizen, while strongly valuing their constitutional right to educate the child (cf. Dreyer, 2018, this volume). Parents primarily act as the children's gatekeepers, in relation to how – and how much – children should be exposed to both media and digital literacy initiatives. With the burden of educating their children about digital media and computer games German parents are keen to gain detailed advice about what is right and wrong for their children. Their Danish counterparts, on the other hand, are concerned to develop their own digital skills and their own independent ideas about their children's digital media use. Accordingly, they tend to reject prescriptive advice. Chimirri notes that this often seems to overburden Danish parents. In conclusion, however, Chimirri writes that there seems to be no difference across the two nations in the degree of uncertainty about computer games and of eagerness among parents to reflect on their computer game concerns.

Martin and Aßmann present a discussion of computer game concerns among the parents of young children in Germany. They analyse a number of quantitative surveys among such parents and they boldly conclude that “talking about *concerns of parents* from a German perspective the term is obviously connected to negative feelings and apprehension” (Martin & Aßmann, 2018, this volume, p. 233). Before presenting the findings, they note that German educational researchers do not seem to be concerned about younger children's gaming habits and that there are barely any empirical studies in this area. Compared to Danish colleagues, who seem to have no problem in finding empirical evidence, one may speculate whether German parents' rejection of computer games for the young is reiterated in research funding bodies and scholarly discourses. In the evidence that exists, Martin and Aßmann identify in accordance with Chimirri that German parents often set up rules for their children. They do so in relation to violent content and to the amount of time their children play – two concerns also discussed by Søndergaard (2018, this volume) and Aarsand (2018, this volume). However, contrary to Chimirri's observation that parents are eager to discuss their computer game concerns, Martin and Aßmann report from quantitative studies that parents are rather reluctant to engage in such exchanges. They conclude that German parents

express two kinds of concerns: first, about a lack of pre-selective channels in relation to computer games comparable to public service broadcasting in relation to TV and radio programmes, and secondly, the fear that engagement with computer games will stand in the way of the development of ‘good old’ practical skills.

The last chapter on family computer game concerns takes us to Barcelona and to Catalanian parents’ computer game concerns. Based on the observations of parents playing computer games with their children and the subsequent focus group interviews, Adriana Gil-Juárez and Joel Feliu have written a fictive conversation between two mothers. The text recombines actual parents’ utterances in a way that intensifies and synthesizes their concerns. This format, which is unusual in academic publishing conveys not just *what* parents utter as their concerns but also the *way in which* parents express and exchange their concerns, alongside the atmosphere and emotional tone of their concerns. Contrary to academic writing, which cannot end without a conclusion, the non-concluding character of the dialogue between the fictive characters Anna and Maria – which is a typical characteristic of everyday conversations – provides a very honest and authentic feeling of parents’ concerns as bound up in unresolvable and ongoing tensions, which they nonetheless have to live with and manage (cf. Chimirri, 2018, this volume). In their subsequent discussion of the dialogue, Gil-Juárez and Feliu state with reference to their focus group interviews that there was no variation in parents’ computer game concerns. Furthermore, the discourse presented in the dialogue is likely to be recognizable to most readers, regardless of their cultural embedding. Unlike Chimirri (2018, this volume), who found considerable differences in the discourses on computer game concerns in Denmark and Germany, Gil-Juárez & Feliu reveal a discourse that seems universal. As they state themselves, the seeming universality of the discourse may be a result of parents drawing on a discursive repertoire provided by broadcasting and press, which often themselves echo statements circulating across international press agencies. The authors also ponder on the seemingly perpetual character of computer game concerns. They suggest that “[p]erhaps [...] parents may want to appear worried about their children’s use of computer games” (Gil-Juárez & Feliu, 2018, this volume, p. 262). This resonates with Chimirri’s finding that regardless of their background, parents were highly committed to discuss and reconsider their concerns. It may be a condition of contemporary parenthood to be concerned, and when computer games enter families, they will be entangled into this omnipresence of concerns. This indicates, as Chimirri suggests, that family computer game concerns are entangled in discourses and expectations about parenthood and that this is to be taken into account when attempting to understand what family computer game concerns are about.

Together, the five chapters on family computer game concerns paint a picture of infrastructures of moral values about good and bad activities for children and about requirements of good parenthood. It draws a picture of how computer game concerns emerge out of children's and parents' struggle to manage computer games in relation to these infrastructures. Aarsand provides insight into how the young use moral infrastructures at hand to legitimate or condemn computer game use. But computer games also interfere with this moral infrastructure: while "fun" as a temporary timeout from routines and duties is morally valued, the temporally extended activity of computer game play challenges the young people's idea of fun and makes them reconsider their moral infrastructure.

Similarly, Chimirri outlines different moral infrastructures of parenthood, into which computer games become integrated: In Germany's emphasis on parent's right to educate their children and in the organization of nurseries that correspond to and re-enact this value, new media such as computer games raise the concern that they may interfere with parent's educational practices and have difficulty in connecting with and entering nursery practices. Nurseries in Denmark, on the other hand, engage much more self-reliantly in children's education, and acknowledging – not unlike Germany – parent's important role in the education of their children, the education of parents also becomes part of the education of the children. In this moral infrastructure of nursery activities, the emergence of new media and computer games evoke a concern to provide media literacy to both children and parents. Even though the way in which nurseries relate to parenthood is only one among many aspects of the organization of nurseries and thus of how they engage with computer games, it very well illustrates how computer games come to connect to children's, parents' and nurseries' lives by finding a place in already existing infrastructures. As in the moral infrastructure of children's lives, it is also the case in parenthood that computer games do not simply fit in smoothly. Søndergaard reports how educators and parents apply otherwise successful means of regulation and reduce children's playing time to thirty minutes. However, due to the specific character and time structure of computer games, it makes no sense for the children to play the epic and narrative complex games for a short time, and accordingly they turn to play the more violent and intense action games. The games challenge and evoke new concerns about the way in which educators are used to regulate children's activities.

A further complexity of computer games' way of finding a place in children's and parents' lives relates to how various infrastructures interconnect in their lives. As described the legal infrastructure of computer game regulation and its offspring in age-ratings are taken up by parents and guide their concerns and regulation of children's computer game use, which has serious consequences for the

children's concerns about their peer group structure. Gil-Juárez and Feliu make clear how news infrastructures circulate discursive repertoires about computer games, which give rise to concerns and complexify the challenge of handling concerns. Both parents' and children's concerns emerge out of the interrelation of various infrastructures of legal rights, of moral orders about parenthood and appropriate children's activities, of internationally circulating discursive repertoires, of peer groups etc., and, in their everyday practices, both parents and children have to find ways of organizing themselves in these often-contradictory infrastructures.

Scientific Computer Game Concerns

Part four of this book turns to psychological science's computer game concerns. It opens with the translation of a statement about media violence, which the Media Psychology Division of the German Psychology Association published in 2015 followed by an interview with two of its authors. The statement addresses an informed lay readership and presents the state of psychological science's insights into the psychological effects of media violence, the question of individual differences in the vulnerability to media violence, whether media violence is transferred to real-world violence, and what parents and educators can do to deal with their children's media violence use. These themes reflect the computer game concerns across the social and developmental sub-disciplines of psychology. In addition to these sub-disciplines, the question of media effects is also discussed in the smaller sub-discipline of media psychology, whose concerns also relate to the – also positive – characteristics of the media. The media psychological questions discussed by the statement concern why people find media violence entertaining and whether the effects of media violence differ across different media types. A less common theme in psychological literature, which however is discussed by the statement, concerns why the debate about violent media is so controversial. What is particularly noteworthy about the statement is its methodological discussion about whether it is actually possible to measure the effects of media violence. This has been discussed in several controversial debates within psychology, but due to strong disagreement on the matter, it is rarely referred to in public statements. In the interview about the process of writing the statement, Rothmund and Elson make clear that it was important to the authors of the statement to include this discussion and to explain to lay people that the measuring of media effects is no straightforward process. Throughout the interview, a core concern appears to be the challenge of finding a balance between, on the one hand, the responsibility they feel as experts to provide clear evidence to lay people, and on the other, their awareness of the disputes about the conclusiveness of the methods for producing

such evidence. A *crisis of confidence* is currently haunting psychological science (Pashler & Wagenmakers, 2012), and psychology's computer game concerns become entangled with this crisis. Because the question of the effects of computer games is a controversial topic in public debate and because so much and such diverse expertise – legal, pedagogical, parental, experiential, design, etc. – exists about computer games in relation to children, any published psychological study on this topic is very likely to be contradicted. Contradictions are a potential source for decrease in confidence in psychological science, and in the current situation of crisis in psychology – about the correctness of its methods for gaining knowledge, its unity as a discipline and about lay people's confidence or lack of confidence in psychological science – invitations to contradiction are not particularly helpful for the discipline. In this situation, computer games become problematic objects for psychological science that evoke foundational debates about the discipline's methods and theories. As a matter of concern for psychological science, computer games in relation to children are intimately entangled in workings of the discipline, as becomes clear in the chapter on *Psychology's Multiple Concerns about Research on the Effects of Media Violence* by myself, Malte Elson and Tobias Rothmund.

Rune Kristian Lundedal Nielsen's chapter contains a genealogy of how online games became adopted in the psychiatric diagnostic manual *DSM-5*. He takes us back to the 1950s' self-help organization Gamblers Anonymous and their definition of gambling as problematic only when it had problematic consequences for people's way of life. Over the years, *gambling disorders* were however influenced by theories of addiction and came to include more aspects of lack of psychological control and less emphasis on problematic consequences. This then provided an available diagnostic infrastructure for online computer games to connect to and for *Internet gaming disorder* to be shaped, which Nielsen critiques has become so broad that too many people would match the criteria. Nielsen's analysis is a fine account of how computer games (in this case in general and not only in relation to children) are taken up by a pre-existing infrastructure of diagnostic classifications and how the games thereby become shaped as games of concern in psychological and psychiatric science.

From the focus on how computer games figure as matters of concern in the psy-sciences, Espen Aarseth and Emil Lundedal Hammer's chapter moves more broadly to game research and examines the extent to which game research in Denmark has been addressing worries about computer games. Already the title *No Worries? Game Research in Denmark 1984-2014* indicates that negative effects of computer games have not been the most salient in research into computer games in this country. Game Studies were institutionalized rather early in Denmark.

Around 2000, computer games made researchers mainly trained in Literature Studies enthusiastic about the new ways in which this media shaped narratives. Accordingly, computer games drew their focus towards the medium itself and its narrative and ludic aspects than towards how such games become embedded in social and cultural contexts or their effects on human players. Even psychological studies of computer games in Denmark – some of which are represented in this volume – which are indeed concerned with the social aspects of games, were not affected by computer games to engage in a single-scale understanding of games as more or less problematic, as is in general the concern of their German colleagues. Rather, computer games turned psychological researchers' focus more towards the complex practical entanglements of these games.

A 'collective' of five psychological researchers from two Danish universities close the book. The chapter contains analyses of datasets from all the involved researchers about what it means to young and adult computer game players to be a gamer. In contrast to what is common in academic papers, the authors do not seek to agree on a common theoretical ground for their analyses – they do not define a common concern. Instead, they use the tension and differences between their scientific concerns as a resource for generating new questions for their data. Working without a foundation (cf. Brown & Stenner, 2009) for their analysis they instead follow a processual methodology in which they inquire which questions arise when one piece of data is confronted with a different perspective – and a different concern – and which different pieces of data 'speak' to the former. Moving like this from data excerpt to data excerpt and from concern to concern, seeking new data to address the concerns that arise, the article rethinks both their own concerns and those of their informants. Or put differently, by strategically combining the infrastructures of their informants' concern and their own concern, they come to develop new epistemic infrastructure for understanding computer game concerns.

While Lundedal Nielsen's and Aarseth & Lundedal Hammer's contributions show how scientific concerns build on already existing infrastructures of scientific classifications and disciplinary traditions and Rothmund et al. and Sørensen et al. show how computer games come to contribute to stirring up and questioning scientific infrastructures, Chimirri et al.'s analysis illuminates how scientific concerns and infrastructures can be repeatedly negotiated and reconfigured together with informants' concerns and infrastructures.

CULTURES OF COMPUTER GAME CONCERNS

Through the lengthy summary and juxtaposition of the chapters of this book it has become possible to identify some specificities of the computer game concerns for each of the domains we have examined:

The very first chapter of the book sketched a picture of programming infrastructure in the game industry that does not give rise to concerns about the relationship between computer games and children. Concerns about competent, strategic players are evoked through the programming activity, but not about vulnerable children. Children – if not vulnerable ones – become of concern when the industry reaches out to other infrastructures and seeks to integrate children's perspectives in order to improve design solutions. And concerns about children become particularly focal, when the game industry starts connecting up with NGOs, law enforcement etc. that have established extended infrastructures for developing sensitivity to the relationship between computer games and children and how to keep it trouble-free.

Contrary to the game industry, the legal domain has – at least in Germany – a well-developed infrastructure for concerns about the relationship between computer games and children to emerge. It has historically been shaped in a way that makes computer games evoke concerns in relation to very specific areas defined by abstract rights. Based on these concerns, legal and regulatory activities and institutions have been established, which also sustain the concerns' durability. Just as remarkable is that the lack of an extended legal infrastructure that is sensitive to the relationship between children and computer games – as is the case in Denmark – ensures comparable unconcerned practices around computer games.

Compared to the well-defined legal computer game concerns, family computer game concerns are characterized by being extremely diverse and composite. The three other domains discussed in this book are all professional areas, which in general are characterized by specializing, separating and dividing activities. In contrast to these, family life tends to interrelate all kinds of different practices and infrastructures. The boundaries between activities are less clear and computer games seem to be interrelated with many different kinds of activities and values, from peer relation to homework and moral values of indoor, outdoor and purposeful activities, norms about parenthood, internationally circulating discourses about games, nursery practices, legal regulations, etc.

Scientific computer game concerns also vary significantly across psychological, psychiatric, quantitative, qualitative, diagnostic etc. infrastructures. They are however not as heterogeneous as family computer game concerns and seek rather – for the purpose of methodological purification – to avoid the combination of

infrastructures. Accordingly, their computer game concerns seem more straightforward. They arise out of their sub-discipline's epistemic infrastructures (or *thought styles* [Fleck, 1980]) that determine specific limited aspects of computer games (their aggressive effects in children, their co-constitution with everyday life, or others) as their epistemic objects (Rheinberger, 2001) with an adequate, reduced vocabulary and methodology to engage with these objects, and with a specific restricted range of relevant questions, etc. When computer games enter these quite tightly knit infrastructures, they activate specific and rather limited concerns that vary from sub-discipline to sub-discipline.

Similar to the legal computer game concerns, scientific computer game concerns seem rather robust, based on infrastructures that are closely integrated and thus relatively immune to being affected by computer games to change their concerns. However, as we saw above, in none of the four domains do computer games fit completely into the domains' settled infrastructures and in each of the domains, the infrastructures are challenged and in different ways adjusted and changed, also by way of computer game concerns. Furthermore, we also observed in all of the domains that infrastructures from one domain cross over and connect to the infrastructures of other domains. Characteristic for computer game concerns across all domains was accordingly that the members of the domains invest extended efforts to manoeuvre these concerns and juggle to organize them in relation to one another.

Apart from the four domains, this book focussed specifically on computer game concerns in Denmark and Germany – with additional contributions from Austria, Finland, Norway and Spain. The scientific computer game concerns are more difficult to localize in national contexts, since scientific vocabularies are developed to conceal their situated character (cf. Nagel, 1986). It is however possible to conclude that the German scientific discourse seems more concerned to provide quantitatively evidence as a basis for unambiguous guidance to German parents and educators about how to resolve their computer game concerns. Also the German legal concerns seem to link up with these concerns. In contrast to this, the scientific discourse in Denmark is more concerned to produce qualitative results more open to interpretation, which on the other hand seems to fit Danish parents' need to define their own ways to deal with computer games in their families, as Chimirri (2018, this volume) argues. It furthermore seems to mirror the less demanding legal concerns in Denmark (cf. Hjorth, 2018, this volume). However, Sørensen, Elson and Rothmund, Dreyer, Raczkowski, Chimirri and Martin & Abmann all outline that also tensions and discrepancies exist across these tendencies. The

same is pointed to is the case in Denmark in among others Sørensen and Jones', Søndergaard's and Chimirri et al.'s chapters.

It has become clear that legal computer game concerns are strongly nationally bounded and thus carry in them cross-national comparability. National comparability is less obvious with the scientific computer game concerns and seemingly less relevant with the industry computer game concerns: the two actually existing computer games that are discussed (*Habbo* and *MovieStarPlanet*) are – like most computer games – developed for a multi-national market. All domains' infrastructures criss-cross family computer game concerns and accordingly these also tend to have nationally bound concerns, as Chimirri's analyses showed most unmistakably. These very crude and generalizing sketches of Danish vs German computer game concerns are not meant as a final comparative conclusion. Instead, they seek to hint at an approach to analysing how concerns are nationally bound and to invite the reader to consider comparisons and comparabilities (cf. Sørensen, 2010) while reading the chapters of this book, both across domains and across other nations than the ones discussed in this book⁸.

By discussing computer game concerns as emerging out of domain-specific and partially nationally situated infrastructures that are configured out of the particular social, material and discursive practices of the specific domains, it has been possible to talk about the specificities of each domain as well as about their interrelations. I will close this introduction by returning to talk about each of the domains (national or not) as a *culture of computer game concerns* and thus acknowledge that each of these cultures is both (infra)structured and reiteratively and in situ managed and organized by the culture's participants. Also, although all of the cultures have their specificities, none of them are 'islands' isolated and disconnected from the others. On the contrary, what characterizes each of the cultures is among other things, how they are intertwined with the infrastructures of the others.

It has been a leading principle of this book to present computer game concerns as arising out of how computer games come to be connected to, taken up, rejected, partially integrated etc. with infrastructures of the domains in question and to inquire into how participants manoeuvre the different interrelated concerns, how they are shaped, vary and change. I would like to invite readers to enjoy the ambivalences and tensions that emerge out of the heterogeneous juxtapositions of

8 Thanks to Tine Jensen for discussing this point with me and for several other helpful comments on this introductory chapter.

computer game concerns in this book, hopefully allowing computer game concerns to become better able to exist together, connected and combined without having to neither be the same nor come to fit smoothly together (cf. Law, 2004).

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Part I

Industry Computer Game Concerns

If {battleState = BattleState.standby}: Bringing the Gamer Into Play in Computer Game Development¹

SANDRA PLONTKE

Computer games are frequently discussed with regard to those who play them, usually focusing on children and adolescents, especially young Western males. Within these discussions, we can identify different concerns that are associated with different problematisations, e.g. the question of harmful effects that computer games may have on the player. In Germany computer games, children, young adolescents and the topic of media harm are fairly often grouped in one single collection and thereby related to each other. As it becomes clear throughout the contributions of this book, those who regularly deal with questions about potential negative effects of computer games are among others anxious parents, legislators entrusted with the protection of minors, reviewers working for entertainment software self-regulation bodies like the German USK (cf. Schank, 2017); moreover, there are journalists, educators and psychologists interested in a possible link between computer games and the aggressive behaviour of children. They all share certain concerns regarding computer games and children, frequently addressing them through categories in which children as vulnerable subjects in need of protection are endangered by specific products of the entertainment industry. These concerns do also exist among the developers of computer games in Germany, where I did two years of ethnographic observations. After all, they cannot ignore the critical discourse about the potential harm their products may cause and for many reasons, including moral and economic considerations, they have to take a

1 I thank Pradeep Chakkarath for his valuable suggestions and linguistic support. I also appreciate the exchange I had with Daniel Theunissen about various topics that I deal with in this text.

stand. In Germany, this kind of pressure on the game development industry increased about twenty years ago when a couple of tragic shooting incidents triggered a broad debate about the deadly effects of so called *killer games*, i.e. computer games that require the player to kill human or human like figures in order to win². Quickly, the producers of such games were caught in the crosshairs themselves and the smoke from the occasionally fiery debates is only slowly clearing. The industry continues to struggle with strong stigmatization, as the following quotes from game developers illustrate:

We were accused of breeding rampage killers and contributing to the brutalization of society. (Game designer)³

At some point, the only question that mattered was if the game industry fostered a culture of media usage that gets children addicted to computer games [...]. I've spent a long time thinking about child protection, had sat a lot in podiums and had discussions with politicians [...]. At that time [...] I gathered fifty thousand signatures for a petition against the defamatory reporting on German public service television. (Representative of a game developer's marketing department)

2 The term *killer game* was probably introduced into the German political and popular discourse about computer games by Günther Beckstein, the former Bavarian Home Secretary. He used that expression when addressing a rampage that took place in Bad Reichenhall in 1999 and left five people dead, including the 16-year-old attacker. Subsequent school shootings committed by adolescents in Erfurt (2002), Emsdetten (2006) and Winnenden (2009) made *killer game* a catchword in debates about requirements for prohibition of certain computer games. The almost forgotten *killer game* debate was recalled to memory after an 18-year-old's rampage in Munich in 2016 when Thomas de Maizière, the Federal Home Secretary, in his press conference on 25 July, 2016 concluded that it is not to be doubted that the unbearable amount of violence-promoting games on the Internet has a detrimental effect on the development of young people and that no reasonable person can deny that (dbate, 2016). These debates did not come up with a clear or uniform definition of what *killer game* exactly means. It can be noticed, however, that most critics aimed particularly at so-called *first-person* and *third-person shooters*, marking them as games in which committing cruel and deadly acts of violence against human and other living beings contributes largely to the player's success.

3 Unless quoted differently, the quotes are taken from interviews that I conducted during my fieldwork in different developer studios and with freelancers of the industry. All translations into German were done by me.

All these journalists who are not so familiar with the matter, especially TV journalists, they always have to deliver pictures – and what do they do? Of course, they’ll show you those six seconds of 15 hours of play which are particularly telegenic and help support their point: ‘Oh, look here, what an orgy of violence that is!’ And if some boneheads let their children play games that were released for players as of eighteen years of age, well – they should get a rap on the knuckles, you cannot control that. But, seriously, when do you have control at all? (2D artist)

These typical remarks from industry members reflect certain themes regarding computer games: media usage, media addiction, media violence, rampage, brutalization of society, age-appropriate game contents and control of children’s access to games, portrayals of the game industry in the media and disputes between the industry, journalists and politicians. Developers of computer games, however, do not only refer to these issues in various debates, but take them up in their development practice and integrate them into the design of computer games. They do not produce games independently, not even if they are working on so-called *indie games*, i.e. independent computer games produced without the financial support, demands or interventions by a publisher. Game developers take measures that are always geared to prospective players or users who are inscribed into the games along with crucial aspects of the users’ socio-material worlds (cf. Akrich, 1992). In the actions that developers take, they reflect genre conventions, politics, laws as well as historical and cultural ideas regarding games, players, entertainment and graphic representations, for example, representations of environments, gender, attractiveness, violence, war, heroism, etc.

“Designers”, says Akrich (1992, p. 208) in her work on the de-scription of technical objects, “define actors with specific tastes, competences, motives, aspirations, political prejudices, and the rest” and try to inscribe all of these into a design. She describes *de-scription* as the process in which the artefact meets the user and his or her setting, the process of actual use in which the script embedded in the object unfolds *in situ*.

Against this background, the development of computer games can be regarded as a reflexive process in which the aforementioned infrastructural nodes, i.e. various concerns are anticipated. Finally, it is especially the technical infrastructures in which the game developers’ practices and the design object, i.e. the computer game, unfold themselves: certain software programs for image processing such as *Photoshop* and 3D modelling software such as *Maya*, but also programming environments with specific programming languages and logics, as well as the Internet

and its mediators like Google and Facebook. All these different aspects are actively involved in the *configuration* of computer games⁴. What game developers do and how they do it, the *modus operandi* of their actions, cannot simply be attributed to individual aesthetic preferences; it can rather be understood as a multifariously interwoven, relational practice. Computer games are socially configured and technology, including the technological aspects of a computer game's design, must anticipate different interests in order to solidify the games' infrastructures and thus the social aspects of the games themselves⁵.

This is just a rough sketch of different references and arrangements in which the practices of game development are integrated and where they unfold themselves. It is in this complex network in which different concerns emerge with regard to the relationship between computer games and players. These are the concerns which in turn are actively involved in the development and shaping of computer games (concerning the story, game mechanics, graphics, etc.). I will try to illustrate some of these practices in the following; but first I would like to make a few brief remarks on a concept that I have already used a couple of times in this introduction – the concept of *concern*.

CONCERNS AS THE EFFECTS OF HETEROGENEOUS GATHERINGS

What I mean when I talk about concerns is by no means confined to problematisations, although my introductory remarks may have created that kind of impression. Against the background of my preliminary remarks, concerns can be understood as the effects of complex heterogeneous arrangements; they develop their respective modes of existence in situated relational practices and are in this sense

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- 4 For an understanding of graphic design in game development as *heterogeneous engineering*, cf. Plontke (2016).
 - 5 A boring game, for example, which does not meet the player's desire for entertainment and fun, may not be played for long. A game that is not developed according to the guidelines of the USK may not be published and is added to the Federal Review Board for Media Harmful to Minors' (BPjM) list of harmful media, the so-called *Index* (cf. Dreyer, 2018, this volume). A player will not respond to a game's graphic if it for instance does not meet the requirements of his or her wish for realism. The player will thus be annoyed and not immersed into the game's spell. Since game developers want "to keep the player in the game world as long as possible" (game designer), they need to be concerned with all these aspects.

practical tasks. In reference to Heidegger's critical and differentiated analysis of the concept of a *thing*⁶ (Heidegger, 2006; 1986), Bruno Latour emphasizes this aspect of concerns when he states that they are assemblies, i.e. gatherings of things which transform an immutable neutral fact – a so-called *matter of fact* – into something that concerns us – a so-called *matter of concern*⁷ (Latour, 2004; 2005; 2008a; 2008b). I would like to use the notion of concern similarly: Things are seen as assemblages, i.e. they congregate in a conglomerate of manifold relationships and are simultaneously constituted by them; concerns are seen as a result of these heterogeneous gatherings arising in and out of practices that we engage in when dealing with things⁸.

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- 6 Heidegger's (1927/2006) famous re-conceptualization of *Ding* (thing) is based upon an etymological analysis of the Old High German word *thing* which denoted a governing assembly of ancient Germanic tribes. The corresponding verb *dingen* (which is *thingan* in ancient forms of Anglo-Saxon languages) means the negotiation of a cause in an official assembly or in court. In his critical assessment of the degeneration of the word *thing* in the history of philosophy and contemporary everyday language, Heidegger points out that the concept was not originally used to denote a neutral or objective entity but rather to refer to *an issue at stake*, i.e. a matter of concern.
- 7 In Latour's (2004) essay *Why has critique run out of steam? From matters of fact to matters of concern*, later particularly in Latour's (2008a) *What is the style of matters of concern?*, he calls for a re-focusing of scientific research interested in the relationship between politics and science. He asks that the view of science be directed from the analysis of facts (*matters of facts*) to so-called *matters of concern*. Already in *Laboratory Studies* (Latour & Woolgar, 1986; cf. Latour, 1987) Latour deconstructed the objective appearance of scientific facts and exhibited their production: facts are not to be understood as objective, they are socially and politically co-constructed, their supposedly direct reference to reality is exposed as a chimera: the facts pretend to reflect reality by hiding the reference chains between reality and the facts in a black box. In this sense, objectivity is the result of *purification* as Latour (1993) called this process himself. In this consequence, he confronts the allegedly simple facts with the concept of the often interwoven *matters of concerns*. Here the term is to be used with regard to the social construction of technologies such as computer games or other technological phenomena (cf. Sørensen, 2018, this volume).
- 8 In the light of my brief remarks on this issue some readers may ask themselves: What would not be a matter of concern? Does the answer not depend on one's point of view? In a certain sense, yes. From a methodological point of view, the answer to the question of whether something is a matter of concern or a matter of fact appears as the result of

In this view, a computer game or a singular game asset, i.e. a single game content, is understood not as an object, i.e. as a matter of fact, but rather as a thing in the original etymological sense: it is seen as a gathering, a network that maintains a variety of relationships, as for example, relationships to people, opinions, ideas, interests, (world-)views, requirements, relationships to other things, the concerns of others, etc. It is these relationships that make them a *matter of concern*. As such, “they have to be explicitly recognized as a ‘gathering’, as a thing and not an object” (Latour, 2008a, p. 48). Elsewhere, Latour speaks of these gathered objects as “objects of design” (Latour, 2008b, p. 2), which corresponds to the idea of computer games as designed artefacts. Based upon another etymological recourse, Latour conceives of the act or process of designing as *drawing* and thereby draws our attention to an essential feature of the design process which consists of “drawing things together”⁹. In his own words:

To think of artefacts in terms of design means conceiving of them less and less as modernist objects, and conceiving of them more and more as ‘things’. To use my language artefacts are becoming conceivable as complex assemblies of contradictory issues (I remind you that this is the etymological meaning of the word ‘thing’ in English – as well as in other European languages). When things are taken as having been well or badly designed then they no longer appear as matters of fact. So as their appearance as matters of fact weakens, their place among the many matters of concern that are at issue is strengthened. (Latour, 2008b, p. 4)

In the following, I would like to look at design practices in game development and illustrate how things are drawn together in different situations. Drawing upon partial aspects of the programming and the development of the game mechanics for a combat system, I will try to show how the prospective player, his or her gaming experiences and the code for the combat system are brought together. Here, my focus will be on the question how the prospective player is brought into play, i.e. how he or she is represented in the code that the programmer writes – and what

a certain perspective, namely a relational view of things, one that Actor-Network Theory (ANT) and other praxeological approaches apply or even demand out of their theoretical convictions. It is precisely this change of perspective that Latour wants to establish: the replacement of focusing on facts and searching for their truth by a thorough analysis of how matters find their respective mode of existence in different socio-material arrangements. Through this refocusing we learn new things about matters. Thus, a matter of concern in methodological terms is always the effect of a perspective.

9 *Drawing things together* is also the title of an article written by Latour (1990).

kind or image of a player serves as a working model within a development practice which is concerned with aspects surrounding a specific game content like, e.g. a combat situation. Although the issue of combat, especially with regard to armed violence, is only one of many examples that could serve for illustrating my thoughts, one cannot ignore that it is one of the most discussed topics within debates about the potential effects that computer games might have on the players. Therefore, I will use the example that I selected in order to touch on that topic at least marginally. In attempting to draw all these strings together, the text will rather incidentally outline a minimal methodology for the study of code and programming practice.

THE COMBAT SYSTEM 2

Introduction to the Scenery and Some Methodological Considerations

The following episode stems from my ethnographic observations in the game industry and deals with the design and programming of a combat system for a computer game prototype.

I am looking over the shoulders of a young programmer I here call Sam. He is an intern in a game development studio which produces computer games and apps, mainly for children and young adults. Sam was asked to develop a combat system for a game prototype. While working on his task, he is documenting his work in a written internship report.

Sam is sitting in front of two computer screens and is doing various things. I am not considerably familiar with the complex art of programming but since much of what Sam does is visualized on the screens and also sketched out in his internship report, his work is at least partially observable and accessible to me. In the following let us concentrate on Sam's work by 1) focusing on the left-hand screen, the so-called *editor*, where Sam's program code for the *Combat System 2* is translated into a visualized 3D-animation. Let us then 2) take a look under the surface of these visualizations resp. graphical animations and for this purpose turn to the right screen where we can see the programming environment in which Sam develops the code for the *Combat System 2*. Here I will focus on a code segment which was written before the observation began, deconstruct it and try to reconstruct the

practices of programming and the emerging concerns regarding code and player¹⁰. In a next step 3) I will look at a short paragraph from Sam's internship report that documents the design of the code segment in question. The internship report can be seen as a kind of additional reflection of Sam's own programming work, i.e. as *reflection on action*, to put it in the words of the design scholar Donald Schön (1983). As Schmidt (2012) rightly observes, programming usually works without much talk. In addition to the taciturnity which characterizes the programming of the code and is interrupted only occasionally by interjections like "m-hm", "oh!", "huh?", "damn!", etc., it is especially the issue of visibility and invisibility that presents a challenge to ethnographic research. As Schmidt states, the difficulty is that programming, although it partially consists of observable actions, is also performed and subjectively experienced as an internal act of thinking; "*Denkhandeln*" (Schmidt, 2010; 2012, p. 287). Schmidt tries to meet this difficulty with micro-analytical descriptions that focus on the person's gestural and bodily performances and are supposed to make the alleged internal act of thinking *speak*. Since my focus will be on the concerns regarding code and player as they arise in the practices of programming, my approach is a different one, although it is confronted with similar methodological problems as mentioned by Schmidt. To me the code, its pictorial representation or translation in the editor as well as the excerpt from the internship report are certain articulations of an otherwise rather silent practice. I will use these elements as a resource for my following analytical descriptions. For our purpose they should help to get a better glimpse of programming practices and some of the concerns regarding the player that they convey.

By this means, programming can be made accessible and recognizable without adhering to the purely mentalistic idea of a mainly inner process¹¹. Furthermore, I will refer to other ethnographic observations that illustrate the socio-material nature of programming and I will consider particular comments and explanations by

10 As Rob Kitchin shows in his discussion of six empirical approaches, the demands for a thorough research on algorithms are high: "[...] examining source code (both deconstructing code and producing genealogies of production); reflexively producing code; reverse engineering; interviewing designers and conducting ethnographies of coding teams; unpacking the wider socio-technical assemblage framing and supporting algorithms; and examining how algorithms do work in the world" (Kitchin, 2014, p. 3).

11 In particular, the *Ethnographies of Code* in TeamEthno (2006) and their perspective on the mundane practices of programming are a critique on cognitivist approaches to programming. See also Graham Button & Wes Sharrok (1995).

a second programmer, who I here call MacGuyver, and who was partly involved in the development of the code for the *Combat System 2*.

In Front of the Code == The Images

As already mentioned, in public discourse computer games are frequently addressed through problematizations, especially in relation to children who are seen as vulnerable subjects in need of protection. Particular game contents, e.g. combat scenarios in which characters are attacked, injured or killed, are discussed as “violent game contents” that could be considered harmful to the psychological development of minors. In our episode Sam has the task of developing a combat system. So, what is Sam concerned with when developing the *Combat System 2*? Let me pose this question more strikingly: Is he primarily concerned with developing a violent game content?

A look at the left screen (the editor) of Sam’s working place may give reason to this assumption due to the fact that the animation shows a group of fighting characters: four figures (the heroes) are confronted with a huge opponent (the enemy). There is a series of attacks, defenses and counterattacks – a boss fight is going on. Everything still appears unfinished; the graphics and the animations are still in a draft, it is a prototype after all. And yet one might assume that – as a *matter of fact* – all this is about violence. After all, what I can see on the screen in front of me and with my own eyes is a fight – and is that not a matter of violence? “Facts are facts are facts”? Yes, but they are also a lot of other things in *addition*” (Latour, 2005, p. 21). This statement by Latour will be taken into consideration in the following when we try to look behind the phenomena as they appear to us (e.g. on a screen).

Imagine worried parents entering their child’s room and having a look at the computer screen while the offspring is fighting and killing on a battleground. In the eyes of the parents (but not necessarily in the eyes of the playing child) the scene on the computer screen might appear as violent. Their perception is ignited by watching the surface of the object that is mainly grasped through its aesthetic and symbolic aspects (cf. Latour, 2008b, p. 2). The following quote of a gamer gives an impression of such different or even discrepant point of views:

You know, it [violence in computer games] has been quite an issue at home. My parents didn’t appreciate me playing it [*Counterstrike*] but they didn’t get it at all, they didn’t understand why I was playing it. For them it was about me simply wanting to kill people or getting rid of aggressions [], but I always found that wrongful. (A gamer working at the quality assurance section of a game developer)

The deixis of images¹² – like all deictic expressions – is highly contextual. Iconic meaning does not show itself but is generated resp. unfolds in a network of image and viewer whereas the viewer’s gaze is never innocent (cf. Sturken & Cartwright, 2001, p. 45). There is no “view from nowhere” (Nagel, 1986). But what is Sam’s view? What is he focusing on?

As a programmer, Sam has his own perspective. He and other programmers are especially concerned with what lies beneath the screen and beneath the animated graphics of a computer game: Sam is mainly concerned with writing a code and employing certain rules. Even though the programmer’s gaze oscillates between the two screens in front of him, between the code on the right and its visual display in the editor on the left, watching the editor screen primarily helps to get a *visual feedback* and thus to *control* the coding process: “Here, on that screen, that’s the editor, I can see and control the code I’ve already written”¹³ (Programmer).

At this point we can note that there are (at least) two sides at play, a kind of front and back resp. outside and inside of the (visual) artefact called computer game. Both sides, although they are interconnected, initiate different ways of seeing and meaning (cf. Latour, 2008b, p. 2). However, it has to be seen that the program code before us is not the direct undersurface of the outer pictorial appearance or visual outside but rather its mechanics¹⁴. Strictly speaking, the inner side or undersurface of the digital computer game image (3D graphics with their textures and colours) consists of a binary code that depicts the image as a surface phenomenon which brings the image into being¹⁵. Nonetheless, the mechanics

12 Cf. Gottfried Boehm (2007).

13 This can be understood as an example for what Charles Goodwin calls *professional vision*: “socially organized ways of seeing and understanding events that are answerable to the distinctive interests of a particular social group” (Goodwin, 1994, p. 606).

14 Because of its multi-dimensionality (audiovisuality, narrativeness, ludity and interactivity) it is, of course, a simplification to speak of a front and back of the artefact computer game. Even with regard to the iconic dimension of computer games, it is not easy to reduce it to a visible front or surface on the one hand and a technical backside on the other, since it would be necessary to differentiate between the still image, e.g. the 3D-model of an avatar and the same image as a moving image, i.e. the animated 3D-model of the avatar. The ontological analysis of the image into an upper and lower surface would thus be conceived in a sub-complex, almost essentialist sense. It is probably more appropriate to say that the constitution of the computer game image is enriched by other (technical) dimensions of the artefact, such as game mechanics and their code.

15 On the ambiguity of the digital image, see, among others, Frieder Nake (2005).

underlying the computer game images are closely linked to them, because they allow the visual worlds of a computer game to appear, to perform and to function in prestructured ways. Finally, the mechanics beneath the interface allow the player to interact with the visual worlds of a computer game in certain ways. Thus, particular events within the course of the play – and this means certain iconic formations – arise from game mechanics.

Behind the Image == The Code

On Sam's right screen we can see a few lines of code for the *Combat System 2* that he has already written (see Figure 1). As indicated before, the code presented below is only a part of the whole program code made available to me¹⁶. The process communicated in that code segment includes the order in which the combatants – consisting of four players (heroes) and the computer (enemy) – appear and act. In his internship report to which I will return below, Sam describes the code segment as “a sequence of interactions between the (respective) hero and the antagonist”. So the code carries a specific sub-process of the entire battle, the right of attack, which is represented by the code segment and which has to be illustrated in the internship report. But let us take a closer look at that code segment to exemplify the idea of code as a logic-based set of rules:

16 This code is very much akin to so called pseudocode, a type of code that does not require a fixed formal programming language and grants individual design possibilities. It is particularly used for presentation and communication purposes, in our episode it is used in the context of the development of a computer game prototype and an internship report where it should outline a specific game sequence or process in its basic idea. Pseudocode thus serves in particular to reduce complexity and to illustrate a process (algorithm), whereby the program sequence can be represented independent of an underlying technology because of its freedom of form (cf. Mehlhorn & Sanders, 2008, pp. 26-31). At the same time, as another programmer explains, Sam's code already functions as source code that can be translated into machine language and then be performed. Thus, the code written by Sam is “a kind of mixture of source code and pseudocode” (programmer to whom I showed the code segment).

Figure 1: Code segment of the Combat System 2

```
if (battleState == BattleState.run)
{
    // The first player is taken out of the queue
    currentCombatant = (Combatant) (combatQueue [0]);
    combatQueue.RemoveAt (0);

    // Defense
    if(currentCombatant.isDefense)
    {
        currentCombatant.isDefense = false;
        currentCombatant.restoreDefense ();
    }

    // Selection phase
    // Execute action
    if (currentCombatant.side == Side.enemy)
    {
        currentCombatant.randomAction (heroParty);
    }
    else
    {
        // Waiting for the input of the player/ Selection of action
        battleState = BattleState.standby;
    }

    // Final phase
    // Enqueue again
    combatQueue.Add (currentCombatant);
}
```

Following the logics of Boolean algebra, the code consists of *if/else-directives* and describes some of the rules (right of attack) that the combat action is based on. After the key word *if* we find an open curly brace followed by a formula block – a so called *if-block* – that describes certain conditions for the *if-directive*. In order to calculate and to perform the *if-block* resp. its conditions, the formula has to be provided with a Boolean *true* or *false* variable. When the *if-conditions* are “true” they will be performed; if they are “false” they will not be executed. If the conditions are “false” and therefore not met, an alternative “else” can be entered. In this perspective, code and thus the encoded combat action, appear as a step-by-step set of rules and conditions. Furthermore, the code is accompanied by comments introduced by “//”. These comments should serve the reader – who in the case of a complex and complicated formula usually is another programmer – as a communication aid¹⁷. The comments may also help some readers of this text

17 Usually it is not necessary to use such comments in smaller teams where a more immediate way of communication (face-to-face) is common. Nevertheless, these comments

who are not familiar with the field of programming to decrypt the code segment. For the sake of clarity I will give a scriptural representation of the code segment presented above although the comments may already have done some of the translation work:

- 1) The first combatant is taken out of the queue.
- 2) If the fighter is in defense position (from a previous round), that status will be resolved.
- 3) If the current fighter is the enemy (enemy side), the computer randomly chooses an action (random action).
- 4) Otherwise it is waited for the input of the player who selects and executes an action (attack, special attack, defense, etc.).
- 5) The combatant is placed at the end of the queue again.

These descriptions of the single steps of a process represent a specific algorithm of the combat system: the order in which the involved combatants attack. So first of all, algorithms describe an operation, a process or a problem¹⁸ as “a set of defined steps, [that] can be relatively easily codified; that is, turned into code that if executed will perform the algorithm” (Kitchin, 2014, p. 4; cf. Diakopoulos, 2013). In this sense, programming code can be seen as a translation work with the goal of solving a specific task; in Sam’s case this task consists in translating the course and expiration of each combatant’s right of attack into code. Kitchin refers to this aspect when he says that writing code consists of two central translations that are centered around producing algorithms: “First, translating a task or problem into a structured formula with an appropriate rule set [...]. Second translating

indicate that programming – against the stereotypical image of a nerd sitting lonely in front of his screen – is a social and collaborative practice and not the individual work of a single person. Often code is distributed, i.e. it is written, commented, discussed and explained. Single code segments resp. algorithms are separated, shared and modified by different programmers.

- 18 Algorithms as descriptions of processes or problems cannot only be executed by machines. We can find them in different forms and areas of our everyday life, e.g. as a recipe in a cookbook. In that sense Diakopoulos (2013, p. 3) states: “An algorithm can be defined as a series of steps undertaken in order to solve a particular problem or accomplish a defined outcome. Algorithms can be carried out by people, by nature, or by machines. The way you learned to do long division in grade school or the recipe you followed last night to cook dinner are examples of people executing algorithms”.

this recipe into code that when compiled will perform the task or solve the problem” (Kitchin, 2014, p. 6).

This work of translation is one facet of the challenge the young programmer is faced with; he has to translate a specific task into a corresponding set of rules in such way that it can be compiled, that means that it can be translated into machine language in order to execute the algorithm.

Now let us return to a question posed before: How are computer games or parts of it, such as the game mechanics of a violent combat, configured through the practices of programming? In the light of the previous descriptions we may answer the question as follows: Within programming a combat is not associated with violence but is primarily configured logically resp. as a set of rules consisting of instructions and conditions. Thus, a combat or fight becomes a conglomeration of relational conditions, represented in the code’s *if-* and *else-directives*. It will become clearer later on that the prospective gamer and his or her presumable future actions build a constitutive part within that logical structure. When asked what role the gamer plays in this code segment, another programmer explained to me: “The gamer is a kind of variable that determines which possible actions are executed” (MacGuyver, programmer). Here the gamer is referred to as a variable, i.e. he or she becomes technologically configured by fitting him or her into the structure of a Boolean thinking system. Reciprocally, the code itself is also shaped by the anticipated player and his or her actions. Thus, coding does not take place in a purely technical environment, in an isolated programming environment with a secret and hermetic programming language, but is socially configured by the presumed gamer and assumptions about his or her gaming experience and the acting style that he prefers. All of this must be inscribed into the design resp. into the code of the *Combat System 2*. In the code segment above, this aspect becomes clear in the commentary line where the player as an actor (“variable that determines which possible actions are executed”) is explicitly mentioned in the code commentary: “//Waiting for the input of the player / Selection of action”. However, in the lines of code themselves the player is not explicitly mentioned. Here the player comes into play through the *non-action* of his or her interaction partner, i.e. the computer in standby mode (“battleState = BattleState.standby”). At this blank state the player is expected to act. This situation is comparable to the turn-taking-machinery in a conversation: now it is the player’s turn while the computer waits for the reaction, the choice of attack, special attack or defence and the corresponding input through the player’s mouse or his or her keyboard. The way in which the code mobilizes the player’s actions and his or her cognition gives us an idea of a distributed interplay in human-machine interaction (cf. Suchman, 2007). We can see that code is more than a rigid, deterministic set of rules, but gives the

player a scope of action, a freedom of choice within playing (I will return to this later). However, the presented passage of the code, the line that we called a *blank state*, can only be described as a *quasi-gap* because it is already filled with assumptions and expectations regarding a projected player, his playing behaviour and gaming experience (another aspect that I will return to). Finally, the code aims at orchestrating a particular way of acting and playing behaviour, one that culminates in a positive gaming experience¹⁹ (cf. Jessen & Jessen, 2014). But what are the specifics of this way of acting and what kind of reasoning is connected to it regarding our episode? A look at Sam's internship report that deals with the code segment under consideration will shed some light on this question. I will focus on that report in the following in order to expand on the social configuration of the code and to better understand how the player, his reasoning, acting, gaming experience and the code design of the *Combat System 2* are *drawn together*.

Beside the Code == The Internship Report

As an intern Sam is considered a novice and has to document his programming practice and the design of the *Combat System 2* in an internship report. In ethno-methodological terms: As a young programmer Sam has to make his programming work, his decisions and the design of the combat system *accountable* (he has to be accountable to his supervisor who will evaluate the report and the design for the combat system in the end). Using this aspect methodically, I will put myself into the fairway of Sam's report and let it take my observations a little bit further. Sam's report may help to make programming work and the design of the *Combat System 2* more *recognizable*.

In the situatedness of playing, i.e. in the *gathering* of the computer game and the real player, the coded network of rules, the embedded restrictions and possibilities allow a new kind of player action to emerge: This new unfolding action is tactics. From the programmer's point of view, opening a door for tactics and strategic actions will channel a positive gaming experience. This is what Sam explains to me while writing down a short design document for the *Combat System 2* in his internship report: "It's all about the player being able to develop a strategy!" A look at this design document provides further information, including a comment on the code segment above:

19 During my fieldwork game developers told me again and again that their aim is creating games and that games should be fun. The fun aspect was also emphasized when the discussion touched upon the relationship between computer games and violence.

In this variant, a hero and an opponent act directly with each other, similar to rock-paper-scissors. This is to ensure that the player considers his turns very well before making his choice of action (attack, special attack, defence). The number of possible actions will also be limited in order to make the fight more tactical. (Sam's internship report)

Remember the *quasi-gap* that marked the gamer's turn and pushed him or her to select an action (attack, special attack or defense). This blank state mobilizes a cognitive component of the player. From Sam's report we learn that the code evokes a certain type of decision making. The programmed logic of the *Combat System 2* has to support the player's ability to act strategically: "that the player considers his turns very well before making his choice of action (attack, special attack, defence)". Furthermore, we get to know that regulated limitations of the player's actions ("the number of possible actions will also be limited") aim at making "the fight more tactical". Through these limitations (e.g. one may only attack three times and defend two times) the different options of action or abilities become a resource that can be used up and therefore must be handled prudently. As the report makes clear, it is a central goal to challenge the player cognitively. Instead of merely reacting according to coercive rules, the player has to develop his or her game or combat strategically and to make smart choices. But in order to make a choice, the mere opportunity of having a choice is not enough. The choice of a combat action must have a value and is associated with certain expectations regarding its effect which the player calculates within the game. Therefore, particular actions in a fight (defense, special attack, attack) are always linked to certain advantages and disadvantages that must be evaluated and carefully weighed by the player. This applies to every situation during the game and thus can be understood as a tool for strategy development²⁰.

In our case, Sam explains to me that the panel of available combat actions have certain attack value points and defense bonuses and therefore have to be used deliberately. Since the various combat actions and their values are not visible to me because they are neither elaborated in the intern report nor in the code segment

20 In his article on *The fundamental pillars of a combat system*, game designer Sébastien Lambottin (2012) also talks about "tools" regarding certain combat actions. He categorizes actions like *mellee-attack*, *normal shot*, *iron sight shot* or using a *grenade* as a *panel of abilities*. He writes: "Another way to think about the design of these abilities is to consider each one as a tool for the player" (ibid., p. 1). In the analytical perspective of the designer, weapons and violent actions such as a *mellee-attack* and the throwing of a hand grenade become a means to an end, to (neutral) tools of strategy development carrying a "risk versus reward trade-off" (ibid.).

provided to me (they are processed in a different class of code), MacGuyver gives me an illustrative example. In an e-mail exchange, he explains to me:

Consideration of the battle system is as follows:

- 1) I attack with a strong attack, but may be more vulnerable afterwards. (2 attack, 0 defense).
- 2) I attack normally and then have a normal defense value. (1 attack, 1 defense).
- 3) I defend and deal no damage for it, but get less damage myself. (0 attack, 2 defense).

As illustrated, each combat action has a certain attack and defense value – strong attack resp. special attack: “(2 attack, 0 defense)”; normal attack: “(1 attack, 1 defense)”; defense “(0 attack, 2 defense)” – that leads to certain consequences for the further course of the game. Whether the player defends or chooses a strong special attack goes along with certain advantages and disadvantages or rewards and risks which have to be taken into account in each situation.

I intervene: In this context, fighting in a computer game primarily becomes a question of strategical reasoning and acting – it is not about violence or killing as it might appear at first glance, for example when watching the editor, where the combat action is visualized on the screen; the surface of the code so to speak. However, within programming, the programmer is concerned with giving the player the rules at hand he needs to play a smart and thus joyful gameplay. As Sébastien Lambottin, senior game designer at Ubisoft Montreal, writes:

The main objective we have in mind when we design the gameplay mechanics of a combat system is to push the player to make clever choices and use the right ability at the right time. We want the player to be able to anticipate the next action he'll perform and also to develop a tactical plan during the combat [...]. So basically we want a system with multiple choices, but in which the player has to evaluate and choose the best option for each situation. (Lambottin, 2012, p. 1)

When Sam compares the strategy orientation of his code with “rock-paper-scissors”, his report illustrates these aspects once more, because the popular children’s game is not merely a game of chance but requires strategic and prospective thinking. It is a game that challenges the player’s ability to assess and anticipate his or her opponent’s actions and therefore demands the evaluation of the opponent’s possible next turn as well as one’s own options.

Again it is MacGuyver, the more experienced senior programmer of the studio, who gives me an explanatory example by putting himself in the role of the player in an imagined battle scenario:

Well, you try to judge your opponent, of course. For example, I have blocked two rounds in a row and the opponent can deal little or no damage with a normal attack. So I assume he chooses a strong [special attack] to break my defence, so I lower the shield and try to do more damage to him with a normal attack than he does to me (MacGuyver, programmer).

Because of a shared underlying principle even a children's game like *rock-paper-scissors* can be easily compared with a combat system for a computer game. In this section, it should become obvious that within the context of programming – as articulated in the code segment and in the internship report – the prospective player is configured as a tactician and fighting is conceived as a matter of strategic thinking and acting. Therefore, the programmer's concern is about providing the anticipated player with certain possibilities and abilities by means of programmed rules in order to make him or her act strategically. In this sense, algorithms effect something, or as Goffey (2008, p.17) puts it: "Algorithms do things, and their syntax embodies a command structure to enable this to happen". On the one hand, the code assigns the player to a specific role with a particular behaviour; the code affects and thus *configures* the player. On the other hand, the programmed code does not represent a purely technical entity insofar as it integrates cognitive aspects that are mobilized in the act of *de-scription* (Akrich, 1992); the code is affected by the prospective player, it is socially *configured*.

TRANSLATING CODE INTO A POSITIVE GAMING EXPERIENCE

Differentiating Player Mentalities

As I mentioned earlier, the set of rules laid down in the code is one part of the game mechanics that is constitutive for the player's interaction with the game. Thus, game mechanics are constructs of rules providing game play and gaming experience. Against this background, gaming experience is to be understood as a practical effect of the assembly of the player and the (rules of the) game²¹. Finally, a combat system that evokes tactical action and thinking can be seen as a mediator or, as Lambottin puts it, as a "tool" for such a positive gaming experience: "[O]ne

21 Obviously the code of the game mechanics is only *one* constitutive part of the gaming experience among others. In addition, it is also the graphics, the sound and the story of a computer game which are co-constitutive for the gaming experience of the individual player.

of the most engaging feelings a player can experience with a computer game is to feel smart and proud of his or her cleverness. And a combat system is a great tool to let the player experience this feeling” (Lambottin, 2012, p. 3).

However, in order to ensure a positive gaming experience, the design of the combat system must also consider a wide range of options and weigh up how the player may choose to play in specific situations. This poses a particular challenge for developers of computer games, since a standard player does not exist, but has to be generalized or formalized in order to be included in the code. For example, not each individual player follows the same tactics in a fight, nor develops the same preference for certain weapons or takes the same risk in a certain combat situation. Some players enjoy collecting points and things, they love exploring the game world and running through different levels without seeking confrontation with an opponent. On the other side, we also find players who are just looking for confrontation and fighting and try everything to kill the enemy. Therefore, computer game developers have to keep different types of players with different personalities in mind; players with different motivations and preferences that must be integrated into the game design²². These differentiations into different types of players must also be taken into account when programming. Regarding the *Combat System 2*, MacGuyver explains to me:

One tries to make certain tactics possible through the rules, so that the player can take risks but does not have to. This way you can reach more players. If someone wants to play for safety, you want to allow this with rules as well so that the player has fun, a sense of achievement and a positive gaming experience. Forcing the player doesn't make him happy!

From this quote we learn that the rules of the combat system should not only support the player's tactical behaviour, but have to be differentiated by anticipating various, for example, risk-taking and risk-averse player types (“If someone wants to play for safety, you want to allow this with rules as well”). Last but not least, this differentiation has to be seen against the background of economic interests the gaming industry pursues by expanding the target group – another matter of concern in game development. Design and programming practices resp. certain codes or algorithms of computer games are closely related to economic factors. However, as we also learn from the quote above, programming is about creating “a positive gaming experience”. The rules manifested in the code have to ensure that

22 The most prominent differentiation is probably the classification in player types according to Richard Bartle (1996): *Achiever, Explorer, Socializer and Killer*.

the player experiences “fun”²³ and “a sense of achievement” according to individual gaming preferences that the code structures.

Regulated Freedom

At this point I would like to return to the earlier mentioned idea of granting the player a room for manoeuvre or rather a certain freedom of action within a given framework of coded rules in order to foster a positive gaming experience. Whether this succeeds, however, is not only due to the different motivations and preferences of different player identities inscribed in the code, but especially to the fact that the rules evoking a positive gaming experience are not experienced as constraints. Certain rules evoking a positive gaming experience are not experienced as constraint; or as the programmer puts it: “Forcing the player doesn’t make him happy!” It is the experience of freedom within playing that forms another important aspect of a positive gaming experience. As Johan Huizinga stated in his classical work *Homo ludens*, “play is a voluntary activity or occupation executed within certain fixed limits of time and place, *according to rules freely accepted but absolutely binding*” (Huizinga, 1949, p. 28, emphasis added). In this perspective, the code becomes a hidden actor, doing a kind of *invisible work* (Star, 1999) while becoming invisible itself. When the game is played, the code is translated into an experience and invisible as a determining set of rules. The translational achievement of the programmer does not only include converting a process into rules or an algorithm into code, but also designing it in such a way that it is transformed into a positive experience in the broader context of interaction with the player. Translations always lead to new formations, new figurations, folding and unfolding of (technical) objects and other entities, here the code for the *Combat System 2*²⁴.

Feeling Code

Ultimately, the correct balance determines whether the game ends in a positive gaming experience or not. To this regard, the “tool” (i.e. the combat system) has

23 According to Marc LeBlanc, who has developed a taxonomy of gaming fun, there are (at least) eight fun factors: sensation, fantasy, narrative, challenge, fellowship, discovery, expression and submission. In 2000 LeBlanc presented his ideas at the Game Developers Conference in San Francisco. His thoughts are written down in: Hunicke, LeBlanc & Zubek (2014). Cf. Salen and Zimmerman (2003, pp. 328-362).

24 For the concept of *translation*, see Callon (1986, p. 203).

to be adjusted appropriately. The right balance also depends on the fairness of the game: all players must have the same strengths (defence and attack values) and resources and must have equal chances of winning or losing. Too many challenges and, as a consequence, too many defeats cause frustration for players, the game is perceived as unfair, whereas too little challenge and too easy coping with the game leads to boredom. Therefore, the right balance has to be found and translated into the code. But how do you find this balance? MacGuyver gives the following explanation: “Of course you can calculate the fighting system and see if it’s fair, but just because it’s fair doesn’t make it feel fair”. Fairness is not just a question of mathematically correct computation, a matter of fact, but is presented as a kind of reception effect, a feeling of the player. Fairness thus becomes rather a matter of concern or – as I would like to call it – a *matter of act*. Something that is arithmetically and formally fair does not necessarily have to feel fair in gameplay, i.e. in actual game practice. Here, the correspondence between code (as a technical entity) and human gaming experience is questioned.

The challenge for the programmers now is to provide a translation that bridges and closes this gap between the code and the actual gaming experience which ultimately gives the code its reality. Akrich suggests oscillating between the inscribed and real world, albeit for the explorer of technology and design practices:

Thus, if we are interested in technical objects and not in chimerae, we cannot be satisfied methodologically with the designer’s or user’s point of view alone. Instead we have to go back and forth continually between the designer and the user, between the designer’s projected user and the real user, between the world inscribed in the object and the world described by its displacement. (Akrich, 1992, pp. 208-209)

This methodological conclusion drawn by Akrich that requires an oscillation between the world inscribed and the real world, does not only matter for (social) scientists, but is also guiding designers and developers of technologies such as programmers of computer games. Regarding the latter, this oscillation can be considered as an (ethno-)method to provide transfer and translation services between these worlds, between technology and experience. Sam and MacGuyver, for example, take on the role of the player and the situation of the game to add a real dimension to the projected player’s experience. They move between worlds, between inscription and de-scription. Using small wooden figures and tokens they imitate the combat action and the game mechanics; the code is translated into a materialized game scenario of wooden figures, stones and cubes (see Figure 2).

Figure 2: Materialized game scenario



The defence and attack points embodied by the wooden pieces are varied and the respective victories and defeats are noted on paper. Your own gaming experience, “what it feels like”, Sam says, becomes the starting point for the further development of the code for *Combat System 2* and flows into the programming practice. In the words of the programmers:

We played this to see if the balancing is correct, for example, if I bet two of four life points and beat my opponent who has a certain amount of points and then take three points, do I always win or lose as a player? And how does that feel, even if you vary it? [...] I’m sure you could calculate it, but that’s faster and you get a first feeling for whether it’s fun or not.

At this point another facet of the material dimension of programming practices becomes visible. Programming is not to be understood as a purely mental or technical matter and is not a unidirectional process without detours. Consequently, algorithms or code cannot be seen as “purely formal beings of reason” as Goffey (2008, p. 16) states, even if this is how they are frequently presented by members of the technology and computer domain. Programming practices are embedded in

complex socio-material arrangements in which certain concerns regarding the relationship between computer game and players emerge.

CONCLUSION

Although the range of different computer games is almost unmanageably large, the discourse on computer games is often dominated by problematisations such as the question of the harmful effects of violent computer games on children and adolescents. We have used this observation as a starting point to take a more differentiated look at the question of what matters to the developers of computer games when they produce their products. As we said at the outset, computer game manufacturers are well aware of the social problematisations that their products give rise to, for example in political debates, in media coverage and in conversations between parents and their children. Developers of computer games are not simply aware of the ongoing debates but they also take the issues up in their development practice and even integrate some of them into the design of computer games. We have used this additional observation as a starting point to take a closer look at how this happens, based on a very narrow section of the production process of a combat sequence in a computer game. Based on these additional observations in the studio of a computer game developer, we were able to see how closely connected the so-called real world is with the so-called virtual world and how necessary it is for the actors in the computer game industry to re-establish and maintain this connection in their work. As our multi-fold analysis of programming practices showed, they are embedded in multi-layered socio-material arrangements and thus serve as valuable sources for the investigation of the relationship between technology and the social world. For example, we were able to see how developers anticipate and inscribe psychological traits (strategic thinking, fun, security, risk, sense of justice and fairness) into the code, which can then unfold in the game in a specific way through and with the player's actions. While the mechanics and rules offer freedom and are not simply constraining, the player's gaming experience is not purely subjective but also technically configured: players and the (coded) game are co-constitutive.

The methodological challenges for appropriate research into these interrelationships could only be addressed marginally. Nevertheless, I hope that I have at least roughly outlined what a more complex ethnographic approach to these challenges could look like. It will necessarily depend on a change of perspective that draws our main attention from matters of facts and shifts it to a sounder under-

standing of how matters, as for example computer games, find their mode of existence in varying socio-material arrangements that they simultaneously co-constitute.

It is within these arrangements where heterogeneous gatherings take place, where algorithms and players meet, where alleged matters of fact can be identified and analysed as matters of concern. As we could see, code is not a neutral and untouchable fact but is a matter of concern right from the start. It can be well or badly programmed, it can provide entertainment and enjoyment for the player or cause boredom and frustration; it can reach the player or make him leave – and as a consequence, these possibilities become an economic matter for game developers while they are a matter of entertainment for players. Of course, code can become a far-reaching problem and lead to moral questioning. The programmed set of rules could encourage or trigger certain questionable attitudes and behaviours, for example, if it tempts the player to prefer brutal over gentle problem solving or simply to spend money to get to the next levels. Against the background of what I have outlined in this text, the potential problems that appear here are always to be understood as social problems, sometimes serious social problems. However, in the light of what I have said, we should also be cautious about jumping to conclusions. Fighting and combat is not only violent and not only strategic, but much more in addition, it is both and more.

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Safeguarding Children on the Online Gaming Platform *MovieStarPlanet*

ESTRID SØRENSEN & VERNON JONES

MovieStarPlanet is a combination of a social media site and an online game, that is aimed at children between the ages eight to fifteen. It was originally developed as an educational language learning site for Danish children to learn English, by the present CEO. The idea was for children to produce manuscripts in English for the animated films they produced by using graphics in the game. In 2009, it has been launched as a game with social networking features for children to develop cartoon movies in, while also having the option of communicating with their peers.

Important aspects of the game are the ability to make friends and being able to build what in the game is known as *Fame* and *Fortune*. This takes place on a fantasy planet that is populated by *movie stars* played by child users. Important currencies of the game are *Fame* and *StarCoins*. A user earns these when someone watches his or her movie, or likes the *ArtBooks* that they have produced. With *StarCoins*, users can buy new costumes, animations, backdrops, etc. for their movies and other assets that allow them to advance in the game. Users also advance through the game by gaining *Fame* through their participation in the game's various competitions. The game both offers so-called "time to win" and "pay to win", i.e. players can invest their time to advance in the game or they can advance quicker by buying access to more functions in the game. The exponentially increasing popularity of the game allowed it to expand quickly to become one of the most popular sites for eight to fifteen year-olds in Denmark. It soon expanded to several other countries, reaching more than 16 countries by 2013, with a total number of more than 350 million registered users in 2017.

Vernon Jones, BA (Hons), MA, is a registered social worker, who has been the Head of Safety at *MovieStarPlanet* (*MovieStarPlanet Aps*, 2009) since October 2012. Having worked as a statutory child protection social worker in the UK,

and as Program Manager with the NGO Save the Children, he has a wealth of experience and knowledge in relation to safeguarding children in various contexts.

The following interview inquires how Jones and his team achieve the complex task of safeguarding children on *MovieStarPlanet*. This major operation, which could not be undertaken by Jones alone, include: Facilitating and maintaining co-operation with NGOs, governmental and law enforcement agencies; engaging and training Moderators; maintaining the advanced content management system CRISP to alert Moderators to inappropriate behaviour and having a support system that enables users to contact the support team. Together, these interrelated social and technical actors make up an *infrastructure* to safeguard children and allow them to have fun exploring the gaming environment. This infrastructure has a vast spatial and temporal extension and it carries the typical characteristic of infrastructures, that it is most of the time invisible (Star & Ruhleder, 1996). Indeed, it needs to be, since noticing concurrently to playing that protection is being done and having to consider all the potential threats while playing would itself violate players' main concern – and that of *MovieStarPlanet* – to maintain a fun playing experience. In their book *Sorting Things Out*, Bowker and Star (1999) introduced the term *infrastructural inversion* for the process of focusing explicitly on the infrastructure itself – making it visible – to expose and study its inner workings. The interview below seeks to do that, since in many ways, Vernon Jones, as Head of Safety for *MovieStarPlanet* is to maintain the child safeguarding infrastructure, keep it working, extending it and repairing it when necessary.

Sørensen: Could you start out by giving us a general picture of what is child safeguarding about at *MovieStarPlanet*?

Jones: It is of paramount importance, for the makers of *MovieStarPlanet*, to provide a safe platform for children to have fun and to communicate with their peers. With this seemingly straightforward strategy, other aspects in relation to producing an online game for children had to be addressed. Social networking and gaming sites for children must establish a robust child safeguarding framework to deal with the online safety issues they will encounter. Online technology that enables children to interact online and showcase their cartoon movies offers many challenges in relation to safeguarding children online. Issues such as possible bullying and online grooming behaviour must be addressed and dealt with effectively by all platforms aimed at children. Online gaming technology can enable children to spread rumours and propagate ideologies that may have problematic consequences within and outside the platform. These technologies can also enable children to

motivate each other to harm themselves or others. Research and anecdotal evidence has also shown that adults who have abusive motives may attempt to contact children on social networking platforms aimed at children.

Sørensen: It sounds like a major task to meet all these threats.

Jones: *MovieStarPlanet* has a firm commitment to meeting all their child safeguarding responsibilities and maintaining a fun and enjoyable gaming experience for children. This commitment to online safety was cemented in 2012 when the company brought me in as an experienced and registered social worker to oversee and further develop their child safeguarding strategies. *MovieStarPlanet* has a well organised Safety and Support Department whose commitment it is to safeguard and support the users that play the game. This commitment is seen in relation to the time and resources given to the child safeguarding tasks and customer support.

Sørensen: How is this actually done?

Jones: *MovieStarPlanet* has a comprehensive automated content management system in place, with automated filters working 24 hours a day to safeguard children and prevent users from writing inappropriate words. The system can take limited action to warn users and alert trained Moderators to these events for further assessment and more comprehensive action. The system is constantly being calibrated to allow children to communicate effectively within a safe online community.

Sørensen: Competent membership of a community – including online communities – tends to mean that you can work – and work around – the infrastructure...

Jones: Long term members of the community are extremely knowledgeable about the game and the infrastructure that surrounds it. They can also be quite critical of perceived errors. Some children are quite skilled and diligent at circumventing word filters. There is therefore a need to constantly assess and adjust filters to take this into account and maintain the means for users to express their views. Children have the right to communicate as freely as possible, but inappropriate language has to be blocked by the filters within content management system. The Support Managers and Moderators monitor the filters, and assess how to calibrate the filters effectivity. This needs to be done on a regular basis.

Sørensen: But in *MovieStarPlanet* children do not communicate only through language.

Jones: In relation to content management, we must also moderate user generated content, such as the production of art books, animated films and uploaded photographs. Children can be quite graphic in their interpretation of the world around them. A decision to introduce a feature where children could upload photographs was made over three years ago. This was a feature that had to be developed with

child safeguarding in mind. As Head of Safety, I was involved in the project management, leading to the introduction of this feature. It was apparent that pre-moderation would have to be part of the introduction of this feature. This meant that every uploaded photo would have to be assessed by a human moderator. Pre-moderation, which was essential for the successful integration of this feature, was outsourced to an experienced image moderation service. Close cooperation with this company has resulted in a successful and safe photo sharing feature for the users.

Sørensen: What were the challenges in adopting this moderation service?

Jones: The moderation service needed to assure us that agreed inappropriate images would be rejected and that they could approve each image within certain amount of time. An agreed rule set was put in place to facilitate this. In terms of staff welfare and child safeguarding, we stipulated that all Moderators had to be trained adults, in terms of viewing and rejecting inappropriate images. After a comprehensive selection process, a company was chosen that could fulfil the necessary task of rejecting photos within the agreed framework. Agreeing on a rule set that would reject inappropriate images, but allow appropriate images, is a difficult process. We meet around once a month to discuss the rule set and how it is being implemented.

Sørensen: I guess nudity is an issue?

Jones: The rule set does not allow photos of children without clothing. The pre-moderation service that has been engaged by *MovieStarPlanet* has been extremely effective in preventing inappropriate images being uploaded.

Sørensen: And scenes on the beach?

Jones: The agreed rule set rejects images of children in swimwear. There are complexities that the Moderators must assess and deal with. If, for example, there is a panoramic beach view, with no people in swimwear, then that would be allowed. But if a person in swimwear is highlighted, then that is rejected. Additionally, there is also post-moderation. This is undertaken by own Moderators who assess the photos that have been uploaded to the feature. This also allows us to undertake quality control.

Sørensen: Does the pre-moderation cover other types of material?

Jones: It includes rejecting images of animals in distress and photos of people with a serious illness. These images could upset children. Sometimes, it's only by looking at our game that you understand which photos to reject. There are some users that use images of cancer patients as a fraudulent attempt to gain in-game currency. These can be difficult and time consuming to assess.

Sørensen: And how do the kids go about that?

Jones: Before accessing the photo upload feature, the user is directed to the rules and information regarding how the feature works. The users cannot access the

feature without acknowledging that they have accessed this page and read the rules. This pedagogical approach makes users aware that photos will be pre-moderated and there will be time delay before the image is posted live. The users seem to accept that their photos will be pre-moderated and there will be a small-time delay.

Sørensen: How long does it take when I upload an image until it is accepted?

Jones: There is an agreement with the pre-moderation service to moderate each photo within one and two minutes. There are some images that require further investigation and time. Five minutes is the agreed maximum time. The clear majority are assessed and made live within five minutes. The upload times are monitored and assessed to make sure the agreed figures are being reached.

Sørensen: You haven't considered automated image recognition?

Jones: We considered image recognition, but it cannot match the complexity of the rules we wanted to be in place in terms of child safeguarding. Image recognition systems were rejecting too many or they were allowing things through that could have been inappropriate. Automated image recognition would not be able to differentiate between panoramic beach photos and photos highlighting a person in a bathing suit for instance, and that is why we have human moderation. We will continue to assess image recognition possibilities, but currently it cannot process the complex rule set for effective child safeguarding purposes.

Sørensen: Do users also ease Moderators' job by adapting to the rules, rejecting photos themselves, so to say?

Jones: Experienced users appear to have learned what images will be rejected. The users must view the rules and these are pedagogical in educating children. Simple language is attached to in-game cartoon figures saying "Don't bully", "Don't send any pictures without clothes on", etc.

Sørensen: So, you have systems in place for filtering words and you have a firm monitoring of photos. You so to say work both with the rather strong regulation through technical rejection by way of the content management systems – even though there are human Moderators behind the decisions – and a softer or moral regulation of children's consciousness to engage with the rules and to take upon them to comply with the rules.

Jones: Yes, this approach appears to be working quite well.

Sørensen: You also mentioned your Moderators several times. How do they work?

Jones: Trained Moderators work in Denmark and other parts of the world, so there are Moderators in different time zones when children are active on the site. The chat function is paused from 12 pm until 5 am on the European, Australian and New Zealand sites. This gives a signal to parents and children that good sleep

patterns are essential and vital to their health, and it further enhances the child safeguarding methodology.

Sørensen: The rotation of the earth interferes with the child protection infrastructure!

Jones: It makes it more complicated, but not insurmountable.

Sørensen: But how do the Moderators monitor the game?

Jones: The Moderators work in harmony with the automated content management system. This automated content management system works twenty-four hours a day and informs Moderators where inappropriate content has been identified. This allows to Moderators to assess and deal with the identified content. There are written rules and standards in relation the sanctions that Moderators can apply to different levels of naughty behaviour. These range from a warning through to a permanent lock from the game for serious breaches of the rules. The filters are employed as a first line of defence to prevent inappropriate language being used and to identify inappropriate content, but it is professional human moderation that is the key to successfully keeping online games safe and fun to play.

Sørensen: What happens then with the different event types?

Jones: The content management system is calibrated to give warnings and a one-day lock as maximum sanction that it can impose. Moderators assess all reports from the system in terms of applying higher sanctions. There is a pedagogical approach used to sanction users based upon allowing children to make mistakes, but being made aware that there are consequences for breaching the rules. The content management system can administer automated warnings so that users are aware they have done something wrong; if they do it again, they will get a second warning and thereafter a five-minute ban. If they continue, they may receive a half an hour ban. A one-day lock is the maximum sanction the automated system can impose. Moderators are alerted to the inappropriate behaviour which is put in different categories. The Moderators assess the chat log and can then implement sanctions according to the given rules and standards. If there are serious child safeguarding concerns, a permanent lock will be given.

Sørensen: How many warnings are given?

Jones: Children are curious and they attempt to push boundaries. This is consistent with offline human growth of development. They do test and attempt to circumvent the filtering mechanisms that are in place. That is why we have warnings and temporary locks as a pedagogical and social learning approach to moderation. This prevents the behaviour escalating, in most cases. But there are users that will test the boundaries even further by attempting to circumvent the filters to write inappropriate words. This will be met by sanctions that are assessed as being appro-

priate to the misdemeanour. We try not to give permanent locks unless this is necessary. This sanction is only imposed for severe breaches of the rules and for child safeguarding purposes. Online grooming would be a clear example where a permanent lock would be imposed. The *MovieStarPlanet* programmers work closely with the Support and Safety Team to adjust the content management system to adapt to different and changing child safeguarding issues.

Sørensen: So where do the Moderators come in?

Jones: There is live moderation of the site where Moderators check user generated content and other aspects of the game. They are also able to enter chat rooms and undertake live moderation. The content management system alerts Moderators to the rule breaches they need to address. Cases are categorised so that the most serious issues will be brought to the top of the list for the Moderators to attend to first. Trained Moderators work in tandem with the automated content management system. This is an effective use of resources.

Sørensen: How does the training of Moderators unfold?

Jones: Resources and time is spent on training Moderators in how to use the content management system and what sanctions should be imposed in relation to the agreed rules and standards. Training is undertaken in-house to help Moderators and by professionals in the field of online child protection. Trained professionals from the children's right organisation Safe the Children Denmark and other child protection agencies have been invited to train Moderators and Support Managers.

Sørensen: You have a background yourself in Safe the Children Denmark.

Jones: Yes, I'm a registered social worker with the UK Health and Care Professions Council. I have worked in child safeguarding teams in the UK and in Denmark; working on issues related to protecting children from all forms of abuse and neglect. As a statutory social worker, I was trained to empower and protect the rights of children. This was further enhanced by my previously employment at Save the Children Denmark. Part of my role was to lobby governments and industry to implement online child safeguarding measures. Working at *MovieStarPlanet* has given me another perspective on safeguarding children within the online gaming industry. I believe that online gaming and social networking companies, and other private organisations working with children, need professionals from social work and other child safeguarding backgrounds, to be involved in implementing procedures and policies to address issues related to safeguarding children online.

Sørensen: How are NGOs lobbying the game industry regarding concerns about child safeguarding?

Jones: Working together with the industry would be a better way of explaining the measures that are needed to safeguard children online. The gaming industry

must cooperate with NGOs and other experts in relation to online child safeguarding issues, so it is important for NGOs to be able to cooperate effectively with industry. I was able to use my network to make effective partnerships with NGOs, law enforcement agencies and governmental departments. This has helped *MovieStarPlanet* establish effective and comprehensive child safeguarding measures.

Sørensen: It is fascinating how a partnership between NGOs and the game industry emerges. People in the industry, of course, are not experts in child safeguarding, so they draw on an already existing infrastructure of NGOs, who have this kind of expertise. They even integrate you as a social worker into their own organisation.

Jones: As stated, industry and child safeguarding agencies need to work together to safeguard children. This approach was exemplified by *MovieStarPlanet* when they approached someone with a child safeguarding background to be their Head of Safety. This is an exciting and positive challenge for a social work professional. Working with industry and child safeguarding stakeholders allows me to make a direct impact in terms of working to safeguard children online. In Denmark, we have established a group of industry experts working on child safeguarding issues to swap ideas and meet with other agencies, such as the Danish Safer Internet Centre.

Sørensen: Let me summarize: *MovieStarPlanet* has its filters and content management system working in tandem with the human Moderators, all active internally in the company to safeguard children – well, and then the pre-moderation company that takes care of the photos. But then you also coordinate child protection issues externally, with NGOs and across industry actors.

Jones: Exactly, and with government agencies, such as Media Council for Children and Young People. An additional component of the child protection infrastructure is of course law enforcement that we cooperate with in all 16 countries where *MovieStarPlanet* is operational. It is important that we are able to directly contact the appropriate law enforcement agency to refer potentially illegal activity, such as online grooming.

Sørensen: I guess in severe cases, such as child sexual exploitation and suicide ideation the collaboration with law enforcement agencies is of paramount importance. However, are there also cases, where you need to prioritize children's privacy?

Jones: It is a dilemma in terms of privacy issues. Therefore, we contact law enforcement agencies to tell them what information we can share on receipt of a subpoena or other appropriate legal order for that countries legal jurisdiction. It is important, from a child safeguarding perspective, to work proactively with law

enforcement agencies. This cooperation needs to consider data protection and children's privacy legislation. We are proactive in terms of safeguarding children and their privacy.

Sørensen: Do you work with law enforcement throughout the 16 countries in which *MovieStarPlanet* is active?

Jones: *MovieStarPlanet* has excellent co-operation with law enforcement agencies in each of the countries where we are operational. Visits have been made to the relevant police departments in many of these countries to discuss memorandums of good practice in exchanging relevant information.

Sørensen: Thanks a lot, I think we've got a very good insight into the complexity of achieving child safety online – the calibration of the efforts of filters, content management system and Moderators inside *MovieStarPlanet*, which requires continuous adjustment and adaption to new language and new threats to children online, etc. just as you accomplish this through collaboration with external photo-moderators and programmers at CRISP. And of course the children learning to adjust to the rules and challenging them, but not too much. That seems to be the internal infrastructure of child safety. But its working is also highly dependent on your collaboration with law enforcement agencies and on the calibration with other industry partners, and on the help from NGOs in training Moderators etc. And all this in 16 countries with each their different regulations, legislations, organizations, cultures and concerns. Quite impressive.

Jones: Thanks.

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Children's Participation in the Development of Online Games¹

LIAM BERRIMAN

This chapter is concerned with recent computer game industry design methods that seek to enrol children's participation in the co-development of online games². This includes instances where young gamers are invited to act as beta testers of new game features or to provide suggestions and feedback to game designers via social media. *Co-production* and *co-creation* have become an area of growing research interest in computer game studies over the last decade – particularly the way that these design models seek to redraw boundaries between 'media producers' and 'users', and the significant value they place on user contributions (see Williamson, 2003; Banks & Humphreys, 2008; Banks & Deuze, 2009). There has, however, been little critical consideration of this model of design in relation to younger gamers and the forms of participation it seeks to cultivate with them.

In this present volume on computer game concerns, this chapter questions how children's participation has become a concern for the developers of online computer games. A key design affordance of online games is their ability to evolve and develop over time, in line with the changing preferences and tastes of their users. It has therefore become necessary for online games developers to find ways

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 - 2 In this chapter, the term *children* is used to refer to any person aged sixteen years or younger. Though the users of children's online games can exceed this age bracket, this chapter is primarily concerned with children aged thirteen to sixteen years who were considered as one of the primary age markets of virtual worlds by the companies consulted in the study.

of keeping in touch with their young user base and to anticipate their priorities for the game's future development. This has led to the adoption of user-centred game development practices that seek to bring young users into different phases of the design process and provide opportunities for their feedback and input. The present chapter focuses on how young users' participation is negotiated in these feedback processes and on what terms. To this end, the chapter draws on research into the online game virtual world *Habbo* (Sulake, 2000), created by the Finnish media firm Sulake³. *Habbo* has frequently been noted as a pioneer of innovative user centred design practices during the 2000s and as prescient of an industry shift towards closer monitoring of user practices and preferences (see Ruckenstein, 2011; Berriman, 2012; Hyysalo, Elgaard & Oudshoorn, 2016). As an online game with a substantial child user base⁴, *Habbo* provides an opportunity for unique insights into how growing industry interest in user participation has also presented new challenges for addressing and enrolling children as contributors in the development of online games.

A central concern of this chapter is to draw attention to the language and to what is meant by the rhetoric of children's *participation* within the online games industry⁵. Rhetoric in this instance is understood as a discursive technique aimed at generating a shared understanding or viewpoint on a given subject (Potter, 1996). In the present chapter, this notion of rhetoric is used to help frame an analysis of how those involved in the online games industry describe and seek to define children's participation. In recent decades, the language of children's participation has become highly politicised in the West (Jans, 2004) – increasingly tied to moral and legal discourses that emphasise children and young people's *right to participate* in decisions affecting their lives (Nolas, 2015). Recent studies on children's consumer culture have suggested that these so-called 'rights-based' discourses of participation have increasingly found their way into the rhetoric of commercial

3 Note that the research project that this chapter is based on took place between 2011 and 2013. As such all descriptions of *Habbo* and references to its demography are derived from research during that period. Websites have been referenced with their last date visited during the project and it is possible that many of the links are now 'broken' and no longer work. By providing the original dates visited I hope to provide a means for the reader to research for themselves the original links by tracking their closest approximate date in the Internet Archive (www.archive.org).

4 According to Sulake, 90 per cent of its users were aged thirteen to eighteen years in 2012 (Sulake, 2012a).

5 This chapter specifically refers to the online game industry located in Northern Europe.

markets, where enlisting children's active participation in product design and marketing has been framed as empowering the agency of children as consumers (Cook, 2004; Buckingham, 2011). By assimilating the language of children's rights, commercial firms have sought to position themselves as recognising children as market participants beyond mere consumption (Buckingham, 2011, p. 171).

Discussions about consumer participation in the online games industry have, however, not been solely limited to moral concern for children's involvement. Since the early 2000s, the online games industry – particularly in Northern Europe – has experimented with new ways of inviting gaming audiences to be intimately involved in the different phases of a game's creation. Inspired by 1970s Scandinavian Participatory Design traditions, many companies in the online games industry (including Sulake) have made the representation and involvement of game players a key concern in product development (Banks & Potts, 2010; Banks, 2013). From becoming early investors through crowdfunding platforms (Smith, 2015) to acting as testers, reviewers and brand ambassadors (Taylor, 2006; Berriman, 2012) – the industry has experimented with a range of approaches that re-imagine and re-draw the boundaries between developers and gaming audiences. In this context, industry concerns about participation have primarily focused on how best to cultivate and manage relationships with gaming communities as a way of further developing gaming products. This version of participation has not been driven by a moral or political concern of making (young) consumer voices heard, but rather by design and economic imperatives to shape and fine-tune a gaming product around the evolving preferences of its community base.

Against this backdrop, the present chapter seeks to explore how designers and developers of online games engage with the idea of children's participation as a site of concern. Drawing on interviews with members of the development team behind the online game *Habbo*, this chapter will explore how designers conceptualise and talk about children's participation in design processes. To this end, the chapter poses the following questions: First, how is children's participation defined in design practice? Drawing on interviews with creators of the online game *Habbo*, the chapter will explore examples of Sulake designers describing where they have sought input and feedback from children during different phases of game development. Through these examples the chapter will look at how children's participation is discursively characterised by designers, and the methods through which the designers describe seeking to enrol and mobilise that participation. Secondly, building on this close analysis of discourse and practice, the second question will more broadly ask: to what extent do models of online game co-development provide a participatory space in which children's voices can be

heard? This question will provide an overarching point of reflection throughout the chapter and will be returned to in the conclusions.

The next section of this chapter will give a brief background introduction to the *Habbo* virtual world. The following section will then examine how members of the *Habbo* design team generally described and framed children's participation in the virtual world. The chapter will then examine two examples of children's participation in the design and development of *Habbo*: the first of these will consider how different phases in the design of an online game are described as providing opportunities to mobilise user participation, and the second will explore the more recent deployment of social media as a means of mobilising participation. The chapter will then conclude with some critical reflections on children's participation in online game design.

Case Study: *Habbo*

According to its creators – the Finnish firm Sulake – the *Habbo* virtual world is “the world's largest social game and online community for teenagers” (Sulake, 2012a). In 2012 (when the present study took place), the game boasted about having 250 million registered users and received approximately 10 million unique visitors per month (ibid.). The company's own figures estimated that 90 per cent of the *Habbo* user base were aged between thirteen and eighteen years, with a gender split of approximately 56 per cent male versus 44 per cent female players (Sulake, 2012b). According to KZero Worldwide (2012), an industry analytics firm, *Habbo*'s user figures ranked it the largest virtual world globally, outpacing contemporary rivals such as *Stardoll* (Stardoll AB, 2004) and *Club Penguin* (Disney Interactive Studios, 2005) (with 200 million and 170 million registered users, respectively).

Habbo, like many other virtual worlds, primarily generates income through micro-transactions, user membership schemes and in-game advertising. *Habbo* has always remained free at the point of use, however users have the option to purchase the in-game currency, which can be used to pay for customisations of their avatars and virtual rooms.

The present chapter draws on qualitative interviews with six Sulake employees at the company's Finnish headquarters. These interviews took place as part of a larger ethnographic study of two children's media firms (Sulake and the BBC's children's department). The employees represent a cross section of staff directly involved in the development of *Habbo*, including concept designers, a graphic artist and a software architect. As Sulake's headquarters are based in Helsinki, the majority of staff were native Finnish speakers with one exception. All interviews

were carried out in English and, although every person interviewed was a confident English speaker, it is important to note the interviews were not carried out in their native tongue. For ethical purposes, the names of all staff have been kept anonymous and research participants are referred to by their general job role at the time of the interview.

In addition to interviews with staff, a variety of textual data was also gathered from a range of Sulake owned websites and social media accounts. All textual data collected was publicly available online, however names and details of the authors of those materials have again been kept anonymous.

YOUNG GAMERS' CREATIVE PARTICIPATION

Before exploring how children's participation was framed in the design and development of *Habbo*, it is useful first to consider how Sulake's designers more broadly framed the *Habbo* virtual world as a participatory gaming space for children. At the beginning of each of the interviews, staff were asked to describe the *Habbo* virtual world in their own words. One of the most common themes across responses was an emphasis on the centrality of creative participation in children's gaming experience. For many of the designers interviewed, the primary purpose of *Habbo* was to provide a creative gaming space for children to explore self-expression and to invent their own forms of imaginative social play. The ability to design an avatar and to host and decorate virtual rooms were commonly given as examples of how the game invited creative participation through customization and personalization. The following three extracts provide similar but contrasting accounts of how this participation was typically described in interviews by members of the creative team. In this first example, a designer describes how *Habbo* seeks to give users control over their gaming experience:

Habbo is a creative social space [...] the main feature for me is the freedom and the creativity. Users can create their own space, their own room. In a way it's a bit like a mini-god simulator [...] because you have your own space you can decide to make it an airline check-in desk, some users do that, or a mafia room, a role play, a maze or just a chat room. Users, they go to Habbo, they have their space and they choose what direction to take their experience.

In this extract, *Habbo* is described as a gaming environment whose design *enables* and *facilitates* user creativity. Of particular interest here is how the rhetoric of creativity is mobilized to position younger gamers as actively contributing to the

shaping of their own, and others', gaming experiences. There is also a repeated reference to the *Habbo* environment as designed to give gamers a sense of ownership and control. The description of *Habbo* as "like a mini-god simulator" implies that children are regarded as having high degree of creative control over the way the virtual environment is shaped. In this instance, the rhetoric of participation draws very heavily on idealised notions of creativity (Banaji, Burn & Buckingham, 2010) that frames children as freely able to draw on the resources of the world around them to enact imaginative forms of play.

Another *Sulake* designer framed the creative participation of young gamers in a slightly different way:

[Creativity] becomes more important for more active users, I would say that new users don't see it so clearly that aspect of creativity. It's more a visual chat room for them, but after a while, when you use the service more, the creative part becomes really important.

In this instance, *Habbo*'s gamers are described as varying in their level of creative participation, with notable differences between new and more established users. In this instance, some gamers are defined and distinguished as *more* actively or *more* creatively involved in shaping the game environment than others. One reading of this might be that references by design staff to gamers' creative participation do not necessarily refer to the whole gaming community, but rather a subsection of gamers who designers identify as having a longstanding commitment to the virtual world. In both quotations, we see how creative forms of participation are particularly valued by the designers. However, in the second quotation it becomes clearer that this creative participation is not seen as a quality of all young gamers, but rather a sub-section who are invested in the game. This raises an important question about which gamers are included and excluded within particular rhetorics of participation.

In this final extract a designer responds to the question of how important creativity is to the user experience:

It may depend on whether you're a buying user or not, because if you're not a buying user and so you don't have furni, then you can't design your room, you can't make a Habbo home, you can't make a Habbo group. I mean what you can do obviously, is you can choose your outfit or clothing, you can and you can just chat with people. So in that way, you're just mainly a social person in Habbo, whereas if you're paying user for example you have a lot more stuff and you can show your creativity in a lot more ways.

A distinction is made here between gamers based on whether they make purchases in the game. *Habbo*'s services are free at the point of use and gamers can explore the virtual world using a basic avatar. Purchasing *Habbo Credits* provides the ability to further customize avatars with a range of outfits, as well as providing the ability to purchase furniture (or *furni*) which can be used to decorate a user's room. The latter quote suggests that those users who do make purchases have the option of more creative forms of participation in the virtual world, whilst those that do not are largely limited to the social experience. Making in-game purchases provides a further means for distinguishing levels of gamer participation – with those users who have access to in-game credits, and thus furniture, able to be more creatively involved in the *Habbo* experience. This again has implications for who is included and excluded in designers' accounts of participation, with sub-groups of gamers rhetorically positioned as more active and creative in their participation than others.

So far we have seen how the creative participation of young gamers is celebrated by *Habbo* designers and how the virtual world is regarded as facilitating gamers' creativity through its design. We have also seen how designers' discussion of participation often make implicit assumption about who can be more creatively involved in virtual world based on their length of time in the game and whether they have access to purchased features. In the following two sections we explore in more detail how perceptions of young gamers' creative participation are mobilized in the design practices of Sulake staff and how gamers come to be enrolled as participants in the design process.

MOBILISING PARTICIPATION THROUGH THE GAME INTERFACE

For *Habbo*'s designers, the game's interface provides a key means of mediating their relationship with young gamers. The virtual world is not only the product that they design but also a primary means of gaining closer access to their gaming community. During the interviews for this study, Sulake staff were asked to describe the design process of a single feature that they had recently been involved in. They were asked to describe what their role in that process had been and how that design process involved engagement with users. During these discussions, designers would frequently report going in-game at specific points in the design process – whether to look for inspiration for new design ideas or to get a sense of how gamers were responding to recent product releases. This section looks at a few examples of how Sulake designers described their engagement with users in

the design process – focusing especially on moments where user participation was regarded as making an important contribution.

In the following extract, a designer describes their experience of engaging with *Habbo* gamers during the beta testing phase of a new product release. In this instance a closed beta of the virtual world was created and a select group of experienced *Habbo* users were invited to give feedback:

When the beta was out, we used Habbo a lot with [the lead designer] and we sort of just spent time in beta and started to interview users about the beta as well, about how they feel about it. I guess that's a skill as well. We try to get in there and talk face-to-face to the users as well, how they feel about something. And then again, I guess, the feedback we gathered is to get the insight from that and turn that into a concept. It's a skill that you can do that as well, so that first you have to realize the problem and then you have to sort of evaluate what you can do based on that, and then turning that into a functioning concept on the site.

This quote provides some indications as to how Sulake's designers enter the virtual world to enrol the participation of young gamers in the design process. By being present in the beta, the designers can position and establish themselves as a mediator for young gamers to contribute their thoughts and feedback on the beta release. It is interesting to note that the designer describes this as a "face-to-face" encounter – thus although it is a mediated encounter, it is framed as one that creates a closer sense of proximity between gamers and designers. The designer then describes how a user's feedback can be evaluated and transformed "into a concept" which can then be incorporated into the development of a new virtual world feature. Designers thus become the intermediaries through which gamers can participate in the design process. This role of intermediary is also partly one of authority; the designer is not only a facilitator of user suggestions but also a filter, able to judge and evaluate the usefulness and viability of user ideas.

The designer describes this means of engaging with users in-game as a social skill. Earlier in the interview the designer had been asked what kinds of skills were required for their role and these were generally listed as a set of technical and organizational skills. In this instance, however, the designer suggests that being able to engage user participation in the design process and to act as an intermediary for their feedback were additional and necessary social skills. As Kline, Dyer-Witford and de Peuter (2006) describe, the intermediary role of the designer has become an increasingly significant means of developing a productive relationship with consumers. How then is this relationship developed with young gamers and on whose terms?

For the Sulake staff interviewed, developing the ability to engage with young users raised a number of issues – ranging from the kind of avatar used, to the type of language they employed when talking with users. In the following extract a concept producer describes some of the difficulties of engaging with young users in-game:

We don't want to come across as the user's best friend, we don't want to come across as cool, uncool or anything like that, you know, we want to be as straight forward and blunt with our users as possible. So yeah, we can be funny, we can be friendly but, you know, we don't want to be down with the kids per se. You know, because that is the kind of thing that if it works, it can work brilliantly, but in my experience, more than not, it back fires and makes you sound like a boring uncle [laughs].

In this extract, contrasts are made between how staff should and should not interact with users in-game. Although great importance is placed on developing a closer relationship with users, this extract suggests that staff must also maintain a degree of distance. As such, appearing to be “down with the kids” or acting as a “user's best friend” are flagged as interactional boundary points. These boundary points also hint at the generational distance between *Habbo's* designers and users. There is a sense that by avoiding certain forms of behaviour, Sulake's designers are better able to suppress these generational differences in their engagement with users and thus avoid sounding “like a boring uncle”.

Many of the designers interviewed chose to use avatars that did not explicitly identify them as staff members⁶. As one interviewee described:

I just go in [...] as a random account and just start talking to users [...] they don't know that I'm a staff member because that wouldn't be beneficial for my aims, which is, well one of them is seeing what users are talking about, seeing what users are doing.

Being recognised as a game designer is regarded in this instance as a potential impediment to observing how young gamers are engaging with the game. The ability to observe children's in-game activities is seen as potentially obstructed as a result of the designer's presence. Though the younger gamer is positioned as participating in the design process in this instance – by acting as a key source of information for the designer – they are not aware of their potential contribution. For the most part, the mobilization and engagement of younger users through the

6 Staff involved in *Habbo's* community management often use avatars with a badge that clearly identifies them as Sulake staff members.

game occurs predominantly on the terms of the designers. The game designers are able to select at what points they enter the game's interface for user feedback or invite users to give their feedback on a beta feature. The terms of engagement remain limited for the user, who may or may not have the opportunity to share their opinions with Sulake staff. Negus (2002) has suggested that, although the role of the intermediary provides a point of connection between consumers and the production process, it can also serve to re-produce a degree of distance between these two points.

MOBILISING PARTICIPATION THROUGH SOCIAL MEDIA

In this final section we turn our attention to the enrolment of young gamers' participation outside of the online game's interface. Over recent years Sulake has begun to implement a brand presence spanning a number of social media platforms, including Facebook, YouTube and Twitter. The present section is restricted to looking at Sulake's presence on Twitter and examining how this platform has provided staff with an alternate means of mobilising the participation and feedback of young gamers.

Sulake's Twitter presence can be broadly categorised into two main account types. First, there are the official *Habbo* and Sulake Twitter accounts, which provide regular corporate and product announcements to Twitter followers. For example, if the *Habbo* service experiences technical downtime, the *Habbo* Twitter account is used as a channel to provide users with estimates as to when the service will be re-opened. The second group of accounts are the Sulake Tweeters: individual Sulake staff members who manage their own Twitter accounts. These range from the company's Chief Executive Officer (CEO) to members of the design and creative teams. To promote the Sulake Tweeters, Sulake's corporate website contains a gallery of self-written profiles promoting each staff member, accompanied by a single photograph. Each of the profiles follows a similar template, with staff members describing their role at Sulake, sometimes hinting at some of their interests and finally encouraging users to follow their Twitter account.

The following are just a few extracts from the profiles of Sulake Tweeters encouraging *Habbo* users to follow them on Twitter:

So Habbos, I'm here for you... to answer your questions, to listen to your crazy ideas and to help as much as I can.

I am curious to hear your thoughts about the future. About great new ideas or things you saw at different games that you think would work in Habbo as well. Let me know and see you in Habbo!

I am interested in your thoughts and ideas on how to make the Habbo experience more fun, meaningful, creative and social. Let me know how to bring more value to the Habbo experience. (Sulake, 2012c)

In each case the *Habbo* user is addressed as being in possession of opinions and ideas that are significant and of value to Sulake. The staff members invite *Habbo* gamers to connect with them on Twitter in order to share their “crazy” or “great new” ideas. They can then gauge how users would like to see *Habbo* changed or improved and therefore “bring more value” to the users’ “Habbo experience”. In this way, the staff members again establish themselves as intermediaries through which a users’ opinions can be heard and potentially implemented into the online game’s design. As opposed to being a faceless or anonymous channel, the Sulake Tweeters present themselves as individuals who wish to interact with users and to hear their opinions and ideas. As such, there is a sense of immediacy in the interaction offered between *Habbo* users and the Sulake Tweeters, with users apparently able to contact the staff members on their own terms.

The profiles of the Sulake Tweeters provide an important initial means of appealing staff to users – furnishing *Habbo* users with insights into each staff member’s interests, areas of expertise and personality quirks. The accompanying profile photos add a further means by which staff can express their individuality to users and also allow users to put a ‘name to a face’. In the majority of cases, staff members opt for a regular portrait photograph, but in some instances their faces are obscured either by a mask or are edited until the face is only partially discernible. Though staff members are referred to by their first names, it is interesting to note that a number of staff choose to disguise their faces in the photographs. Thus to some degree the Sulake staff may choose to assert a degree of privacy in sharing only limited details about their identity. Nonetheless, these profiles could be seen as an attempt to encourage users to engage with staff through the promise of a closer and more personalised connection via Twitter.

Marwick and boyd (2011) have described how using Twitter and other social media involves a particular form of identity performance to an imagined audience. In the case of the Sulake Tweeters their audience is to some extent pre-formed, as the accounts appear to have been established with the intention of interacting with and mobilising *Habbo*’s young gamers. Indeed, the majority of Tweets through the Sulake Tweeters’ accounts are directed at a *Habbo* audience, either sharing

Habbo related news or responding to Tweets from users. The notion of identity performance is, however, significant to the way that Sulake staff seek to mobilise user engagement and participation. As we saw in the previous section, the type of language and avatar used in the virtual world is important to how designers attempt to engage with young gamers. However, the framing of these accounts as Sulake Tweeters suggests these Twitter accounts form part of the company's public identity and may follow a similar set of guidelines to those employed in the *Habbo* environment. The interaction between the Sulake Tweeters and *Habbo* users might therefore be seen as mediated to some degree by corporate values.

It is also important to consider the potential unevenness of Twitter as a mediatory channel between *Habbo* users and Sulake. Although *Habbo* users have the ability to Tweet to Sulake staff members, it remains the purview of the Sulake Tweeters to decide which Tweets to acknowledge and respond to. As such, a *Habbo* gamer's ability to tweet to staff members does not necessarily equate with having the ability to be included or recognised as a contributor to the development of the *Habbo* service.

CONCLUSIONS

This chapter has looked at how children's participation is a concern for designers in the online games industry. Harnessing children's participation in ongoing design processes has become an important means of securing the future sustainability of online games and virtual worlds. Increasingly, young gamers have become vital sources for gauging reactions and obtaining feedback – providing critical responses during the development of new design ideas. The primary means of mobilising and eliciting this user participation has been to establish designers as accessible intermediaries through which young gamers' voices can be heard and distilled as feedback data. Whilst the intermediary role is familiar across the cultural industries (Negus, 2002), in the case of young gamers it takes on a particular generational character that requires designers to carefully weigh up how they present themselves and initiate interactions with gamers. In this respect, the mobilisation of young gamers' participation is far from straightforward, involving careful consideration of when and how that participation is elicited and on what terms.

This latter point is particularly prevalent in addressing the second question that I raised at the beginning of this chapter: to what extent do co-production models create a participatory space that is equally accessible to all young gamers? The present chapter's case study has shown that young gamers' participation in the

design process is principally at the discretion of the game's designers. By establishing themselves as intermediaries in the game's design and development, game designers have been able to define when and on what terms children are able to make design contributions and which individuals are able to participate in that process. Whilst the active and creative participation of children is an important rhetoric for the designers, the practice of enrolling and mobilising young gamers' participation can be limited in scale and scope. Those young gamers who do have the opportunity to voice feedback and to contribute to the design process are, for the most part, an exclusive minority.

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Part II

Legal Computer Game Concerns

The Legal Framework for Computer Games and Child Protection in Germany¹

STEPHAN DREYER

The German legal framework for protecting minors against harmful media is considered one of the most restrictive in the Western world. Current provisions encompass all types of electronic media including computer games; technical measures and parental control software are systematic measures put down in laws, and a state body can classify media content as harmful, resulting in far-reaching advertising and sales restrictions. The following contribution gives a short overview of the German regulatory framework regarding the protection of minors in the media, the underlying constitutional and societal concerns, its regulatory concepts and obligations for media outlets, game publishers and providers. While there is no game-specific legal framework – as all forms of media fall within the scope of the existing provisions – there are some computer game-specific considerations that the text will focus on, where necessary.

YOUTH PROTECTION IN GERMANY: A CONSTITUTIONAL MATTER OF CONCERN

In Germany, the lawmaker is not free to decide on how to shape legal means to ensure youth protection in the media – or whether to establish any legal framework at all: There are constitutional warranties in place that oblige the legislator to provide a legal framework in this area. The following chapter describes the guidelines of this constitutional framework.

¹ This text is partly based on Dreyer (2013). Parts of the text have been translated, tailored to computer games specifically and updated where appropriate.

Constitutional Protection of Unimpeded Personality Development

In the German constitution (*Grundgesetz* [GG]), the only specific references to the protection of minors can be found in GG art. 5, sec. 2 (media freedoms) and – less specific – in GG art. 6 (parental rights). According to GG, the only limitations to the provisions concerning freedoms of communication and the media are to be found “in the provisions of general laws, in provisions for the protection of young persons, and in the right to personal honour” (art. 5, sec. 2). Thus, the legislator is allowed – but not obliged – to intervene in the fundamental rights of developers, producers and providers for the purpose of youth protection. Further, GG art. 6, sec. 2 also explicitly mentions children, stating that it is the parents’ natural right to educate their children, while it is the state’s duty to watch over the parent’s implementation.

Based on constitutional case law, though, GG art. 2, sec. 1 (general freedom of action) in connection with GG art. 1, sec. 1 (human dignity) is interpreted by the Federal Constitutional Court (*Bundesverfassungsgericht* [BVerfG]) as a positive obligation for the legislator to establish a legal framework aiming at youth protection. The concerns this interpretation is based on are potential situations that impair the universal right of personal development (*Persönlichkeitsentwicklungs- und -entfaltungsrecht*, cf. Engels [1997]) in a free and undisturbed way. Discerning such a positive state obligation out of human rights is a rather rare concept in constitutional theory, but rather common in German constitutional law. With regard to minors, the obligation to protection is interpreted in such a way that the state *must* establish a regulatory framework that aims at enabling minors to become self-determined and responsible people within the social community. This includes the requirement to set up rules helping minors to develop in media environments with as little negative impact from unsuitable media content as possible. Thus, the legal framework has to react to concerns based on potential negative influences that could lead to significant development impairments that are difficult or impossible to remediate (see BVerfGE 30, 336 [347]). Therefore, such constitutional concerns result in the general aim of youth protection in the media *to effectively reduce media-induced development risks*.

The basic objective of these constitutional provisions is to ensure that every child is able to develop under conditions of equal opportunity and according to his/her individual needs and abilities (see BVerfGE 24, 119 [144]; 57, 361 [383]; 99, 145 [p. 156]). Here, the constitution does not dictate more specific ideals or desirable individual character traits other than becoming a self-determined and responsible individual within the social community. In view of the agreed insights

of media effects research, the legislator cannot rely on clear, causal findings for many potentially detrimental media contents. However, since the constitutional matter of concern is aimed at retaining an unimpaired development phase, the legislator is not obliged to wait for evidence-based proof concerning actual media effects to regulate. He rather is empowered to act on behalf of his constitutional duty already in cases of weak assumptions or first hints of impairing media effects. A limitation of legislative action in this field would only be reached if there is agreed evidence that specific media content does *not* have any negative effects on the development of a personality in the above-mentioned sense. Within this rather risk-oriented constitutional concern the legislator has quite a scope of action when it comes to develop the regulatory approach, to shape the legislative provisions and to choose specific legal instruments, as long as they seem adequate to reach the given goals. This scope of action – the so-called *Einschätzungsprärogative* (leeway in decision-making) – is, however, subject to limitations that arise mainly from the following conflicting fundamental rights. The constitutional concern about impairing media content here encounters constitutional matters of concern with regard to the following, potentially conflicting fundamental freedoms.

Parenting Rights and the State's Guardianship

A first limitation arises from the primacy of parental rights: According to GG art. 6, sec. 2, parents are authorized and obliged to bring up and take care of their children. Based on the assumption that minors need protection and assistance to become responsible members of a social community, the constitution assigns this task primarily to the parents (Schulz, 2012, rec. 14). This is done under the impression that “in most cases, the parents will be more concerned about their child’s wellbeing than any other person or institution” (see BVerfGE 59, 360 [376]; 61, 358 [371], my translation).

Here, the Federal Constitutional Court draws attention to a special aspect of parents’ rights, according to GG art. 6, sec. 2: Unlike other constitutional freedoms, it is not the parents who actually hold the right to educate, in the sense of pursuing their *own* interests. By practicing their parental rights, the parents rather act *on behalf of the children* and pursuing *their* interests, meaning that they are in fact trusted with protecting the rights of their children (see BVerfGE 24, 119 [124]; 59, 360 [376]). Thus, it is clear that the matters of concern of both the constitutional protection against harmful media content and the objectives of the entrusted parents’ rights overlap to a great degree. The difference is that the parents’ rights clearly define that it is the *parents* who are obliged in the first place to keep their children safe from harm by negative (media) influences as far as possible,

ensuring an unimpaired personality development. And it is the responsibility of the *parents* to decide how they want to fulfil this obligation in detail. According to GG art. 6, sec. 2, parents are also free to follow different concepts or forms of nursing and education.

However, in cases where parents fail in fulfilling their duties the state's guardianship duty comes into effect: In such occasions, the state can – and must, as the right to unimpeded personality development is considered a constitutional obligation – intervene, overruling the parental authority with statutory measures. Such interventions are first and foremost supposed to support the parents in putting their educational concepts into practice (again). The state cannot take over the parents' privileges completely unless they are simply unable to cope themselves or unless there are clear cases of parental misconduct, e.g. in the sense that they fail to act on behalf of their children and to protect their development. With regard to media use, parents will usually not be able to exert extensive control, at least not at all times, especially due to mobile end devices. In everyday life, parents thus have to rely on a *basic level* of protection to ensure that children and adolescents are able to grow up without media-related impairments.

Conflicting Fundamental Rights of Third Parties

The legislators' constitutional duties regarding the protection of minors also have to consider the fundamental rights of third parties (especially media professionals, content producers, distributors and providers), as well as other adult media users in general. The state is obliged to ensure that the state's youth protection measures do not lead to disproportionate interferences with these parties' rights and freedoms, e.g. their freedom of expression and freedom of information, media freedoms, freedom of the arts, ownership rights or occupational freedoms (GG art. 5, 12; 14). Here, the legislator has to carefully balance the conflicting rights of the two sides (see BVerfGE 30, 336 [348]).

If youth protection regulations interfere with media operations, the legislator has to consider the essence of GG art. 19, sec. 2, according to which the core aspects of the freedom rights are inviolable. While restrictions of media freedoms are generally possible with regard to GG art. 5, sec. 2, the lawmaker has to ensure that the youth protection measures do not lead to unreasonable impediments for adults – and partially, with growing age, also for adolescents – regarding their access to unrestricted media content.

The Prohibition of Censorship

In the context of balancing conflicting fundamental rights – be it legislation or administrative measures – the prohibition of censorship in GG art. 5, sec. 1, cl. 3 is a distinct limitation, prohibiting any provisions or decisions that require communication content to be *systematically* approved of *before* it is published by a *state institution* (Hopf, 2000, p. 741).

In German public debates, youth protection measures are at times seen as equivalent to censorship. In constitutional terms, however, many of the cases discussed do not meet the requirements mentioned above and hence cannot be seen as illegal censorship in a constitutional sense: In current legislation media content is usually either banned by a state institution *after* its publication (e.g. put on the *Index* by the Federal Review Board for Media Harmful to Minors [*Bundesprüfstelle für jugendgefährdende Medien*, BPjM] or banned by the state media authorities, see below), it is age classified by a *non-regulatory body* (e.g. examination by a self-regulatory body), or it is held back by a state agency, but *not systematically* – for example based on a statutory obligation to have specific contents authorized (Erdemir, 2015a, rec. 19). Before this background, the constitutional prohibition of censorship sets another concern-based limitation for shaping youth media protection.

Interim Findings: Constitutional Concerns in Youth Media Protection Regulation

The constitutional concern to protect minors conflicts with several fundamental rights, resulting in a paradoxical situation for the legislator: On the one hand, the lawmaker has to ensure that minors are protected from harmful media content in an effective manner. On the other hand, these legal provisions must interfere with the conflicting fundamental rights as little as possible. Altogether, this obliges the legislator to find a balance between these conflicting concerns. The aim, therefore, is not to create the most effective youth protection framework that one can think of, but rather to regularly reassess possible improvements regarding the balancing of these conflicting concerns, i.e. to check whether it is possible to reduce interventions with fundamental rights of third parties without risking problems regarding an unimpaired personality development.

To take measures against the constitutional concern about impairing media content, the state can rely on (negative) statutory instruments such as bans, obligations to reduce contact risks, publication restrictions as well as accompanying

measures of supervision on the one hand. On the other hand, legislators can establish preventive media protection initiatives, for example by means to strengthen media-competence and self-protection, by promoting child-specific content or by encouraging transparency regarding potentially impairing content, e.g. by age labels or content descriptors.

The duty to minimise contact risks with harmful media content is determined by the privilege of *parental primacy*, meaning that the legislator has to give preference to such statutory measures that allow parents to follow the respective individual concepts of (media) education (see Erdemir, 2015a, rec. 22). A conflicting constitutional concern is to respect third parties' rights to freedom of information, which implies that youth protection measures have to aim at reducing media-related contact risks *for minors* specifically. In fact, legislators have to balance antagonistic constitutional concerns when shaping youth media protection regulations.

Last but not least, legislators must respect general legislative principles such as the principle of legal certainty: According to GG art. 20, sec. 3 laws must be as specific as possible “with regard to the nature of the area of life and to the purpose of the law” (see BVerfGE 49, 168 [181], my translation).

ADDRESSING LEGAL CONCERNS ABOUT HARMFUL MEDIA CONTENT: TWO LAWS AND MANY TYPES OF MEDIA

Unsurprisingly, legislation in Germany has taken over the task to reacting to the explained constitutional concerns. However, implementing constitutional media protection obligations is complicated by the fact that the constitutionally granted legislative powers, i.e. the question *which* legislator in a federal republic is entitled to pass sector-specific legislation are far from clear in the field of youth media protection. Generally, it is the individual *Länder* (the 16 states' parliaments) that are responsible to adopt laws, unless there is a constitutional assignment according to which the legislative powers reside in the federal state, i.e. the federal parliament (*Bundestag*).

In the context of child protection and harmful media, though, there are aspects of concurrent legislation that suggest a competence of federal legislation: According to GG art. 72, sec. 2, the federal state is responsible for the areas of commercial law and public welfare (at least to the extent that the establishment of equivalent living conditions throughout the federal territory or the maintenance of legal or economic unity renders federal regulation necessary).

The position of the federal government before the background of these conflicting competencies now is that it has the right to regulate in this context, while the *Länder* claim to be solely responsible for measures of youth *media* protection, as this is deemed an ancillary competence to their legislative powers in the areas of broadcasting and mass media (Langenfeld, 2003, p. 305; Schulz & Held, 2012, rec. 39). In current practice, the different interpretations have led to legislative activities on *both* levels – laws concerning the protection of minors against harmful media can be found on *Länder* level as well as on federal state level. These respective laws of the federal government and of the *Länder* aim at the same goals: Both laws set rules to keep youths from getting in contact with harmful media content. Regarding the regulatory implementation of this objective, both laws follow quite different concepts. Partly due to the different types of media and the respective distribution channels (online vs offline media) and partly due to the differences in the regulatory paths of federal and state law. Ultimately, however, they also follow different political intentions.

Protection of Young Persons Act: Retail Computer Games and Movies

The German Protection of Young Persons Act (*Jugendschutzgesetz* [JuSchG]) primarily focuses on content that is not to be classified as electronically distributed media. Thus, it is primarily tailored to film screenings and movie DVDs/Blu-Rays, arcade games, computer games, as well as other media content distributed via retail on solid *data media or data storages*. According to Protection of Young Persons Act a data medium is a physical medium that “carr[ies] text, pictures or sound [that are either] suitable for transfer or direct perception or [that are] built into projectors or game machines” (§ 1, sec 2, cl. 1). Back when the act was drafted (2002), the legislator clearly focused on common media at that time, especially movie and video tapes and disks. Apart from that, the Protection of Young Persons Act also lists other specific types of carrier media, namely “data media” (§ 12, sec. 1) and “films as well as film and play programmes” (§ 14, sec. 1).

The act relies on admission control and on restrictions regarding sales and distribution. As the Protection of Young Persons Act focuses on solid media carriers and on public presentations, it is reasonable to implement provisions obliging the publishers as well as those who provide individual access to the contents, such as cashiers in cinemas, video stores and retail outlets. Regarding relevant media content, the Protection of Young Persons Act distinguishes between impairing content (media that might impair the minors’ development) and harmful content (media

that are harmful for minors), leading to graduated legal restrictions and requirements: For content that is rated as possibly impairing to the free development of personality, the act requires measures to ensure that this kind of media – movies in cinemas, computer game equipment as well as data carriers with videos or game software – may only be accessible to adults, unless the publisher makes use of the voluntary possibility to have it age-classified by a self-regulatory body (Protection of Young Persons Act, § 12, sec. 3). After examining the content, the self-regulatory body might come to the conclusion that it is also safe for younger age groups and thus decide on an according age rating. Possible age ratings in Germany are “without age restriction”, released for audiences as of six, twelve or sixteen years of age, as well as restricted to adults (“no clearance for minors”) (Protection of Young Persons Act, § 14, sec. 2). In other words: All unrated products are deemed adults-only and publishers have to opt-in into age classification procedures to get an age label. The system is supposed to ensure that unlabelled films and carrier media will only be made available to adults.

As a consequence of the applied age labels, age restricted content is not to be made available to persons who have not yet reached the appropriate age group. Movie theatre personnel are not allowed to let minors below this age into the respective showrooms, retail personnel are not allowed to sell such products to respective youngsters. However, providers are allowed to label harmless films or movie/gaming software that are intended for purposes of information, instruction and teaching as “Information” or “Education”, meaning that no age restrictions apply (Protection of Young Persons Act, § 14, sec. 7; § 12, sec. 1).

The JuSchG is not specific about who is responsible for the actual age rating in the case that a publisher wants to acquire an age label. This can be done by the competent *Länder* authorities, tasked with the implementation of the Protection of Young Persons Act, or an organisation of voluntary self-control (Protection of Young Persons Act, § 12, sec. 2). Co-operations between the authorities and organisations of voluntary self-control are possible as well, given that the *Länder* authorities adapt the self-control organisation’s decision as their own (Protection of Young Persons Act, § 14, sec. 6). In current practice, the latter possibility serves as a basis for co-operations between the *Länder* and the film industry (*Freiwillige Kontrolle der Filmwirtschaft* [FSK]) and the entertainment software industry (*Unterhaltungssoftware-Selbstkontrolle* [USK]). In both cases the distributor/publisher voluntarily requests an age rating from the respective self-regulatory body before publication; a representative of the competent *Länder* authorities will then endorse this decision and issue a respective official age label. This is the reason why virtually all computer games in German retail carry an USK age label; how-

ever, since most game publishers market their German game versions also in Austria and Switzerland, many game boxes show the PEGI label in parallel. At times, when the age labels by USK and by PEGI differ from each other, parents deem this contradictory.

Concerning *adult content* – in the sense of legal media content that is considered as harmful for minors – the Protection of Young Persons Act provides for stricter measures to prevent children and adolescents from getting into contact with such contents: On the one hand, the *Bundesprüfstelle für jugendgefährdende Medien* (BPjM) adds impairing media to its list of harmful media, the so-called *Index*. Listed contents are subject to far-reaching restrictions concerning access, presentation, sale, distribution and advertising (Protection of Young Persons Act, § 15, sec. 1). Apart from carrier media, the agency can also add so-called *telemedia*, i.e. URL-based content, to the list, provided that the competent *Länder* authority (KJM, see below) issues an according statement.

In cooperation with the FSM, a self-regulatory body in the field of online media, the BPjM also provides the so-called *BPjM-Module*, an encrypted list of domains and URLs concerning banned foreign *telemedia*. Providers of parental control or filter software can implement this list as a (additional) blacklist into their products to block the respective URLs. Currently, the *BPjM-Module* is also used by German search engines providers as a means to filter search results for all their users. People or companies affected by a BPjM decision are free to initiate administrative and legal proceedings against such decisions, inter alia, right to be heard, objection, action for annulment. The same restrictions that apply to harmful media content hold true for carrier media content that is *severely harmful* to minors (*schwer jugendgefährdend*). Restrictions for such obviously offending content apply before (and without) any formal decision of the BPjM (Protection of Young Persons Act, § 15, sec. 2). This includes, inter alia, carrier media that are to be seen as violations of certain criminal law provisions – including incitement to hatred (*Volksverhetzung*), extremely realistic, cruel and sensational presentations of violence, pornography, content that glorifies war, that is to be seen as a violation of the right to human dignity, that depict minors in unnatural or sexually explicit postures, or, as a subsidiary provision, is likely to “have a severely damaging impact on the development and education of *Children* and *Adolescents* to responsible personalities in society” (Protection of Young Persons Act, § 15, sec. 2, pt. 5, emphasis in original). Here the publisher has to assess the media content beforehand to exclude that the product to be published contains respective depictions.

The general municipal public order offices (*Ordnungsämter*) are responsible for monitoring the implementation of the Protection of Young Persons Act. Violations can be punished with prison sentences and fines of up to 50,000 €; however, the fines are usually lower especially for smaller or one-time offences.

Interstate Treaty on the Protection of Minors: Electronically Transmitted Media

In the field of *Länder* legislation, the parliaments of the 16 *Länder* operate on the basis of an interstate treaty: All prime ministers of the *Länder* sign a treaty that provides for final arrangements which serve as a basis for laws that are then ratified by the respective *Länder* parliaments. As a result, the provisions of the Interstate Treaty on the Protection of Human Dignity and the Protection of Minors in Broadcasting and in Telemedia (short: Interstate Treaty on the Protection of Minors [*Jugendmedienschutz-Staatsvertrag* (JMStV)]) have become valid laws in all *Länder*, resulting in nationwide applicable rules for electronically distributed/transmitted media services. Other than the JuSchG, which focuses on media content on data carriers, the JMStV is therefore primarily aimed at broadcasting services and *telemedia*, i.e. content provided via online services. In practice, the scope of *telemedia* covers just about all electronic online media, including private and commercial websites, e-mail services, shopping and video-on-demand portals, app stores and downloadable apps, social networking platforms, browser games and content provided by file sharing services (cf. Erdemir, 2015b, rec. 9).

The Interstate Treaty on the Protection of Minors uses access and distribution restrictions to prevent children and adolescents from getting in contact with same kind of problematic contents as the Protection of Young Persons Act. Regarding the instruments, however, the law draws on other concepts – partly due to the fact that the Interstate Treaty on the Protection of Minors focuses on offers that are based on electronic transmission and partly because of the vast range of offers, especially on the Internet.

Just as the Protection of Young Persons Act, the Interstate Treaty on the Protection of Minors distinguishes different categories of content relevant to youth protection, linked to graduated restrictions: The JMStV categorises content that always is illegal, content that is legal only under specific circumstances (and implementing protection measures) and content that is ‘only’ impairing children’s development:

- According to Interstate Treaty on the Protection of Minors art. 4, sec. 1, content is defined as *absolutely illegal* if it contains propaganda and symbols of unconstitutional organisations or racism, if it incites hatred, glorifies war or violates human dignity. Furthermore, content is absolutely illegal if it presents children or adolescents in unnatural or sexually explicit poses, contains hard pornographic images – especially involving violence, child abuse or animal pornography – as well as content that is wholly or largely identical with any work on the BPjM’s Index of harmful media. Content that is to be seen as absolutely illegal can never be made available legally, not even in case of technological protection measures.
- Interstate Treaty on the Protection of Minors, art. 4, sec. 2 refers to *relatively illegal* content: Although basically not permitted, content with e.g. depictions of pornography or violence can, as an exception, be made available by online services, given that the provider is able to ensure that only adults will have access. Here, the provider must establish a so-called *restricted user group* by maintaining a strict age verification routine (see Liesching [2008]). Relatively illegal content can be pornographic content, content that is listed on the *Index*, as well as content that is “evidently suited to seriously impair the development of children and adolescents or their education into self-responsible and socially competent personalities, ‘taking into account the specific effect of the media via which the content is provided’” (Interstate Treaty on the Protection of Minors, art. 4, sec. 2). In broadcasting, such content is absolutely prohibited.
- The third category of relevant content within the scope of the Interstate Treaty on the Protection of Minors concerns *development-impairing content*: Here, the *Länder* legislators assume – similar to the *Bundestag* in the scope of the Protection of Young Persons Act regarding media that might affect the development of young people that such content is ‘merely’ suited to impair personality development, in contrast to a presumed serious impairment. Thus, according to Interstate Treaty on the Protection of Minors, art. 5, sec. 1, providers must ensure that problematic pieces of media are only made available to children and adolescents that have reached the appropriate minimum age. For this purpose, Interstate Treaty on the Protection of Minors, art. 5, sec. 3 lists so-called technical measures to meet the obligation – applying an electronic label that matches approved parental control software (Dreyer & Hajok, 2012), implement identity card-based or other age verification checks or deploy time-based watersheds.

Content that, based on the Protection of Young Persons Act has already been rated for certain age groups is, *mutatis mutandis*, automatically deemed as impairing for the respective age groups – the ratings of the FSK and the USK are applied in the

scope of the Interstate Treaty on the Protection of Minors accordingly. Furthermore, the provider is obliged to display these age classifications, e.g. in online shops or within catalogues of video on demand services (Interstate Treaty on the Protection of Minors, art. 12; Protection of Young Persons Act, § 12, sec. 2, cl. 3.). If, however, a certain work has not been rated based on the Protection of Young Persons Act, the Interstate Treaty on the Protection of Minors refers to the principle of self-regulation: The provider can decide on her own on an appropriate age-rating (possibly with the help of a competent state authority) or join an approved voluntary self-regulation body – which are the *Freiwillige Selbstkontrolle Fernsehen* (FSF), the *Freiwillige Selbstkontrolle Multimedia-Diensteanbieter* (FSM) as well as the FSK and the USK, who are also officially approved within the Interstate Treaty on the Protection of Minors framework.

The Interstate Treaty on the Protection of Minors features a rather new concept of governance – that of *regulated self-regulation* or *co-regulation* (Schulz & Held, 2012, rec. 21). If a content provider joins a voluntary self-regulation body and if this body decides that some specific TV or *telemédia* content is suitable for a certain age group, it is not possible for the state supervisory body to initiate any regulatory actions against the provider, as long as the voluntary self-regulation body decided within its scope for decision-making (see Rossen-Stadtfield [2008]). For the provider, joining a self-regulatory body or having content age-rated by such an organization works as a ‘protective shield’ against supervisory measures by the competent state bodies. The Interstate Treaty on the Protection of Minors lists requirements according to which the self-regulatory bodies have to be formally approved in advance. Further, the legislator has provided a severe sanction against self-regulation bodies: The withdrawal of their formal approval.

The provisions of the Interstate Treaty on the Protection of Minors affect broadcasters and providers of *telemédia* contents. Broadcasters and content providers are obliged to take precautions in terms of youth protection – or they have to refrain from keeping inappropriate content available. It is the media authorities of the *Länder* (*Landesmedienanstalten*) that are responsible for monitoring the protection of minors in broadcasting and *telemédia* as well as regarding the activities of the self-regulatory bodies. To this end, the Interstate Treaty on the Protection of Minors provides for a central institution to carry out audits and make decisions on behalf of the respective media authority: The Commission for the Protection of Minors in the Media (*Kommission für Jugendmedienschutz* [KJM]). The state media authorities can file objections against content violating the Interstate Treaty on the Protection of Minors – and force broadcasters and content providers to delete the respective content. Apart from that, the KJM can impose prison sen-

tences and fines of up to 500,000 € (again, fines are usually a lot smaller in practice). In case a violation is to be regarded as a criminal offense, a public prosecutor will take over the investigation.

Excursion: Media-related Criminal Law

In addition to the legal framework of youth media protection, the general criminal code (*Strafgesetzbuch* [StGB]) also contains media content-related provisions that are enforced by penalty – especially regarding the publication of Nazi propaganda, depictions of stark violence and certain forms of pornography (involving children/adolescents or violence). Also, there are further penal provisions that can be connected to the scope of media publications, such as the protection of honour (insults, defamation, slander) and the protection of certain areas of personal life and secrecy (violations of the privacy of the spoken or written word, violations of intimate privacy by taking pictures, data espionage).

However, these media content-related criminal laws do not only originate from attempts to react to minors-related concerns but are aimed to pursue additional objectives, such as the protection of honour (violations of honour), the protection of public order (propaganda offenses), sexual self-determination as well as human dignity. Thus, criminal law provisions go beyond the scope of merely protecting children and minors; their purpose also lies in the *protection of adults* (Erdemir, 2015a, rec. 16).

Convergence of the Media – Convergence of the Law?

Comparing the two legal frameworks in Germany reacting to media-specific concerns as regards potentially detrimental effects for minors, it must be noted that – to some extent – the *Länder* parliaments and the state legislator draw on different regulatory approaches, requirements and practical implementation principles. Comparing the systems with regard to general governance concepts, age-rating procedures as well as the setup of self-regulatory bodies, the following statements about differences between the two approaches can be made:

- For films, video games and computer games in retail, the system based on the Protection of Young Persons Act provides for voluntary prior assessment by self-regulatory bodies, any self-assessment would result in significant access restrictions. State authorities are involved in the process of age-ratings of the self-regulatory bodies and state agencies have influence on the committees that issue final decisions concerning appeals against decisions. Due to these spheres

of influence, the regulatory concept of the Protection of Young Persons Act does not have to focus on means to monitor the self-regulatory bodies. Regarding age classified products (in particular in cinemas, video rentals, mail orders and retail), it is the local public order offices or commercial supervisory authorities that are responsible for monitoring, for enforcing compliance with the access- and sales-related restrictions and for punishing violations – backed by the law enforcement authorities in severe cases. The ‘incentive’ of having carrier media assessed by voluntary self-regulatory bodies is that unlabelled products ought to be made available only to adults.

- In contrast, self-regulatory bodies within the scope of the Interstate Treaty on the Protection of Minors have to be officially approved. After approval, it can act autonomously and without further state intervention or participation. The state (in this case the KJM, as an organ of the media authorities of the *Länder*) is responsible for checking whether – or to what extent – the decisions of the self-regulatory bodies are in accordance with the Interstate Treaty on the Protection of Minors. Based on the Interstate Treaty, the *Länder* can only take restrictive actions against certain media content *after* its publication; either against the self-regulatory body in cases of transgressions of competences (withdrawal of recognition) or against the provider (general supervisory instruments in the scope of media law: complaints, cease-and-desist-orders, fines, etc.). If a certain content was legitimately cleared by a self-regulatory body, the state has no further possibility to intervene, while in the area of the Protection of Young Persons Act, the *Länder* representative endorses and executes the age rating during the procedure. In contrast, the age-related assessment of content within the scope of the Interstate Treaty on the Protection of Minors is based on the principle of self-assessment by the provider (or its youth protection representative) and, if necessary, the deployment of adequate measures of protection.

In addition to the governance concepts, there are particularly dynamic developments in the fields of electronic information and communication, e.g. regarding the involved providers, the variety in content itself, as well as the patterns of media usage: The overall number and structure of providers as well as their respective content is subject to changes in the underlying technology – some of them quite profound – that pose fundamental challenges to (not only) the legal concepts. This is where traditional regulatory approaches currently are challenged to meet the expectations towards an up-to-date youth protection framework. For example, it is not always possible to differentiate whether it is the provisions of the Protection of Young Persons Act or the Interstate Treaty on the Protection of Minors that apply, as in individual cases where it is difficult to decide whether the subject

matter is about a data carrier medium or a *telemedium*, e.g. computer games sold on discs but played online or with additional online-functionalities (Baumann & Hofmann, 2010).

In addition to the duality of the legislative texts and the possible contextual overlaps, there are different takes on regulatory instruments, as well as differently configured self-regulatory bodies and corresponding decision-making procedures. Thus, content producers have to cope with increasing complexity – and legal uncertainty. There have been slight improvements for cross-media publishers of movies and games, due to the fact that the FSK and the USK can issue age classifications within both legal contexts, offering their members age-rating services with regard to both the Protection of Young Persons Act and the Interstate Treaty on the Protection of Minors: the FSK for movies that are available on online services (only) and the USK for e.g. browser games and online games.

A first major amendment for the Interstate Treaty on the Protection of Minors (which ultimately failed) was presented in 2010, as an attempt to harmonise interfaces and interconnection points of the laws (Braml & Hopf, 2010). More recently, a smaller update of the Interstate Treaty on the Protection of Minors became effective in October 2016, providing for mutual recognition of the respective age classifications of the two legal frameworks. Basically, regulations like such are suitable to resolve the duality of the German youth protection laws to a certain extent, or at least to harmonise the provisions to make them more practicable for the affected providers. However, the latest amendments will not lead to a substantially improved delineation or even to a successful integration of the different standards of protection into one convergent, cross-media framework (Dreyer & Schulz, 2015).

YOUTH PROTECTION GOVERNANCE AS PLAYING VABANQUE: BALANCING CONFLICTING INTERESTS OF PROVIDERS, PARENTS, ADULTS AND CHILDREN

German youth protection laws are considered very restrictive compared to the rest of the Western world (Naumann, 2009, p. 44). The duality of the two different legal frameworks – the Protection of Young Persons Act and the Interstate Treaty on the Protection of Minors – and the respective processes and procedures have led to a complex system with many institutional bodies and even more stakeholders, or affected/interested parties in the broader sense. If there are public hearings or discussions concerning this field of regulation, there are often more than 100 institutions on the list of participants, sometimes with quite contradictory interests.

Impairing computer game content has been one of the central points in the policy debate between 2002 and 2012; since then the public discourse broadened and currently rather focusses on aspects like addiction and excessive usage, bullying and hate speech, as well as consumer protection issues in view of micropayments and freemium games.

Due to the cacophony of interests and strategies in Germany, youth protection issues play an important role in political and public debates – reflecting the diversity of the underlying constitutional obligations and relevant protected freedom rights that form a scope of action for legislation concerning the field of youth protection in the media. In practice, the advantage of the public discourse is that the discussions, debates and arguments regarding the protection of minors lead to increased reflections about the underlying social values. The latter aspect is especially important, because value shifts that take place over years or decades might otherwise not be taken into account in the scope of youth protection legislation – or at least not early enough.

Due to the fact that the different legal requirements towards the statutory means of youth protection and the aspect of conflicting interest of third parties are focused on a more theoretical concept of control, the legislator has to initiate specific regulatory measures to safeguard the balancing of the protective duties and freedom rights within this ‘gamble’ and within a technically and socially highly dynamic field, based on modern legislative resources such as impact assessment, continuous monitoring of the respective real-life sphere and its development, evaluations, risk management initiatives as well as enforcement control (Ladeur & Wehsack, 2009). Due to the mentioned obligation to optimisation and the legislator’s duty to carry out recurring adaptations, youth media protection governance is highly demanding as it has to encompass dynamic market changes as well as legal flexibility, reversibility and reflexivity.

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The Political and Legal Basis for Labelling of Computer Games in Denmark¹

CLAUS HJORTH

In accordance with the Danish Film Act No. 189 from 12 March 1997 the Media Council for Children and Young People was set up by the Minister of Culture as an independent council covering film classification and children and young people's use of digital media. Moreover, the Council works as the Danish Awareness Centre within the framework of the EU Connecting Europe Facility Programme. The Danish Film Institute (DFI) has the organizational responsibility for the secretariat.

No Danish rules have been set on the labelling of games sold or leased in the Executive Order of the Media Council. The comments to Art. 19, Sec. 1 of the Film Act (Lov om film, 1997), however, indicate that “[...] the guidance may accordingly, in addition to film, also include certain types of multimedia productions and computer games” (Comments to the Bill).

The Media Council's management task – both the governmental assignment as well as the counselling and guidance assignment – in the gaming area is to some extent undecided, taking into account that there is not allocated separate government funding for counselling within the gaming area.

THE PEGI SYSTEM

The Pan-European Game Information (PEGI) system was established in 2003, where a series of national labelling systems for computer games was replaced by

1 This text is a reproduction of the Media Council's contribution to the Ministry of Culture's investigations on child protection in relation to digital media (May 2016).

a common European industry-based labelling system. 31 European countries have signed up to the rating system, in the sense that the national and international publishers in each country have committed themselves to put a label on nationally-released games according to the common criteria. This includes publishers in Denmark, which are organised in the *Multimedieforeningen* (MUF) (Multimedia Association)².

In 2003, the Danish government gave its support to the PEGI system, because it considered the plan to be a more appropriate alternative compared to a Denmark-specific labelling system. It must be emphasised, however, that Danish legislation has not included a provision to state that games published in Denmark have to be labelled according to the common European labelling system PEGI. Moreover, the Media Council's tasks in connection with participation in the PEGI system's professional bodies, guidance and communication, was not clarified.

In the PEGI system, the games are labelled with an age tag and symbols which describe the content – e.g. violence, sex, forbidden drugs, language, etc. PEGI's Danish information website³ states that “[a]ge ratings provide guidance to consumers (particularly parents) to help them decide whether or not to buy a particular product [...] The PEGI rating considers the age suitability of a game, not the level of difficulty [...] PEGI is used and recognised throughout Europe and has the enthusiastic support of the European Commission. It is considered to be a model of European harmonisation in the field of the protection of children”⁴ (PEGI, n.d.).

All games distributed by a developer to Microsoft, Nintendo and Sony game consoles have to be labelled according to the PEGI system upon request from these groups. The same applies to PC games from all the biggest European and American publishers. In practice, the PEGI system covers all the physical market for games sold in Europe.

PEGI has stated that between 1500 and 2500 games were rated annually between the years 2003-13. The number varies considerably in close conjunction with, in particular, the cyclical nature of the console market (following the intervals for marketing of new consoles).

The biggest challenge of the PEGI system is the increasing digital distribution of games (which also exists in physical trade) and the new app-based game for-

2 *Multimedieforeningen* (MUF) is a trade association for media companies in Denmark (www.muf.dk).

3 www.pegi.info

4 This quote is taken from PEGI's UK page, which is a direct translation of the Danish page (or vice versa), see the literature list.

mats for tablets and mobiles based on Apple, Microsoft and Google operating systems. The digital trade in games has grown exponentially since 2011. In Denmark, digital revenue in 2013 made up 66 per cent of the total market – the largest market share in the Nordic region. In this connection, PEGI has stated that it is working to develop a digital solution; so that users purchasing their games in digital form are presented with the PEGI labelling (the solution is called IARC⁵). However, this solution will not cover app games for Apple, as it has been reported that Google has joined the IARC.

The Media Council for Children and Young People has occasionally assisted the MUF in raising awareness of the PEGI system. The Media Council's communication emphasises the indicative and thus non-binding nature of the system, and the Media Council reserves the right to disagree with the specific age and symbol statements.

OTHER GUIDANCE AND ADVICE

On 4 April 2014, the Ministry of Culture requested, by letter, that the Media Council “[...] assess the need for a Danish labelling system and account for the possibilities for doing so, including the financing of a Danish labelling system. The existing movie labelling system was the inspiration for this. The Ministry of Culture must ask the Media Council for Children and Young People to involve other stakeholders in assessing the need for a Danish labelling system” (my translation).

In April 2014, the Media Council held a workshop entitled *The Media Council's role in the computer game area – What should a knowledge centre do?* (my translation). The workshop was the second in a series about the development of games and children's and young people's use of games. They held the first workshop in February 2014 and it was entitled *What is good gaming culture for children and young people?* (my translation). Both workshops were launched with a view to discuss current problems and development opportunities in relation to children and young people's gaming culture. Educators, teachers, librarians, researchers and the gaming business participated in the workshops.

The Media Council's overall impression from the workshops and meetings held was that it is very difficult to imagine a Danish labelling system for games which can replace PEGI. A purely Danish system with the same coverage will be very resource-demanding for the industry, especially if the industry is supposed to pay for the labelling. There will also be the considerable risk that the sales people

5 International Age Rating Coalition. <https://www.globalratings.com/>

in the games market will find other ways to sell their product to the Danish consumers outside of a Danish system – if, for example, the games are not labelled and sold in Denmark but are only sold through online services and parallel imports, etc.

The two workshops – and the current debate – show that there is a great need for more customised counselling/guidance of children and young people’s use of games. The questions parents, recreational therapists and schoolteachers often ask include:

- Can kids play too much?
- For how many hours is it ok to play?
- Are computer games harmful or beneficial to children?
- Can the games make children insecure and anxious?
- Are computer games addictive?
- What skills can you achieve by playing?
- How can educators use games and digital media?
- Should you always follow the age label?
- Are some of the game types particularly dangerous?
- Should we, as parents, limit the use of games?
- What can you do to reduce the costs?

These questions come from the experiences and concerns of parents and educators in relation to children and young people’s preoccupation by specific games and their gaming habits. In Denmark, most of the youth centres have a gaming policy that focuses on the centre’s purchases and rules for the children’s use in the centres; but in Denmark there is no continuous collection and dissemination of knowledge about children’s and young people’s gaming consumption and culture specifically in relation to individual games.

Because of this, the Media Council has proposed that the Minister for Culture establishes a counselling system for children and young people’s use of selected games. It is crucial that the system addresses specific games that concern parents, professionals, children and young people at a given time – and is not only established as a general counselling system about children’s and young people’s gaming culture and consumption. It is the Council’s assessment that it will be max. 20-40 games annually which will attract major attention.

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Textual Co-Construction of Game and Player in German Rating Decisions

JAN SCHANK

One way to regulate concerns about the relations of computer games to children and adolescents is to assign age-ratings to games. According to paragraph 14 of the German *Jugendschutzgesetz* (henceforth JuSchG) – the Protection of Young Persons Act – these are legally required if a game is to be sold to minors. The organization USK¹ (Unterhaltungssoftware-Selbstkontrolle [Entertainment Software Self-Control]) is conducting a procedure to find the appropriate age from which on the game may be assumed not to “potentially impair the development and education of children and adolescents” (as the law phrases its protective aim in JuSchG, § 14, sec. 1). The results of the age-rating procedure are then written up into a text explaining the decision to the game publishers who have applied for the rating (and have the right to appeal the decision). When explaining or arguing decisions to rate a game, authors of the texts face multiple and potentially conflicting practical requirements, including the following: they are to provide a neutral and objective description of the game, which, at the same time, is able to provide an assessment of the game’s effects on minors’ education or development. The assessment must be written in such a way that it should be possible to read it as the result of a neutral and objective description of the game. The overall text itself must demonstrate that the game was comprehensively examined on its own terms and show the board’s professional expertise on children’s education and development.

How are these requirements met in and through the texts? And how does this relate to concerns about computer games and the relations young people develop with them? This chapter investigates members’ implicit textual methods for

1 www.usk.de

achieving these diverse and potentially conflicting requirements, based on a *membership categorization analysis* (Sacks, 1972a; b; 1992; Schegloff, 2007) of one exemplar out of a larger corpus of written decisions. The analysis is focused on the specific ways these texts categorize their primary object – the particular game in question. Looking more closely, however, the analysis reveals that this object comes in several versions – it is categorized in multiple ways throughout the text, due to the multiple demands such a text can expect to meet. Along with these multiple categorizations of the game, players/children are also categorized in multiple ways across the different sections of the text. The mutual recategorizations of the game and players/children are at the core of the situated methods (cf. Garfinkel, 1967) used by participants to find and argue the appropriate rating for the particular game.

My own reconstruction of these methods thus amounts to providing a detailed description of the specific ways in which the experts on the rating board deal with the relations that the particular game might enter *vis-à-vis* its players and the (possible, likely) effects arising from these relations in children of different age groups. In the context of an ongoing, heated and rather intractable debate² between calls for more *youth protection* (e.g. Nikles, Roll, Spürck & Umbach, 2003; Ukrow, 2004; Liesching & Schuster, 2011) and claims of *censorship* (e.g. Seim, 1997; Portz, 2013), the analytical sensibilities expressed by the approach suggested here can provide a foundation to go beyond such one-sided claims by showing how the practical requirements of rating games and the methods for their achievement, make both sides' claims possible – and, indeed, plausible – in the first place.

THE ORGANISATION USK: WHAT IS IT? WHAT DOES IT DO?

Day-to-day implementation of the most important regulations pertaining to computer games in Germany is done by an organization called the USK. The JuSchG prescribes that only games that do not “impair children’s and adolescents’ development or their education into a responsible person in society” may be sold to minors (art. 12, 14). The law also defines the age groups that are to be used for the rating system (0, 6, 12, 16 and 18). Strictly speaking, from a legal standpoint, the ratings are issued as administrative acts of the state youth authority. However,

2 This pattern seems not to be limited to debates on computer games, but rather to be typical of controversies about (new) technologies more generally: quite often, they tend to stabilize into hardened positions around a utopian and a dystopian pole.

JuSchG §14 contains a clause enabling the state youth authorities to set up a joint rating procedure with “organisations of voluntary self-control [...] supported by industrial association” (JuSchG, § 14, sec. 6, cl. 1). This is the USK. It was established as an independent not-for-profit company (gGmbH), set up by the two major industry associations (BUI³, G.A.M.E.⁴), to conduct the procedure and formally suggest an age-rating, which acquires legal force by the decision being taken on by a permanent representative of the state youth authorities at the USK. In practice, this means that each game is screened before a board composed of four independent experts plus a state representative as chair. They then deliberate and vote on the rating. After the procedure, one of the experts draws up a text describing the game and explaining/arguing the reasons for the decision. This is very important, since publishers (as well as the state representative) have the right to appeal the decision. In this sense, the written decisions are one of the central means by which the USK accomplish their task.

In the following sections, I will briefly sketch the legal background of rating games in Germany (see Dreyer [2018, this volume] for a more detailed account). The major part of this chapter will provide some insights from an analysis of the texts, focussing on one particular decision. I will show how different categorizations of both the game and the players/children⁵ enable the written decision to relate to the two in ways addressing the concerns about “impair[ments of] the development and education of children and adolescents” (JuSchG, § 14, sec. 1) in a recognisably balanced and objective fashion. In this, the textual methods of categorizing games and players/children are also methods for achieving exactly this balance and the readability of the game descriptions as objective.

3 *Bundesverband Interaktive Unterhaltungssoftware* (German Games Association, www.biu-online.de).

4 *Bundesverband der Deutschen Games-Branche* (Federal Association of the German Games Industry, game-bundesverband.de).

5 As I will show in the following, the human part of the game/player ensemble is categorized as either *player* or *children* in different parts of the decision texts. Because this difference is important for the analytical point I am trying to make, I use this construction to refer to both categorizations at once.

THE PLACE OF AGE-RATING GAMES IN THE LEGAL SYSTEM

Turning to the legal issues relating to the regulation of computer games, the legislation is concerned with balancing two potentially conflicting rights: the children's right to be protected and the right to freedom of expression. The name and substance of the relevant law emphasizes the former: The Youth Protection Act not only regulates sales of media products (on "data media", JuSchG, § 12, sec. 1, cl. 1) to minors, but also limits the latter's access to certain substances (alcohol, tobacco), places (gambling parlours, pubs and other kinds of entertainment sites) and events (most prominently cinema screenings and dances) which might expose minors to different kinds of risks. As pertains to the regulation of computer games and media generally, part of the legal concern is that restrictions on selling media products might unduly interfere with producers' and publishers' economic freedoms as well as their right to freely communicate their ideas, images and the like (Brunn et al., 2007; and Dreyer, 2018, this volume). Seen from that angle, what is officially labelled *youth protection* in the law might also amount to *media control* in the literature (e.g. Seim, 1997). Indeed, much academic literature in the fields of law and political science emphasizes this point (ibid.; Portz, 2013). On the other hand, much of the legal commentary and many practitioners' contributions emphasize the children's right to be protected (Büttner, 2002; Ukrow, 2004).

Academic as well as public debates about the regulation of games quite clearly follow this general pattern in their attempts to define what regulating computer games 'actually, really' is about – they usually attempt to find more or less hidden motives or mechanisms behind, or beyond, the attaching of labels to game covers and data carriers. Seim (1997) argues that the protection of minors is merely a convenient facade behind which, *actually*, elites work to sustain the distribution of power in society, implementing their own moral and ideological standards (we might call this the 'ideology/power thesis'). On the other hand, Ukrow's legal commentary (2004) argues that at least some computer games (and other media) can *really* impair children's education and development and therefore restricting minors' access to at least some of them is not only legally permissible but indeed necessary if the state is to guarantee the rights of its underage citizens (let's call this the 'media effects thesis').

To relate this more explicitly to the theme of the book, we may say that the law is concerned with balancing two different basic liberal-democratic rights (see Dreyer, 2018, this volume), whereas at least many of the contributions to academic and, particularly, public debates seem to be implicitly or explicitly concerned with the adequacy of this balance – either the regulations are seen as undue restrictions

of the freedom of expression, or as not being sensitive enough to the rights and needs of minors.

CATEGORIZING GAMES AND PLAYERS/CHILDREN

This section is dedicated to an analysis of one exemplary rating decision. The analysis illustrates some of the ways in which games and players/children are mutually configured throughout the text and how these configurations work upon the concerns relating to minors' relations with computer games. The analytical approach is informed by Ethnomethodology (cf. Garfinkel, 1967) and in particular by *membership categorization analysis (MCA)* (see Sacks, 1972 a; b; 1992). It is aimed at finding how categories are accomplished and used both in and through members' everyday practical activities. The activities most relevant in the context of this paper are those of describing and assessing a specific exemplar of a particular class of objects (i.e. a specific computer game) in relation to particular kinds of persons (i.e. children and adolescents). To accomplish these descriptions and assessments, the texts use, among other things, a specific formal structure: every rating decision is divided into three basic parts: a title page, where the object of the decision (the game) is categorized in several different ways; a section headed "description", where the game is described along with a generalized account of the player's activities; and a section headed "reasons" where the players are recategorized according to their age. I will discuss each in turn: the following section will reconstruct the sequence of categorizations of the object; the next will discuss one example of how players are categorized in the description sections; and the last section will show how players are recategorized in the reasons section.

It might be said that this analysis, in particular its obsession with the nitty-gritty details of categorizing game(s) and player(s) and its (overly?) "naïve" reading of the text (cf. Law [2002, p. 32] on the methodological fiction of the "naïve reader"), is making far too much of very little. After all, it is highly unlikely that anyone else will read these texts in such a curious and painstaking way as I do here. And can we really imagine the author of the decision sitting at her or his desk, in front of the computer screen wondering how to categorize the player in different ways and how merging them with the figure of the avatar is suitable for performing the immersive effects of the game in and through her or his text⁶? This

6 Thanks to Peter Larsen for questioning the adequacy of such an image during the 2015 workshop *Cultures of Video Game Concerns in International Comparative View* held at Ruhr-University in Bochum (cf. Sørensen, 2016).

would certainly be pushing the limits of plausibility. However, the point of such an analysis is not that these ethno-methods for assembling the texts are the outcome of an individual's conscious mental activity. The point is rather that these methods are the tacit means of a specific culture to produce actions to be recognisable in particular ways (cf. Sacks, 1992). Now, if these methods are this culture's means of producing actions *as* specifically recognisable, we can then ask what this recognisability achieves in and for this culture.

Categorizing Games

As should have become evident by now, the measure for rating games is whether or not a particular game might impair minors' "development and education" (JuSchG, §14, sec. 1), or whether such impairment can be safely excluded for all practical purposes. How is this relation of games and (underage) players achieved in practice? In my analysis of a selection of written decisions from the procedure, I have discovered that both games and players/children are categorized in multiple ways in these texts; more specifically, the texts regularly achieve particular sequences of categorizations of the game-at-hand and players/children in their course. These shifts in the categories used allow the texts to set up a relation between the particular game and generalized players/children allowing for an assessment of the likelihood of detrimental effects for different age groups. They are thus central to establishing the object of the text (the game) as a proper object for regulation by the USK.

First, the object I have so far unproblematically referred to as a *game* undergoes a series of transformations throughout the sequence of the text. Figure 1 shows a section of the title page from the decision on the well-known first-person shooter *Call of Duty: Modern Warfare 3* (Infinity Ward, Sledgehammer Games & Raven Software, 2011). Now, looking very closely at the categorizations used to refer to whatever it is that the text speaks about, it will become apparent that it categorizes this entity⁷ in a variety of ways, but not (yet) as a game.

7 There is an obvious difficulty in speaking about the experiences of such a "naïve reader" as I have created, following John Law (2002, p. 32), as a "methodological fiction" here. The more naïve we make him or her, the less we can assume to know about this mysterious entity that the text describes (can we even know it is an entity?). Therefore, in order to make the methodological fiction workable, we must assume a reader who at least knows that the text is speaking about something beyond itself – that it creates a relation to an outside world populated with objects available for it to speak about. Thus, I will call this entity *the object (of the text)* as a convenient way to unify the referent of

Figure 1: Part of the title page from the classification decision on *Call of Duty: Modern Warfare 3*

JUGENDENTSCHIED classification ruling		
Name des Titels / name of the product	Call of Duty: Modern Warfare 3	(General) named media "product"
Altersfreigabe entsprechend Jugendschutzbestimmungen / age rating	keine Jugendfreigabe gemäß § 14 JuSchG	Decision – legally based and prompted by application
Antragsteller / applicant	Activision Blizzard Deutschland GmbH	
Registrierungsnummer / number of registration	31248/11	Numbered object in an archive
Technisches System / technical platform	Microsoft XBOX 360	Technical object/software
Sprache der Software / language of the software	deutsch	
Prüfdatum / date of examination	02.08.2011	
Auflagen, Anmerkungen / conditions, note		

Source: Decision on *Call of Duty: Modern Warfare 3*, USK-Reg.-Nr. 31248/11, p. 1, my reproduction.

Note: "keine Jugendfreigabe gemäß § 14 JuSchG" translates as "not rated for minors according to § 14 JuSchG".

The title page provides standardized fields to be filled with certain information on the object. The first field is headed "name of the product". With this categorization, this portion of the text enacts 'its' object as a rather general kind of entity that has been produced, presumably to enter the economy and identifies it by its proper name. At this point, we do not get to know much more about the kind of "product" other than its name. The German version refers to a title instead of a "product", however also leaving open whether we are dealing with a song title, a book title, film title, etc. As these examples suggest, we can at least guess that the named "product" is some kind of media product. The next field specifies the "age rating", immediately adding its legal basis in "§ 14 JuSchG". In this way, the text here categorizes the object as properly covered by the JuSchG (Youth Protection Act) and as the object of a legally-based decision. In this version, also, the object remains remarkably nondescript. The third field, headed "applicant", tells us nothing at all about the object of the text, but rather categorizes the decision itself as one that has been prompted by an application from the organizational entity

the different categorizations in my own text. Thanks to Estrid Sørensen for bringing this problem to my attention.

named there. The most we can say about the object here is that apparently, the “applicant” entity has taken upon itself to (re-)present the object of the decision, which is also a (media) product, for the purpose of bringing about the rating decision. The next field is headed “number of registration”. With this, the text here categorizes its object as a numbered object in an archive. This categorization thus connects the entire ensemble to an archive of already examined “products” – and the corresponding decisions. In this way, it also marks out the entire process – and the decision, in particular – as being now part of an organizational memory: if the need arises, all concerned parties can refer to this archive of past decisions and the corresponding objects of decision. The following two fields, headed “technical platform” and “language of the software”, respectively, allow us to specify the kind of “product” at least a little further: it is a product programmed as code, requiring further “technical” objects (the “platform”) to be handled by humans. The last field is headed “date of examination”, thus specifying the character of the decision further again: by categorizing the process connecting the application and the decision as an “examination”, this portion of the text marks out the decision as the result of focused attention to the object and that the result is based on fixed, standardized criteria – one can easily draw the analogy to the examination of students in school or patients in medical settings, where curricula or the ICD provide for the respective standards.

This analysis of the title page has shown that, and how, the text works to establish the object of the text as a proper object of examination for the USK – and thus as a legal object; and as one of many in a series of like objects, demonstrating their equal treatment. They thus provide an important means for addressing concerns about the neutrality of the decisions (and, by extension, the USK itself). However, applying the methodological fiction of the “naïve reader” (Law 2002, p. 32) rather strictly, we have also seen that these methods of objectification seem to prevent the texts from actually speaking of a game on the title page, instead using rather pure reference terms (such as “Titel” [title]). This changes when we turn to the description sections of the texts – how do they work to achieve a neutral and objective description of the game?

Turning the page over, we will find (in this case) five further pages of text, divided into two main sections headed “description” and “reasons”. This particular text is one of the longer ones. In general, it might be said that the tendency is for the texts to become longer the higher the rating. This might already be a clue that there is more to be concerned with (and/or that concerns must be dealt with more thoroughly) in those games. How is the object of the text categorized in the description section? This is regularly the first place where the texts actually explicitly refer to a (computer) game, complete with all the elements and attributes that

are usually bound to these kinds of objects – and thus, also to a player. Like games, and because they are categorically bound to them as an attribute, players never appear as such on the title pages; they are always mentioned for the first time in the descriptions.

Let us look at the beginning of the description in a little more detail, focusing on how the textual activity of describing a game is accomplished here – i.e. what are the attributes and activities used in categorizing the game:

- 1 Description:
- 2 “Call of Duty: Modern Warfare 3” is a first-person shooter game for Xbox 360 in English
- 3 language.
- 4 The title is the third part of a series centred on the game characters Captain Price and Cap-
- 5 tain John ‘Soap’ McTavish, known from the previous games. The story of the game im-
- 6 mediately connects to events from the two preceding games: [...]
- 7 The aim of the game is to track down and defeat the terrorist leader Makarov by success-
- 8 fully accomplishing 19 game missions [...]
- 9 The search for Makarov leads the player across the world. [...] In this, the player automat-
- 10 ically takes on the roles of various game characters (e.g. that of an American soldier, one
- 11 of Makarov’s former allies, a bodyguard of the Russian President) according to the course
- 12 of the game. [...]

(Call of Duty: Modern Warfare 3; USK-Reg.-Nr. 31248/11, p. 2; my translation)

The very first sentence identifies the object again by its “name” from the title page, immediately followed by the categorization “is a first-person shooter game” (l. 2). In MCA terms, “first-person shooter” here works as one of several categories from the collection *genre*. This is how the description sections regularly start out – they always repeat the title and then explicitly categorize their object as a game belonging to one, or, more rarely, several, genres. This initial categorization is highly consequential for the attributes that readers of the text can now expect to be used for describing the game further. However, the next two sentences mention attributes that are not strictly bound to particular genre categories, but rather to the more general category *title/(media) product*: it is “part of a series” (l. 4), “centred on [particular, named] game characters” (l. 4-5) and has/tells a “story” (l. 5-6). Of course, these attributes do not pertain to all games (think of chess or card game

simulations), but they are apparently relevant to achieve an adequate description of this particular game⁸.

The text then goes on to recount the story (not shown in the excerpt) and then to describe how the game progresses: there is a defined “aim” (l. 7), which is to be reached by “accomplishing [a certain number of] game missions” (l. 8). So far, we have encountered the game as a differentiated, but self-contained entity. Until now, it is categorized in several different ways (as a (media) title, a piece of software, as belonging to a particular genre, etc.) – all of which (so far) only refer to the game itself. This changes when the text describes how the game progresses: in order to achieve such a description, it becomes necessary to also describe the input by a player, detailing how the game and the player interact so that the story can unfold. Accordingly, this crucial attribute of the game – “the player” (l. 9) – is added next: first (in l. 9), he or she is described as being led by the events-in-the-game, then (in l. 9-10) slightly more actively as “taking on roles” in the game.

The sequence of categorizations discussed so far works to establish the object of the text as a legal object and as one of many in a series of like objects (on the title page), then as a game belonging to a particular genre-category, with specific attributes, implying particular player activities. Describing the latter independently of any further categorizations of the player makes it possible for the decision texts to achieve an objective description of the experience of play – where objectivity means that the description can reasonably hold for anyone engaging with the game. By configuring the player as an attribute of the game, the objectivity of the description of the playing experience is thus achieved. This is crucial to address widespread concerns about the objectivity of the decisions as a whole (see e.g. Höynck, Mößle, Kleimann, Pfeiffer & Rehbein, 2007; Portz, 2013).

Two Categorizations of *The Player*

Now, looking even more closely, we can see that here, this player is categorized in two different ways, which is regularly the case in descriptions of first-person shooter games. The first categorization could be said to be situated ‘in the game’, interacting rather directly with the game world, its characters, objects, etc.: “The search for Makarov leads the player across the world” (l. 9). In this sentence, it is easily recognisable that the search for Makarov does of course lead the player through the world of the game. The player is thus in the game world, where the

8 Indeed, further analyses (Schank, 2017) have shown *characters* and *stories* to be among those attributes that are regularly bound to the *first-person shooter* genre (as well as other genres).

search for Makarov happens. Contrast this with the second part of the description of the player's activities: "[...] the player [...] takes on the roles of various game characters" (l. 9-10). We might call this second categorization *the player facing the game*: the "roles" (l. 10), i.e. the "characters" (ibid.) are easily recognisable as existing only within the game; in order for the player to "take [...] on" (l. 10) these roles, he must be elsewhere, i.e. not in the game world. We can easily imagine this role-taking figure sitting on the couch or in front of the screen, physically pushing buttons to control the characters or avatars, etc. Indeed, in the texts these latter two activities (pushing buttons, controlling an avatar) are quite often bound to this categorization of the player, as is also the case later in the same decision: "The player controls his avatar from the genre-typical first-person perspective and observes the game world looking over the barrel of his weapon".

Besides the description of "the player" by way of the activity "control[ling]" an "avatar", reading this sentence and paying close attention to the two categorizations just introduced, reveals a rather curious effect: the two categorizations are merged. Let us see how this merging effect comes about: The main clause ("The player controls his avatar...") seems – at first glance – to refer only to the player facing the game: he is outside, doing the controlling. However, in the same sentence, the phrase "his avatar", situates the player also within the game. An alternative phrasing referring only to the player facing the game would be something like "the player controls the figure of a soldier". In this way, the first part of the sentence works to keep the player and the avatar separate, while merging the two categorizations of the player.

As if to make this example even more curious, the two categorizations of the player are then also merged with a third type of entity – the avatar – in the second part of the sentence. After having already tacitly undermined the distinction between the player facing the game and the player within the game, the dependent clause merges this new, hybrid player with the avatar, resulting in the sentence: "The player [...] observes the game world [...] over the barrel of his weapon". Now, the player does not actually hold a weapon (at least not the one he or she is looking over while playing) – that is the avatar's. What is going on here? Are the experts confusing the game and reality? Do they fail to see the difference between the player (who is just holding a game controller) and his or her avatar (whose arms are visible holding the gun over which "the player [...] observes")? Describing the player as "observ[ing] the game world over the barrel of his gun" risks being seen as indicating a lack of media competence on the board members' part. Indeed, this kind of argument has been made with reference to court decisions restricting access to media by Portz (2013). However, I would like to make a radically different argument: that this way of describing the relation between the

player and the game prepares and therefore grounds the possibility for making particular kinds of claims about the game's effects on its players.

The possibility of making claims about the game's effects on players is one reason why the texts need to categorize players as outside the game in the first place. After all, the most important task of the texts is to work upon the concerns about impairments to young people arising from, but reaching far beyond, the actual activity of play (i.e. effects on players 'outside' the game). In our example, at the very end of the description, the effects are stated as follows: "Overall, there is a high degree of intensity and credibility established, and the overall effects of the game on the player must be termed very intense" (Call of Duty: Modern Warfare 3; USK-Reg.-Nr. 31248/11, p. 4; my translation).

This is a rather strong claim of the "effects" (ibid.), stated as fact – i.e. 'the way things stand': "There *is* a high degree of intensity and credibility" (ibid., emphasis added). In order for such a statement to be readable as adequate and conclusively derived from observations, its needs to be carefully prepared by detailed examples or demonstrations and practical reasoning. These latter elements are provided by the seamless merging of the two categorizations of the player and the avatar I have discussed previously. The claimed "credibility" (ibid.) has been tangibly demonstrated in and by the text when it merged the player and the avatar: it is exactly the kind of perspective described there ("looking over the barrel of [one's own] gun") that is crucial in establishing this kind of credibility of the playing experience. The merging of the player and the avatar in and through the text achieves a quite remarkable feat: it provides an experience of the first-person perspective in the text, which is much more immediate than merely categorizing the perspective with the words "first-person" (as in the extract above).

To sum up, the category *the player* provides the texts with their most important resource for accomplishing a description performing the experience of playing the game in a generalized fashion. Furthermore, as an attribute of the game, *the player* supports the categorization of games into genres by way of his or her genre-bound tasks and activities. For example, the activity of "looking over the barrel of [one's own] gun" is categorically bound to the first-person shooter genre; this part of the description thus also refers back to the beginning of the description section, where the game was categorized as "a first-person shooter game" contributing to the coherence and plausibility of the text. More generally, *the player's* genre-bound activities allow for a – general and generic – estimate of the demands this particular game puts on all its *players*. This is also why the two categorizations are both needed to achieve this sort of description in practice: *the player* within the game is relevant to describe how the game progresses; *the player* facing the game is relevant to allow for a description of the game's effects.

Recategorizing the Player by Age

So far, I have provided a detailed account of how the game is categorized in various ways throughout the sequence of the decision text; how descriptions of games as games of particular genres are established; and how generalized descriptions of the experience of play are achieved. However, all these steps can only be preliminaries for the decision to argue the correctness of an age-rating. After all, the practical task for the description section is to provide a generalized description of the playing experience, which means, inter alia, abstracting from such specifics as the player's age (as well as other category collections: gender, ethnicity, education, etc.). Therefore, there are no differentiations of players according to their age to be found in the description sections. This changes radically when we move to the reasons sections of the decisions, where "players" (now in the plural) are differentiated according to their age. In the case at hand, arguing a rating of "18", this reads as follows:

1 The rating board concurred that underage players should not be confronted with the
 2 game. The title is a game of the first-person-shooter genre, achieving a high immersive ef-
 3 fect due to its dramaturgically compelling game story, as well as the sophisticated graphic
 4 and acoustic realisation. Combat action with a multitude of weapons is framed by the
 5 staged conflict, a world war threatening humanity.
 6 In many missions, the game features a high density of opponents and quick succession of
 7 events, to which the player must react carefully all at once. In this way, the game is also
 8 characterised by a dense atmosphere.
 9 For the reasons mentioned, the game *Call of Duty: Modern Warfare 3* is not suitable for
 10 children and adolescents and can possibly have detrimental effects on minors. Therefore, a
 11 lower rating was not considered.

(Call of Duty: Modern Warfare 3; USK-Reg.-Nr. 31248/11, p. 6, my translation)

This excerpt from the end of the reasons section, summing up the decision for a rating of "18", starts out with the category "underage players" (l. 1); these are described as "not [to] be confronted with the game" (l. 1-2). The text then lists some of the elements previously described in more detail in summary fashion (l. 2-5). The description of "the title" (l. 2) as "achieving a high immersive effect" (l. 2-3) can be stated in such a matter-of-fact style here because it has been previously prepared for by the text-based technique of merging the two categorizations of the player plus the avatar in the description section. The categorization "underage players" (l. 1) takes up the category *the player* from the description, adding an age-based categorization. It thus implies or enables the inference that "underage

players” (ibid.) have not yet learned the necessary skills to adequately deal with the “high immersive effect” (l. 2-3). At the same time, the category “title” (l. 2) here also refers back to the title page of the text and its categorization of the game as a rather nondescript entity, reminding readers that the text has now come full circle from a rather blurry object to a (now) rated game – and that the USK’s neutral attitude towards the game established there is still in place, despite now having produced an assessment. Thinking of the concerns about possible biases in the decisions (or even the procedure as a whole) mentioned above, this is quite an important method to show in practice that the decisions are made from a neutral perspective.

The next paragraph (l. 6-8) then switches back to the generic category “the player” (l. 7); significantly, this categorization is again used to achieve a description of demands the game puts on all its players, regardless of their age and this portion of the text does not immediately use this description in order to achieve a statement of the effects of the game. The summary description here only refers to elements/characteristics of the game itself (“high density of opponents and quick succession of events” [l. 6-7]; “dense atmosphere” [l. 8]), which is why the more general categorization is used here – these are the same for all players, regardless of their age. In comparison, the final paragraph in the excerpt (l. 9-11) does exactly the reverse: here, the game is described only in terms of its “effects” (l. 10); consequently and significantly, the paragraph categorizes the human part of the game/player ensemble as “children and adolescents” (ibid.). The players are thus figured here as relevantly characterized *only* by their age, enabling the inference that, although the characteristics such as “quick succession of events” (l. 6-7) are the same for every player, the “detrimental effects” (l. 10) of these characteristics remain limited to “minors” (l. 10). These characteristics, in particular “dense atmosphere” (l. 8) and/or “high immersive effect” (l. 2), regularly provide the main reasons for games to be rated “18”.

Taken together, these three paragraphs from the very end of the text work to recategorize the players as differentiated by their ages, implying a trajectory of learning (how to deal with/distance oneself from, e.g. a high immersive effect). In the first step, these players are related to the game as two separate entities: the descriptions of the game characteristics remain limited to the game itself; however, the categorization “underage players” (l. 1) serves to prepare for the recategorization as “children and adolescents” (l. 10). In the final step of the argument, the text uses this latter categorization to enable the inferences necessary for the categorization of the game as “not suitable” (l. 9) for these stages of life to be

readable as based in sound reasoning. These categorizations thus contribute centrally to the acceptability of the decisions as those of experts on both games and the education and development of minors.

CONCLUSION

The written decisions of the USK are tasked to provide a professional assessment of the game's effects on minors' education and/or development. For the decisions to be acceptable, it should be possible to read this assessment as deriving from a neutral and objective description of the game in question and in particular of the experience of playing the game. These practical requirements for the decisions take up and work upon the concerns circulating in the social and legal environment in which the USK operates: the accomplishment of a recognisably objective description of the game – for which, as I have shown, the double category *the player* provides a crucial means – is appropriate to address the concern about a possible bias in the decisions. The separation of the text into a “description” and a “reasons” section provides a useful infrastructure to practically accomplish description and assessment as separate (textual) activities. Relating to this difference, recategorizing the players in terms of their ages provides a means to further enhance the separateness of the two activities while also providing an elegant means to accomplish the two activities in such a way that the assessment can be seen to have resulted from the observations.

In this sense, the concerns expressed in and by the law also undergo a certain transformation in the process: while it might not unreasonable to see the mere fact of regulation as putting games under a kind of general suspicion, looking at the process rather than the legal texts also reveals that both games and children are cared for in and by the procedure. More, and more interdisciplinary, work will be required to shed further light on the various entanglements between legal and administrative texts and practices, the categorizations they enact and how these work to take up and transform culturally embedded concerns about minors' associations with media and games.

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The Privatization of Age Classification

ANNE METTE THORHAUGE

This chapter is based on more than ten years of work in the Danish Media Council for Children and Young People. I was appointed as a council member in 2005 and served as chair person in 2012. According to Danish film law, the Media Council is assigned to classify films according to age, based on their potentially harmful content. In addition, the council is responsible for advising the public about children, young people and media in general. Part of this work has involved extensive collaboration with EU networks, as well as industry actors such as the Pan European Game Information Systems (PEGI), a self-regulatory body under the International Software Federation of Europe (ISFE). Due to political currents as well as changes in the marketplace, the weight is presently shifting from traditional state regulation toward self-regulation with PEGI as a key example. The wider implication of this development is that the age classification of media content gradually moves out of the sphere of democratic deliberation, and into an industry-consumer issue. In this chapter, I will confront the way the changing media landscape challenges traditional approaches to age classification of computer games and other media content. I will present two alternatives that are often perceived as opposites, that is, age classification as undertaken by government councils and age classification as undertaken by the industry. While the latter alternative is often put forth as the most plausible response to the changing structures in the marketplace, there are important implications for the notion of age classification in democratic societies – at least if we want to maintain a general view of children as democratic citizens.

WHY AGE CLASSIFICATION?

It is not a given fact that a media regulation system should include age classification of content. Not all societies have chosen to do this and in those countries that have, age categories and criteria differ considerably. There are many other ways of regulating media and specific historical reasons that age classification represents a common sense approach in many Western countries. This is due to a specific Western approach to the child as an individual who deserves special protection against potentially harmful content (Cunningham, 2012). Moreover, it is due to a firm belief in age as a primary parameter for describing cognitive characteristics and sensitivities as compared to, for instance, gender or cultural background (Muschinsky, 2002). Finally, age classification has been seen as an acceptable and ‘neutral’ way of handling extreme content in democratic societies where censorship is not considered a viable solution. In Denmark, the legal framework that supports age classification of film content was introduced along with a complete abolition of censorship. Each of these rationales obviously comes with built-in paradoxes and can be contested in different ways. Although some of these rationales will be commented on in the coming sections, an in-depth discussion is beyond the scope of this chapter. For now, let it be acknowledged that there are other ways of dealing with media regulation and harmful content.

AGE CLASSIFICATION IN A CHANGING MEDIA LANDSCAPE

In recent decades, the digitization and globalization of media production, distribution and consumption have posed new challenges to the way age classification has traditionally been undertaken. This, most notably, has to do with the changing structure of the market place, with new online media services such as *Netflix* and *Steam*¹ as cases in point. While media content such as films and television programs have traditionally been consumed in cinemas and on national television, both within the realm of national jurisdiction, streaming services such as *Netflix* and game platforms such as *Steam* make content available on a broader number of platforms across national borders. Moreover, due to the Audiovisual Media Services Directive² emphasizing the *country of origin* principle with regard to the regulation of media in the EU, services such as *Netflix*, being seated in Luxembourg, do not fall within the realm of other EU countries’ national jurisdiction and

1 www.store.steampowered.com

2 A key directive in the EU regulation of media across member countries.

for this reason are not obliged to send content for age classification in the respective countries.

In addition to such legal issues, the general transformation of the market place brought about by digital media means that the range of potential providers of audio-visual content has greatly expanded. The film industry and the game industry have previously been dominated by a few, highly influential publishers who were responsible for a majority of the available media content and who were held legally responsible by national governments. This system is currently being challenged by a number of “‘extended’ marketplace[s]” (Doyle, 2013, p. 36) on the Internet where a plethora of small, middle-sized and large actors compete for the audience, and where actors that have not traditionally been considered media companies have suddenly entered the competition. The large and somewhat accountable media institutions that dominate the “era of electronic media” (Meyrowitz, 1994) have been joined by private persons and companies that have not traditionally been seen as belonging to the category of *media*. In Denmark Jyske Bank, an ordinary banking business launched its own television service³ on the Internet where it offers a range of program series with varying degrees of relevance to their traditional banking services. Similarly, any citizen can set up a channel on Youtube or publish his or her own game on *Steam*, making the traditional notion of editorial responsibility a highly complex issue. Obviously, this process of globalization, market convergence and dissolution of editorial responsibility calls for a reconsideration of the way age classification and the protection of minors are being dealt with. This is often viewed as a choice between two general models: the governmental council as represented by the Scandinavian media councils, and the self-regulation system as represented by PEGI.

AGE CLASSIFICATION IN THE SCANDINAVIAN COUNTRIES: THE CASE OF THE DANISH MEDIA COUNCIL

The standards used to determine age classification of media content vary considerably across countries and cultures. In some cases, this is entirely or partly considered an industry endeavour managed by industry bodies such as MPAA in the US, BBFC in the UK and NICAM in the Netherlands. In other cases, it is considered a democratic concern in the domain of public bodies such as the media councils in Denmark, Norway and Sweden and IGAC in Portugal. In Denmark and in

3 www.jyskebank.tv

the Scandinavian countries in general, a child's right to communication has received relatively more attention in comparison to other European countries. This entails that the age classification of media content is approached as a continuous balancing of two potentially opposing considerations: the child's right to protection against harmful content and the child's right to freedom of expression.

According to Danish film law, the Danish Media Council for Children and Young People is responsible for age classification of films that are shown or sold publicly. This classification is based on the potential harmfulness of films to particular age groups. The Danish Media Council is responsible for communicating classifications to parents and other relevant persons, in addition to defining the criteria by which the harmfulness of films is assessed. A considerable part of the ongoing work in the Media Council for Children and Young People involves the continuous qualification and development of these criteria according to a range of sources, with the UN Convention of the Rights of the Child as a core value. This Convention asserts not only a child's right to protection, but also their right to communication. This includes the right to state their own point of view, the right to seek and obtain information and the right to freedom from control. That is, children have democratic rights. This perspective has led to the following principles with regard to age classification of media content in Denmark: 1) That children have a right to access any type of media content unless we can explicitly demonstrate its harmfulness and 2) that the definition of harmfulness should not be based on a consideration of what grown-ups find harmful to children but rather on what the children themselves find harmful – operationalized as frightening or transboundary experiences. To ensure the latter, the Danish Media Council carries out so-called *children's panels* on a regular basis in which children are interviewed about their film experiences. The same approach has been taken in Norway and Sweden and most recently the councils have experimented with shared children's panels in order to be able to compare and discuss criteria of harmfulness across Scandinavia. These criteria are made publicly available on the councils' respective homepages, but they are unfortunately not translated into English. In practice, film distributors are legally obliged to send in their titles to the Media Council in order for assigned experts to make an individual assessment informed by the criteria developed. It is specifically this procedure that is under pressure because of changes in the market structure described above. Due to the globalisation of the media market and the emergence of the extended marketplace, providers of media content are no longer neatly organized within geographical regions of national jurisdiction. One system that has responded to this challenge from an early point in time is the Pan European Game Information system (PEGI).

THE PEGI SYSTEM AND IARC AS A RESPONSE TO CHANGES IN THE MARKET STRUCTURE

PEGI represents an instance of industrial self-regulation in which producers and distributors of computer games carry out the age classification themselves. Computer games are sold and consumed across national borders to a much wider degree than films and have represented a challenge to national age classification systems since their inception. For this reason, the Danish Media Council has taken part in PEGI since 2003 as an alternative to establishing a national system. The other Scandinavian media councils have taken a similar approach. PEGI is owned by the industry and is authorized by the leading publishers in the market, including Sony, Nintendo, Microsoft, Ubisoft and Electronic Arts. Publishers in the game industry commit themselves to a set of codes of conduct and commit to having their games age classified. In practice, age classification is determined through a questionnaire answered by either the game's producers or distributors, depending on who brought the game to the marketplace. The classifications are systematically screened in order to ensure consistency and compliance with the system. The criteria used in the questionnaire mainly focus on what is considered inappropriate (according to the PEGI officers) in different European countries such as *sexual innuendo*, *bad language* or *gambling*. Consequently, this often results in ratings that are somewhat higher than those you would find in the Scandinavian countries, which as mentioned, rest on a child's perspective.

As pointed out in the introduction, the domain of digital games has been subject to radical changes in the market structure. For this reason, PEGI launched the International Age Rating Coalition (IARC) in 2013 – in collaboration with the Entertainment Software Rating Board (ESRB), which rates computer games in the US and Canada, together with a range of industry self-regulation bodies across three continents. This collaboration involves an alternative model of financing classifications, a more streamlined questionnaire, a localisation (i.e. region-sensitive rating) of age ratings and, importantly, an expansion of the rating of relevant content from games to apps in general. As regards the financial model, the original classification system was financed by the individual publishers on a title-by-title basis, whereas the new system is financed by the platform owner. As regards the questionnaire and the localisation of age ratings, all content providers, irrespective of region, will fill in the same simplified questionnaire, whereas the resulting age ratings will depend on the region in which the title is sold. Finally, as regards the content to be rated, games are only one among several types of content in the

extended marketplace IARC targets and for this reason the system has been expanded to cover apps in general. This system is currently running on Google Play, while Apple has chosen to retain its own classification system on its App Store.

As a technical solution, IARC has proven to be a viable response to the challenges created by changing market structures. In collaboration with other self-regulation bodies, PEGI has managed to establish a global, or at least, a cross-Atlantic system, in which a general questionnaire is presented to any content provider and their apps are given a specific age classification based on the region in question: Europe, the United States, Brazil, etc. However, this comes at the cost of democratic control of the criteria on which the classifications are based. Of course this is not just the case with PEGI and IARC, this is a problem with any self-regulation system undertaken by the industry. The specific criteria included in the questionnaire, as well as the principles of localisation determining the specific age classification, are highly relevant to the affected communities since they concern an understanding of childhood and responsible upbringing. Nevertheless, as a part of an industrial self-regulation system, they are decided upon and developed within the context of the industry and outside the reach of public scrutiny. What makes PEGI interesting in this regard is that it has partially responded to the issue by establishing a ‘council’.

THE PEGI COUNCIL AS A MEANS FOR DEMOCRATIC CONTROL

The PEGI Council includes members from all participating European countries. It is responsible for “making recommendations so that national as well as European developments are communicated and reflected in the PEGI system and its code of conduct” (PEGI, n.d., para. 2). The individual members of the PEGI Council represent a range of local authorities, including governmental councils (Denmark, Norway, Sweden, Finland, Ireland), ministries of culture (Estonia, Lithuania), ministries of health (Austria) and ministries of commerce (Italy, Spain). This council meets once or twice a year in order to discuss issues related to the age classification of games. As indicated by the list, the PEGI Council hosts a multitude of cultural and professional perspectives and diverse ways of approaching the protection of minors across Europe. While in some national contexts child protection is considered a health concern, in others it is a cultural concern or a concern about the regulation of commerce. This turns the child-as-citizen into a minor concern at best and a contested concern at worst. This represents a challenge to the media authorities in the Scandinavian countries that have child-as citizen as a key

concern. Considerations regarding the balance of democratic rights and protection do not apply in the same way if games are purely considered a consumer good and not a cultural statement. In the first case, it can be seen as an aspect of regulation of commerce; in the second case it involves much wider considerations of cultural diversity and democracy, including freedom of speech.

By and large, the specific status of the discussions going on in the PEGI Council is not particularly clear. “Making recommendations” (ibid.) does not necessarily entail actual implementation, and the degree to which the PEGI Council makes a real difference in the management of the PEGI system is unclear. On the one hand, by offering a forum for general discussion, PEGI and the platforms it covers definitely offer more transparency than, say, Apple’s App Store, where the age classification system and its workings are kept more or less hidden from public scrutiny. On the other hand, the actual mandate of the PEGI Council is highly convoluted. From a more critical point of view, the PEGI Council might just be another instance of stakeholder care in which support for the PEGI system on behalf of European governments is ensured to serve industrial and commercial perspectives.

INDUSTRIAL PERSPECTIVES ON SELF-REGULATION SYSTEMS

The most obvious industrial interest in this regard involves avoiding state or external regulation. As an industry addressing a wide range of European markets, the game industry has an interest in avoiding national and EU regulation in order to ensure easy access and avoid the possible burden of dealing with many different legal frameworks in Europe. This type of interest was phrased more or less directly by Murad Erdemir from LPR Hessen⁴ in his welcoming speech at the International Classifier’s conference in Berlin in 2015. Erdemir took the story about Odysseus and the sirens as a point of departure, emphasizing the way Odysseus tied himself up in order to save himself from the sirens. In the same way, Erdemir stated, “we” regulate ourselves in order to retain “our” freedom. The personal and possessive pronouns in this sentence clearly refer to the industry, that is, the freedom of the industry. The industrial interests of avoiding state or external regulation as a key perspective in age classification, is only rarely stated as directly as this and is often

4 The *Hessische Landesanstalt für privaten Rundfunk und neue Medien* (Institution for private broadcast and new media in the federal state Hessen) is the industrial self-regulation body of the state of Hessen in Germany.

a more implied aspect of self-regulation systems. In this way, it can be a difficult endeavour to create an object of analysis and to claim that the perspective put forth by Erdemir is actually representative of self-regulation systems in general. However, it is obvious that PEGI works much better as a tool for avoiding political regulation when the system can showcase support and participation from European governments in the form of the PEGI Council.

Another industrial or commercial perspective is age classification as an ever expanding business. This perspective is less obvious as most of the self-regulation bodies, including PEGI, are non-profit and for this reason not expected to produce any turn over. However, even non-profit self-regulation bodies tend to function in accordance with the commercial logic that expansion and growth are objectives. This could be observed, for instance, in the BBFC's and PEGI's negotiations in the UK game market a few years ago. Ultimately, this competition was about defining the correct authority to age classify games in Britain, and the BBFC and PEGI both had an interest in expanding or ensuring their territory in this regard. This interest went well beyond the concern of protecting minors and had more to do with the organizational logic of maintaining or expanding the business.

Recently, the logical targets of expansion and growth have taken on a new perspective regarding the extension of age classification to the Internet in general. At the aforementioned conference, examples of age classifications of web pages ranging from social media and online shops to campaign sites were given. Much of the discussion unfolded around the website *GegenHund*⁵, allegedly a website for friends of mankind against dog-ownership which offers various pieces of advice concerning eliminating these animals through the use of poison and more. At the conference, the discourse revolved around which appropriate age classification would be suitable for such content, as opposed to debating the relevancy of age classification in this case or whether other measures, such as supporting media literacy, would represent a more relevant approach. From a commercial standpoint, which relies on expansion and growth, it makes good sense to extend the age classifications in this way to a broader range of content types. However, from a democratic perspective this might not make sense. The Internet supports a very broad range of communication genres, including public deliberation and ordinary chit chat, and making such communication genres the object of age classification may have wider democratic implications.

5 www.gegenhund.org

POLITICAL IMPLICATIONS

The industrial or commercial perspectives presented in the former section are neither surprising nor illegitimate. Indeed, these are interests that industrial actors can be expected to pursue. However, it is important to bear in mind that they have implications for the way the protection of minors is being practiced, including the key values governing this work. On the one hand, this has to do with how concerns about the child – the centre of the entire discussion – are constituted, and on the other hand, this has to do with the degree to which age classification is seen as a relevant response to extreme content on the Internet.

As regards the first perspective, what is at stake is basically whether the concern about the child is constituted around the child as a minor or around the child as a democratic citizen. The first perspective is rather dominating in the current self-regulation systems primarily aimed at helping parents regulate their children, not least because games are chiefly seen as consumer goods and thus irrelevant in a more democratic perspective. Moreover, even if self-regulators set out to emphasise the democratic rights of the child to access certain content, this could easily be interpreted as a commercial strategy aimed at broadening the consumer base and thus, discrediting the entire system. This discussion is so much easier to lead as a commercially independent actor.

As regards the second concern, this chapter is initiated with questioning age classification as a universal tool for regulating media content and protecting minors. This is not to write off age classification altogether, but to emphasise that age classification applied indiscriminately and irrespectively of the genre and context of communication, may end up being in conflict with basic democratic values such as the free democratic deliberation open to all. Though the example used above, *GegenHund*, may seem frivolous, is it worth considering whether or not an age classification of any sort of content on the Internet is really what society wants? This may not be economically reasonable in terms of protection obtained (except for those companies carrying out the classification), whilst also being at odds with freedom of speech as a basic democratic value.

Although the traditional state based model of age classification as practiced in the Scandinavian countries may be under pressure, we should avoid jumping directly into self-regulation. Rather, we should ask ourselves which aspects of the process can be un-problematically undertaken by the industry and which parts should remain within democratic control in order to ensure that the entire system is working with and not against more general societal aims. There are several ways of ensuring democratic control in age classification systems involving industry partners. For instance, USK in Germany has a government representative with

veto-right on its classification board. In Finland, the national film authority defines classification criteria and educates classifiers in the media industry. Norway has chosen a somewhat different approach with the film authorities classifying films in cinema, in this way elaborating and communicating classification principles that are followed by the industry's own classifiers on other platforms. In principle and in practice, the age classification of content opens the possibility of keeping citizens away from this content, in other words, censorship. It is crucial that the criteria, on which this classification is based, as well as the genres of content this involves, remain within the sphere of democratic control. Even though it may seem futile to uphold a regulation system as the one represented by the Danish Media Council in its current form, it is important to uphold transparency and democratic control as principles that should govern any classification system.

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Prizes, Endorsements and Recommendations: Positive Regulation of Computer Games

FELIX RACZKOWSKI

Media regulation is a nebulous concept with vastly different meanings, depending on the involved institutions and parties, the practices and procedures that are employed and the issues that are to be addressed through them. In this chapter I am interested in computer game regulation insofar as it can be considered a governmental strategy following Foucault, which implies that there is a specific form of productivity at play in the way computer game regulation is debated and enacted. According to Foucault, the various attempts to target computer games as objects of concern can be regarded as acts of power, although explicitly not as repressive or prohibitive measures, since “power produces” (Foucault, 1991, p. 194). This means that power, manifesting itself through all social relations (as opposed to being limited to hierarchical structures like the state), always produces and brings forth its subjects, its domains and its knowledge. I will argue that this productivity of power can be observed in the way computer games emerge as objects of concern through the attempts to regulate them. While it would be interesting to offer a comprehensive reading of international regulatory practices in this context, the scope of this chapter demands a narrower focus. To emphasize the specific productivity of computer game regulation, I will look at a strategy of regulation that is usually marginalized in these debates, although it is becoming more and more influential, especially in Austria and Germany: while computer game regulation is usually associated with repressive actions that somehow limit or diminish the medium (e.g. content that is changed or cut and limitations regarding distribution and marketing or even prohibitions), a different perspective on regulation works through endorsements, prizes and awards that are all utilized to lend visibility and credibility to certain computer games.

In the following paragraphs I will look at some of the strategies and institutions that are involved in the process of positive regulation and discuss how they produce a specific way of thinking about computer games. Although the more repressive regulatory measures are not addressed in this argument, this does not mean that they are not equally productive in a Foucauldian sense – they bring forth games as problematic and suspicious media, often associated with violent tendencies among adolescents (cf. Otto, 2008). The difference between the limiting (limitations of accessibility and visibility) and the enabling (enhancing visibility and recommending games) strategies of regulation can itself be regarded as a form of disciplinary societies at play, since it emphasizes the shift to *positive* productivity that is usually associated with disciplinary arrangements according to Foucault (1980, p. 59).

REGULATION THROUGH RECOMMENDATION

Whenever a counterpoint to disciplinary regulatory practices of computer games is evoked in German-speaking countries, it usually involves Austria's practice of positive evaluation (*Positivprädikatisierung*). Since 2005 the federal agency for positive evaluation of computer- and console games (*Bundesstelle für Positivprädikatisierung von Computer- und Konsolenspielen* [BuPP]) has selected computer games they deem especially recommendable (BuPP, n.d.-a). The BuPP is the only official agency in Austria concerned with computer games and their recognition, however, their recommendations are not legally binding and they are not institutionalized like the official age-rating labels of the German rating agency for computer games USK or the European rating agency PEGI. This means that computer games do not wear their BuPP-rating on their sleeves in the form of stickers on retail boxes or logos and badges on the webpages of online shops or digital distributors (BuPP, n.d.-b, para. 6). In fact, since many computer games are distributed freely between Germany, Austria or Switzerland, they are labelled with USK and PEGI stickers in Austria, although none of them are binding in Austria¹. While the USK assigns ratings that recommend (or prescribe, in the case of Germany) the minimum age necessary to play the game in question (cf. Dreyer, 2018, this volume), PEGI singles out what amounts to various anxieties regarding the content of the games (such as sex, violence, horror or drugs) and correlates those

1 Each Austrian federal state is responsible for its own legislation regarding the protection of minors. As of 2011, three of the nine federal states require the application of either the PEGI or the USK ratings.

with the different age groups. BuPP, on the other hand, employs a player-centric rating method that considers the skills that are necessary to successfully play a game.

There are several assumptions about games and their players at play here, which I will attempt to unpack. First of all, BuPP, like any institution administering positive regulation, rejects disciplinary methods like bans when dealing with computer games. The reasons for this are at least twofold, according to BuPP's mission statement: any form of prohibitive regulation is easily circumvented – e.g. by having another (older) person buy the game (BuPP, n.d.-a)². Also, a ban of or restricted access to software always entails unintentional advertising: the alluring, bright red USK 18 sticker suggests a ‘grown-up’ game and serious action³. Here the productivity of regulatory power becomes apparent, since the same measures that establish digital games as objects of worry also serve to highlight them as objects of desire: the games are produced as potentially problematic and illicitly entertaining at the same time. Positive regulation appears to be an attempt to integrate this unintended productivity into the goals of media pedagogy, since it embraces the concept of regulation as recommendation. While BuPP at first only singled out those games it could recommend without reservation, today it seeks to offer a database with entries on most major game releases, evaluating each according to the requirements the player has to meet (BuPP, n.d.-c). At the core of this rating system lies the main finding of developmental psychology following Piaget: human beings are not born fully developed, but acquire their physical and psychological capabilities in the course of successive developmental stages in their (early) lives (Piaget, 2001; 2007). BuPP employs the theories of Piaget and other developmental psychologists according to a model devised by Austrian media pedagogues (cf. Mitgutsch & Rosenstingl, 2008, pp. 186-191) that attempts to correlate typical psychological operations (e.g. perception, thinking, memory, feeling and others) with common characteristics of computer games (e.g. graphics, controls, interactivity, solutions and others). Instead of assigning ratings according to what children and adolescents should or should not play, BuPP suggests what they can and cannot play from a developmental psychological viewpoint. In practice, BuPP's online database differentiates between three types of entries, one of which

2 Regulation on a technological basis can be significantly harder to circumvent, especially when region-locks, digital rights management and/or digital distributors are concerned (cf. Thorhaug, 2018, this volume).

3 Austrian law still allows for the possibility to ban games (or other media) if their content is found to be harmful to minors.

employs the system described above: short entries that offer the most basic information about a game (such as the platforms it is released on, price, PEGI rating and a short synopsis); entries discussing mostly popular games on a pro & contra basis⁴ and there are recommendations, which contain a longer text justifying the rating as well as a graphical representation of the skills needed to play the game.

The positive regulation of computer games through BuPP's rating system combines an evaluation of the game's content with an analysis of its demands regarding the player's reactions, her cognitive capacities and her endurance. Although the originally far more complex matrix (Mitgutsch & Rosenstingl, 2008, pp. 190-191) is thus reduced to three fairly broad categories, it still represents an unusual way of thinking about computer games in the context of regulatory practices. The game is positioned as a medium that demands certain capabilities from those who wish to engage with it. It is no longer solely a container for problematic content, but instead exhibits characteristics and requirements on the level of the technological artefact itself (something that McLuhan already recognized in the case of television in 1964 [McLuhan, 2001, pp. 19-21]). In a way, BuPP attempts to formulate 'system requirements' not for hardware, but for the players. The agency answers the classical pedagogical question concerning the right game for children based at least partly on the abilities children would need to successfully play the game. This dimension of regulation seems more concerned with helping parents find games that are enjoyable for their children than with protecting children from harmful content. That said, the game's content is still considered in the ratings, since the descriptions of plot and gameplay in textual form comment on the amount of violence the game depicts or on the alternatives to violent conflict afforded by the game. Computer games with violent content cannot be found in the list of BuPP-recommendations and content they consider problematic is always listed on the contra-side of the pro & contra entries.

The exhaustive database operated by BuPP belies the fact that it, like any ratings system, makes media (in this case, computer games) visible in a specific way while at the same time ensuring their invisibility in other ways. It is a function in the discourse on games that enables us to consider them as artefacts that are defined by the demands they make regarding the abilities of their users. Games are thus produced as media of challenge and testing instead of danger and concern.

4 The reason for this differentiation lies in the aspirations to offer an exhaustive database through BuPP. As many games as possible should be found by searching the database, which necessitates shorter entries for most games, while those that are especially popular with minors but do not meet the requirements of a positive rating are addressed through longer texts and tables listing their positive and negative features.

Even so, the database of BuPP still subjects the games it catalogues to a whole array of (implicit) pedagogical values (BuPP, n.d.-a). It would be an interesting task, albeit well beyond the scope of this chapter, to comparatively study BuPP's recommendations and to show which features are more likely to make games recommendable (e.g. no or low/abstract depiction of violence, emphasis on puzzles and strategic thinking or the potential to learn something). In the case of BuPP, positive regulation means treating computer games as consumer goods (cf. Rosentingl, 2010, p. 19) that require specific skills to be enjoyable, which is a similar approach to that of a long-standing tradition of games journalism (Gillen, 2004). Both focus on *fun* as games' central purpose and judge or recommend them based on the fun they afford and the competence they require (regarding the question of fun, see Koster [2013] and Bogost [2016]). In regarding games more as consumer goods and less as cultural artefacts, BuPP's system of positive regulation enables a narrow understanding of computer games, which excludes many of the more unusual approaches to games, such as those that are intentionally not fun (e.g. *This War of Mine* [11 Bit Studios, 2014]; *That Dragon, Cancer* [Numinous Games, 2016]) or those that experimentally operate with difficulty and control schemes (cf. Wilson & Sicart, 2010). I consider this understandable in the context of an age-based rating system that aspires to recommend games even for very young children, but it becomes problematic wherever positive regulation manifests in less transparent environments, like the case of the German game award shows, which will be discussed below.

REGULATION THROUGH RECOGNITION

Negative, prohibitive or disciplinarian regulation of media and especially computer games is a central aspect of German youth protection. Computer games are sold according to their legally binding USK ratings and can be subjected to stricter measures like bans on advertising or on open sales (cf. Dreyer, 2018, this volume). The regular debates in Germany on whether or not these measures are tight enough usually follow such events as school shootings (Krempf, 2006; Otto, 2008)⁵. To once again return to the beginning of the chapter, it is safe to say that the German public and most traditional media remain worried about computer games – although this worry is slowly being replaced by curiosity regarding the potentials of

5 Similar debates are reported to have taken place in Austria (cf. Rosentingl, 2010), although all recent school shootings occurred in Germany.

the medium⁶. There have been several attempts at positive regulation in Germany, two of which will be discussed in the following paragraphs.

While there is no equivalent to BuPP in Germany, the Federal Agency for Civic Education (*Bundeszentrale für politische Bildung*) has launched an initiative that comes close. Under the title *spielbar.de.de*⁷, an editorial staff of journalists and pedagogues publish game-descriptions and reviews, which are presented in the form of a database not unlike the system employed by BuPP⁸. The main difference to the way BuPP reviews games is that *spielbar.de.de* offers no recommendations. Games are described, reviewed and judged from a pedagogical point of view, but there is no list of especially recommendable games. Because of this, *spielbar.de.de*'s database is more varied than BuPP's, since it includes games that cannot be thought of as pedagogically valuable or as suitable for minors. Additionally, *spielbar.de.de* allows for audience participation in the form of comments below their reviews and even presents their own pedagogical evaluations in the form of comments. These measures de-emphasize the regulatory dimension of *spielbar.de.de*'s service, while at the same time broadening the appeal of their database as a legitimate source of critical information on various games. Aside from this, *spielbar.de.de* can still be considered an institution with a pedagogical and a regulatory mandate, since the website offers various guides and brochures for download that offer an introduction to the fascination of computer games for outsiders (parents or teachers) or information about hands-on experiences for parents in the form of specially organized LAN-parties⁹. Especially with these supplementary materials and services, what *spielbar.de.de* attempts is not so much the (positive) regulation of computer games, but the regulation of fears about the games. The detailed introductions to gaming practices and language resemble ethnologists' explorations of unfamiliar cultures; here, the unfamiliar computer game

6 In recent years, there have been a number of longer features in German magazines and newspapers exploring the potentials of computer games, mostly centred around educational applications (serious games) or motivational aspects (gamification) (cf. Buse, Schröter & Stock, 2014; Schaefer & Halaban, 2014).

7 A wordplay meaning both *playable* and *play/game-bar* (in the sense of a venue specially focused on games and play).

8 www.spielbar.de.de

9 A LAN-party is a social event focused on co-located PC gaming. The term derives from the acronym for *Local Area Network*, meaning the connection of two or more PCs through a local, non-web-based connection. LAN-parties were the place of early PC-based multiplayer gaming, before high-speed Internet connections became widely available.

culture. As such they aim to alleviate the scepticism of parents and teachers through fostering a deeper awareness of computer games. Through establishing computer games as cultural artefacts that entail specific user practices, *spielbar.de*'s database differs from its Austrian counterpart, which emphasizes the games as consumer goods that need to be paired with the appropriate consumers. However, both contribute to the productivity of regulation by contextualizing games in a certain way, by submitting them to a system that makes them visible and comparable and by entering them into databases, all of which is more (in the case of BuPP) or less (in the case of *spielbar.de*, which does not have such far-reaching influence) framed as an officially recognized, media-pedagogical offering.

REGULATION THROUGH PRIZES

Next to smaller services like *spielbar.de*, positive regulation in Germany also takes place in large, institutionalized award ceremonies like the German Computer Games Award (*Deutscher Computerspielpreis* [GCGA]). The GCGA has been awarded since 2009 through the cooperation of two game industry associations and the Federal Ministry of Transport and Digital Infrastructure (*Bundesministerium für Verkehr und digitale Infrastruktur*). It is awarded in a number of categories such as *best serious game*, *best youth game*, *best browser game*, *best international game* or *best mobile game*. However, each year one entry wins the main prize and is declared best German game¹⁰. The main award came with 150,000 € prize money in 2009 and the whole budget for prizes is supposed to rise to 450,000 € by 2017 (Bundesministerium für Verkehr und digitale Infrastruktur, 2017). Besides the financial incentives, the GCGA aspires to reward outstanding games with national recognition, since it is meant as a complementary institution to the German Film Awards, which is a well-known prize in Germany. There are a number of publicly available criteria that submitted games have to fulfil to be eligible for an award, which is revealing, since it demonstrates which characteristics of games are regarded as good, positive or worthy of recognition. Currently, the following criteria are listed on the GCGA's website, demanding that games be excellent in one of four fields: they have to display artistic or cultural value; be of pedagogical and didactical worth; demonstrate technological achievement and innovation; or

10 The GCGA itself does not keep an archive of past winners or nominees, perhaps due to the controversies discussed in this chapter. Thus, the best source on the award's history is its Wikipedia entry (cf. *Deutscher Computerspielpreis*, n.d.).

have outstanding entertainment value (Kriterien für die Juryarbeit, n.d.). The productivity of regulatory practices becomes apparent in the way digital games are recognized by the institutions that cooperate with the GCGA: there is a pattern of positive qualities that enables these institutions to address a certain group of games without presenting them as problematic. Computer games are produced as artefacts that can potentially earn an official seal of approval (an award) if they conform to specific criteria. While BuPP and, to a lesser extent, *spielbar.de*, offer databases as a service providing knowledge about games, thus mainly targeting parents, the GCGA offers financial incentives and visibility, which are of interest to developers and publishers. Both can be understood as strategies that seek to codify the relatively young and frequently changing medium of computer games, constituting them as artefacts of value that can thus be evaluated and recommended based on unambiguous standards.

A closer look at the GCGA and its criteria reveals the way in which the game awards differ from similar awards for other media: there is great emphasis on the pedagogical dimension of games. While judging an artefact's entertainment value might make sense in the context of a public's choice award, pedagogical value is not usually taken into account in general, industry- and nationwide awards of cultural artefacts. However, the short history of the GCGA shows that pedagogical considerations are a major influence in the process of selecting the winners, although the vague criterion of pedagogical value is never defined in detail. During the first year, there was no game among the winners with a USK rating of sixteen years or above. Most awards went to distinctly child-friendly games. That did not change in the following year; however, there were some complaints from independent observers when the same game won both the award for best German game and for best international game. The German version of *Dawn of Discovery* (Blue Byte/Related Designs, 2009), a well-known and long-running historical simulation game in Germany, was named best German game, while the international release of *Dawn of Discovery* became best international game, although it was nominated only after nominations had officially been closed (Steinlecher, 2010)¹¹. Some observers assumed that this bending of the rules took place to avoid awarding the international prize to games with a higher USK rating than *Dawn of Discovery* (Lischka, 2011). In 2012 an even bigger reaction followed the awards, albeit this time politicians criticized the jury's decision specifically because it did not conform to implicit expectations regarding the USK ratings and the perceived

11 The matter becomes even more complicated because the game is far better known under the German name *Anno 1404*, while *Dawn of Discovery* is the official name for the North American release.

pedagogical value of recognized games. *Crysis 2* (Crytek, 2011), an ego-shooter with a USK 18 rating, was named best German game. Even the game's nomination caused Conservative politicians to demand a change of criteria for the GCGA and a replacement of the jury altogether (Reißmann, 2012). *Crysis 2* was deemed a 'killer game' (*Killerspiel*)¹² and a shooting game of doubtful pedagogical value, something the Conservative politicians did not want to see endorsed through awards, although representatives of the Conservative party were part of the deciding jury. Finally, 2015 saw a significant rearrangement of the GCGA, in which the range of categories was extended and the jury was reassembled. These changes prompted some journalists to withdraw from the jury, as a result of the unwillingness of the organizers to de-emphasize the criterion of pedagogical value in connection with USK ratings¹³.

According to the GCGA and its criteria, good computer games are those that are suited for children or young adolescents and that also have unspecified pedagogical value (on the issue of *Crysis 2* and the pedagogical value of digital games [cf. Raczkowski & Schollas, 2012]). Positive computer game regulation in Germany exists against the backdrop of a strong system of prohibitive and protective media regulation that influences how games are considered and addressed both in negative and in positive regulatory practices. The recommendation of computer games happens not instead of, but in contrast to, their implicit condemnation. Games that are already subject to heavy negative regulation (high USK ratings) cannot be recommended, but must serve as the 'other' at award ceremonies. This practice of positive regulation through prizes presents games as double-edged swords: they can be culturally significant, but also dangerous and in need of restriction. Additionally, they are seen as child's play – as a medium that primarily targets children and adolescents or, more precisely, that *should* target them. These circumstances bring about the emphasis on pedagogical value and the outrage over

12 *Killer game* is a derogatory term used in Germany mostly to describe first person shooter games or, more broadly, any game that depicts graphic violence. It was frequently employed by politicians and worried parents in German media-harm discourse.

13 More precisely, a change in the GCGA's rules now makes it possible for a minority of jury members to veto a decision regarding the awards in main categories whenever they deem the game in question not to be pedagogically or culturally valuable. Games that are blocked from winning an award in this way are instead eligible to win the Jury Award. The whole process is only applied to games with a USK rating of 18+, which led the journalists in the jury to conclude that it was mainly put in place to keep games that are not minor-friendly from winning awards (Peschke, 2014).

nominations and awards for games with a high USK rating. *Crysis 2* is undeserving of an award in the eyes of Conservative politicians not only because of its violent content, but also because it misses the target audience of computer games in general and because there is not much to learn from playing the game. Where BuPP's regulatory practices present computer games as consumer goods, the GCGA regards them as toys: artefacts that are designed for children and that can be expected to convey specific values or facilitate learning.

CONCLUSIONS

Regulation of computer games (and media in general) can work in several different ways. The most well-known and widely used approach conceptualizes regulation as a form of protection from harmful content. It is assumed that certain elements of games, such as graphic violence or high tension, make those games unsuitable for minors. In reaction to this, several systems have been put in place in Austria and Germany to evaluate a game's content and to assign an age-based rating to indicate at which age children and adolescents can be confronted with the game's content. Several assumptions are implicit in these procedures. There has to be a position on the harmful effects of media content, a psychological account regarding the development of children and adolescents and a juridical as well as an economic assessment on the measures of regulation. Media regulation always brings with it specific ways of thinking about media, their content and effects, their producers and consumers (or players). Following Foucault, this means that media regulation always also produces the media it seeks to regulate. Discussing attempts at positive regulation can thus be revealing regarding the way computer games, their risks and their potentials are discursively produced through the desire to know more about games and to be able to judge their quality (thereby canonizing appropriate and valuable games).

The examples discussed in this chapter comprise only some of the instances through which positive regulation is enacted in Austria and Germany. I focussed on the most well-known cases that are supported and partly funded by public institutions, since those agencies, services and ceremonies can be regarded as prime examples for governmental strategies in positive regulation. As with prohibitive, taboo-oriented regulation, there are several assumptions regarding games and their players that are at the core of recent attempts to shift regulatory practice towards recommendations. There is the tendency to take computer games seriously as media, which means that they are not solely regarded as containers for problematic

content, but as artefacts that function in a specific way. Thus, BuPP and *spielbar.de* consider the game's contents (e.g. graphics or narrative) as well as the way the medium works (How does the player interact with the game? What is the goal? How do the rules work?)¹⁴. Despite all this, computer games are still presented as consumer goods produced mainly for children, because the productivity of regulatory power works through attempts to formalize and essentialise computer games. Consequently, a computer game can fulfil its purpose only when it offers aesthetics as well as challenges and mechanics that are suitable to minors. Because of their hybrid status between cultural artefacts, consumer electronics and pedagogical instruments, officially endorsing a computer game through an award becomes very difficult. As soon as the awards ceremony is associated with a publicly funded institution or is partly funded by the public, many different expectations have to be met by the organizers and the jury. As the example of the GCGA shows, the same game may or may not deserve recognition, depending on whether politicians, parents, teachers, designers, programmers, publishers or players are asked. In this case, the regulation provided by the award depends on the acceptance, recognition and support of many different groups and institutions. However, the debates and controversies surrounding the GCGA demonstrate that computer games as objects of regulatory strategies still oscillate between hypothetical danger and required (pedagogical) value. All the examples discussed in this paper exhibit tendencies to formalize (and bring about) knowledge of computer games, be it through databases or through criteria for jury decisions. While prohibitive regulation was largely based on the knowledge produced by media effects studies (cf. Otto, 2008), positive regulation appears to build upon more varied, but also more informal sources. Additionally, the object of knowledge proves elusive, with computer games continuously changing as a medium and as an industry. In the terms of discourse analysis, the measures I have described as positive regulation can then be understood as an attempt to negotiate or to capture computer games as artefacts that can be addressed by governmental measures. Through this, as has repeatedly been demonstrated above, computer games are produced as objects of knowledge. Consequently, regulatory measures spark public debate, whether they are perceived as too forgiving, as generally inadequate, as a welcome change or

14 The difference between content and form/function is highly artificial when discussing any media. It is evoked in the context of this argument to highlight the way in which media regulation usually (with the exception of Austria) focuses only on one dimension of computer games (the visual content/the graphics).

as the first attempt to regard computer games as cultural artefacts. It will be necessary to continue to follow this debate closely, because it forms the way games are perceived and incorporates certain implicit assumptions about games.

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Part III

Family Computer Game Concerns

The Multiple, Volatile and Ambiguous Effects of Children's and Young People's Digital Play

DORTE MARIE SØNDERGAARD

Virtual, or digital, violence becomes embedded in children's everyday lives in a large variety of ways, dependent on its interaction with the comprehensive and complex social, relational and material-discursive processes that enact children's and young people's subjective becoming¹. In this chapter, I will introduce post-structuralist and agential realist perspectives (Butler, 1993; Davies, 2000; Søndergaard, 2002a, 2002b; Davies, 2006; Barad, 2007; Højgaard & Søndergaard, 2011; 2013a) to show that digital play with violence may enact multiple, volatile and ambiguous material-discursive, relational and subjective effects. I will also show that understanding the processes involved in gaming demands situated analyses which are sufficiently sensitive to enable a conceptualization of the complexities of the social and subjective concerns and phenomena involved (Søndergaard, 2013a)².

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- 1 Subjective becoming alternates with subject formation or subjectivation processes, all of which are linked to the conceptualization offered by Judith Butler on the simultaneous process of subjection under and coming to agency through discursive power (1993). Butler also explains such formative processes as enabling constraints (1997, p. 16) and points to ways in which norms for appropriate and inappropriate becomings weave through such processes; in Højgaard and Søndergaard (2011), these conceptualizations are reworked to emphasize material-discursive power as enabling constraints and condition of subject formation.
 - 2 Søndergaard has covered some of the same ground in an earlier Danish-language publication (2013b); however, this work has not previously been available for an international audience.

The analytical questions posed in the readings of the qualitative material in which I situate my argument therefore ask how virtual games and fictional universes with violent content become relevant to children and young people in their everyday lives – including the everyday lives of those who live in troubled school contexts textured by social tensions and sometimes containing bullying practices. The analytical questions furthermore attend to how these children and young people experience and, together or alone, use the potentials and challenges of these virtual universes in their gaming.

RESEARCH MATERIAL AND CONCEPTUAL FRAMEWORK

The text is based on research material which was produced as part of *eXbus*, a more comprehensive study on school bullying among children and young people (Schott & Søndergaard, 2014; Søndergaard, 2014, 2015). This study involved an interdisciplinary team of researchers comparing empirical material from a number of subprojects as an ongoing part of the research process. My subproject was focused on an analysis and conceptualization of the basic social mechanisms which enact in- and exclusion and bullying practices among children and young people. Entangled in this focus, however, was an interest in the digital-analogue movements and interactions of the children and young people and, among such movements, their engagement, together or alone, with computer gaming and digital play with violence and aggression.

The empirical material was generated through interviews and observations among children and young people at schools and in after-school clubs. The material also includes children's drawings, notes from participation in gaming conventions and observations from net cafés, as well as several other different types of material produced with the aim of providing insight into the processes that form children's and young people's analogue and virtual practices within their everyday lives³.

The analyses that appear in this chapter were developed at a point in the study when 130 interviews had been conducted with children aged between eight and fourteen. The majority of the interviews was conducted among entire school classes, compiling information from every student in the class. The children and young people talked about everyday lives, bullying and friendships, as well as the gaming

3 The material is described in a number of articles published on various aspects of the study on computer games and on bullying among children in school (cf. Søndergaard, 2013a; 2014; 2015; 2016; 2017).

practices, their dreams and humour. They shared with the interviewer their preferences for, thoughts about and experiences with watching films, TV and YouTube videos. Observations in schools, both in classrooms and schoolyards, as well as in after-school clubs with access to computer gaming, also form part of the material. In addition, the material includes interviews with parents, teachers, school principals and finally also telephone interviews with pedagogues from 50 after-school clubs where children have access to computer games. All this material, together with the empirical material in the other subprojects in *eXbus*, forms the background for the analyses presented in this article.

In analysing this material, Karen Barad's notion of intra-activity helps focus the many different material-discursive, subjective and technological forces, which not only interact, but *intra-act* as part of the enactment of the phenomena in focus (Barad, 2007). Replacing *inter* with *intra* to form the concept of intra-action emphasizes the mutually transformative effects that such forces have on each other in their open-ended agency and enactment of phenomena which are themselves part of such open-ended intra-activity and the enactment of other new processual and fluid, but nevertheless very 'real', phenomena⁴. The conceptualization of material-discursive agency and enactment of phenomena draws a parallel underlining the intra-activity of matter and discourse, of the non-human and the human (*ibid.*). Combining these perspectives with the poststructuralist conceptualizations of subject formation, of normativity and of the processes through which social formation takes place provides the conceptual and theoretical perspectives I apply in the analyses which follow – Judith Butler (1993) being a central figure in this tradition and a central source of inspiration in Barad's agential realist thinking.

The empirical material and the concepts that are brought to work in this article are not used to produce a realist description of a particular field. Rather, I have been thinking with theory through the empirical material and with the material through the theoretical concepts, to analyse the complex character of digital play and its situated meaning and effects in the lives of the children and young people⁵. To think with theory and with empirical material also means that the broad and varied empirical material becomes part of what informs the analyses, even though not all data are brought directly into the text in the form of empirical examples.

4 In Søndergaard (2013a; 2016), this perspective is applied more directly in an analysis of the many forces intra-acting in the enactment of gaming engagement with violence. I will return briefly to this point later in this article.

5 Thinking with theory and with empirical material is a shared methodological approach among poststructuralist researchers; cf. Søndergaard (2002a), Alvesson and Sköldberg (2010), Jackson and Mazzei (2012).

The examples chosen illustrate analytical points about the variations and nuances, the embedded, processual and emerging character of the phenomena in focus.

In the first section of this article, I identify, in general terms, some of the possibilities and limitations that the children and young people in the research material encounter in the game worlds. I look at their ways of trying out belongings and positionings and the ways in which they enter the gaming environment. The second part of the article digs deeper into the variations and reconfigurations of virtual violence and aggression among the children and young people. I provide examples of how different gaming practices may assume different forms of relevance for children and young people according to their positions in the social groups they belong to. And I show not only how analogue experiences are linked to digital practices, but also how digital practices are brought into analogue play and the negotiation of social positioning.

POTENTIALS AND CHALLENGES

For children and young people, playing digital games presents opportunities to play, experience something and often to interact with other children and young people – on an equal footing to hanging out in the school playground, watching TV and films, playing tag or football, talking to their parents or siblings and whatever else they spend time doing. However, when met with adults' concerns, children hesitate and wonder how they can communicate their interest in virtual games; for example, in ways that demystify the games and legitimize the children's engagement.

Most children are aware of the adults' concerns that such games are probably too violent, or that the children sit still for too long and spend too much time indoors. And many children respond in a similar way to eleven-year-old Tobias when asked whether they play computer games: "Yes, I play a lot of computer games. Every day, actually, with my friends, but I don't become violent because I play them! It is just fun and exciting". These adult concerns are handled in a variety of ways by children. Many move such activities away from their concerned parents and, instead, seek out homes where access to games is not monitored in the same way as it is in their own home. Other children accept and stick to the limitations that their parents consider a necessary regulation of their child's gaming practices.

Sometimes, parental concern has unintended effects, such as when parents, in collaboration with pedagogues, decide that an after-school club should limit children's computer game play to intervals of 20 or 30 minutes at a time and at the

same time restrict whether children are allowed to save their game play. Such restrictions may determine whether the children are allowed to save avatars they have created or their status on missions. One effect of these types of restrictions may be that children choose to play simple shooting games that they can complete within the allocated time limit in the club's computer rooms. In such situations, the children in the empirical material tend to play the more complicated and demanding games at home.

When computer and computer games become part of the play repertoire of a group of children, the social network is an essential component, which is necessary for the games to function and for their embedded learning processes. In groups of children where there is a high level of tension and fear of social exclusion, bullying and practices which intensify negotiations of inclusion and exclusion, this type of process will, of course, play out with corresponding tensions and complications. Patterns of inclusion and exclusion can amplify accelerations and decelerations in these learning processes: The marginalized individuals, or those who are targeted for marginalization, are not initiated and their knowledge is not sought out or is devalued if it is offered.

Such manoeuvres may include moving away from areas in which the marginalized individual's knowledge is relevant. It may also mean choosing different games and training in them without giving the currently marginalized individual the opportunity to reorient him- or herself and participate in the group's new gaming preferences. Subsequently, the exclusion can be legitimized by citing "different gaming interests": "He plays WoW. None of us are interested in WoW any more" - and what can be done about that? That is just how it is; different interests are, after all, a matter of preference, they seem to state. They do not want to put up with "cry-baby whining about that too?" In short, the manoeuvres through which inclusion, exclusion and bullying take place - contempt, derision, lack of empathy and so on (Schott & Søndergaard, 2014) - can, of course, permeate the ways in which computer games are learned and completed, as well as the ways in which recognition or invisibility are distributed based on how the game play is managed. Such patterns of social relating are recounted in the interviews and observed among the children and young people in the research material.

On the other hand, game-playing competences can also disrupt such patterns. At times, it may be an attractive option to go home after school with nine-year-old Oskar, who has access to *Grand Theft Auto* (GTA) (Rockstar North, 2004) in his older brother's room and parents who do not interfere very much, even though he is not someone Joshua and Daniel otherwise wish to be associated with and despite the fact that they often participate in exclusionary manoeuvres against him. Joshua might even say to the others, in earshot of everyone, that "Oskar is really

good at GTA” – a degree of recognition that Oskar rarely experiences from anyone, least of all from the inner circle among the group of boys in his school class to which Joshua and Daniel belong.

At this school, and among this group of boys in the class, access to GTA (Rockstar North, 2004) has a high status and Oskar counteracts his otherwise problematic position in the class by offering the opportunity to play this game in his brother’s room. For many children in our study, the PEGI 18+ label on games has nothing to do with age. Rather, this is an indication of coolness. A 16+ game is very cool and 18+ is even better. Oskar’s role as gatekeeper to practices that can provide access to this extra coolness to the other boys increases his utility within the group and protects him, at least temporarily, from the social exclusion he usually experiences in the class.

TRYING OUT BELONGINGS AND POSITIONINGS

The empirical material provides numerous examples of the potential offered by computer games for shared experiences and joint actions. Children and young people can be united by the entertainment aspect of the games; they can use games to experience a particular mood, challenge, or conflict that seems relevant to their own lives; they can practice things that are fun and see how this practice results in a clear increase in their abilities, whether they are learning to fly, shoot and hit targets, understand complicated tactical manoeuvres on large battlefields, create societies, or whatever else the game designs allow them to do. They can play with people they know, but also with children and young people they have never met – children and young people from other countries. And they have the opportunity to interact, play and chat without any significant social costs. Online contact with children and young people from outside one’s local environment is always a choice and can be revoked if it does not work out and children can play and chat, pretend to be someone else, play with different identities and explore social boundaries without the interactions becoming more serious or binding than they can cope with.

As part of all this, they can practice negotiating the premises for relating and participating. To those that come from communities of children that are characterized by complicated social manoeuvres, tensions and bullying, it may seem liberating that there is a certain form of clarity in online relations. In gaming universes, the main focus is gameplay and in online relations with strangers, matters are usually settled up front if something is not working to everyone’s satisfaction. Participants leave, or are thrown out of the game if they do not submit to the rules and

norms of the group they are in. But since the others are strangers and there are plenty of other strangers online to choose from, being thrown out in this way is not necessarily dramatic. It may even be an event deliberately provoked as part of playing with risk and with social borders together with one's friends.

In groups of children with many tensions, the opportunity for less complicated relationships represented by online games with strangers may be attractive for the simple reason that the games provide an alternative to the exhausting scenarios that the children encounter in school. In virtual games, children can be strong participants and competent, sought-after teammates even if they are excluded from their class on a daily basis and forced to struggle to achieve a bare minimum of respect. I will provide examples of such cases later in the article.

This opportunity to experience new positions also applies to some of those who are the subject of fear and trepidation among classmates. The dominance which they otherwise dare not risk abandoning should it place them as the target for contempt and exclusion can be temporarily relinquished within the alternate universes computer games make available.

THE GAMING UNIVERSE AND ITS ATMOSPHERE

Within the boundaries of the game, the opportunities for creativity and expression are determined by the technology; the limitations are fixed and often quite narrow. Rule systems and potential actions are determined by the game's design and in shooting and strategy games, for example, progression is controlled and limited in specific ways. A sniper in *Counter-Strike* (Valve, 2000) cannot suddenly take the initiative to enter into peace negotiations or redefine the scene from a battle to a picnic: *Grand Theft Auto*'s main character, Carl Johansen, is bound by the gang-related premise of the game and cannot simply go to a job centre or a student counsellor in search of another way of life and leave his criminal lifestyle behind. Attempts to defy the intention of the game have little chance – such as when eleven-year-old Adrian, during a visit to an Internet café, tried to defy the premise of *Counter-Strike* by wandering around along the walls without shooting or fleeing, while he sat and hummed to himself in front of the screen. Such attempts merely result in one's avatar being obliterated or – if it stays alive for a while – one's co-players becoming very annoyed. Adrian received some tough blows from the other players on that occasion and I did not see him repeat the experiment.

Virtual games are still *games* and, like *Ludo*, chess and *Stratego*, there cannot be many enhancements to the rules before the game breaks down as a unifying group activity. Virtual games are also an expression of a fixed space of action. The

rules may be more or less rigid, but they are there. Whereas *Ludo* is based on a set of social conventions between the players which are confirmed by the materiality of the board and the game pieces, the fixation of rules, possible actions, consequences, positions, aesthetics, choices and, in the end, the norms and values of virtual games are materialized in the game's design and technology.

Following on from this, there are also possibilities and challenges inherent to the mood-controlling nature of such games. Players open themselves up to the required moods. These moods are linked to the competences that the player and the community work towards with dedication. Shooting games require a certain measure of aggression and contempt production, just as many analogue games do. For example, the same applies to analogue team sports. An important element in winning a football game is the coach, who encourages players to be aggressive on the field. Without some measure of controlled aggression, ruthlessness and uniformity, sporting performances would look very different to those we witness today – from Olympic stadiums to seventh grade soccer teams. In all of these arenas, coaches strive to instil controlled aggression and a clear us-against-them perspective in their charges, while spectators shout their aggression across the sidelines to support this process.

In sports, aggression is cultivated as an expression of a normatively legitimate frame of mind. Here, a strong will to compete is nurtured, along with the desire to come first, be the best and the greatest and to do so at the expense of others. This is a will to win, to go far – perhaps even to cross the boundaries of normal caring for others and, in many sports, one's own pain threshold – in order to achieve the goal. Consideration and reciprocity between teams is non-existent once the ball is in play. This attitude is encouraged and supported by sporting culture, coaches' calls to exploit the "others'" weak spots, repeated statements emphasizing the strengths of "our" team, the rules of the game and the framework of rewards. And parents seem unconcerned when aggression takes such forms and is situated in this kind of gaming scenario.

The production of a shared frame of mind is also central to virtual gaming universes. In shooting and strategy games, there is no coach to incite this mood of aggressive readiness. Instead, several actors are involved. The players produce and reproduce this frame of mind together, just as the game's carefully selected music, sound effects, graphics and overall design engender this atmosphere, often accompanied by an electronic voice, making comments and encouraging the players. Shooting games require an attitude involving a certain degree of targeted aggression and ruthlessness towards the opponent(s). Children and young people sitting in front of screens at their after-school club accept the challenge with loud cries and a large amount of aggression and contempt production: "Die, you disgusting

idiot!” “Fuck, man! I am going to murder you!” “Fucking little sniper bastard, man!” “We are going to murder that faggot 100 per cent!” and so on. The general impression from observations in computer rooms at after-school clubs is that of a high level of noise, contempt in the form illustrated above, tense voices and bodies and an atmosphere that is thick with aggression, triumph, regret – especially in situations where there are a lot of children and where they play in groups.

Transitions/shifts between analogue relating and relationships between avatars take place in a number of different ways. Sometimes these shifts are marked by ironic over-dramatization, which exposes the absurdity of a shared game centred upon violence. Occasionally the taunts and contempt from the in-game actions turn into self-irony, while at other times, the transition is marked by laughter and ridicule or other strategies of emotional control and/or transformation which, in a variety of ways, integrate and transform the contempt, hatred, defeat, or unbridled triumph that the players perform as part of the game’s mood requirement via their *I* or *we* identities, creating a continuum between them and the avatars (see also Højgaard, Juelskjær & Søndergaard, 2012; Søndergaard, 2013a).

The strong expressions that are shouted and cultivated during the game are not necessarily appropriate for the emotional experiences in the aforementioned differentiations. Hatred, contempt, triumph etc. may also be experienced as excitement and intensity, or as a curiosity about the violence and aggression that the game makes available – the children play with the expressions of contempt and aggression. However, like in sports activities, the performance of what can be recognized as a *‘bad loser’* is also a possible positioning in computer games – this position may be performed by those who do not participate in or enter the emotional transformation that takes place during the transition period after the game is over; who leave the room in anger or begin to beat up their opponents following the events in the game.

So, there are occasions when the mood seems to be drawn out – and it takes a while for it to be absorbed in other moods as the groups of children dissipate out of the room and into other activities. In some cases in the research material, the children do not view this as a mere result of some people being bad losers or mixing things up in irritating ways. In groups with a lot of tensions, the production of contempt and a particular frame of mind in the game may appear analogue to and entangled with the production of contempt and the mood that operates in the off-screen situations in which social tensions turn into explicit exclusionary manoeuvres, such as open attacks, derision and humiliation (Schott & Søndergaard, 2014; Søndergaard, 2014).

ENCOUNTERS AND MANOEUVRING

I have elsewhere (Søndergaard, 2013a; 2016) shown how multiple material-discursive forces intra-act in the enactment of children's and young people's engagement with virtual violence and how that particular enactment of violence is but a small, for some even tiny, part of the violence they are presented with in their everyday lives. In the article *New materialist analyses of virtual gaming, distributed violence, and relational aggression* (2016), I use the stories of two young boys as examples to show how this comprehensive apparatus of intra-active forces may enact virtual violence as a highly relevant space for playing with, contemplating, manoeuvring, negotiating and in other ways simply dealing with violence and aggression as phenomena produced and actualized in the world which adults offer them to belong to and to become subjects in. Familiar with violence from history lessons, everyday racism, bullying, violent police actions, media representations of terror, war and natural catastrophes and many other versions of violence and aggression, violent computer games seem an obvious activity to engage in in order to process and play with similar kinds of realities (Søndergaard, 2016).

Kurt Borchard (2015) reaches similar conclusions in his work when he argues that games are both a product of and a commentary on our culture; his point being that violent games might even promote critical thinking about and greater social awareness of how we want to be in the world. He writes: "Living with contradictory pulls is hard, sometimes unbearably hard. But video games today have become social sense-making tools, spaces for defining and reproducing aspects of the world we might, or might not, want" (p. 8).

For the children and young people, that sense-making and negotiation, and thereby also the social and subjective formation offered through those virtual scenarios, may take place by collectively engaging with (virtual) danger, aggression, potential death and violence – and by positioning themselves as agentic in the midst of all this. It may take place by helping each other through, teaching each other the tricks and developing common strategies and by taking part in and initiating jokes, ridiculing or hailing and critical discussing the violent and aggressive content of the games. So let us dig further into the variations and reconfigurings of virtual violence and aggression among the children and young people.

The distributed violence and the currents of aggression that run through children's everyday lives also entangle processes of subject formation in its simultaneous subjection and enabling of agency (Butler, 1993; Højgaard & Søndergaard, 2011; Søndergaard, 2016). The virtual contributions to this formation are encountered, combined and processed in different ways by the children and young people. The possible digital practices, ways of relating, fantasies, experience and relations

are shaped by the children, both individually and jointly, in very complex ways. They are cited, adopted, rejected and combined with other possibilities, conditions and impressions; they are transformed, processed and reconstituted through the children's and the young people's play, their shared creation of meaning, their embodied, sensual acquisitions and reactions and through their ongoing relating practices.

In recent years, the game industry has worked intensively to make game design feel as 'real' as possible. Some of these efforts have refined the virtual universes and avatars to such an extent that they are able to initiate sensory perceptions that are in an ever-closer continuum with human sensations. It seems significant for the producers that the pixels emulate experiences and potentials that appear to be sensorily and emotionally relevant to gamers in ways that engage them intensely enough to enact increasing demand and revenue in the games market. The importance of such sensory perceptions does vary, however.

For some children and young people in the research material, the characters are "just pixels" and the intensity and excitement in the game is successfully borne by the pixel level. For others, it is important that the characters and scenarios are very life-like and sensorily integrated in a way that emulates experiences from their everyday life, because they also seek a game experience that resembles potential situations at school as closely as possible. For some, tactics are the most important thing – the game could just as easily be about the shooting of wild animals on the savannah or mosquitoes flying through the air. For others, the avatars' characters and their similarity to people they interact with at school or elsewhere is central.

THE CHILDREN AND YOUNG PEOPLE SEEK DIFFERENT BUT *RELEVANT* GAMING EXPERIENCES

The ways in which game experience become relevant differ and change – across time and among children, among young people. Yet an example counts twelve-year-old Logan who, after a hard day at school with bullying and humiliation, practically runs to his bedroom and starts up *Counter-Strike* (Valve, 2000) on his computer. He does not start up *goSupermodel* (watAgame ApS, 2006) or *World of Warcraft* (Blizzard, 2004). He opens a simple shooting game: *Counter-Strike* (Valve, 2000). The imaginary terrorists he mows down with volleys of missiles from his rocket launcher are not just pixels – they are closely linked to the children in and around his school class and with all the "fucking idiots who laugh and all the ones who do fuck all". For him, the scenario on the screen is closely associated

with the school playground and he takes great pleasure in destroying the characters, before starting his homework and eating dinner, accompanied by his dad's repeated questions about how his day at school was and his own repeated responses: "Fine", "Nothing special" and "It's OK".

The games mean different things to different players. For John, who also experiences tough days at school because of bullying, it is not necessarily a fantasy of shooting his tormentors that is central to the shooting games he plays in the afternoons. He is seeking relaxation and oblivion in the change of perspective away from everyday school life that the games provide, just as adults pick up a detective novel or turn on the television to watch a film in order to release the tension from a stressful day of struggle and competition at work.

For John, the games are a way to achieve a level of excitement that matches that of the school playground. The game captivates him so that he does not think about the playground. This is in contrast to Logan, who seeks an opportunity to relive the school scenario and those who were after him in fantasy form and with a different outcome. In the game, it is Logan who humiliates and Logan who wins. For John, it is important to forget about school using a strategy that involves finding a level of intensity that matches the school experiences so that he can disappear into a universe of excitement where defeat is not a foregone conclusion. In the virtual fight, he can be active in the face of attacks and threats and he has a chance to succeed, or at least to train himself to be able to cope, via transparent rules which are determined by the game's design and which, unlike at school, do not change and shift from day to day depending on changes in the positioning of children in his class. In a sense, for him, the games are a way to seek out the possibility of winning, but based on his descriptions in the conversations with the observer at his after-school club, he does not seem to make direct associations with his tormentors or the school playground like Logan does. Both boys seek opportunities to gain control and win, but Logan wants to win in a sensory experience of closer proximity with his tormentors, whereas John wants to keep them at a distance via a winning mood that can compete with the feelings of defeat he experiences.

For yet other children, the characters may just as well be cartoon characters – they explode, blood pours out of them when they are shot, points are accumulated and players taunt each other or praise their achievements. There does not seem to be any significant association with real people. At the after-school club, twelve-year-old Alina and Christina laugh loudly and happily comment on each other's scores in *Counter-Strike* (Valve, 2000), "Ah, that was a good move", "Fucking little sniper bastard, die!", "How many points do you have now?", "That's evil, man!" They laugh and throw themselves back in their chairs. "Let's choose another level; this one is no fun anymore!" For them, on this occasion, *Counter-*

Strike (Valve, 2000) is not actualized as a scenario that propagates atrocities or emotions such as revenge. It is a game they play together, with signs and possible actions that may also include a titillating contrast between camaraderie and human destruction and in which repeated outbursts to each other further affirm their friendship.

For Ida, it is a matter of finding games, as well as TV series, she can relate to in yet different ways. Ida is ten years old and is the victim of bullying in the girls' group. She describes how she often cries alone in the toilets at the after-school club, where no one can see her, as well as in her room when she gets home, so that her parents and siblings do not notice anything is wrong. She tells how she tries to get through the hard days by thinking about nice things, such as lessons in subjects she likes and looks forward to. For Ida, the virtual games and television are a sanctuary:

The best way I can think of to not think about it [the problems at school] is to watch a lot of TV and play computer games, because they are some of the things that make me forget about it [...] I relax when I watch TV. Or when I go to tennis. I have other friends there.

Ida has a parallel everyday life at her tennis club, where she spends three afternoons a week: "At tennis, I am the happy, strong tennis girl, because I am strong in relation to my club. And at school, I am the boring, weak girl". These two different subjectification contexts of the school and the tennis club, where she is either happy or boring, strong or weak, influence the ways in which the virtual universes are actualized for her. Ida seeks out a TV series about Hannah Montana, a girl with a dual identity as both a famous singer and a normal schoolgirl – "the thing about her secret life, it is very exciting. And she has a dual identity, it's really funny", she explains – and she chooses the computer game *goSupermodel* (watAgame ApS, 2006), where she can construct her character so that it is attractive and competent. She is very fond of her online friends in the game and they know nothing about – and must not find out about – how her life is at school, she says.

INSPIRATION FOR ANALOGUE PLAY CAN BE TAKEN FROM DIGITAL UNIVERSES

For some children and young people, the games are sometimes actualized through a more direct inspiration that affects how they play other games too. The structure of the game design and the ways in which levels and missions are made available

are adopted by some of the children as an inspiration for a game with different content. For some, the plot is adopted without the structure and this becomes the focal point of the game. Some of the eleven-year-old boys spend a lot of time during the spring playing zombies and survivors, based on the model from the *Left 4 Dead* (Valve South, 2008) universe – four of the boys were survivors of a virus which turned people into zombies, while the rest of the group were drooling zombies who tried to capture and devour them.

In yet another example, games in the schoolyard or around the children's homes were updated using content from computer games. In previous generations, it was "Indians" who captured "cowboys", bound them to flagpoles and roasted them slowly over open fires, or "natives" who captured "explorers" in the jungle and imprisoned them in caves (or the closest woodshed) where they awaited a slow and painful death among snakes and giant spiders. Inspiration came from books for children and youths of that era. Now, zombies from films and games chase the unfortunate victims, but the plots are the same: life and death, the struggle of existence and the production of winners and losers. This plot is not only present in games and films available to children and young people, it is also evident in the children's everyday lives and the societies and social contexts they belong to.

The violence and aggression that permeate the children's lives can therefore be found in the games, both directly associated with the plots and scenarios that are shown and more indirectly in the form of moods that match and touch upon them – as well as in numerous other versions. If we stay with the forms of actualization that Logan, John, Alina and Christina have come to exemplify while seeking out particular kinds of computer games, violence and aggression is encountered here in a form attached to the design and controlled by the technology. In the game, the children can experiment with being in close proximity to all this violence and with handling and manoeuvring within it. As I mentioned earlier, they are also able to experience being in control, being the active party and not having to submit to the dread and anxiety which some of them experience when navigating the school playground or when thinking about the stories they have seen on the TV news: It could happen here; terror could hit on my way to school in the morning. Imagine if my siblings were taken hostage in kindergarten, if my mother was on the train that was blown up. In the games, they are able to be active in relation to the kinds of dangers they live with or hear about daily. They are able to arm themselves with the most effective weapons, sneak around using the best routes across the rooftops, plan the most ingenious strategy and get at the people who are up to no good. The potential to be active and in control and to win is

clearly attractive to many children and young people in a world infused with violence and aggression, destruction and devastation.

However, there are multiple layers and aspects to this attractiveness. The game not only offers the children the opportunity to assume a position where they have more control; the children and young people are also offered an opportunity to ridicule, laugh at and literally *play* with violence and cruelty. It is as if they would *touch* the horrors and evil and get a feel for them, so they are able to either encounter them via resistance and participation or laugh at them together with their friends and co-players. When the corpses they have produced are *tea-bagged* amidst loud cheers in the computer room – an action carried out by the victorious avatar, who stands behind the corpse and goes up and down on bended knee (like dipping a teabag in boiling water in an imitation of a sexual act) – the wars, terrorism, slaughter and the broken bodies, among all the many other things that can happen in the game universe, are also the subject of ironic distancing, ridicule and gallows humour. There is a great deal of irony and distancing in the exaggeration and the games' often absurd scenarios, such as they are made available by the designers and appropriated and further developed by the children themselves.

INTRA-ACTIONS: RESONANCES, CONFLUENCES AND DILUTING SOLUTIONS

Having come this far, we can understand the games as a potential area for both collective and individual processing of, play with and attempts at play-based management of violence and aggression as phenomena that permeate the children's everyday lives and not only in the form of violence in the school playground, but also violence conveyed by the media and that which is reported and cultivated in school lessons and through many other sources (Søndergaard, 2016). However, given the children's complex and varying everyday lives, all of these currents of violence intra-act in different and situated ways with the experiences and engagements in particular groups of children and young people or for specific individuals.

For eleven-year-old Ethan, the adoption of war as it is portrayed by the media is a theme for play. It is, for example, not only a matter of imitation or of letting off steam, so to say, but is also a way of processing an issue in which he was caught up at the time when the interview and observations were conducted in his class. His class was textured by strong social tensions and changing bullying positionings and after a period time where he was fairly reasonably positioned among the children in his group, he was on his way downwards in the class' social hier-

archy. Sometime after the first interview with him, he became the target of bullying in the class. Elsewhere, I analysed Ethan's play in relation to humour and the thrill of bullying (Søndergaard, 2017) and there, I highlighted the play repetition of particular themes from the media as a possible step in establishing an arena of experience that can be used to experience, process and sense tensions and positionings that seem to be central in the children's everyday lives.

During this period, Ethan was very active in establishing a Guantanamo game at the far end of the playground and in appointing his classmates as prisoners and guards and himself as a guard. There was a particular series of actions and distribution of weapons, but the staging was difficult to accomplish and his frustration regarding this was pronounced. The game meant a lot to Ethan. For him, the war and the USA's, during that period, media-hyped *war on terror* was an extremely engaging theme and his preoccupation with it and attempt to create opportunities to re-enact scenarios from these media stories was transferred – via powerful, mutually invasive anxiety and associations with excitement – into the social complications and struggles that permeated his class at that time. However, the same struggle for positioning established different engagements in the distribution of roles and weapons in the game; some children were opposed to being unarmed prisoners and difficulties mounted up along with the complicated resonances between the group's everyday relationships, media scenarios and attempts to choreograph the game.

In this regard, it appears that resonances arose on many different levels in the intra-actions through which everyday life is established. This can include resonances, mutual imitation, or the reinforcement, moderation, or down-playing of themes and moods found in media narratives and, for example, phantasmal play arenas, as well as aggression and tensions in the group of children, in virtual universes, media narratives and play arenas.

In some games, as I have described, whole scenarios are directly adopted and the resonance occurs between tensions and moods from school classrooms and schoolyards, virtual games, off-screen imitations of games, play in the playground, small videos uploaded on YouTube and so on. For example, *Counter-Strike* (Valve, 2000) can be the basis for play scenarios using larger pieces of equipment in the form of weapons and camouflage clothing in the so-called laser games or laser shooting ranges, which are located around the Danish countryside, where children aged ten years and above can play analogue shooting games. In this way, children's entertainment and play imitates the games that imitate the adults' real wars – laser games imitate *Counter-Strike* (Valve, 2000), *Battlefield* (Visceral Games, 2015) and *Modern Warfare* (Infinity Ward, 2007), which, in turn, imitate the wars in Iraq and now Syria and other places. And the children

imitate the laser games when they are in the playground or in their gardens, just as they stage battlefields and fights with the toys they have at their disposal. Imitations, transformation and experiments with scenarios and sequences are played across the spaces in which the children are located. One can also see the scenes and characters from shooting games in videos uploaded to YouTube with Lego figures in the roles as *Counter-Strike* (Valve, 2000) terrorists and anti-terrorists, or as GTA's (Rockstar North, 2004) Carl Johnson and his adversaries. Since Lego does not provide blood or beard stubble, these are painted on, so the dead terrorists look quite credible when the finished piece is uploaded to YouTube.

Children are part of the complex, intra-acting apparatuses that enact our common socio-material reality. Their formation processes and their participation also constitute an intra-active force and, no matter how extensive and complex the apparatus is, it is essential to consider their contribution and their processes of becoming, not only in relation to what the virtual violence means for children and young people, but also in relation to the more extensive apparatus that constitutes digital violence as a phenomenon. Children's and young people's demands and importance in relation to market mechanisms enact intra-active effects in the apparatus (Barad, 2007).

CONCLUSION

Based on the analyses and perspectives presented in this article, we can conclude that the intra-action among technology, virtual violence, children and young people's everyday lives, their experiences, engagements and relational practices is indeed complex. It is emergent, changing and situated in its character.

Virtual experiences open up possibilities and imaginative horizons that are entangled with all the other possibilities and imaginative horizons in children's and young people's everyday lives. The phantasmal universes in computer games offer *thinkable* and *(im)possible* characters, actions, reactions, ways of relating, dangers, failures and successes, which merge with and become part of children and young people's experiences and processes of subjectification. They entangle the comprehensive repertoire of the familiar, recognizable, known and imaginable elements in their lives – thereby also experiences of care, warmth, boredom, humour, creativity and whatever else may set the tone and establish the premises for their Danish childhood.

The relevance of virtual violence and thereby the reasons children and young people may have to engage in it, is situated in their everyday lives and linked to

their processes of subjectification; more comprehensively, to the overall apparatus that enacts their becoming and their belonging.

The children and young people recognize the violence, the virtual positionings, characters and possible actions that the fictitious digital universes allow them to experience as phantasmal. Being a warrior and carrying weapons remains a fantasy in the children's and young peoples' current societal situation. However, if the apparatus changes – if socio-material, political, global economic conditions change – the fictitious and impossible can change status and intra-actions in the extensive apparatus can be transformed.

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The Micro-Politics of Time in Young People's Talk About Gaming

PÅL AARSAND

The digital gamer is a public concern, in particular when the gamer is a child or teenager. As digital games have become part of the everyday lives of children (and adults) in Western societies (e.g. Medietilsynet, 2016a), social and cultural norms relating to preferable and acceptable use of digital games have been placed on the public agenda and are being discussed by children, parents, researchers and politicians (Ng & Weimer-Hastings, 2005; Karlsen, 2013; Vadlin, Åslund, Rehn & Nilsson, 2015). In Norway and other Western countries, these norms resonate in the guidelines, advice, recommendations and topics that policymakers and other interest groups have created for discussion with children. For instance, on the *Medietilsynet*¹ (Norwegian Media Authority) and *barnevakten*² (Kids and Media) websites, adults, usually seen as parents, can find suggestions for how to deal with (potential) problems or challenges when addressing their children's use of digital games. The topics on these webpages are on the relation between digital games, age and 'acceptable usage'; in particular, the relation between game content and player age, suggestions concerning the amount of time children should spend on gaming and how to accomplish gaming within the sphere of other everyday activities, such as school and socialising with friends and families. In short, it could be argued that children's gaming practices are of concern in terms of *content* and *time usage*.

The concern about children and gaming is also made explicit through the establishment of PEGI (Pan European Game Information) and the ESRB (Entertainment Software Rating Board) that first and foremost have been created to guide

1 www.medietilsynet.no

2 www.barnevakten.no

parents to choose games that suit different age groups. These systems encourage producers to classify their games according to age and to place a content declaration on the cover or in a description of the game. The age recommendations are closely related to the content (mainly with respect to language, sex and violence) of the games (Medietilsynet, 2016a). These systems build on the idea that digital games may have negative influence, especially on children and therefore need to be regulated (Aarsand, 2011). The PEGI system, which is used in Europe, only has legal muscle in a few countries, for instance the UK. This also means that in countries where the PEGI recommendations serve as guidelines only, the responsibility for acceptable usage is placed solely on the parents and the players themselves.

Parents are an undeniably important group when it comes to children and gaming. Studies of US families' and parents' talk about children's use of digital games show that edutainment software and games are considered to be good, socially acceptable and even preferred activities, whereas entertainment games often are considered problematic and in need of regulatory control (Aarsand, 2011). Studies from other cultural contexts also show that parents apply rules to restrict and guide their children's consumption of media (Rideout, Roberts & Foehr, 2005; Vandewater, Park, Huang & Wartella, 2005; Livingstone & Helsper, 2007; Medietilsynet, 2016b). Three rules are repeatedly mentioned in these studies: first, restrictions on the type of game, second, restrictions on the amount of time children spend on media and third, restrictions relating to appropriate time for media use. Such rules are more likely to be applied to children under twelve years of age (Livingstone & Helsper, 2007). While the question of content is highly relevant among parents of younger children, this issue becomes less relevant when children are fifteen to sixteen years old (Medietilsynet, 2016b).

Even though the level of the parents' governance tends to decrease as children grow older, gaming is still a topic of concern. The question of time has especially been an issue in studies of MMO (massively multiplayer online) games (Ng & Weimer-Hastings, 2005; Linderoth & Bennerstedt, 2007; Ahlstrom, Lundberg, Zabriskie, Eggett & Lindsay, 2012). For instance, a large-scale study of the MMO game *EverQuest II* (Verant Interactive, 2004) shows that the average time usage is placed at 26 hours a week (Williams, Yee & Caplan, 2008). Studies of MMO games have often focused on (young) adult participants, in this case the average age is thirty-one years old. This study exemplifies how these kinds of games often lead the player to invest a great deal of time in them to be able to fully participate (cf. Linderoth & Bennerstedt, 2007). The question of time usage also has relevance in discussions on such phenomena as computer game addiction (Brus & Thorhauge, 2011), pathological gaming (Gentile, 2009; Lemmens, Valkenburg &

Jocken, 2011) and general health issues (Calvert, Staiano & Bond, 2013; Simons, de Vet, Brug, Seidell & Chinapaw, 2014).

Concerns about young people and digital games are seen in discussions across a variety of social practices, from mass media to families, all of which are practices with different purposes. Being a teenager in contemporary Western societies involves dealing with social and cultural norms that guide and regulate gaming. Taking a youth perspective, the present chapter explores how concerns about gaming are present in teenagers' talk about acceptable usage of games.

STANCES AND ACCOUNTS

Teenagers play computer games in school as part of their formal education (serious games) and at home together with families and friends. Just a few of them do not play digital games themselves but are most likely to have friends that do play. It could be argued that in one way or another digital games and gaming are part of young people's everyday lives in the Western world. The practice of gaming generates social and cultural norms concerning what, when, where, together with whom to play and how to play (e.g. Reeves, Greiffenhagen & Laurier, 2017). Social norms are restrictions on and possibilities for the social organisation of gaming (Goffman, 1974), as well as how this practice is understood and talked about (Foucault, 1999). Social and cultural norms in young people's talk about digital games and gaming can be discussed in micro-political terms (Baker, 2000). In this text, micro-politics is understood as claims, descriptions, stances and counterstances on digital games and gaming in social encounters. To understand how social and cultural norms work among teenagers, I have focused on teenagers' *stance taking* to gaming and their *accounts*.

Stance taking can be described as a public act where the subject takes a stance with respect to objects or other persons (DuBois, 2007). This means that in interaction with the surroundings one evaluates objects and persons as, for instance good, bad, improvable or healthy. Taking a stance on something or someone involves evaluation through which one positions oneself with respect to these objects and persons. An important aspect of stance taking is that this is considered to be a social act where the stance is adjusted to other subjects present, as well as to the social and cultural context. For instance, one may agree or disagree with the previous talker, or a teacher can agree or disagree with directives in the national curriculum on mathematics. Thus, stance taking cannot be reduced to a private assumption or attitude, but is a social activity situated in a cultural context. According to DuBois (2007), a stance can be described as: "a public act by a social

actor, achieved dialogically through overt communicative means, of simultaneously evaluating objects, positioning subjects (self and others) and aligning with other subjects, with respect to any salient dimension of the sociocultural field” (p. 163). By directing attention on stance taking, the focus is on three aspects of the micro-politics of gaming, evaluation, positioning of oneself and others and alignment/dis-alignment with other persons.

Ethnomethodology/conversation analysis (EMCA) research shows that when participants break social norms, this is followed by accounts explaining why this has been done. “There is a range of accountable actions which are those for which members routinely offer accounts” (Edwards, 1997, p. 106). Accounts consist of descriptions (Potter, 1996). Paul Drew (1984) shows that a declined invitation is often followed by an account describing where to place the responsibility for not accepting it. Here, the responsibility is usually placed outside the control of the person invited. Invitations consist of what conversation analysis (CA) calls an *adjacency pair*, which in this case consists of a question, “Would you like to play *FIFA* with me?” and an answer “Yes sure.” or “No thanks.” When the answer is negative, in this case the invitation is turned down, then it is called a dis-preferred action. A dis-preferred action, for instance a declined invitation, is usually followed by an account explaining why. Accounts differ depending on the context in which they appear. Research has also shown that accounts may be a routinized part of the activity, for instance, after people have presented themselves in phone calls, they often provide an account of why they have called (Sacks, 1995).

To understand how social and cultural norms are dealt with in talk about digital games and gaming, focus here is placed on how teenagers take stances and make accounts in evaluating their own and others’ gaming.

METHODOLOGY

The present study is based on eight focus group interviews with a total of 11 girls and 21 boys, sixteen to seventeen years of age, attending two upper secondary schools in Norway. Each group had three to five students who were in the same school class during the day and a moderator (the author). Students in eight school classes were asked if they would be willing to participate in the study. In some of the classes, all the students wanted to participate, while in other classes 65 per cent said they were interested. The participants were chosen from these self-selected students. The interviews, lasting for 45-65 minutes, were led by the moderator, who used a semi-structured interview guide and digital game magazines as stimuli material to elicit focused talk and discussion. The topics of the interview were

good and bad games, my own playing and friends and parents. At the beginning of each session, the moderator explained the aims of the study, explained the interview procedure and introduced the magazines. It was also underlined that there were no right or wrong answers (cf. Puchta & Potter, 2004). During the interviews, the moderator directed and encouraged discussions as well as introduced new topics when necessary. The interviews were carried out at school during the day and were video-recorded and transcribed (Appendix 1) in Norwegian before being translated into English. The data were analysed by focusing on what was said and how it was said (Puchta & Potter, 2004; Wilkinson, 2006), with a particular focus on stance taking and accounts.

The focus of this text is on young peoples' talk about digital games and gaming. The importance of studying talk rests on two assumptions: First, descriptions are part of how we understand our surroundings and second, *talk is action*, it gets something done (Potter, 1996). These assumptions underline the importance of studying how the participants take stances, evaluate and make accounts concerning gaming to see how social and cultural norms work in teenagers' social interaction. The analysis rests on two CA principles, first, interaction between the participants is seen as sequentially organised in a turn-taking system, which means that one utterance is followed by another. Second, the participants' understanding of each other is displayed through how the other person responds to the former speaker's turn. As a participant in a conversation, I can see how my counterpart has understood what I have said through the uptake in the next turn and through the ways in which the conversation unfolds. Accordingly, how the participants orient to each other's turn is not only important for the participants to understand what is going on, but also this is where the analytical gaze should be placed to understand the social organisation of the activity. This has been referred to as the *proof procedure*, referring to how the participants themselves understand what is going on (Sacks, Schegloff & Jefferson, 1974). Moreover, taking an EMCA approach, the focus is on members' practices in describing their surroundings and displaying their understanding of the present activity. This is considered as the *participants' perspective* in the study of social interaction.

GAMING AS MORALLY ACCOUNTABLE ACTIVITIES

Contemporary Norwegian teenagers are described as well-adjusted and stately (Øia & Vestel, 2014). Compared to earlier generations of teenagers, this is a generation that consumes less drugs, alcohol and tobacco and debuts in these practices later in life than previous generations. In addition, it is claimed that the present

youth generation has less discipline problems in schools and that young people tend to talk and listen to their parents when it comes to making important decisions. They dress in similar ways as their parents, listen to the same music and in general have the same media habits. In short, it is argued that the generation gap is closing (Øia & Vestel, 2014). It could be argued that this indicates that what is seen as acceptable does not differ between the generations, but this does not mean that adults and children have the same rights and options in what they do. One of the areas where this is seen is in public discussions of young people's use of digital games and social media (Boyd, 2014).

In the present data, the question of time spent on gaming seems to be key to the way teenagers make a distinction between *non-problematic use* and *problematic use*. In this micro-political act of balancing between the acceptable and the non-acceptable, three aspects appear where gaming is seen as *a (less) preferred activity*, *a meaningful activity* and *a time-consuming activity*.

A (Less) Preferred Activity

In the present data, the teenagers were eager to display themselves as ordinary, who use digital games in an acceptable way (Aarsand, 2012). In seven out of eight focus group interviews, the participants answered the first question "What kind of games do you play?" by stating "I used to play World of Warcraft." while simultaneously taking a stance against this game in particular. Most of the participants stated that they were not that much into playing digital games. Nonetheless, almost all the participants stated that they regularly play digital games.

In Excerpt 1, we will meet Sindre together with four of his classmates, three boys and one girl. Before the excerpt starts, they have been talking about the kinds of games they play. Sindre has told us that he mainly plays flash games or games on *PlayStation 2*.

Excerpt 1

Participants: Sindre, Kristian, Martin, Lars, Ida and Pål (researcher)

- 131 Sindre Actually I don't play on the PC
132 (1.0)
133 but I feel that computer games are a waste of time after I've been playing, you
know
134 (2.0)
135 and then=

- 136 =in what way?
 137 Sindre Well I feel that I could have spent my time on something else (.) sometimes I'm
 138 skateboarding for example (0.5) but if it's raining the::n I usually play but if I:::
 139 (2.0)
 140 but if it's nice weather outside then I go out
 141 Pål Mm:::
 142 Sindre Then I can't bear being indoors
 143 (5.0)

Sindre has just stated that even though he plays flash games, he is not one of those who use the PC when playing (line 131). Here, not playing on the PC is of importance because it marks that he is not into the kinds of games that are played on PCs, like *World of Warcraft* (Blizzard Entertainment, 2004), *Guild Wars* (ArenaNet, 2005) and *Lord of the Rings Online* (Turbine, 2007) (MMO games). Hence, he also indicates that he is not that much into gaming, rather he is what could be called a casual gamer (in contrast to a hard-core gamer) (e.g. Juul, 2010). In other words, he downgrades his own involvement in digital games and gaming. After a rather long pause he takes a critical stance towards playing digital games by claiming it is “a waste of time” (lines 133-134). This makes Pål ask for an account (line 136), where Sindre then explains that gaming competes with other activities for the time he has at his disposal (line 137). Thus, time is turned into a restricted resource which gaming consumes. Sindre states that after he has been playing, he feels that he could have spent his time differently, preferably on other activities like skateboarding. Here, he tells us that playing games is a less preferred activity compared to other activities; in fact, he states that it feels like “a waste of time”. It could also be argued that it is unproblematic to prioritise skating over gaming. According to Garfinkel (1984), when rules and norms are violated, they will be visible due to the reactions among the participants. Since no one reacts to Sindre's stance, neither commenting nor asking for an account, it is reasonable to assume that outdoor activities like skateboarding can be seen as a preferable activity and that this can be seen as common knowledge among the teenagers in the focus group.

Excerpt 1 reveals an ambiguity concerning what stances can be taken and how this can be done. On the one hand, it could be argued that gaming is presented as a less preferred activity and placed in opposition to outdoor activities. Since outdoor activities are not prioritised when playing games, they are also presented as less preferable. This is even seen in the other interviews in which sports activities and parties are described as more important to take part in than, and in contrast to, playing digital games. It is interesting to note that other indoor activities, such as

reading, listening to music and watching TV are not mentioned as potential competition for outdoor activities. On the other hand, playing games is presented as a preferred and acceptable activity, particularly if it is raining or the weather outside is uninviting. Here, playing digital games is considered acceptable in the sense that Sindre sees no competing outdoor activities (lines 137-138, 142). Moreover, the question is not whether or not to play digital games, rather the question relates to the circumstances under which gaming can be considered a preferred acceptable activity. Displaying gaming as a less preferred activity does not mean that the participants actually prioritize outdoor activities like skateboarding, but it displays the socio-cultural norm when it comes to gaming in contrast to outdoor activities in Norway.

A Purposeful Activity

The first excerpt from the interviews showed how teenagers may orient to gaming as a less preferred activity, but also how it is an acceptable activity given the right conditions. In the interviews, the teenagers talk about playing digital games in the classroom, on breaks, at parties, at LAN (Local Area Network) parties and at home together with friends, siblings and parents. Playing digital games is something teenagers do to entertain themselves alone or together with friends. It is something they choose to do, but this choice may also be a negative one, something they do because they have nothing else to do. In my data, gaming is first and foremost described as a *fun* activity. In Excerpt 2, four boys and one girl are participating.

Excerpt 2

Participants: Sindre, Kristian, Martin, Lars, Ida and Pål (researcher)

- 42 Lars Well, maybe he does it because he thinks it's fun?
43 Sindre I only play because it's fun
44 Kristian Yes, me too

Lars is commenting on a story about a pupil who is gaming so much that he no longer goes to school. He suggests that the reason may be that he finds it “fun” (line 42). This is followed by alignments from both Sindre and Kristian, thereby establishing that the reason for playing digital games is that it is fun. Fun is used as an account, an explanation for why someone is playing and even why someone is playing very much. Moreover, it could be argued that fun is a valid account for playing digital games and the purpose of playing digital games is then to have fun.

The excerpt above shows how the boys in the interview establish an intersubjective agreement on the purpose of playing digital games where the meaning of fun is taken for granted. In Excerpt 3, the focus is on how teenagers deal with the interviewer's provocative stance, indicating that gaming is "a waste of time". In the upcoming discussion, the participants unpack what is meant by "a waste of time", introducing "fun" as an account. Here, we will see that fun is explained and specified. The focus group consists of four boys and the researcher.

Excerpt 3

Participants: Olav, Jens, Amid, Sander and Pål (researcher)

- 1 Pål But if I say that games are a waste of time?
- 2 Amid If you're playing many hours then it's a waste of time but if
3 you're playing an hour alone or two hours every other day or
4 something like that then it's not that much of a waste
- 5 Pål M::
- 6 Amid Actually, nothing that you do is a waste of time
7 (2)
- 8 Pål What are you thinking about then?
9 (2)
- 10 Amid What you want to do is not eh:: you eh:: you do something eh::
11 that is not a waste of time to play a game it is not a waste of time
12 to sit by your PC and eh::: it's actually you who decides how
13 you're going to live your life
- 14 Pål M::
- 15 Sander [only if it's fun
- 16 Amid [if you want to be social
- 17 Pål M::
- 18 Amid Yes
- 19 Pål You said fun
- 20 Sander M:: yes if you really enjoy it then you should be allowed to do it, but
21 there is most likely a limit
- 22 Amid Xxx
- 23 Sander But I don't believe that anyone can be indoors for three days and
24 have fun all the time
- 25 Amid No
- 26 Jens No there is something special about that
- 27 Amid There was this guy in China who died from playing the computer
- 28 Sander But it depends

- 29 Amid He played for, he played (0.5) ye:a like four days in a row
30 without sleeping I don't remember what game it was (.) I'm not
31 sure but he died
32 Pål When did this happen?
33 Amid A year ago
34 Pål A year ago
35 Amid I read it in the paper (0.5) a Chinese guy you know (.) sitting at the
36 computer way too much you know hehe

A critical stance to spending time on playing digital games is presented by the interviewer when he suggests that it could be seen as “a waste of time” (line 1). Wasting time is an expression that assumes that the activity described is less preferable than other activities. Pål’s question invites Amid to unpack the expression, which he does by saying that playing becomes a waste of time when it lasts for “many hours” (line 2). Here, the keyword is the intensifier “many” (line 2). If you are playing “an hour alone or two every other day” then playing digital games “is not that much of a waste” of time (lines 2-4). Hence, he indicates that playing digital games in general is not considered a waste of time, only if one is playing more than two hours and more than every other day. At the beginning of this excerpt, Amid agrees with the possibility of seeing gaming as a waste of time, but he also specifies that playing is not a problem in itself.

Then, Amid turns his statement about gaming as a waste of time into a philosophical question and states that “actually, nothing that you do is a waste of time” (line 6). When the interviewer asks him to elaborate on his statement, Amid says that sitting in front of the computer is an active choice of how to live one’s life. Adding to this, Sander says “only if it’s fun” (line 15). Hence, he disagrees with Amid on the idea that nothing is a waste of time while at the same time he claims that gaming has to be fun. More precisely, it is not a waste of time if it is fun. Sander handles the expression “a waste of time” differently when he claims that gaming should be allowed when it is fun and enjoyable (lines 15 & 20). He does not tell us what this means when it comes to time spent on gaming or when it comes to prioritising gaming to other activities, just that there is “most likely a limit” with respect to when gaming is no longer considered acceptable (line 21). Using the words “most likely”, he displays that he is not familiar with this limit and indicates that he has not reached it in his own gaming, yet at the same time he tells us that there is a limit.

When Sander elaborates on having fun, he doubts that anyone can be indoors and have fun for an extended period of time; in this case three days (lines 23-24).

Two lines of reasoning are of interest here. First, gaming is seen as an indoor activity³ (as in Excerpt 1). Second, “having fun all the time” is used as an account legitimizing extended gaming (as in Excerpt 2). If the purpose of gaming is to have fun and this is not achieved, then the activity is not legitimate. Gaming for an extended period of time is only acceptable as long it is fun, which also indicates that gaming may turn into a problematic activity. Both Amid and Jens align with Sander’s utterances on not seeing the possibility of a three-day long gaming sequence being fun all the time. This indicates a common understanding of gaming as non-problematic and acceptable when it is fun, but as problematic if it is not.

Amid illustrates how three days of gaming may be seen as rather extreme by immediately following with a story about a Chinese boy who played for four days in a row without sleep and apparently died. The story functions as an account when taking a stance against extended gaming, claiming that it potentially can be a dangerous activity. In addition to the public concern about what has been called *hard-core gamers* playing for an extended period of time – virtually non-stop – is that gamers do not seem to prioritise basic needs, such as food, sleep and personal hygiene. A person who plays four days in a row is seen as someone who does not sleep while involved in a game. The trustworthiness of the story is established through references to a newspaper report indicating that this is common knowledge. Furthermore, reference is made to what people see as reasonable to expect from players from China, “A Chinese guy you know (.) sitting at the computer way too much you know” (line 35). Adding “you know” twice in the same utterance underlines the account as something that he expects the others to understand, a valid argument. The use of “you know” indicates mutual knowledge about what Chinese gamers are like. It could be mentioned that there were several articles in the press at this time focusing on professional Asian gamers who sold avatars that have been levelled to their maximum within particular online games. This was also a topic in the discussion between the teenagers at the time.

The present example reveals how time becomes an issue that the teenagers deal with even when the purpose of playing digital games is addressed. Here, the micro-political work is an act of dealing with the concern of extended gaming through balancing acceptable versus non-acceptable time usage. All in all, gaming is an acceptable activity as long as it is fun and playful. If one is playing for an extended period of time, this criterion runs the risk of not being met (lines 23-24). Playing for days involves not having fun all the time and can in the worst case involve putting oneself at an unacceptable health risk (line 31). Moreover, to be

3 It should be noted that *Pokémon Go* (Niantic, 2016) was not an option at the time of the interview and other pervasive games were not mentioned by the participants.

considered as acceptable gaming, one has to keep to the purpose of having fun, but at the same time fun is considered time-restricted.

A Time-Consuming Activity

In the present data, the notion of time reoccurs in the teenagers' talk about gaming. Time is not used as a neutral description of gaming, rather it is used to describe *when* it is considered okay to play and for *how long*. In other words, time usage is potentially problematic and thereby made morally accountable. In the first excerpts this can be seen when spending time on gaming is considered bad as long as the weather is good. In Excerpt 3, this can be seen when spending time on gaming is considered to be good as long as it is fun but becomes problematic when it lasts too long because the purpose of having fun all the time is not accomplished. But what does it mean to play "way too much", what is considered an extended amount of time spent on gaming, what does it mean to play a lot during a week?

In Excerpt 4 we meet one girl, three boys and the interviewer. The focus will be on how the teenagers talked about playing a lot and what this meant when it came to the issue of time.

Excerpt 4

Participants: Sindre, Kristian, Martin, Lars, Ida and Pål (researcher)

- 1 Pål I'm thinking about playing a lot (.) is 30 hours a lot?
2 (1)
3 Martin [No that could be done in a weekend
4 Kristian [No
5 Lars To me it's a lot
6 Ida To me it's a lot
7 Pål Is it a lot to you as well?
8 Martin 30 hours can be managed in one weekend, especially if it's a LAN weekend
9 Pål Okay
10 Martin Then it's easily done
11 Kristian Well if you're a hard-core gamer then, you know, the ones who play all the time,
12 so it will easily be 90 hours a week you know
13 (2)
14 Martin 90 hours then it starts to be difficult to manage it
15 Kristian Not if you're a hard-core gamer (0.5) then you most likely don't have a job either
16 you know

- 17 Martin A::
 18 Sindre Xxx
 19 (2)
 20 Kristian For example you can be a professional gamer
 21 Martin You'll be able to do it for three days but then it gets harder to do it longer than
 that
 22 (2)
 23 Lars I've heard about a guy up in the valley who has been gaming for four days and
 24 levelled it up to level 80
 25 (2)
 26 Ida I've got a friend who has taken a year off school and is playing day in and
 27 day out
 28 Martin Hehe
 29 Ida Who stopped sleeping
 30 Kristian That's completely pointless, you know why you're playing games is to get away
 31 from reality for a little while but if you [don't eh
 32 Ida [but he's playing 24/7=
 33 Kristian =exactly then you're not in reality anymore then there's actually no reason to
 34 play games (.) because if you take yourself out (.) you're no longer in real life,
 35 then there's no reason to game

Pål starts by asking if playing for 30 hours a week is a lot (line 1). Kristian and Martin answer simultaneously that this is not a lot (line 3 and 4), thereby taking the stance that spending 30 hours on gaming is reasonable. On the one hand, Martin claims that 30 hours can be done in a weekend (line 3) and points out that this is particularly doable on weekends when he attends LAN parties (lines 8), that is a gathering of people with computers or compatible game consoles primarily for the purpose of playing multiplayer online games. On the other hand, Martin downgrades his claim by saying “it could be done” (line 3) and it “can be managed” (line 8), thereby indicating that to him, it can be hard to spend that much time on gaming during an ordinary weekend. Both Kristian and Martin indicate that a total of 30 hours a week does not mean playing a lot. Lars takes the opposite stance and claims that 30 hours of gaming is a lot to him and here both Ida and the interviewer align with him. The two opposite stances reveal that playing digital games for 30 hours is not considered unproblematic by Ida and Lars, nor do they consider it to be ordinary behaviour (lines 5, 8 and 10). Moreover, there is disagreement as to what it means to play a lot.

Kristian then places 30 hours of gaming in perspective by referring to those people who play all the time, the “hard-core gamers” who easily play 90 hours a

week (lines 11-12). In contrast to 90 hours of gaming, 30 hours do not seem to be that much. Martin questions the amount of time suggested by Kristian when he says that it is especially hard to accomplish (line 14). Hence, Kristian is forced to give an account in which he argues that if you are a hard-core gamer, you probably do not have a job and Martin agrees with this. In other words, if you play that much, gaming is the only thing you do. Kristian continues by suggesting that one could be a professional gamer. Turning hard-core gaming into a profession clearly contributes to making the excessive time consumption acceptable, as opposed to an unemployed person spending most of his/her time on gaming. Up to this point in the dialogue it could be argued that the hard-core gamer is an extreme category that consists of people who are playing digital games for extended periods of time, most likely people who do not have an ordinary job, or are professional gamers.

The question of time consumption is a key element throughout Excerpt 4. Martin takes a critical stance towards the possibility of playing as much as 90 hours a week (line 14). After the accounts given by Kristian (lines 15-20), Martin modifies the assumed time the hard-core gamer spent on playing when he says “You’ll be able to do it for three days but then it becomes hard to do it longer than that” (line 21). In other words, he says that while it is possible to reach 90 hours a week, this would even be hard to manage for the hard-core player. Furthermore, he argues that the amount of time one has to spend every day on gaming to reach 90 hours a week would be hard to do for more than three days in a row. That means that playing 90 hours is displayed as very much, perhaps too much time, even when referring to a hard-core gamer.

So far, the discussion has been focused on examples the participants have read about in the newspaper. After a relatively long pause, Lars tells a story about someone in the valley who played digital games for four days in a row (lines 23). His story is even more extreme than Martin’s story about the professional gamer. It is told as an extraordinary example of extended gaming. At the same time, he also states that this “guy from the valley” managed to reach the highest level in the game *WoW*⁴. Ida continues this line of thought by telling yet another story about a boy who has taken one year off from school to play digital games. The idea that this is not only extreme but in her example also problematic is strengthened when she says that he has stopped sleeping (line 29) and is playing 24 hours, seven days a week. Kristian immediately reacts to the story as problematic by saying that the whole idea about gaming is undermined when it is turned into life itself. In light of these extraordinary gaming stories, both Kristian’s and Martin’s

4 *World of Warcraft* (Blizzard Entertainment, 2004) is often used as a frame of reference when discussions about extended gaming occur in the data.

stances seem more average. The teenagers use the stories in Excerpts 3 and 4 to illustrate examples of problematic and non-acceptable gaming. Common to these examples is how gaming is described as an activity that stretches over an extended period of time. More precisely, time usage is turned into a morally accountable action. This is illustrated by displaying examples of what they see as extended play and, in particular, extreme cases that show what they display as unacceptable playing.

THE MICRO-POLITICS OF TIME

Time is a reoccurring topic in studies of young people's gaming (e.g. Williams et al., 2008; Brus & Thorhauge, 2011; Medietilsynet, 2016a; Simons et al., 2014). Concerns arise, however, when young people play games for many hours during an extended period of time (e.g. Lemmens et al., 2011; Simons et al., 2014). The present chapter adds to this research by taking the teenagers' perspective on how they approach gaming in talk and how they particularly deal with the potential problem of playing for an extended period of time. In order to do that, the analytical focus has been on stance taking and accounts.

In the discourse on young people and gaming in Norway, gaming is often presented as *a less preferred activity* and related to problems, concerns and restrictions rather than possibilities with respect to such phenomena as friendship, social interaction and cooperation. As can be seen in the present data, gaming is contrasted to outdoor activities, which are considered to be both good and preferred activities. An example of such a claim can be seen in Excerpt 1. It is striking that the participants do not object to such a stance. Rather, it could be argued that it is taken for granted that some activities are of more value than others but it is also seen that what is considered the preferred activity is related to the context. Here, the notion of time is made relevant in terms of *when* it is okay to play. Hence, time is made into a morally accountable activity in the sense that players will have to legitimize their choices of when to play. Furthermore, it could be argued that the teenagers display an awareness of the changing conditions under which they are playing and that these demand different stances and accounts.

A recurring and key account when legitimizing gaming in the data was that gaming has to be *fun*. Put differently, the purpose of playing digital games is to have fun. If you are not having fun, then gaming becomes a non-acceptable activity, a moral problem. When fun is used as an account for playing games, then time is the key device. The data material displays vaguely that gaming for hours and

days is problematic since having fun is seen as time restricted. If the purpose of gaming is to have fun, then gaming is a *time-restricted* activity.

The teenagers also talked about gaming as a possible *time-consuming* and non-acceptable activity. This does not necessarily make gaming a concern, but it makes time usage something that the teenagers have to account for. Participating in arrangements such as LANs indicates that young people can spend many hours on playing without seeing this as problematic. Therefore, what does it mean to play a lot? Does playing sometimes become a problem? Extended gaming that results in quitting ordinary activities like school or, in its most extreme case, risking one's health, is found morally problematic. Gaming is a concern when gamers are not able to deal with everyday activities, which may be the outcome of playing for days. The teenagers in the present study do not agree on what it means to be "playing a lot" in terms of hours but they take a clear stance against being categorized as a "hard-core" gamer, which is considered morally problematic if you are not in fact a professional gamer. Thus, how one takes a stance on time usage related to gaming becomes an indicator of how much one is into gaming and categorized by one's social surroundings.

From the teenagers' perspective, gaming is of concern when it comes to the consumption of time. They have to manoeuvre their gaming with respect to *when* they are playing and for *how long*. The idea that time is of particular concern can be seen in the (re)production of stories about extreme cases, such as the Chinese boy, "a guy up in the valley" and "a friend" of mine. Last but not at least, the concern is seen in the micro-politics of what is considered acceptable use of digital games.

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APPENDIX 1: TRANSCRIPT CONVENTIONS

Symbol	Meaning
?	Inquiring intonation
=	Contiguous utterances
:	Prolongation of preceding vowel
[...]	Lines left out
(2)	Pause 2 seconds
(.)	Pause shorter than 0.2 second
Xxx	Something was said but the transcriber could not discern its content.
Wo[rđ	The bracket indicates the onset of overlapping speech
<u>Word</u>	Underlined means stressed word (or part of it)
WORD	Loud speech
((laughing))	Comments made by the researcher
>Word<	Embeds faster speech than surrounding speech
Hehe	Laughter

Parenting for Digital Literacy in Denmark and Germany: Between Techno-Invitationalism and Techno-Protectionism¹

NIKLAS ALEXANDER CHIMIRRI

On 23 May 2016, at 10.45 p.m. the German public service television channel ARD broadcasted the weekly talk show *Hart aber fair* (Tough but fair). This week's topic was entitled: *Are smartphones dumbing people down and making them ill?* (Plasberg, 2016, my translation).

On the other side of the German-Danish border, two days later: The Danish public service television DR2 broadcasts a morning show interview with clinical psychologist Bo Møhl. The related news article on DR's website opens with the following caption: *Expert: Absent parents are to blame for widespread self-harm among children and youth* (Ellesøe, 2016, my translation). The expert mentions two main reasons for self-harm among children and youth: Firstly the high amount of time children spend at educational and care institutions and thus away from home; and secondly, the absent-mindedness and lack of childcare on the part of the parents, due to the high amount of time they spend on social media and digital media devices while at home. Møhl's analysis of parental absence and absent-mindedness is backed by the chair of the Danish National Council for Children (*Børnerådet*), whose institution had just issued a survey study on self-harm among 9th grade students (Alim & Nielsen, 2016).

Both broadcasts frame the debate around digital concerns in terms of health and well-being, a discourse of avoiding harm in the use of digital consumer products. Although the German talk show did not explicitly focus on children and

1 One of the empirical studies this chapter is based on was realised as part of the Danish Center for Research in Early Childhood Education and Care (CEDIF), which is financially supported by the Danish Union of Early Childhood and Youth Educators (BUPL).

youth, the discussions revolved almost exclusively around children and the alleged digital generation's individual use of digital devices (smartphone plus everything else). This concern with the individual youngsters' preparedness for an increasingly digitalized future may be similar in Danish public discourses, but the role of the parents in the preparation for this future is much less so. In Danish public discourses, parents tend to be articulated as active co-producers of the child's already present future, for better and worse. In German public discourses, parents tend to be articulated as protectionist gatekeepers who need to be convinced that the digitalized future is unavoidable. At least, this is what national digital literacy initiatives directed at pedagogical-educational practice seem to be ontologically supporting and reproducing.

This chapter opens with an empirical grounding of these debates' relevance in the everyday concerns of parents towards their young children's digital practice. It is argued that these concerns exhibit similar contradictions in daily life, but nevertheless consistently draw on differing parental ontologies, as evidenced in empirical interview material collected in a German and two Danish nursery institutions. The parents' everyday concerns are thereafter contrasted with the European Council's digital concerns, the latter largely ignoring even the existence of the former. After a brief introduction of the chapter's case study methodology, digital literacy initiatives from Germany and Denmark are contrasted. It is argued that such initiatives substantially co-constitute the discursive and thus the imaginative frame for parents' possibilities to articulate their digital parental concerns, particularly in moments of heightened uncertainty. Finally, it is concluded that digital parenting concerns cannot be purposefully debated without a more general debate as to what a parent ought to be.

DIGITAL PARENTAL CONCERNS SHAKING UP STABILIZED ONTOLOGIES

The initially presented ontological discourses of what a parent should be in times of children's increasingly digitalized everyday life, showcase mere – nationalized – snapshots of the variety of understandings that parents articulate when asked about this issue. Interviews conducted with parents and nursery professionals in the context of two long-term participatory studies at a German nursery and two Danish nurseries underline the fact that extreme cases of techno-euphoric and techno-dystopic discourses can be identified across national borders, frequently even within the very same interview with the very same interviewee:

A father in Germany does not want one of his son's kindergarten friends to come over, as the friend is a purported digital addict and the father fears the friend might harm his son's social behaviour – while at the same time the father himself is an eager computer game player and also praises his son as a digital native. A mother in Denmark tells me that she is fascinated by how her son clicks through YouTube and learns foreign language words via the cartoons he chooses to watch – while strictly opposing the idea that a nursery should include digital literacy in its pedagogical curriculum. A couple from the same institution agree that the nursery should be devoid of digital devices for children – yet they still want their daughter to develop digital skills for her future life, while the only ritualized digital engagement they allow for is television watching before dinner time. At another Danish nursery, a parental couple is happy about the application *Famly*, which nursery staff use to inform parents about what projects their children engage in throughout the day, and to remind them of upcoming events – with the mother asking for more *Famly* messages, while the father feels overwhelmed by the quantity of *Famly* messages received.

All parents I have interviewed explicitly agree that they are deeply concerned about current digital developments and how best to prepare their children for them: In a nutshell, they are uncertain as to whether to prioritize their child's current well-being or projected future well-becoming. This results in insecurity with regard to how to discuss and meaningfully engage with their children's increasingly digitalized everyday life, regardless of whether their respective nursery's pedagogical approach actively promotes digital literacy or not. A certain degree of parental uncertainty in this matter is surely unavoidable – as Lynn Schofield Clark (2012) also illustrates in her book *The parent app*, one of the few academic publications on this topic also addressing parents (arguably, in particular the blog *Parenting for a Digital Future*², but also the related Media Policy Brief, could be considered relevant academic publications directed at parents; cf. Blum-Ross & Livingstone, 2016). Everyday family life is already too varied and unpredictable for there to be a list of straightforward and standardized guidelines on how to handle parents' digital concerns. Meanwhile, it is broadly acknowledged that parents should become actively interested and engaged in their children's digital practice. *How* this combines with other parenting activities, whether supporting and/or contradicting them, however, has until now hardly been investigated.

A recent exception is a chapter written by media researcher Maja Sonne Damkjær, who investigated Danish couples' use of digital media at the transition to becoming parents, ergo during pregnancy and up until four months after giving

2 <http://blogs.lse.ac.uk/parenting4digitalfuture/>

birth – thus at a time when uncertainties regarding good parenting are arguably most prominent in a couple’s everyday life. She found that digital media content actively co-produces new parents’ understandings of parenthood, that there is societal pressure on parents to (digitally) communicate, reflect on and aestheticize parenthood, and finally that the communicative framings around parenthood are destabilized, which can lead to both gain and loss of autonomy and in extreme cases disturb parenthood’s central task: to care together for the child (Damkjær, 2016, pp. 126-127).

New (as well as, in my own empirical material, experienced) parents’ digital uncertainties, then, regard not only children’s acceptable digital practice, but clearly also the parents’ own digital practice (see also clinical psychologist Møhl’s claims above). Moments of heightened parental doubt, given the destabilized communicative framings surrounding parenthood, may make parents more prone to turn to currently popular public discourses – at least as a referential framework or *backdrop for articulating their concerns*. Although there are many similarities in the everyday parental ambivalences, contradictions and insecurities with regard to discussing and acting on their young children’s digital practices, these were differently articulated according to whether the interviews were conducted in Germany or in Denmark. For instance, the above mentioned father, the one who fears his son’s friend’s negative influence, emphasizes that it is a parent’s central task to protect the child from social and thus also digital harm – while the Danish parents I talked to are utterly aware that they ought to be welcoming digital education into the nursery, and thus feel like harming their child’s future becoming when acting too protectively. This nation-specific appraisal would also be broadly in line with the country clusters synthesizing opportunities, risks and harm experienced by the children who participated in the EU Kids Online project (cf. Helsper, Kalmus, Hasebrink, Sagvari & De Haan, 2013).

The working hypothesis for this chapter, then, is that there exist fundamentally differing parent ontologies in German and Danish popular discourses around digital literacy: one that values parental protection from digital harm, and one that values parental openness to digital gain. It is one of the aims of this chapter to identify and inquire into the presumable discursive backdrop, where it consolidates certain ontologies while at the same time creating new contradictions, leaving the parents feeling alone with their digital concerns as they juggle their daily family life.

AN INQUIRY INTO DIGITAL LITERACY CONCERNS AND INITIATIVES AFFECTING NURSERY ARRANGEMENTS

In 2015, the Council of the European Union (EC) in its conclusions on the role of early childhood education and primary education in fostering creativity, innovation and digital competence³ acknowledged that we live in “a world where many children tend to be quite comfortable with digital media” (p. 19), a view that despite meaningful critiques (e.g. Helsper & Eynon, 2009; Selwyn, 2012) echoes Prensky’s (2001) widely popularized idea that the current generation of children and youth can be purposefully described by the term *digital natives*. Nevertheless, recent EC-funded research emphasizes not only the many opportunities involved for children in using digital media and particularly in surfing the World Wide Web, but also its multiple risks, many of which were articulated as problematic by the young users themselves (cf. EU Kids Online, 2014), as well as by their parents in the context of parental mediation efforts (cf. Livingstone, Mascheroni, Dreier, Chaudron & Lagae, 2015). Hence, the question of how digitally literate or competent children actually are when it comes to decoding, critically questioning and reflexively acting on digitally transmitted media content, including computer game content, remains academically and politically unsettled. Accordingly, related concerns vary strongly in EU public discourses across member states. This is the case despite EU-wide digital literacy initiatives such as the Better Internet for Kids strategy⁴ and its national Safer Internet Centres – arguably on a continuum with neighbours Germany and Denmark marking the two extremes. This variety is mirrored in a nation’s rating systems and institutions for computer games, television series and films, meant to legally protect the child from harmful media content (cf. Dreyer, 2018, this volume; Schank, 2018, this volume; Hjorth, 2018, this volume), as well as official political initiatives to promote digital literacy, including research funding and media reports covering these initiatives and their outcomes (but also actual possibilities for children to participate in computer game and other digital design processes [cf. Berriman, 2018, this volume]).

More important for the argument here, however, is that these institutional concerns, socially and materially stabilized in popular media and political discourses and initiatives around children’s Internet usage and more generally usage of digital devices in everyday life, not only feed on distinct ontological understandings of what children are and what they can do at certain ages. They also feed on distinct ontological understandings of what parents (and other adults) are and what they

3 I wish to thank Jaakko Hilppö for pointing me to the publication of this document.

4 www.betterinternetforkids.eu

can do in the light of new technological challenges in everyday life. This, in turn, has consequences for the self-understanding that the respective nation state and its institutions (government, ministries, agencies, municipalities, as well as media institutions) produce and reproduce when launching and funding initiatives that support the development of digital literacy.

It will be argued that a selective current snapshot of national, institutionally supported digital literacy initiatives and related media coverage, with EU-wide initiatives acting as backdrop, reveals similar material-discursive tendencies in both Germany and Denmark and simultaneously one crucial difference. In both cases, children appear to be primarily understood as agentic and skilful digital users in need of guidance; however, within Germany's rather techno-protectionist ontological framework, children are understood as less digitally literate than parents, as being more at risk of harm and in need of strong parental protection (despite positive regulation measures [cf. Raczkowski, 2018, this volume; also Dreyer, 2018, this volume; Martin & Aßmann, 2018, this volume]). Accordingly, digital literacy initiatives primarily focus on slowly developing the child's individual literacy via pedagogical-educational institutions such as nurseries, while broadly ignoring the parents' development. Within Denmark's rather techno-invitationalist ontological framework, children are understood as digitally quite literate but not yet enough for anticipated, future (economic) challenges. They not only need parental guidance, but parental co-development of digital literacy. Initiatives thus focus on developing children's digital literacy in interplay with the digital literacy of the intergenerational communities they are part of, with special emphasis on the nuclear family's digital literacy (although in Germany, assistance in becoming responsible members of the community is also centrally mentioned in the German Constitution, [cf. Dreyer, 2018, this volume]; hence, this task is also reiterated in German pedagogical programmes, such as the Berlin Educational Programme [*Berliner Bildungsprogramm*] [cf. Chimirri, 2014]). Issues related to computer games and other digital concerns could thus be understood as pointing to transgenerational problems with digital literacy within Danish discourses, rather than reproducing them as an individual child's or a specific generation's problem. At the same time, these discourses suggest that Danish pedagogical-educational professionals and parents should not only rearrange everyday life practice so as to better prepare children for future technological and labour market challenges, but should also welcome technological change into the intergenerational everyday life practice and enthusiastically appropriate it together with the children.

A HEURISTIC CASE STUDY APPROACH TO CONTRASTING DIGITAL LITERACY CONCERNS AND INITIATIVES

The argumentation presented here is based on empirical material generated during fieldwork at a nursery institution in Berlin, Germany, as well as initial empirical insights into two nursery institutions in Denmark, including analyses of which pedagogical discourses the institutions explicitly and implicitly build their digital literacy practice upon. The German study was part of my PhD research project (Chimirri, 2014), and following a one-week pilot, conducted in the spring/summer of 2011, I visited the institution 55 times over a course of four months, keeping a research diary with a primary focus on children's individual and collaborative activities and their possibilities for drawing on popular media content and narratives. Diary notes were complemented with 20 hours of video observations, 15 hours of recorded conversations with children, staff and parents, problem-centred interviews with 13 staff members including the leadership, and nine problem-centred interviews with parents. The study in Denmark is still ongoing, and was started in September 2016 at two nurseries that are located in proximity to my university, but belong to two different municipalities, and vary considerably in size, in their material and pedagogical arrangements, and not least in their uptake of digital devices in institutional everyday life. In this project, the analytical focus is on what the politically strongly promoted digitalization of early childhood education and care in Denmark may imply for children's possibilities for engaging with the material and social arrangement of the institution and for fostering their well-being. Again, a research diary is being kept of the – by now – around 20 visits per institution, and complemented with video observations, audio recordings of spontaneous conversations with children, staff and parents and of staff interviews and parent interviews.

In this chapter, this empirical material generated together with parents during participatory fieldwork serves as a motivation for looking into the two nationalized cases of digital literacy initiatives and their articulations of parent ontologies. As stated in the beginning, parental concerns and uncertainties about securing their children's future well-being by fostering digital literacy emerged in relation to contradictory expectations articulated, among others, by lawmakers, the mass media and other public discourses enacted in such initiatives (on the contradictory nature of the legal framework for parenting in Germany [cf. especially Dreyer,

2018, this volume])⁵. In the process of trying to trace and inquire into these actualized public discourses, I let myself be guided by all the adult research participants with whom I came in contact, in particular the parents I conversed with and interviewed, but also pedagogical staff, colleagues at relevant research gatherings, and experts such as the Head of the Danish Media Council for Children and Young People, Anne Mette Thorhauge, whom I interviewed in the context of another research project (cf. Das & Ytre-Arne, 2017). These contacts pointed me to those digital literacy initiatives as well as to underlying legal sources that they considered most relevant in order to make sense of parental articulations of what to do about their children's use of (digital) media, and I followed up with cross-reference research on the European Commission's and the respective initiatives' websites, as well as with related, current media coverage searches via Google and DuckDuckGo search engines in order to further diversify perspectives on this matter of concern.

The methodology enacted in selecting and analysing the thus gathered sources is inspired by psychology from the standpoint of the subject (e.g. Schraube & Osterkamp, 2013; Motzkau & Schraube, 2015; Busch-Jensen, 2015), qualitative heuristics (e.g. Kleining & Witt, 2001) as well as the phronetic approach to working with case studies (e.g. Flyvbjerg, 2001). Although grounded in different philosophical paradigms, all three approaches highlight the need to let methodical decisions follow the subject matter under scrutiny, and hold that iterative adjustments throughout the research process are not only acceptable, but unavoidable, given that insight into the subject matter develops and along with it the researcher's analytical tools. As a result, such processual methodologies cannot generate any *final* results, but rather historically-societally situated, intermediary insights which potentially lead to the posing of a different set of collectively relevant questions to the subject matter under scrutiny (cf. Chimirri, Andersen, Jensen, Søndergaard & Wulff Kristiansen, 2018, this volume; also: Amin & Thrift, 2005). With another methodological approach and analytical focus, I would have ended

5 Parental concerns and uncertainties also emerged as more ambivalent and contradictory in the German context I explored than what Martin & Abmann's (2018, this volume) findings suggest. I speculate this may be due to my research focusing not solely on computer games, but on the wider media landscape; the fact that I only talked to parents with children in nursery, where for instance violent computer games are less of an explicit issue; and the fact that my analytical interest was not primarily focused on the parents' concerns during the interviews, but on what they considered their children to be doing with (digital) media and why they found these to be (un)important for their institutional everyday life.

up with a different selection of relevant sources and thus different findings. But rather than viewing alternative samples and findings, such as those of the European Audiovisual Observatory's (2016) *Mapping of media literacy practices and actions in EU-28*, as standing in opposition to the selection made here, I understand them as an analytical complement that would need to be taken into consideration when attempting to critically reflect on and generalize across the analytical foci and questions addressed in this chapter and in the mapping report.

In the two nationalized case analyses of this chapter (Danish and German digital literacy initiatives and related media coverage), the subject matter consists of similarities in understanding publicly formulated and iteratively reproduced concerns around young children's digital literacy, including how it should be promoted and what role parents should assume in this promotion. The above described approach follows the heuristic methodological principle of "aiming at *exploration and discoveries*" (Kleining & Witt, 2001, para. 11, emphasis in original; cf. Chimirri, 2014, pp. 56-58), while seeking to maximally diversify the perspectives on the subject matter. In my interpretation of qualitative heuristics, the search for similarity goes hand in hand with the diversification of perspectives⁶ (or sources and genres) over the course of an inquiry process, in that the discovery of a similarity across diversified perspectives calls for a critical examination of this very same similarity by further diversifying perspectives. It thus represents an ongoing, inherently explorative and democratic approach to prototyping discoveries, suggesting always preliminary conclusions that enable and call for further theoretical development through dialogue and ensuing new questions to the perspectives analysed, pointing to alternative, not-yet-considered perspectives and foci of analysis. Accordingly, although this chapter started out with an interest in mapping the child ontologies present in current German and Danish discourses on digital literacy, the research process and its analytical interest in pinpointing how digital concerns are socially and materially stabilized in different ways in the nursery institutions I visited, as well as in relevant documents, ultimately afforded me to redirect the focus towards the child-adult relationship and more specifically towards differing ontologies of parenthood.

Flyvbjerg's (2001) phronetic approach to working with case studies is further valuable in that it emphasizes contextual values and situational ethics, thereby rejecting the question of whether one nation's institutionalized digital literacy practice is universally better than the other. Instead, working phronetically with cases

6 Perspectives not understood in an essentialist, ocularcentric manner, ergo as viewpoints belonging to one particular individual, but as the enactment of a relatively stabilized, material-discursive arrangement or configuration.

may allow the emergence of alternative interpretations of what is at stake in the respective digital literacy practice, allowing for critical inquiry into nationalized presumptions of what aims digital literacy initiatives are to strive for (such as, e.g., job market readiness). Moreover, phronetic social research places power at the core of the analysis, or more specifically: the governmental rationalities that “are at work when those who govern govern” (Flyvbjerg, 2001, p. 131). These rationalities are not per se problematic, and neither is power. But power may be exercised in problematic ways (cf. also Busch-Jensen, 2015). For instance, to borrow from the insights of Karen Barad, the problematic exercising of power may be in play once “material-discursive apparatuses of bodily production” (2003, p. 827) become configured as apparently immovable and unquestionable. Once power relations are rendered non-renegotiable, they merely reproduce the dominant-hegemonic meaning structures in the sense of Hall (1980), which, in a diffractive reading through psychology from the standpoint of the subject, constitute the currently most self-suggestive *imaginable possibilities for acting and collaborating* (cf. Chimirri, 2012; 2014) on digital literacy across variations of perspective. Thus, who we (via the governmental rationalities we are acting through) understand to be the primary addressees of institutionally supported digital literacy initiatives, given certain, apparently obvious ontological configurations of these addressees, powerfully frames and temporarily stabilizes our possibilities for how to meaningfully relate to and renegotiate digital practice in children’s and adults’ everyday life. This is illustrated in depth by means of contrasting two arguably extreme cases within the EU with regard to regulating children’s digital engagements and to framing digital literacy initiatives: the case of German initiatives and the case of Danish initiatives.

THE CASE OF GERMAN DIGITAL LITERACY INITIATIVES: ADDRESSING PARENTS AND EDUCATORS AS A KEY TO REACHING CHILDREN AND ADOLESCENTS

The formulation “addressing parents and educators as a key to reaching children and adolescents” is borrowed from the German web presence *klicksafe* (What does *klicksafe* do?, n.d.). It describes how *klicksafe*, the German awareness centre of the EU-wide Better Internet for Kids strategy⁷, intends to achieve its goals: In addition to providing children and youth directly with information and activities that

7 The German Safer Internet Centre not only encompasses *klicksafe* as awareness centre, but also two national alert platforms for reporting illegal content on the Internet:

aim at promoting their media literacy, for instance through small film clips, the initiative seeks to address parents and pedagogical-educational professionals as responsible gatekeepers and protectors of children's inviolacy. Educators are primarily to ensure that children will be protected from Internet risks and harms.

The presumably best-known digital literacy campaign in Germany is called *Schau hin! Was Dein Kind mit Medien macht* (Look! What your child does with media; the exclamation's imperative meaning can best be approximated in English by doubly negating it: Don't look away!). It intends to be an online parent guidebook on media usage, which supports educators in strengthening their children in handling media (SCHAU HIN! hilft Eltern, n.d.), and is a collaboration between the Federal Ministry of Family Affairs, Senior Citizens, Women and Youth, German public television (ARD and ZDF) and the television magazine *TV Spielfilm*. In existence since 2003, the umbrella campaign supports around 60 national initiatives on media and digital literacy, features German TV ambassadors and is promoted on public television also around prime time. Its statement of purpose notes that it aims at promoting *Medienkompetenz* (media literacy) (SCHAU HIN! hilft Eltern, n.d.). The website explicitly addresses parents, both via its title and its web presence (look at what YOUR child does with media).

Other politically supported initiatives that primarily or secondarily address parents include *klick-tips* (Willkommen auf der Erwachsenenseite, n.d.), which is a collaboration between the competence centre for the protection of minors on the Internet, *jugendschutz.net* (financed by the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth, the regional youth protection and youth media protection agencies, and also part of the EU's Better Internet for Kids strategy) and the *Stiftung MedienKompetenz Forum Südwest*, a foundation financed by two southern regional media agencies as well as one public television & radio station.

These online initiatives address parents rather than pedagogical-educational staff. The latter's function in promoting digital literacy is foremost emphasized elsewhere, for instance in the Education and Science Workers' Union's research publications (e.g. GEW [2016] on new media at school), as well as via the relevant national legal framework (SGBVIII) and in particular the regional pedagogical programmes. Education is *Ländersache* in Germany: The main legislative and administrative responsibility lies with Germany's 16 federal states, its parliaments and relevant agencies. For nursery professionals, the federal parliaments issue

1. jugendschutz.net, 2. the complaint office IBSDE, driven by the Voluntary Self-Monitoring of Multimedia Service Providers (FSM e. V.) in cooperation with the internet industry association, eco.

guidelines that specify the national legal framework, and which are in turn reinterpreted by the various institutions according to their own pedagogical aims (for more detailed analyses of this interplay, see Chimirri, 2014, pp. 61-104). Berlin's pedagogical programme, for instance, specifies how professional staff should assist children in discovering digital opportunities and make it part of pedagogical projects, calling for professionals to develop their digital literacy as well. A more systematic approach is offered by the federal state of North Rhine-Westphalia: It launched a programme (*Medienkompetenz-Kitas NRW*⁸) that on the one hand offers professional media literacy training for nursery staff and on the other hand makes suggestions as to how parents can use digital devices at home together with their children in educationally purposeful ways. Approaches to how media and digital literacy should be addressed and/or implemented thus vary widely across federal states, including the extent to which pedagogical-educational staff should become involved.

Media coverage of digital literacy issues repeatedly reproduces polarized viewpoints on digital technology's ubiquity and its consequences for the individual child. In the initially mentioned talk show *Hart aber fair*, cognitive neuroscientist and psychiatrist Manfred Spitzer most clearly represented the techno-dystopic and protectionist pole. Entrepreneur Frank Thelen represented the techno-invitational pole, which is worried about the nation's future economic development and fears that German children will end up as 'digital illiterates'. The techno-enthusiasts focus more on the future employability of the individual child rather than on any possible uncontrollable effects on well-being or health as a result of excessive or inappropriate digital exposure. Interventions by the press include helping the individual child to identify Internet risks (such as in *Dein SPIEGEL* 3/2012, the monthly child-directed version of Germany's most renowned weekly news magazine *DER SPIEGEL*, in which the issue was entitled *Ich und das Internet: Surfen, Lernen, Gefahr erkennen* [I and the Internet: Surfing, learning, recognizing danger] [Mascolo, 2012]) as well as calls for professional nursery and other educational staff to make use of digital learning games and further train digital literacy, as has been happening in Germany in recent years (cf. Lorenzen's [2013, 20 February] article in *Wirtschaftswoche* entitled *Digital education: Why the tablet should be introduced to the kindergarten*).

Many more nuanced (often but not exclusively academic) voices also partake in these debates, including within the above-mentioned talk show and press articles. Nevertheless, while children and professional nursery staff are to be trained in digital literacy, the analysis' main discovery is that it is the parents who are

8 www.meko-kitas-nrw.de

expected foremost to monitor and regulate quantitative and qualitative access to digital content. Parents are thus addressed as persons relevant to the child's everyday life only to the extent that they hold a 'monopoly position' in the access to and thereby promotion of their children's digital literacy, as also expressed in a study issued by the corporately funded *Deutsches Institut für Vertrauen und Sicherheit im Internet* (DIVSI) (German Institute for Trust and Security on the Internet) (DIVSI, 2015, p. 76). Parents primarily act as the children's gatekeepers, both in relation to how children are to be exposed to media as well as to digital literacy initiatives.

THE CASE OF DANISH DIGITAL LITERACY INITIATIVES: INTERGENERATIONAL COMMUNITIES AS IDEAL ADDRESSEES

In Denmark, the awareness centre of the EU's Better Internet for Kids strategy is hosted by the Media Council for Children and Young People (whose Director, as mentioned, also contributed a chapter to the current anthology [cf. Thorhauge, 2018, this volume]). The Media Council is part of the Danish Film Institute and was established in 1997, with the primary task of classifying films and DVDs for children under the age of fifteen. It thus started out with an explicitly protectionist agenda. In 2004, it began hosting the awareness centre⁹ with a mandate "to create awareness and inform about children's use of the Internet and new digital technologies as well as provide parents and educators with knowledge and tools for guiding children in the network society" (Awareness Centre Denmark, n.d., para. 2). It now collaborates with the Danish Centre for Digital Youth Care (*Center for Digital Pædagogik*) and its *cyberhus*¹⁰ helpline as well as the hotline of the NGO Save the Children (*Red Barnet*) in order to implement the national Safer Internet Centre.

The provision of knowledge and tools to parents and pedagogical-educational staff and thus the promotion not only of children's, but also parents' and professional's digital literacy, rests primarily with the Media Council. It publishes news and reports, initiates research projects, seeks dialogue with the industry as well as academia and regularly contributes to public debates through established chan-

9 First under the umbrella of the EU's Safer Internet Initiative, now under Better Internet for Kids.

10 www.cyberhus.dk

nels. It also uses its own website to reach out to children, parents and professionals. Its interventions are less of a prescriptive kind than many of those offered in Germany, for instance in terms of children's quantitative media exposure. Sporadically, this lack of prescriptive guidelines – which could arguably assist Danish parents and professionals to take responsible decisions in relation to media exposure – is criticized, recently for example by Save the Children (cf. Ritzau, 2015). Possibly as response to such (partly internal) criticisms, while underlining the aim of promoting the digital literacy not only of children and professionals, but also of parents, the Media Council issued a guidebook for parents of children aged seven to twelve, together with the Danish Centre for Digital Youth Care and Save the Children (Medierådet, 2015; co-financed by several corporate partners such as Lego and Microsoft; cf. also the section on Denmark in the European Audiovisual Observatory's 2016 report). Among other things, parents are also asked to reflect on their own digital practice, and take it as point of departure for a fellow inter-generational exploration of digital concerns and challenges.

A similarly self-reflexive chord is struck by the former Director of The National Council for Children (*Børnerådet*), Per Schultz Jørgensen, in an article on setting parental rules for children's digital practice published in the free consumer newspaper *Søndagsavisen*. One of the suggestions for setting rules is: Create a family narrative in which your community ought not to be replaced by tablets and phones, but in which you instead all engage in something together. Be ready to offer your children alternative content and ways of being together when they are not allowed to use screens (Kjeldsen, 2015, para. 9).

Since Egedal municipality kicked off the presumably first iPad acquisition programme for nursery children of all ages (cf. Gräs, 2011), professional nursery staff have increasingly tended to be articulated as willing to engage in explorations of digital literacy together with children: For instance, they are meant to become “digital forerunners” (Mehlsen, 2014, p. 6, my translation), as described in an interview with media and communication researcher Stine Liv Johansen¹¹ from Aarhus University published in a special issue of *Børn & Unge Forskning*, the research magazine of the Danish Union of Early Childhood and Youth Educators (BUPL). A number of other researchers emphasize a similar understanding of the same issue, and the assessment is also iterated on channels oriented at pedagogical-educational staff (cf. Schousboe, 2014) as well as national media outlets such as DR¹² (cf. Rosenberg & Øtting, 2014), which reported on Johansen's studies in

11 Johansen later became a member of the Media Council for Children and Youth, in the spring of 2016.

12 www.dr.dk

an after-school care club in Odder municipality that started a pilot project in 2013/2014 on implementing iPads so as to ease the transition between nursery and school. The pilot was positively evaluated by the municipality, which decided to implement it in all its nursery centres in combination with comprehensive wireless LAN access.

Through meta-reports such as the one recently issued by the Implement Consulting Group in cooperation with *Socialt Udviklingscenter* (2015) on behalf of the Danish Ministry for Children, Education and Gender Equality (UVM) and the Danish Agency for Digitisation (*Digitaliseringsstyrelsen*), such municipal initiatives tend to be displayed as best practice examples of how it may make sense to promote the pedagogical use of digital devices in nursery everyday life. Such material-discursive arrangements have already had an impact, for instance in current suggestions on how to create *Fremtidens Dagtilbud* (Nursery of the Future)¹³, in which it is stressed that older nursery children should learn to use iPads so as to be better prepared for working digitally in school (cf. Blicher, 2016). Or, as it is put in the new 2016-2020 digitalization strategy issued by government, municipalities and regions: In a digital world, IT and digital tools and learning devices should be a natural part of pedagogical practice, of the teaching and education of children and youth. New digital tools and learning devices are meant to challenge the digital generation in nursery centres, schools and other educational institutions, and to enable good pedagogical practice and high-quality teaching (Digitaliseringsstyrelsen, 2016, p. 29). Notably, promotion of parents' digital literacy is neither explicitly addressed in the Implement/SUS (2015) report, nor in the *Digitalization strategy 2016-2020*. Here, parents are chiefly mentioned when it comes to expanding and easing digital communication between pedagogical-educational institutions, state agencies and parents – thereby implicitly reproducing their gate-keeper function.

In practice, Danish nurseries relate to the integration of digital devices and the promotion of digital literacy very differently – depending, among other factors, on the municipality to which they belong. One of the nurseries I collaborate with was initially provided with three iPads, and some staff briefly experimented with its pedagogical possibilities. However, underdeveloped technical infrastructure and a prioritization of care-related projects halted most digital activities that directly involved tablet-child interaction. The other nursery, located nearby but belonging

13 A comprehensive development programme initiated by the last government and implemented by a consortium consisting of higher education institutions, evaluation agencies and a consulting firm and being tested in 14 municipalities; cf. *Fremtidens Dagtilbud* (n.d.).

to another municipality, acquired tablet computers and in particular an application called *Famly*. On the one hand, this app enables parents to digitally check-in and check-out their children at the nursery entrance, giving the nursery leader the possibility to monitor attendance at any time. On the other hand, it provides tools to show the parents what has been happening throughout their child's nursery day, via photos, text, etc. There are other digital applications providing very similar services, such as *KBHforældre* (for all nursery parents in Copenhagen municipality), *Børn & Unge Intra* in the *Fremtidens Dagtilbud* framework and *Forældreintra* (an intranet platform for all Danish school parents) that place at least an implicit demand on the parents to expand their digital literacy – whether they want to or not (cf. Akselvoll, 2016).

In conclusion, then, it is generally not the individual child that is seen to be at risk from digital harm, as in Germany, but rather the nuclear family and the communities in Denmark that appear to be at risk from falling behind in their technological innovation potential. Therefore, digital literacy initiatives, addressing parents primarily through the equipping of the children's educational institutions with digital devices and pedagogies, are implemented in much more concerted ways than would be possible in federally organized and traditionally techno-sceptic Germany. Furthermore, these initiatives are deeply interconnected with broader societal digitalization tendencies in Danish everyday life and citizenship, as will be shown in the following section.

A PRELIMINARY CONTEXTUALIZING SYNTHESIS: PARENTING BETWEEN TECHNO-PROTECTIONISM AND TECHNO-INVITATIONALISM

Despite relatively consistent articulations of the role of parents and parenting in digital literacy initiatives and related public discourses within the two national contexts, it is important to remember that parents (and to some extent also professional nursery staff) struggle with finding meaningful ways of translating these articulations into their everyday life with children. These articulations do not fit the complexity of everyday parenting questions and challenges, or actually: They *cannot* fit the complexity of everyday parenting, as practice always transgresses the verbalizable, synthezized and collectively negotiated understandings of it. As argued above, however, they do act as a backdrop for making sense of one's parental practice in digitalized times, and they appear meaningful also because they are embedded in broader, historically relatively stabilized and nationalized discourses.

sive frameworks regarding care, education, technology and citizenship. The following paragraphs are intended to exemplify these discursive intertwinements, which are never void of ambivalences and contradictions, but carry intertextual validity and authority and thereby provide the certainty that is sought after in times of heightened doubt. Once we turn to some of the European Council's transnational documents regarding digital literacy and also parenting, however, ambivalences and contradictions re-emerge more clearly.

In Denmark, the focus of the societal function of nursery institutions has been slowly shifting from primarily serving the well-being of young children towards serving the well-being of the young children's families, and thereby more specifically the parents. According to Sine Pentthin Grumløse (2014), who engaged in a Foucault-inspired diachronic and synchronic reading of political debates on Danish nursery legislation in the period 1960-2010, this development ended in implementing a neoliberal management rationale that emphasizes the promotion of flexibility for the parents of young children.

Although parents' current and children's future employability play an important role in understanding the political nudge towards the digitalization of nurseries across the EU, German initiatives seem to weigh parents' *current* employability higher: The nursery is first and foremost an institution that disburdens the working parents of the task of raising a self-responsible and community-able citizen, while strongly valuing their legally granted *natural right to educate the child* (cf. Chimirri, 2014, pp. 64-69).

Danish institutional initiatives more explicitly intervene into parents' rearing and educational practices. This implies that parents are to become more digitally literate alongside their children, and that nursery institutions cannot merely promote the digital literacy of young children, but also need to have a focus on promoting the digital literacy of parents alongside the digital literacy of the education professionals. This would also be in line with the EU-wide Better Internet for Kids strategy, whose national Safer Internet Centres are to "empower children, young people, parents, carers and teachers with the skills, knowledge and strategies to stay safe online and take advantage of the opportunities that internet and mobile technology provides" (Insafe and Inhope, n.d.).

In Denmark, the proliferation of digital tools for conducting everyday life as both a citizen and a consumer has been promoted much more strongly than in Germany: In 2014, 72 per cent of the Danish population accessed the Internet via their mobile phones or smartphones, in comparison to 56 per cent in Germany and an average of 57 per cent in the EU (Danmarks Statistik, 2015). Also thanks to unequivocally attributable, personalized social security ID numbers, which only

have a much more restricted equivalent in the German tax ID number, communication with the municipality, with the doctor, the child's school and with companies in Denmark is largely digitalized. Everyday conversations about and experiences with digital sociomaterial arrangements are thus more broadly normalized for most Danish parents of young children, including the necessity to actively relate to and draw on discourses regarding parenting in digitalized times.

The German sources investigated in this chapter, in turn, resonate surprisingly well with the most recent European Council's (Council of the European Union, 2015) conclusions, which formally recognize "the important role of parents and families" in facilitating "access to and the promotion of ICT and the development of digital competence through age-appropriate exposure to, and the integration of, digital tools throughout early childhood education and primary education" (p. 19). Meanwhile, and unlike in its 2012 conclusions on the *European strategy for a better Internet for children*, the European Council does not explicitly reiterate the claim that "parents themselves need support and training not only to keep up with the fast and unpredictable changes in children's virtual lives, but also the constantly evolving new technologies" (Council of the European Union, 2012, p. 13). This is different for early childhood teachers/pedagogues. The latter are to "develop the capacity, methodology and skills to promote the effective and responsible use of new technologies for pedagogical purposes and to support children in developing digital competence" (Council of the European Union, 2015, p. 19).

The reasons behind this broad neglect of nursery parents' active involvement in the European Council's latest conclusions on educational policies on digital literacy cannot be sustainably speculated upon here. However, it is worth noting that, as in German digital literacy initiatives, parents are addressed rather as gatekeepers to the institutional promotion of digital literacy among young children in the European Council's document from 2015. The Danish discourses, conversely, resonate better with the European Council's conclusions of 2012, as these digital literacy initiatives much more explicitly make demands on the parents and families in the development and promotion of digital competences.

CONCLUSION: TOWARD AN INTERGENERATIONAL, RECIPROCALLY CRITICAL TECHNOLOGY EDUCATION

As illustrated in the above analyses, while national public discourses on digital literacy may be relatively one-sided, parenting as part of living in digital times, meanwhile, is most certainly not. The European Council's propositions from

2012, contrasted with the propositions from 2015, show that a transnational consensus on what role ‘good’ parents are to play in the promotion of digital literacy may be hard or even impossible to attain. While the contradictoriness of the subject matter emerges when looking in greater detail at the respective public debates, it tends to get swept under the rug once national political decisions need to be taken (and that sweep may arguably be unavoidable in a representational democracy) – just as much as when supposedly important parental decisions need to be taken, ergo when so-called parental ‘principles’ are stabilized.

Perhaps principle-seeking parents think too much of what is right for their children’s development of digital literacy, instead of thinking how their own digital practice also makes sense to themselves, as well as to the family, as well as to other contexts the family is a part of (including work, hobbies, engagements with friends close-by and distant, and everyday acts of practicing citizenship). These contexts and the people involved are not separable from one another in the everyday conducts of life of the parents, and nor is their digital practice across these contexts: They are inextricably intertwined. Hyper-reflexivity of this interrelationship on behalf of the parents, conversely, can also create fictions, frictions and problems: The co-active parent ontology primarily identified in Danish discourses can make the complexity of intertwined parent responsibilities seem entirely overburdening, given that it implicitly posits other, non-parental activities considered to be important for living a good life as neglectable.

Arguably, though, such overburdening is most prone to happen if one confines one’s reflections of digital everyday living with children to the naturalized discourses within one’s own national context, and to one’s institutionalized role as a parent (i.e. the most prominent parent ontologies). A contrasting look into another national context and its most prominent discourses may be important in order to transcend the backdrop against which one as a parent reflects one’s own digital living, with one’s child as well as any other person.

When I engage in interviews with nursery parents on their children’s well-being at the nursery in digitalized times, it is methodologically speaking crucial for me to invite questions and curiosity from their side, to let the interview turn into uncertain dialogic conversation, to be able to explore one another’s experiences. Indeed, all parents I spoke to inquired into my experiences with digital (parenting) practice in other national contexts, inquired into what other parents would do, while at the same time seeking alternative, academically validated, clear-cut and rather one-sided answers as to how parenting can be done better, both in terms of the child’s current and its future well-being. Here, the challenges and uncertainties faced by parents in digitalized everyday parenting truly emerge,

and the nationalized discursive backdrop is transcended, in search of liveable alternative ontologies.

In order to let these liveable alternative ontologies emerge, it is crucial to continue a critical dialogue about them across professional perspectives, as we are doing in this anthology, but even more explicitly to continue our explorations and discussions together with those parents that we as researchers, game designers, regulators, etc. come in contact with. Let us continue inquiring into the contradictoriness and diversity of parenting and our respective digital practice across the various institutionalized positions we are embodying, across the contexts we inhabit and to which we contribute. And let us involve children more actively in these processes and debates, where well-being as a child, as a parent, as a family is placed on the collaborative agenda, just as much as well-being as a citizen of a nation, of the EU, of the world. Such a practice could be termed an intergenerational, reciprocally *critical technology education*, whose aim is “to nurture agency which not only survives and adapts to existing conditions, but seeks to influence them in providing a fairer and more equal society” (Saariketo, 2014, p. 136; with inspiration from Freire, 2000). Parental (and human) uncertainty may thereby never be fully overcome, at least never for good – the world is changing, technology is changing, the family is changing, we ourselves are changing. But by rendering more explicit how we are part of making these changes happen, by educating one another about them, by temporarily agreeing on what we can do about them, across age thresholds and institutionalized ontologies, as parents and non-parents, we can at least make certain that we are never alone with our everyday digitalized lives and concerns.

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Between Fears and Needs for Information: German Parents' Computer Game Concerns

ALEXANDER MARTIN & SANDRA ASSMANN

In this chapter we deal with German parents' concerns regarding their children's use of computer games. The central empiric discovery can be outlined in the following way: By talking about *concerns of parents* from a German perspective the term is obviously connected to negative feelings and apprehension. The attitude of German parents to usage of computer games by their children is characterised by: worries, fears, apprehension, mental overload, incorrect assumptions and need for information. This is demonstrated by Google Germany's autocomplete: the search "which computer games" was in 2017 completed by "...cause addiction" and "...should I prohibit my child from playing"¹. With reference to empirical data, this first indication of a rather sceptical perspective of German parents concerning computer games is going to be substantiated below. For this purpose, we will first analyse some surveys with a focus on *common concerns of German parents* before illustrating the findings with concrete examples and assumptions.

GERMAN EDUCATIONAL RESEARCHERS' CONCERNS ABOUT COMPUTER GAMES

The commonly known concerns of parents regarding their children's use of computer games are present in the relevant literature on the topic (cf. Ganguin & Junge, 2012; Hornung & Lukesch, 2012) as well as in public discourse (cf. Leng, 2007). The nature of these concerns is usually subject to particular development trends. There are questions about which games and topics are currently popular

1 All quotations in this chapter are translated into English by the authors.

and in demand (cf. *Unterhaltungssoftware Selbstkontrolle*, 2013)² or practical concerns such as limiting the time spent on playing them (cf. Heinz & Schmolders, 2012).

Young people's affinity towards playing computer games is in particular a prominent subject of upbringing in German families (cf. Bischoff, Büsch, Geiger, Harles & Holnick, 2014). There is, however, evidence that the use of computer games by younger children aged between two and five is increasingly becoming a subject of parents' attention (cf. *Medienpädagogischer Forschungsverbund Südwest*, 2015)³. Nevertheless, the significance of this topic is not as widely reflected in the concerns of German educational researchers and their empirical research. For example, in a representative survey on media behaviour in German families focussing in particular on children aged three to five their parents are not even asked about using computer games (cf. MPFS, 2012). This survey comes to the conclusion that children come into contact with computer games at the age of eight (cf. *ibid.*). Regarding the contradictory nature of the findings, doubt may be cast upon the extent to which the media habits evaluated in this survey are indicative for wider social trends. The *miniKIM* survey is one of the few surveys in Germany that examines the media habits of children aged between two to five (cf. MPFS, 2015) and comes to the conclusion that, although computer games play a minor role for children aged between four to five, computer games are present for children aged two to three (albeit only to a limited extent). The entirely random sample however shows that the use of computer games by these children significantly lags behind other media and non-media activities, which might be an explanation for the insubstantial empirical evidence in this field (cf. *ibid.*). German educational researchers do not seem to be concerned about younger children's gaming habits and there is barely any empirical evidence in this area. Indeed, the overall state of empirical evidence with respect to computer games usage is rather poor (cf. Wagner, Gebel & Lampert, 2013b).

However, the *DIVSI U9* survey *Children in the digital world* by *Deutsches Institut für Vertrauen und Sicherheit im Internet* (German Institute for Trust and Security on the Internet, DIVSI) does take into consideration the Internet usage of

2 *Unterhaltungssoftware Selbstkontrolle* (USK) is the German institution that classifies computer games.

3 The analysis of online games shows that manufacturers of mobile touchscreen devices are increasingly establishing app and gaming markets for younger children so that children's attitudes towards gaming will gain in importance (cf. Lampert, Schwinge, Kammerl & Hirschhäuser, 2012).

children aged three to eight and their parents' attitudes and value orientations towards the Internet from a milieu perspective (cf. DIVSI, 2015; cf. also DIVSI, 2012). Although this survey is not primarily concerned with computer gaming, it is nevertheless revealing for the subject at hand. The survey illustrates the area of conflict between desirable potentials and suspected risks in which parents find themselves when observing their children's usage of digital media: even though 58 per cent of the respondent parents agree "that computer games may improve their children's power of concentration and coordination skills" (cf. DIVSI, 2015, p. 17, our translation) two thirds of these parents fear the risks of the digital world and ban their three to eight-year-old children from the Internet (cf. *ibid.*).

GERMAN PARENTS' CONCERNS ABOUT COMPUTER GAMES

The following discussion refers to two studies which highlight the educational handling of topics related to media use in families and allows for conclusions regarding the use of computer games (Wagner et al., 2013a/b; Friedrichs, von Gross, Herde & Sander, 2014). The findings give insights into parents' concerns regarding their younger children's use of computer games and form the basis for our contentions.

Both studies use the term *computer games* as an umbrella term for electronic devices that may be used for gaming⁴. Wagner et al. address "the practice of media education in families with children aged between five and twelve. [...] Inter alia, a representative survey among 453 parents with children aged between five and twelve as well as 48 qualitative family studies were carried out" (2013a, p. 1, our translation). For the statistic foundation of this survey they took charts and items (some of them had to be adjusted) from former studies which were concerned with television use. The authors justify this selection by stating that the patterns of parental scepticism show major similarities in comparison (cf. Wagner et al., 2013b). Friedrich et al. analysed "fourteen families with children and younger people aged between six and seventeen years" (2014, p. 2) by using qualitative semi-structured interviews (*ibid.*) to carve out the "media-educational habitus of parents" (*ibid.*, our translation) based on the *habitus* concept according to Bourdieu (*ibid.*, p. 3).

4 Friedrichs et al. (2014) refer to any "kind of digital/electronic game, independent of the device" (p. 11, our translation). Wagner et al. also analyse a broad spectrum within the field of computer games: "computer/console games in their entity (mobile/stationary as well as online/offline)" (2013b, p. 56, our translation).

Both studies show that computer gaming is a meaningful media-related activity for the younger children of the cohort (cf. Wagner et al., 2013b; Friedrichs et al., 2014) and that the significance of gaming rapidly increases from primary school age (cf. Wagner et al., 2013b). The gaming activity of children is often problematic for parents and one reason for displeasure within the family. Particularly for male children, gaming consoles and computer games are a dominant educational topic because their interest as well as possession of such consoles is notably higher than that of female children. One reason for the fact that parents of the former worry more than parents of the latter is not only that boys have a greater general preference for gaming but also that they tend to be more interested in action-packed titles. Worries and assumptions about the negative effects are particularly related to violent content of the games (cf. *ibid.*). The assumption of such a causal relation also derives from the fact that parents' educational and fundamental attitudes and positions as well as subjective aesthetic judgements are fundamental for an educational approach towards computer games (Friedrichs et al., 2014). The ability to respond to the needs of children (often designated by the term *Kindorientierung* [child orientation] [Wagner et al., 2013b, p. 215]) is, as expected, also central to media education issues⁵.

Computer gaming has some specific characteristics compared to other types of media use. While intergenerational patterns of television use have emerged over time, there are no such patterns for computer games because parents consume them infrequently or not at all (cf. Friedrichs et al., 2014). Knowing that the media-educational conduct of parents is essentially influenced by fundamental media-related attitudes⁶, this particular challenge is compounded by the fact that parents lack the user experience and prior knowledge to relate to computer games (cf. also Fritz, Lampert, Schmidt & Witting, 2011). When German parents are asked for a global estimation on media in general (with no reference to specific types of me-

5 The lack of understanding for the child's need for aggression also becomes apparent in other areas and indicates a constitutive moment of being a family: "Aggressions develop – from infancy through early childhood to kindergarten age. [...] To abandon their aggressions is to abandon their development, their curiosity and their willingness to learn" (Rogge, 2013, p. 193, our translation).

6 The related knowledge and attitude is referred to as "media-educational habitus" (Friedrichs et al., 2014, p. 2, our translation) and includes "a system of permanent media-educational dispositions which appear as educational and organizational principles for media-educational practices as well as related ideas and judgements" (Friedrichs, 2013, p. 3, our translation).

dia), a negative valuation with reference to media influences is dominant independent of age- and social-related differences (cf. Wagner et al., 2013b). When it comes to particular types of media, computer games are the negative frontrunner and their influence in particular is rated unfavourable (cf. *ibid.*):

Compared to other types of media, parents rate computer games particularly critically: they are said to have the least positive and most negative influence. How strongly parents rate this influence to a certain extent depends on how often they use computer games themselves. The frequency of gaming in general and of joint gaming correlate respectively. (*ibid.*, p. 130, our translation)

This applies to younger children in particular. However, this negative viewpoint qualifies with increasing age to a slightly positive evaluation of gaming influence (cf. Wagner et al., 2013b). This perception is also influenced by marital status. Single parents basically consider the influence to be more negative (cf. *ibid.*). Based on current findings in the field, Wagner et al. pointed out that the question of how experienced parents assess themselves with reference to media education, has decisive influence on the rating of different types of media: whenever parents feel competent with regard to media education, they tend to rate the impacts of media “on family life” (*ibid.*, p. 47, our translation) to be positive and *vice versa*. This corresponds with the fact that younger parents and those who played or play computer games themselves have a rather positive attitude towards computer games compared to elder parents or parents without experience in gaming (Friedrichs et al., 2014)⁷. Likewise, those parents who play computer games together with their children state that the media influence on children is rather positive and *vice versa*: “It seems to be comprehensible that both positive and negative assumptions about possible influences of computer games are reflected in the frequency of use of computer games” (cf. Wagner et al., 2013b, our translation). Especially with regard to younger children parents feel uncertain about the media-educational effects of computer games: here “the question of how children perceive and process particular media content seems to contribute to uncertainty about educational issues” (*ibid.*, p. 93, our translation).

Although not as much as in the area of computers and Internet, the need for information about computer games is relatively high compared to other types of media (cf. *ibid.*). As expected, less experienced parents are particularly receptive to the kind of press coverage that promotes negative assumptions about the impact

7 According to the *FIM 2011* survey however, only 15 per cent of all parents play computer games themselves on a regular basis (MPFS, 2012, p. 58).

of computer games on the development of children (cf. *ibid.*). A significant part of the critics among Germans see this as a substantiation for their own scepticism.

Computer games are connected to a variety of concerns: “According to the majority of respondents, computer games increase the potential for aggression especially in case of time-consuming use” (Friedrichs et al., 2014, p. 5, our translation). Likewise, there is a dominant belief that a lack of primary experience (the German term is *Primärerfahrung* and embraces all non-medial experiences) is fundamentally harmful for children. Even if computer games are rated positively, this valuation is “almost completely related to particular types of games or game genres such as games for mental performance, strategy or learning games” (*ibid.*, p. 5, our translation).

Even though parental concerns mainly focus on the field of computer games, joint gaming is a rare phenomenon in particular compared to other types of media use (cf. Wagner et al., 2013b). Unlike television, which frequently takes place in family contexts, gaming is characterised by being a solitary activity and even joint gaming takes place with friends rather than with parents. It is especially surprising that children’s and young people’s usage of computer games – besides content and time frames – differ in the sense that young people play in their own room whereas children revert to devices in communal rooms (cf. Friedrichs et al., 2014).

The study participants mostly limit the form of supervision of children playing computer games to establishing and monitoring rules for “the restriction of the quantitative usage of computer games (playing time) and qualitative usage of computer games (game content)” (*ibid.*, p. 7, our translation). Regarding the interviewees, even if children directly or indirectly express their wish to spend time on playing computer games together with their parents, this does not result in the parents fulfilling this wish extensively or regularly. This also applies to follow-up communication⁸ between parents and children which is often absent (cf. *ibid.*)⁹.

With respect to their children’s behaviour with media a typical reaction is to lay down rules¹⁰. With computer games these mostly refer to the times at which usage is allowed, the amount of time and the selection of content (in ascending or-

8 These are conversations about the media use following the media activity.

9 The *FIM 2011* study also proves a discrepancy between the significance of playing computer games and having a conversation about them (position 9 out of 14) whereas conversations about content on television rank at position 1 out of 14 (MPFS, 2012, p. 39).

10 The findings in the current *FIM 2011* study also point out that the question of regulating playing computer games (this refers to playing all kinds of digital games) has a dominant position within families (cf. MPFS, 2012, p. 19).

der of frequency) (cf. Wagner et al., 2013b). For children under the age of six the predominant assumption is that media consumption needs parental supervision. This especially applies to computer games whereas television consumption is seen to be less in need of supervising. Parents often refer to the age recommendations of the USK as a basis for the assessment of media offerings (cf. *ibid.*; Friedrichs et al., 2014)¹¹. The rigidity of the rules (for example willingness to negotiate in exceptions) correlate positively with the parents' level of educational attainment and is the highest for well-educated parents (cf. Wagner et al., 2013b). In a survey of parents' media educational behaviour Junge also determines that rules for media consumption are primarily concerned with time and are aimed at creating room for other activities (cf. Junge, 2013). A frequent pattern entails restricting media consumption if more important duties, for example homework, are being neglected (cf. Wagner et al., 2013b).

Parents with migration background appear to be more liberal and less anxious regarding the media consumption of their children. This especially applies to the field of computer games, where children on average start playing at the age of 6.15 years whereas children of parents without migration background on average start playing at the age of 6.64 years (*ibid.*). Wagner et al. (2013b) conclude on the basis of this that parents with migration background are less influenced by age ratings.

PARENTS' MEDIA EDUCATIONAL ENGAGEMENTS

The above findings paint a clear picture: the majority of German parents view their children's computer game consumption with scepticism or even disapproval. Differing opinions and needs regarding usage are often the reason for conflict-ridden discussions.

Putting their own results into context in the field of comparable studies (Junge, 2013; Lampert et al., 2012; Kutner, Olson, Warner, Hertzog, 2008) Friedrichs et al. identify certain comprehensive findings of typical media educational activities within families:

11 Theunert and Gebel differentiatingly point out in their study that although parents are highly approving of the age regulations, media consumption in everyday life is only guided marginally by the regulations and then only by highly educated parents (cf. Theunert & Gebel, 2007).

- Rules refer to the restriction of the length of time of usage and the consumption of games with violent content (cf. Friedrichs et al., 2014).
- Rules are intensified if activities besides media activities and social interactions are being neglected (cf. *ibid.*).
- Communication about computer games hardly takes place (cf. *ibid.*).

Wagner et al. use scales and items for the evaluation of media educational behaviour that stem from prior studies on television usage (cf. Wagner et al., 2013b). The fact that these have proven to be resilient points to a *culturally pessimistic automatism*, which is characterised by a lack of ability to adjust its criticism according to the specific quality of the medium that is being targeted (this automatism has many characteristics and can be found across all groups of people. Here he refers to parents who are concerned about the media behaviour of their children). Instead it is aimed at new media whose usage does not correspond to the critic's personal routines and habits (formerly television, now computer games). This is demonstrated, for example, by the astounding gap between parents' rejection of computer games and their lack of willingness to spend time on assuring themselves of the correctness of their own fears. The following statement made by a mother points to the scant willingness of parents to address the media needs of their children:

But I also just don't have enough patience to have a talk about it, I think. It's just not my cup of tea. I can't listen to it either, because I'm just not at all interested in what is happening there. I just want him to, that I know, [...] that it [the activities] is appropriate to his age. (Friedrichs et al., 2014, p. 7, our translation)

This is especially surprising in relation to the fact that a not too small fraction of the resentment refers to games with violent content. A well-grounded rejection of these would imply that one has at least become acquainted with them. The *Bundeszentrale für politische Bildung*¹² (bpb) (German federal agency for civic education) has reacted to this desideratum and offers so-called *Parent-LAN* events in the style of LAN parties at which parents are invited to try out or actually become acquainted with computer games (often first-person-shooters) (cf. bpb, n.d. a). In addition the *spielbar.de.de* web portal has been developed to inform parents about computer games and children's and young people's usage of them (cf. bpb, n.d. b; Raczkowzki, 2018, this volume).

12 www.bpb.de

A multitude of findings suggest that concerns about computer games occur in a highly diffuse field and are often clouded by other criteria. As already mentioned, single parents for example rate the negative effects of media and especially the effects of computer games especially high (cf. Wagner et al., 2013b). One may hypothesise this is actually about a general feeling of being overwhelmed on the part of single parents.

If computer games are approved of by German parents, then only when they are educational. In this regard the journalist Tanja Dücker poses the questions of exactly why computer games have become “the devil incarnate” (Dücker, 2012, p. 1, our translation). She sees a connection with the permanent wish of parents that their children’s activities should all be meaningful and beneficial to prepare and practice for the German achievement-oriented society. Computer games as an activity “for the sake of enjoyment” (ibid., p. 2, our translation) only seem appropriate if connected to education-related requirements: “Because of this, labels like ‘Benefits fine motor skills’, ‘Benefits eye-hand coordination’ or simply ‘Educational’ are stuck on every second toy in Germany” (ibid., p. 2, our translation).

In a similar way, articles can be found in the ‘reputed’ German press, for example giving advice on exactly which games you should be playing or rather which games are valuable. At the same time a black and white picture is also being painted here. For example, the subheading of an article giving recommendations for suitable – because beneficial – games states: “Video games have a bad reputation: They are time-consuming – and make people aggressive. But there are also games that are fun and that have positive effects” (SPIEGEL ONLINE, 2015, our translation).

To counteract the (supposedly) shortcomings of parents who are clearly overstrained in regard to the media consumption of their children, the market and the web provide numerous guides. These react quite precisely to the educational deficiencies and emphasise needs, for example the absent (willingness for) follow-up communication. The EU initiative *klicksafe* formulates precise advice for parents concerning the handling of computer games, for example: “Show interest!”, “Consider games on mobile devices!”, “Pay attention to age-appropriate time windows for using video games!”, “Offer alternatives!” (klicksafe, n.d., p. 3, our translations).

Links can be found particularly to the much-cited need to regulate the time spent playing computer games. In a guidebook entitled *Children and media – What adults should know* (our translation) Neuß (2012) gives precise instructions for the maximum length of time children should be using computer games depending on their age:

- Four to six years old: approx. 20 to 30 minutes a day with parental supervision
- Seven to ten years old: approx. 30 to 45 minutes a day
- Eleven to thirteen years old: approx. 60 minutes a day. (ibid., p. 97, our translation)

According to this guidebook the way in which German parents deal with their concerns about computer games is marked by a certain deference to authority and an accompanying feeling of *educational absolutism*. Public broadcasting media, the opinion of the respected press, age recommendations and access-restricting software are popular and show how much insecurity and lack of personal experience is connected to the use of computer games

In conclusion, the concerns of parents in Germany indicate that they are characterised to a large extent by ignorance of what happens in computer games. In addition, general attitudes and behaviour patterns which are influenced and manifested by public opinion play a central role, whereby two central patterns for a sceptical view of computer games can be identified according to educational background:

- 1) The fear that ‘better’ and more important educational content ‘could be neglected (more educated households)¹³. The following statement by a parent is a good example:

Well, what we, the way we see it with *Sendung mit der Maus*¹⁴ is that you (parents) don’t need to watch every single thing, you can trust public television, at least we don’t bother watching *Sendung mit der Maus*. That’s the place she can let off steam, as it were. (Friedrichs et al., 2014, p. 8, our translation)

- 2) The fear that important ‘practical skills’ may not develop sufficiently (less educated households). The following statement by a parent is a good example:

13 The findings of the *DIVSI U9* study are similar and state with regard to the milieu of the “responsibility-conscious mainstream”: “The parents have a basically critical attitude to playing games on computers, smartphones or tablets; their children spend altogether less time playing both educational and recreational games than the average of the children of all internet milieus” (DIVSI, 2015, p. 45, our translation).

14 *Sendung mit der Maus* literally means “The programme with the mouse”. It is a children’s TV programme that premiered in 1971 on German television and combines entertaining and educational elements. It is among the historically most popular German children’s TV programmes.

They're just not craftsmen any more. I tell you: look at me, I'm a manual worker and I can do just about anything my job needs. And the kids growing up nowadays, they only know about that stuff. [...] It's ridiculous y'know. They know all about their computer whatsits, y'know, but not a thing about anything else. And I say that's really, really bad. (ibid., p. 5, our translation)

CONCLUSION AND OUTLOOK

To sum up, it can be concluded that German parents confront their children's computer game activities with many worries and concerns. The findings feed a suspicion that their scepticism is often very vague.

An important reference value for understanding German parental concerns is personal media use. The studies carried out to date draw mainly on parents who have little or no personal experience of computer games and who assume their effect to be adverse, whereas parents with greater affinity with computer games (the minority sample) are less concerned. In order to promote understanding, follow-up studies must also involve parents with past and current personal experience of computer game use. For example, statements and appraisals by the generation of early first-person shooters¹⁵ or parents who are active players would be valuable.

Even if the participants of the quoted studies do not call themselves *players*, it is assumed that some of them (born after 1970) had contact to computer games when they were younger. If this is the case, it would be interesting to ask where their scepticism with regard to their own children comes from. One possible reason could be that the proximity of today's games is much higher, and computer games in the 1990s are not equal to current games.

The concerns of German parents about the use of computer games by their children are often diffuse and are often not based on solid findings. Specific trainings would therefore be helpful and appropriate. Such measures could help parents to practice an unexcited approach to the subject.

Against the background of ever new technological developments it requires multi-perspective studies to enable more differentiated statements. Recent studies have focused on playing habits. Qualitative studies that take children's needs into

15 In this way some of the young people who played the *Half-Life* (Valve, 1998) game, or somewhat later the popular *Counter-Strike* (Valve, 2000) from 1999/2000 onwards, now have children themselves.

view would be helpful to build a bridge between parental fears and the behaviour of their children.

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And Yet Children Play: Echoing Voices of Computer Game Concerns in Barcelona

ADRIANA GIL-JUÁREZ & JOEL FELIU

In Western and westernised capitalist regions, usual concerns about computer games in relation to children are produced and reproduced in scientific literature, media outlets, laws, brochures, parents' talk and even in children's talk. These concerns, as literature on parental mediation shows (e.g. Nikken & Jansz, 2007; Shin & Huh, 2011; Torrecillas, Vázquez-Barrio & Monteagudo, 2017), may span from the very content of the games to the player's behaviour before, during and after the gaming session. A local example of concerns can be found in a guide for parents subtitled *for the choice and use of video games*, published by the Barcelona City Council, with the support of the Catalan Government, in 2006 (Barcelona City Council, 2006). The guide, titled *Who sets the rules of the game?* includes the following sections: *What to play? When to play? Where to play? Who to play with? Video games and the Internet, Labels* and, finally, a *Decalogue of good practices*¹. In it, concerns are age-related (the appropriate age at which a specific game can be played depending on the depictions of culturally sensitive content) and behaviour related (what amount of time should kids spend playing instead of doing other culturally more valuable activities, and where to play and with whom). Both types of concerns also imply a third kind of concern about which regulations of playtime are needed and which restrictions are to be put in place.

As Ulf Hannerz described, meanings are distributed over people and social relationships in the world in an increasingly intricate manner (Hannerz, 1992). For

1 These documents are all originally in Catalan and translated by us. The same is the case with the interview material on which the dialogue and analysis of this chapters are based.

instance, as computer gaming spreads, public concerns on computer gaming have also become widely distributed and blur social units (namely, cultures, societies, groups, etc.) that we had previously conceived as neatly delimited. Concerns on computer gaming have disseminated and are recreated in public discussions that are not confined within cultural (in its classical anthropological sense) or national boundaries. This does not mean that concerns may not change in relation to different legal, religious, child-rearing, etc. traditions, but it does emphasise that very similar concerns can be found in rather different countries, showing that discourses also circulate within similar socioeconomic status and consumption patterns.

In order to present the concerns we found from research done in Barcelona (Catalonia), we will present, and afterwards analyse, a brief, dramatized dialogue that we wrote using verbatim utterances from Barcelona parents' discussions on computer gaming. In doing this, we wish to transmit their concerns for an easy and quick read, but also to make the emotional content of the discussions accessible, which is probably done better using a narrative form. Our dramatic vignette concentrates on multiple scattered concerns, found in several discussion groups, in one brief conversation between two people. While it may enable the reader to listen specifically to the concerns, it may artificially amplify the relevance of the worries, giving them more importance than they had in their actual spoken context. For example, as we will stress in the conclusions section, none of the worries discussed was powerful enough to stop parents from buying computer games for their children. In this sense, the reader should be careful interpreting the results and should compare them to their own local knowledge and experience on the subject.

METHODOLOGY

Between April and November 2010, we conducted a study on gender and computer games in Barcelona for which we organised six computer game workshops for parents and their children. These workshops took place in schools and community centres in the city. Couples of mothers or fathers with a son or a daughter aged between eight and fourteen years old attended the workshops. After a brief introduction in which we explained that they would participate in a study on computer games, they played four computer games for an hour: *Dance Factory* (Broadsword Interactive, 2006), *Spore Creature Creator* (Maxis, 2008), *Super Mario Galaxy* (Nintendo EAD Tokyo, 2007) and *Shaun White Snowboarding* (Ubisoft Montreal, 2008). These games are varied, both in their content (group

and/or competitive games, sports games, dance games, figure construction games or commercial hits) and in their platform (computer, traditional console, console with movement recognition and dance pad). Once they finished, adults and children were taken into separate discussion groups, each comprising five to eight individuals. We recorded both the playing and the subsequent discussion groups on video tape. In this chapter, we will only present what the 37 adult participants (26 women and 11 men) said. Their discussions constituted a very specific debate on the experience that they had just had. As the specific goal of the research was directed towards analysing gender and technology relationships, concerns on computer games were not introduced by the interviewers. It seems interesting, then, to see which concerns appear spontaneously, without being prompted by questions during the conversation. Each discussion group lasted between 45 to 50 minutes. The concerns we detected account for around 7 per cent of the utterances.

We performed a thematic analysis focused on the concerns, resulting in four main categories of codes. The first one was related to the addicting power of computer games. By the amount of sentences devoted to it, this actually constituted the most prominent worry. Many parents have experienced first-hand, or through a family member, the long and uninterrupted hours of play that some games require. This worry is based on their practical evidence that gaming is not only difficult to stop solely on the power of one's own will but also, above all, it is especially difficult to make children stop playing. In fact, one of the participants brought up that games are especially designed to create addiction. The second category involved all the codes related to the regulation of playing. In these parents' view, time to play must be scheduled, limited and controlled in order to give priority to homework or other domestic chores, but overall, to prevent children from getting hooked on the games and experiencing too much anxiety. In addition, in their opinion, there should be a right age at which to play certain games, although this is something difficult to enforce because the gaming of other siblings can interfere with what is believed desirable.

Computer games become an issue on how to organise the home materially, so, in accordance with their addictive power, places to store computer games may have to be assigned carefully and access has to be supervised. This can be done by storing them in closets and drawers or, on the contrary, by leaving them in plain sight, so they can be easily checked when they are in use.

A third category was constituted by a frequent discussion on how to avoid being trapped to buy the latest version of every console. Parents complained that new models appear constantly and that this is a financial burden.

Finally, the fourth category was related to the power attributed to the devices for causing a wide array of human actions and reactions. According to the parents,

computer games can cause anxiety, excitement and nervousness for both children and adults. Computer games are also in some cases related to distraction and lack of concentration. They can cause isolation – usually feared – thus bringing praise to games that allow siblings to play together. Surprisingly, as one of the much-voiced worries (cf. Barker & Petley, 2001; Jenkins, 2013), violence or aggression in computer games only appeared anecdotally in the conversations, as something that some boys appreciate. However, partially related to this, increased competition (between friends, brothers, and even between fathers and sons) is something parents worry about.

With the sentences expressing concerns, we have built an ethnodramatic text inspired by verbatim theatre methods (Shah & Greer, 2017) in order to preserve and communicate the multi-voiced and dialogical character of the discussion groups – as others have done before, mainly in the field of critical ethnography (Mieniczakowski, 1995; Fox, 1996; Glesne, 1997; Richardson, 2000; Saldaña, 2003; 2008). Ethnodrama also suits the purpose of transmitting the emotional content that we felt was present during the discussions (Cannon, 2012). To create a dramatic text, we had to distribute among several characters the concerns and the types of relationships with technology that appeared in the discussion groups. When doing this, we realised that all fragments could be distributed between just two characters, without compromising the need for coherence that this kind of narrative imposes. While we constructed the structure of the dialogue, we did not do so for the utterances. In this manner, through translating from Catalan, ordering and slightly editing the fragments – only for the sake of the reading and characters' coherence, as the content and phrasing remain unaltered – we created a dramatized hypothetical conversation between two avatars of the participants who condense the different concerns of parents.

It is no accident that the avatars, which represent the words of all parents, are women – not only since women were more than two-thirds of the adult participants, but also because apparent gender differences in the discussions were more likely due to the differences in participants' experience with computer games than to a gender trait. It is interesting to note that men with no computer game experience talked like the women with similar low levels of familiarity with gaming (which were the clear majority). Very few participants had a high level of expertise in computing or computer games, and among these, there was only one woman. The only worry that savvy participants shared with the others was related to the addictive power of computer games, which is the most common concern we found, regardless of personal experience with computer games.

THE PLAY

Setting. The scene takes place in a room with eight computer game settings: two PlayStations (PS), two Wii consoles and two computers, all against the walls, and two dance pads in the middle of the room. Each one has a corresponding blinking screen. The PS and computers are set on tables with two chairs in front of them. Beside each computer game setting there is a video camera on a tripod. On the background wall of the stage a late afternoon sunlight comes through an open door.

Characters. Anna has two sons; one is ten and the other eleven. She has never played computer games before today. Maria used to play a lot with her ex-husband when she was younger, but she does not anymore. She has three children – two boys and a daughter. Just a few moments ago they were both playing computer games in the room, each with one of their children.

[Before the lights go on we hear noises of chairs and tables being pushed away. When the lights go on we see two women chatting near the only door of the room. It seems they are just about to leave. There is no one else in the room, but there is a distant noise of children playing, probably their own, coming from outside.]

Anna: [Softly grasps Maria's arm before she goes out through the door.] Hey, what do you think about what just happened? Have you played with any of these games on other occasions?

Maria: [Stops and turns towards Anna.] No, I haven't.

Anna: Neither have I.

Maria: You know, I'm not really interested in them.

Anna: [Not really surprised, but curious.] You're not interested in games?

Maria: No, no... It's not that I'm not interested in them, I have no interest in... I don't see... Well, a little bit is OK, the Wii is OK, the dance one, I like it too, the others, well...

Anna: You know, just before, while playing, I felt dumb...

Maria: Really?

Anna: Absolutely, because I didn't understand any of the games [she laughs], the dance one, no, no, I didn't like it, well, it's not for me, and the monster's one, which is calmer, and the skiing one, yes it is, but I get nervous. It makes me very nervous playing with these things. No, I don't like it. Nor playing, nor the dance one, nor anything related... Well, the dance one maybe because.... But no, it doesn't attract me neither, I mean, apart from that these are things that I'm not really interested in. I mean, I don't pay too much attention to figure out what you have to do here, or what you don't have to do. No, because he has been playing

all the time, my son, I mean, he was the one who directed everything, you know, I was getting a little bit behind... There with the monster, for example, I haven't touched anything, because he was at the commands to make... I don't know what. You had to create the monster, and I didn't do anything at all [she laughs]. You know, this is the first time I played with Jaume, to tell the truth, because at home his father is more into it, and he plays with them.

Maria: Not me, because you see, I separated five years ago, and my husband used to come home from work at 2 a.m. and at 6 a.m. We were hooked, him and me, and I was leaving for work at 7!

Anna: [Really surprised] Wow!

Maria: And I don't want this for my girl.

Anna: Of course...

Maria: Because she has very good grades. And the children, you know, they just come home and get hooked on the games, and it's very dangerous.

Anna: I'm not interested, but let's face it, if I were interested, I'd get hooked on them. There are games that would hook me. And I have other things to do... There are other priorities [she laughs]... than spending two hours there...

Maria: I know, well, from time to time, I don't say no, but not as... maybe if she was playing longer, maybe yes, I would go with her, at a given time, but the times that she plays I have other things to do, and of course, the schedule is incompatible [she laughs].

Anna: I fear for my sons because my nephew, who is nineteen years old, is really hooked on games and *anime*, so I was afraid that they'd get hooked too.

Maria: The thing is that you have to find the right moment, don't you? And the right game too, because everyone is different, right?

Anna: If everything properly done, it doesn't have to be bad.

Maria: Of course.

Anna: You play a while, and that is it. The bad thing is that it may... that it may get you addicted.

Maria: You get provoked... and as there are many who are really hooked... but it's the same with the computer, and with the... Well, I honestly believe that all these games, especially PlayStation, create addiction. I am convinced they are really made for that, because people wouldn't buy them, nor would they cause addiction.

Anna: [Sounding sceptical] Uh-hmm.

Maria: I think that if I let her, she would play more, she would go "brrrrr", but as we make some rules and we do other things so she's not hooked all day, then... Sometimes... there are some weekends when she forgets she has it, you know?

Because you already do... you try doing other activities so she's not hooked to that little machine all day long.

Anna: Of course.

Maria: For if not, one would... one would be like “ta-ta-ta-ta” all day long [she acts as if she were pressing buttons].

Anna: Right.

Maria: And she would not stop nor... nor eat... And no, this can't...

Anna: Well, my... they have their instructions. Then, until they don't finish their chores, they don't get their stuff, it's that simple.

Maria: Uh-huh.

Anna: Since they were little, huh, it has been so. Then, no, I never even had to worry.

Maria: At home, hmmm... that is, during the week, playing is forbidden. With anything – be it on the phone, consoles, whichever device. On the weekend, open season, but... Or when a guest comes home. When there is a guest, we let them play, on the contrary, weekend is...

Anna: Mine are... One is older than my son here. That is, one is eleven and the other is nearly ten. They have a TV in their room, and they have it, well, upstairs... Time flies. They don't move, they can spend time, time, time... And it is as you say, you have to go and turn it off. [Anna makes a long pause, while she seems to think better about this.] It's not that I think it's wrong, you know? Well, you know, I've always known that forbidden things are the ones you like the most, right? I have always thought this, then I try to live with it, don't you? Well, you play for a short while, but maybe for 10 minutes, or 15, a short football match, and that is it, and they satisfy their craving, as I say, and that's all, I don't think that's anything wrong, I don't know, 15 minutes.

Maria: We were living at my parents' house, and it happened every day, right? And to have to unplug the child and pull him off the machine every day... Because there was no way to unplug him: “One more minute, one more minute”, and that... that is... no. I would not leave it in the bedroom. I have all that stuff stored.

Anna: I leave it in sight, everything in sight. [Anna pauses, thinking.] Yes, everything in sight, everything accessible, all of it. And for the record, when the... When you have them you are afraid of... I don't know if it has happened to you, has it? When it's the first time... Beware! Well, parents, grandparents... they are all saying, “Beware because they say on TV that they get hooked, that this is addictive!”

Maria: I have them really hooked, that is, we are five people at home, well, the two boys are hooked to every computer, Wii, Nintendo... and the girl doesn't. It is a very obvious thing at home – girls want to do something else, and boys are... fully hooked. There's my brother who is thirty-two years old and he is up until 5

in the morning, huh, playing to this... so... it is something that I don't want for my sons.

Anna: Well, then, do you like them playing video games or not?

Maria: [Dubitative] Well...

Anna: As long as it is not somehow excessive...

Maria: When I see that, when I see her a little bit excited like this... then you, you turn it off. Off! ... Then it takes a moment, a moment to calm down and not to... And then she maybe takes it after a... But I know now that when I see that something is really wished-for, that's when I say "Off!"

Anna: Right.

Maria: The other day they also said on television that this affects their focusing capacity. They get distracted, more than the children who don't play. I don't know if you've heard that as well?

Anna: Yeah, I heard, maybe on TV3, where they said that a study was done that showed that those who spent many hours playing with the computer... those that have this ability to play with all that... That that took from them their focus on school. That that had been proved. They were so distracted and had so many things at their fingertips, so easily, that they didn't... It is not that they didn't have the time, it is that they did not learn...

Maria: ...the means. That is, to look for what they needed for everyday life.

Anna: I don't know. Anyway, it was an investigation, and I said, "Gosh! I'm worried", you know?

Maria: I think that anxiety is generated, isn't it? That is, these games, where they learn skills, and where they learn huh... maybe to self-organise... All these aspects are positive, but a point is reached where the kid makes it a habit, a thing, a routine with a game and this makes them anxious and sometimes they are only thinking about playing it, right? And this happens to us all, I think that this has hooked us all, and that's the point with video games and these technologies that scares you, don't they? That the kid...

Anna: I know some... I know some kids who look forward to finishing lunch or dinner just to go at it again.

Maria: I know.

Anna: What's happened sometimes, when a little friend comes, or they've gone to a friend's house and you go to get them or whatever, you see that one is playing with the DS and the other one is out there, and I say, why aren't you together, weren't you supposed to play?

Maria: In my case, the two boys play together a lot. The two have a very good relationship and they play football, and now they have discovered that they can play on the same team, and that they can pass the ball to the other, because until

now they didn't, and a friend of their father told them that they could play the game together.

Anna: The Wii has many things, and as the Wii is for the family, it is more shared, it is more...

Maria: Yeah, it's more for the whole family, and it's more... And it is true that they play with their brother, sometimes they both play together. I usually like games where both can play at the same time, because... I don't know, they play against each other... Football or any competition and all that... These platform games, like Mario Galaxy, where you play alone and all that, I don't really like them.

Anna: In my case, today, we really got into one of the games and we collaborated a lot. Now, there's a small dose of competition, so, depending on which game, we had to be very careful, or we'd start throwing things at each other, for example with Mario Kart, things can end badly. I don't tolerate teasing. I get in a bad mood.

Maria: I don't know about that, but as they grow, boys remain competitive and more aggressive, so to say, for the kind of, for it's... because they are genetically like that.

Anna: Don't they ask you for video games on birthdays, Christmas and all sorts of occasions?

Maria: Mine, yes, and the girl too.

Anna: In my older child's classroom, there's a girl... There's a girl, and this girl, you see, for example, she already has... she has 3D glasses, and these devices were out... When? Two months ago? She has the normal Nintendo, which was just released last year, and now for her first communion she asked for the other one.

Maria: Mine have the Nintendo and now they are asking me for the Nintendo DSi, and I say they already have the other Nintendo...

Anna: I know, but there is a large one.

Maria: Yes, now there is one with a bigger screen.

Anna: Yeah.

Maria: And I say, "Look, you already have Xbox!"

Anna: But this is a dynamic that... you see we fall into it and, as parents, we are to blame.

Maria: I know, I know, because we spoil them.

Anna: Each week you'd buy a new one, because they evolve... from one day to the other, that is, they are such bastards.

Maria: Yeah.

Anna: They are releasing the DS, and bang, the next week you have another one, the DS XL, the large one.

Maria: All this also depends on, sorry, huh, it depends on the siblings. For example, the older one didn't see a console until he was seven or eight years old, well... He saw one... because we had one at home, we had it there, abandoned, and didn't see it anymore. Instead, the younger, who is already two years old, having two older siblings that have already played and everything, clearly... Well from a very young age...

Anna: He is an expert.

Maria: Exactly. And sometimes, I mean, many times we have had to get up, and go and say, "Listen, you should stop, OK?" This one is too young, these games... We have to go back, which is what you've done, but it also depends on whether they have siblings or not.

Anna: What I can't find any sense in is on spending an entire afternoon with... with... with a little machine. It's hard for me: the games, them spending hours and hours throughout the afternoon with a DS or a little machine, it is what I... [Anna pauses, expecting Maria to say something, but Maria is listening and nodding]. See, in my case, I never play video games with them, on the computer. It is an activity they do by themselves, and in addition to this, personally, I have always considered myself useless with the whole issue... computer and technologies, new technologies. And perhaps it is because I have no skills. That said, there is also a question of... of me being more from the humanities, isn't there? Then, to start with, I really love to see this ability they have, this lack of prejudice at the time they get into it. Because first of all, what I always intend to is to understand what's going on, and they begin trying, without... without considering what they will do, right? And what is the use of it... That is, well, they rush headlong into it. This got me, got me quite... well, astonished. And also, I see this with a cousin of his, much younger than Jaume. She's five years old, and also handles these things with complete freedom and without any kind of fear, and, well, I don't know, I think it's obviously a brutal generation gap, which I didn't have at their age, and they see this as a very normal thing, right?

[Most lights fade, now the two women are only illuminated by the light coming from the door near them.]

Maria: [Looking relieved.] Well, thanks for the chat, I think we should be leaving now, it looks that they are closing up.

Anna: [Feeling good that she could share all her feelings, she smiles.] Oh, yeah, thank you, great chat, see you tomorrow!

[Both women cross to the door and leave the scene.]

DISCUSSION

Attitudes can be understood as a set of widespread beliefs with a high emotional content (Potter & Wetherell, 1987). For instance, the belief that games create addiction is sometimes accompanied by explicit fear, as a participant said, “Children, you know, they just come home and get hooked on the games, and that is very dangerous”. According to Potter and Wetherell (1987) attitudes cannot be considered as something we have in mind, nor as an individual internal prejudice, but as an evaluative practice. Attitudes are ways of speaking by which we let others know our position about certain realities. We use language to do things: ordering and asking, highlighting or ignoring, accusing or convincing and of course evaluating, as language is imbued with values. Values are not individual visions of the world. The values that a person defends or attacks directly relate to the groups to which one belongs or aspires to belong to. This can be verified if we look at how we talk; far from ‘simply describing’ their opinions on computer games, parents used the discussion to confront their current practices compared to other practices, to check their attitudes against the attitudes of others and, of course, to save face in front of others and appear as normal, decent parents. This is not something different from what can be found in common everyday discussions at family dinners or parents’ meetings. Paraphrasing Livingstone and Bober on children (2006, p. 98), parents are also active and interpretative agents who appropriate and shape the meanings and consequences of computer games through a series of established and novel social semiotic practices.

Computer gaming is not an indifferent subject; parents’ talk is filled with emotional words and statements. The use of emotional words marks the values circulating during the discussion, for emotions transport meaning (Gil-Juárez, 2009) and take shape in situated social activities (Wetherell, 2012). Emotions can be considered as the intensities and forces that variously energise, contradict and overwhelm the narratives through which we live (White, 2017). In trying to disentangle the meaning of parents’ utterances, we re-coded the fragments coded previously as showing concerns, using emotion, values and beliefs coding (Saldaña, 2013)². In that sense, to look for affect is to try to account for the ways in which people make sense out of the impasse of sense (Mazzarella, 2017). This secondary coding allowed us to summarise the play of contradictory emotions that we found in parents’ talk in one statement: “There are things far more important than computer games; we could engage in them, but we are afraid to do so”.

2 Following Cannon (2012), emotion codes were also used to write the stage directions.

As Kultima and her colleagues comment, “While play is an easily acceptable and normal element in the context of children, an adult who plays can be considered as deviating from the adult norms of serious, nonplayful behavior” (Kultima et al., 2017, p. 16). The negative attitude towards computer games makes explicit a common value found among parents (mostly those with less experience with gaming) – that there are things far more important than computer games. This is more commonly expressed by mothers, perhaps because, as Frosh, Phoenix and Pattman (2002) describe, “Girls were seen by many boys as being more ‘mature’ and adult-like than them – more serious, more committed to school work and less interested in having fun and joking” (p. 104). Play is accompanied by guilt, and especially, but not only, in women, as Kultima et al. (2017, p. 16) comment, “[This] attitude, that is, free play and playful behavior is childish, and thus not tolerable for adults especially in work environments, is still a prevalent view within Western adult population”. The value that playing is not important, even futile, is energised by the feelings of uselessness or “dumb[ness]” that our participants express.

However, there was also a certain interest in computer games during the discussions. The ability that youngsters have with computer games is stated as admirable, and the fact that they have no fear is admirable as well. Finally, although it may not be easy, it is possible to control computer gaming with the correct implementation of rules. Parents implement many rules concerning the right moment, games and age to play (cf. Aarsand, 2018, this volume). In this sense, the household is a site of contestation between parents and children (Livingstone & Bober, 2006). Of course, if rules are implemented, it is also because parents understand that there are correct ways of playing; as one participant said, “If everything is properly done, it doesn’t have to be bad”. For example, playing together with friends or siblings is seen as very positive. However, perhaps in the common knowledge that rules are not omnipotent, parents provide competing activities. As one father said, “Because you already do... you try doing other activities so she is not hooked all day to that little machine”. In this sense, a flavour of conformism spreads through their discussions when they assert that to forbid is useless. In addition, as Livingstone and Bober (2006) found, games are not the activity that causes the most worry: “Some internet uses are clearly considered worthwhile or, more likely, safe and so less in need of restrictive regulation (e.g. games, email, instant messaging) while others, that parents consider unsafe, are regulated more (e.g. shopping, privacy, chat, some forms of interactivity)” (p. 101). Also, ICT in general, and particularly games, have been positively promoted by some (e.g. Gee, 2003) as a site for gaining digital literacy. Both factors, may, in part, explain the ambivalence parents feel towards computer games.

Nonetheless, not all fears are overcome by the implementation of rules and the offering of more valued competing activities. Parents literally express that they are afraid and worried, not only because they are made to compulsively buy constant novelties (something for which they recognise they are to blame) but also because they have seen on TV that games negatively affect one's capacity to focus. Yet, the most consensual fear comes from the belief in the addictive power of computer games (cf. Nielsen 2018, this volume, for a critical review on the concept of non-substance addictions), which they frequently associate with increasing levels of anxiety, for both parents and children. Also, the 'hooking' power of games is strongly feared because it seems inescapable even by adults with little or no interest in games. As one father said, "I'm not interested, but let's face it, if I'd become interested, I'd get hooked, there are games that would hook me". In this sense, the parent's vision is certainly deterministic as "it construes the media as an external force that impacts on ongoing family life, directly modifying children's behaviour unless parents provide a buffer in the form of parental mediation or restriction" (Livingstone & Bober, 2006, p. 108). Still, there is currently a vivid discussion on the subject – as one mother said, "Well, I honestly believe that, all these games, especially PlayStation, create addiction, I am convinced, they're really made for that" – that is also taking place within academics (e.g. Schüll, 2012).

To state it briefly, parents not only do not favour computer games, to say the least, but also, they are actively worried about them. Yet, looking at the practices they explicitly mention (they have computer games at home and they let their children play for a more or less controlled amount of time), they are clearly not willing to position themselves against their presence and use at home. Maybe because the educational paradigms that parents embrace are slowly shifting "to a parent-child relationship that prioritises trust and negotiation, as mediated by the discourse of rights, including children's rights" (Livingstone & Bober, 2006, p. 109) or, from a more pragmatic stance, because parents in Barcelona find it much too difficult to make children stop.

CONCLUSION

Among the different groups of parents, we identified a certain consensus on concerns and the emotions that are related to them. What was diverse were the levels of experience with computer games, the number of children and their gender and the ways of confronting the concerns; computer games may be kept hidden or not, parents may believe computer games also have positive aspects or not, they can prioritise chores and homework during the entire week or only on weekdays, etc.

For this reason, our characters, Maria and Anna, are two women with a different relationship with computer games; while Maria is a former player and is familiar with them, Anna does not know anything about them and never plays. These two positions, however, do not lead them to have different concerns. On the contrary – and this is interesting – they share most of them, as the parents of our sample did. Different concerned voices, some coming from the media – as explicitly mentioned when they referred to a programme on computer game effects that they saw on TV – are echoed within the discussion groups, infusing them with arguments against computer games. During these conversations, parents cite a shared list of moral panic and social regulations, most of them spread through the media over recent decades (Barker & Petley, 2001; Feliu, 2006; Critcher, 2008), that have ended framing the general common sense of computer games in our culture. However impressive this list may be, citing a moral panic does not mean necessarily endorsing it. Actually, they are not powerful enough to make these parents and children stop using computer games. Perhaps this is because worries can also be cited as a face-saving process; parents may want to appear worried about their children's use of computer games, even if they do not intend to stop them from playing. Even if worries are legitimate under all circumstances, letting their children play can have important advantages that overcome the stated concerns. First, stopping a game is a difficult endeavour, as most parents painfully know, and trying to do so can trigger many arguments and deteriorate the atmosphere at home. Secondly, it is arguable that many adults are aware that they and their children will increase their digital literacy, which is something they would not attain by limiting their access to technology. Consequently, a consensus is built on the need to implement rules for computer game use at home, which means computer gaming is clearly a priority in parents' governance agenda of their children.

Of course, as common sense has a dilemmatic nature (Billig, 1987), needing to have rules for computer gaming is a factor that causes family disputes, making everybody uncomfortable without offering straightforward solutions to this discomfort. In accordance with that, we believe that, as researchers, we could help by not providing parents with stronger reasons to limit their children's play, as some seem to have in their agenda (e.g. Bushman & Anderson, 2001), but providing alternative points of view, for example, arguing that their children are not impacted by computer games but that they actively read them (Feliu, 2006; Feliu, Gil-Juárez & Vitores, 2010), that problematic gaming should not be confused with addiction (Ferguson, Coulson & Barnett, 2011) – as intensive reading of books is never confused with addiction – or that violence in games is not unequivocally related to any kind of real violence (Kirsh, 2006). This could help families to have better discussions and maybe even make better-informed decisions. But mostly,

calming down all the fuss around computer games may offer them a certain peace of mind on the subject.

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Part IV

Scientific Computer Game Concerns

Does Exposure to Violence in Entertainment Media Make People Aggressive?¹

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An expert commission of seven media psychologists was put together by the Media Psychology Section of *Deutsche Gesellschaft für Psychologie* (German Psychological Society) in 2013. The task of this commission was to summarize the current state of research on whether exposure to violence in entertainment media can make people aggressive. The commission addressed questions such as the following: Why do people find violence entertaining? Is it possible to effectively observe or measure the effect of media violence? Does violence in entertainment media affect the thoughts, feelings and behaviour of recipients? Can violence in entertainment media turn persons into perpetrators of violence? In the present chapter, we give an overview about the results of the commission's work that was published online in 2015. We also discuss challenges and insights that arose from the commission work in which scientists with different readings of the state of research were developing a common understanding.

1 This text is translated from a German version that was published in 2015 on www.spektrum.de/mediengewalt: Rothmund, T., Elson, M., Appel, M., Kneer, J., Pfetsch, J., Schneider, F. M. & Zahn, C. (2015). Macht Gewalt in Unterhaltungsmedien aggressiv? *Gehirn und Geist*, 10, 28-35. The translated text was not revised or adapted and reflects the authors' evaluation of the state of research at the time of the original publication.

WHAT DO WE MEAN WHEN WE TALK ABOUT VIOLENCE IN ENTERTAINMENT MEDIA?

Movies and computer games feature fighting and murder; news programs report on war and terror; in social networks individuals insult and denigrate each other on a daily basis. These are all examples of violent acts portrayed or carried out in mass media.

We define entertainment media as media contents that individuals mainly use because they hope to derive pleasure or distraction from them – for example, novels, TV and cinema films, music, or computer games [1]. We distinguish entertainment media from news media (reports of violence, for example, on wars and unrest) and from other communication media (for instance, cell phone videos), which are explicitly not included in this report. The topic has been restricted in this way because the potential dangers of violence in entertainment media, for example in films and especially in computer games, have repeatedly been a matter of public debate in recent years. Although this topic has also been the object of extensive research, the debate is often rather one-sided and includes only parts of the research.

In psychology, the term *violence* is used to describe specific forms of aggression that result in severe physical damage, which can range from bleeding wounds to broken bones, and even death. In general, however, the term aggression refers to behaviour conducted with the intention of harming or injuring another living creature [2].

The portrayal of violence in entertainment media is embedded in more or less fictional stories and can be realistic (such as a brawl in the German police television series *Tatort*) or artistically distorted (a battle against a dragon in an online role play).

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HOW WIDESPREAD ARE VIOLENT IMAGES IN ENTERTAINMENT MEDIA?

This question can be examined from two angles: On the one hand in terms of supply: How much violence is there in entertainment media? On the other hand in terms of usage: Who consumes these genres and how often?

Researchers apply content analysis methodology to explore the quantity of violent content in the media. To this end, they investigate a selection of media contributions that is as representative as possible to determine whether they contain violent images. According to such an analysis of the German television program in 2005 published by Petra Grimm and colleagues, about 58 per cent of all programs analysed featured at least one violent scene. However, in this analysis, the researchers investigated not only entertainment content but also news programs and also classified accidents and natural disasters as depictions of violence. The segments with violent content accounted for only 2.6 per cent (i.e. 30 hours) of the total sample of 1,162 hours of broadcast footage investigated.

When analysing a thriller, for example, only the duration of the murder scene was classified as violent, but not the entire thriller [1]. Thus, depending on the approach adopted, the proportion of violence can either be seen as high (two-thirds of all programs) or as relatively low (1/40 of airtime). It is even more difficult to determine the prevalence of depictions of violence in computer games because the game content is not generally static, but influenced by the behaviour of the player. In general terms, we can conclude that the share of violence in media content varies greatly depending on the methodologies used.

Researchers conduct studies to find out who uses media contents featuring violence as well as how these contents are used and how often. For example, they try to determine the extent to which violent media contents are used by potentially vulnerable target groups such as children and adolescents. In the 2014 *KIM study*, one in five children aged six to thirteen years stated that they had previously seen TV contents that they did not feel to be child-friendly. Alongside violent images, the participants also named scary and sexual scenes [2]. When using the Internet, 14 per cent of the respondents had already come across contents that were unsuitable for them. In the 2014 *JIM study*, 71 per cent of twelve to nineteen-year-olds reported that their friends played violent computer games [3] and 43 per cent reported that they also used such games. Research has shown that boys and men use media featuring violent content far more frequently than girls and women (see next question). Furthermore, individuals who report that they have a tendency to be aggressive are more likely to consume corresponding media content [4].

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WHY DO PEOPLE FIND VIOLENCE ENTERTAINING?

According to theories of media psychology, one of the reasons why individuals use media is to influence their own mood and to actively arouse emotional states [1]. For this reason, individuals generally select media content depending on the effect they are hoping it will have.

When exposed to violent media contents, they experience suspense and are physically and mentally activated, which recipients often find entertaining [2]. A viewer who strives to experience fear and adventure in this way is described as *sensation-seeking*. Sensation-seeking is a personality trait, which means that people differ fundamentally with regard to the amount of excitement and kicks they seek.

Computer games containing violence are also strongly characterized by competitive elements. They are about winning or losing and competing with others. Research findings indicate that this is an important incentive for using media of this kind. When playing the games, individuals feel effective, competent and independent. In this way, they can satisfy their fundamental need to be competent and autonomous [3].

On average, men strive more to experience suspense, are generally more competitive and tend to be more aggressive than women. This at least partly explains why men consume violent entertainment content more often than women [4][5]. The motives for using media of this kind, however, can vary considerably from one individual to another. In other words, individuals have different and specific reasons for why they find given media contents appealing or not.

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DOES VIOLENCE IN ENTERTAINMENT MEDIA AFFECT THE THOUGHTS, FEELINGS AND BEHAVIOUR OF RECIPIENTS?

Research on whether violence in entertainment programs influences media users has mainly been concerned with violence in films, television and computer games. Social scientific research on the effects of media violence dates back to the *Payne Fund Studies* of the 1930s. At that time, the focus was on cinema films. Between the 1950s and 1990s, scholars mainly explored the effect of violence in television [1]. In a *meta-analysis* published in 1994, US communication researchers Haejung Paik and George Comstock synthesized more than 200 studies on this question. Their analysis revealed a small to medium effect of film and TV contents containing violence on different indicators of antisocial behaviour or aggressive thoughts [2]. There have been no more recent meta-analyses on the impact of TV contents.

Since the 1980s, more than 200 studies on the impact of violence in computer games have been published in scientific journals. Meta-analyses of these studies have also identified a small to medium effect of depictions of violence on aggressive thoughts, feelings and behaviours [3][4][5][6].

Some scientists have questioned the meaningfulness of these meta-analyses. Their criticism is mainly related to the following points:

- a) according to some researchers, although the analyses have revealed short-term effects, there are not yet sufficient findings to identify long-term effects;
- b) the methodologies used to measure aggression in laboratories have, some scholars argue, little validity; and
- c) it is currently still not clear what the practical significance of the effects observed in the experiments and surveys are, in particular in terms of whether they explain real-world violent crimes.

These questions are a matter of debate within the scientific community [7][8]. In a survey published in 2014 which examined a sample of 239 communication researchers and 132 media psychologists, the majority of respondents agreed that violence in various entertainment media such as television, computer games, literature or music can favour aggressive behaviour [9].

Overall, according to the current state of research and the opinion of a majority of media researchers, depictions of violence in entertainment media can underpin the development of aggressive thoughts, feelings and actions. However, it is unclear what role this effect plays with regard to the occurrence of real-life violence.

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DOES THE EFFECT OF VIOLENT PORTRAYALS DEPEND ON THE MEDIUM?

In the past, researchers have explored violence in different media such as radio, cinema films, television and computer games. Their findings have been relatively consistent to date; all of these types of media have comparable effects on different signs of aggression. They have even shown that mere still images or single words (such as *fist* or *grenade*) can trigger aggressive thoughts and behaviours to a similar degree to complex and graphically realistic scenes of violence in films or computer games [1].

This finding is surprising because there are good reasons to assume that games containing violence stimulate aggressive behaviour to a greater extent than other media types, such as film and television. Indeed, users of computer games do not only perceive brutal contents passively, but also shape contents actively. Moreover, players are rewarded with points, victories or new equipment for the behaviour they trigger with the touch of a button. It is therefore plausible to assume that they are more likely to learn and adopt aggressive behaviours as a result. In addition, media users can identify more easily with a figure they control themselves

than with a character in a film or from the television – a factor that should also promote learning processes.

Overall, there are still too few studies that systematically compare the effect of violence in computer games with violence in other media. So far we can only conclude that there is not sufficient evidence to show that depictions of violence in computer games have a more harmful influence than violence in media viewed passively.

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ARE SOME INDIVIDUALS ESPECIALLY VULNERABLE TO THE EFFECT OF VIOLENCE IN ENTERTAINMENT MEDIA?

An assumption that is frequently voiced is that exposure to violence in entertainment media is only problematic for some individuals. This statement can be understood in two different ways. One interpretation is that exposure to violent media only impacts some individuals negatively, whereas others are ‘immune’ to its effects. This could, for example, be because some individuals are not able to differentiate sufficiently between fiction and reality or that they are generally more sensitive to the effects of media than their contemporaries.

However, research findings tend to contradict this assumption. Indeed, it has been repeatedly shown that viewing violence affects an individual’s automatic processing, which cannot be consciously controlled and is similar for all individuals. For example, there are indications that a person is more likely to interpret ambiguous facial expressions as hostile after having used violent games [1]. In addition, depictions of violence do not have different average effects for different cultural groups (for example, in Japan compared to in Western nations), genders or ages of the participants in the study [2].

An alternative assumption is that violence in entertainment media only causes some people to behave in a physically aggressive manner. Psychology explains the occurrence of acts of violence with risk and protective factors. While risk factors raise the likelihood of such behaviour occurring, protective factors counteract it. With this in mind, the effect of violence in media as described above can only ever be understood as one puzzle piece which interacts with other risk factors to increase the probability of aggressive behaviour [3]. There are currently too few

scientific studies that enable us to evaluate the magnitude of the influence of violent media in relation to other, well-documented risk factors. These can be traits such as a high degree of neuroticism or low tolerance, for instance, or provocations experienced in specific situations, stress level, parental negligence and bad role models within the peer group. As a rule, the more risk factors that concur in an individual, the greater the danger that he or she will actually behave aggressively [4].

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IS IT POSSIBLE TO EFFECTIVELY OBSERVE OR MEASURE THE EFFECT OF MEDIA VIOLENCE?

To explore the effect of media violence on aggressive behaviour, it is essential that behaviour is recorded precisely and reliably. There are a number of different approaches for doing this which have specific advantages and disadvantages. The most frequently used method is surveys. This involves researchers collecting information on how often somebody behaves aggressively or even criminally either from the individuals concerned or people who are close to them, for example, family members or teachers [1]. However, the underlying uncertainty of this method is that we do not know whether the respondents are able or want to answer correctly. Nevertheless, suitable interview instruments can capture individual differences in the inclination to aggressive behaviour.

Another option is to observe social interactions. Particularly in studies with children, however, it is not always easy to distinguish between serious aggression or violence and playful tussles and rampaging, for example in a cops-and-robbers

game. In spite of this, behavioural observation is the most convincing and valid indicator for aggression of all.

In laboratory experiments with adult test persons, researchers often simulate situations in which the participants have the possibility to harm another person. As ethical and legal boundaries are often encountered with experiments of this kind, researchers have developed methods that do not result in any serious impairment. For instance, they measure the amount of spicy sauce one test subject mixes in the meal of another [2], how many pins he or she sticks into a voodoo doll representing another person [3] or the volume settings of an unpleasant tone which somebody else allegedly has to listen to [4].

The suitability of this methodology for capturing the inclination to aggression in real social situations is currently a matter of heated debate. There is not yet sufficient convincing evidence that these methods can also predict everyday forms of violence [5]. It is therefore necessary to develop new methods for measuring aggression and also to more systematically investigate the reliability of the methods used to measure aggressive behaviour so far.

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CAN VIOLENCE IN ENTERTAINMENT MEDIA TURN PERSONS INTO PERPETRATORS OF VIOLENCE?

The effect of media violence is often discussed in the aftermath of serious acts of violence, in particular after school shootings. As a rule, public debate focuses on how such a tragedy could happen and whether media usage has an influence on adolescents turning into violent criminals. These questions can hardly be answered with conventional research methodologies because such acts of violence are extremely rare and their development can therefore only be explored in retrospect. Thus, the effects of violent media cannot be used to directly explain serious violent crimes. A review by criminologists Joanne Savage and Christina Yancey even suggests that the consumption of violent media has no direct influence on criminal behaviour [1].

There have been no findings to date showing that depictions of violence in media or expression of aggressive fantasies in computer games can have a key influence on whether an individual commits an act of violence.

Instead, we can assume that committing mass murder in schools, for example, is the outcome of a long-term, disordered development process [2]. Public humiliation, social rejection and fantasies of violence and revenge seem to play an important role. Personality disorders and access to weapons are deemed to be other risk factors [3].

It is difficult to investigate whether and to what extent the use of violent media causes individuals to develop fantasies of violence and put them into practice. There are, however, indications that violent criminals use media partly as a form of expression of their so-called *pre-delict* fantasies [4]. In other words, aggressive impulses are sometimes put into practice in the media world first, before an individual commits a real crime. However, there have been no findings to date that show that violent images in media or the expression of aggressive fantasies in computer games have a decisive influence that leads to a serious act of violence [5].

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WHY IS THE EFFECT OF MEDIA FEATURING VIOLENCE SO FREQUENTLY A SUBJECT OF CONTROVERSIAL DEBATE?

The debate about the harmful effect of media already started before televisions and computers became part of our everyday lives. In the first half of the 20th century, depictions of violence in radio broadcasts and comics were already criticized. Today, discussions on the topic among researchers, policy-makers and concerned parents are still extremely heated. In public, the debate about violence in media is dominated by strong convictions, concerns and fears. For example, older persons who have not grown up with computer games are afraid of the broader impact of the medium and, therefore, are in favour of more extensive state control than younger persons with gaming experience [1]. Persons who do not play themselves but have grown up with the medium tend to defend the use of violent computer games as they perceive them to be a contemporary activity and unproblematic hobby [2].

Furthermore, people tend to assess and interpret research findings differently depending on their own convictions. Those that believe that violent computer games lead to aggression view studies that support their opinion positively and dismiss studies with contradictory findings. Persons who do not believe violent computer games have this effect do the exact opposite. Due to these biased assessments, existing attitudes are reinforced rather than changed [3]. In addition, there is evidence that shows that computer gamers feel offended and stigmatized by research findings on the impact of violent media [4]. This emotional reaction partly explains why gamers are often excessively critical of research on the topic.

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HOW SHOULD PARENTS AND EDUCATORS DEAL WITH VIOLENCE IN MEDIA?

The public discussion about the impact of media violence has given rise to concern among many parents and educators. For this reason, it is essential that the advantages and disadvantages of media usage are assessed in a critical and balanced manner [1]. It is neither realistic nor desirable to generally prohibit the consumption of violent contents. On the one hand, contents of this kind are particularly widespread and attractive among male youths (see below *Why do people find violence in media entertaining?*). There are even indications that bans and age restrictions might boost the appeal of such media content and thus have the opposite effect than intended [2].

On the other hand, children and youths cannot learn to deal with such contents critically if they are not exposed to them. It makes more sense for them to constructively and critically examine their media usage as a whole and, more specifically, violence in a process that is supervised by educators (cf. [3]). We would like to present four important points in this context: resource orientation, role model function, monitoring media usage and media education.

Resource Orientation

As previously explained, violence in media can be understood as a risk factor that leads to aggression. At the same time, however, there are a large number of protective mechanisms that make violent behaviour less likely. It might therefore be

beneficial to focus on reinforcing these resources. If an individual is excessively confrontational with an adolescent or regards using such media as taboo, he or she runs the risk of forfeiting important protective factors, such as the relationship of trust with the adolescent. This can, in turn, raise the risk of aggressive behaviour. Positive relationships with parents and other adults, on the other hand, reduce aggression.

From the age of twelve to thirteen years, adolescents start to use media independently. During this phase, collective, critical reflection on contents plays an increasingly important role, together with trust in the competences of adolescents.

Role Model Function

Parents and educators can set a good or a bad example in two respects. If they frequently consume media featuring violence and are not critical of images of aggression themselves, this is likely to favour similar attitudes and preferences in children and adolescents [4]. The way adults deal with conflicts in real life also plays an important role. Non-violent social behaviour shaped by mutual respect is a significant protective factor.

Monitoring Media Usage

There are many approaches that educators can adapt to violence in media [5] [6]. One way of protecting youths and children is to set limits on media usage with regard to content and time. This involves forbidding specific TV programs and computer games or monitoring the time children spend using specific media with time accounts.

Concepts based on educating users and fostering constructive reflection, on the other hand, aim to promote media literacy. These are understood as the ability to reflect on one's own responsibility for media usage [7][8]. When adolescents and educators experience media together, it is an opportunity to discuss problematic personal experiences and analyse them critically [9] [10].

Depending on the age and stage of development of the user, the following strategies are recommended [11]: it is essential that younger children experience media together with adults. For this reason, televisions and computers should be installed in the lounge and not in children's bedrooms. Furthermore, it makes sense to establish rules, such as time limits and restrictions to media that are suitable for the age of the user. From the age of twelve to thirteen years, youths start to use media independently. During this phase, collective, critical reflection on

contents plays an increasingly important role, together with trust in the competences of youths. On the whole, research has shown that talking to children about their media experience in a manner that is appropriate for their age leads to well-reflected processing of violent contents [12].

Media Education

Up until now, there have been few large-scale educational programs with relevant accompanying studies that aim to prevent the negative impact of violent media contents on children and adolescents [13]. A German-language program achieved initial success [14]. According to a study by Ingrid Möller and colleagues in 2012, it resulted in participants examining their media usage habits critically and, in general, consuming fewer violent media contents. Adolescents with a higher inclination to violence before the program showed a lower acceptance of aggressive behaviours and fewer physical and social forms of violence after the training [15].

In summary, parents and other educators influence the way children and adolescents deal with media and can support their development in particular with regard to the effect of violent contents.

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Psychology's Multiple Concerns About Research on the Effects of Media Violence

ESTRID SØRENSEN, MALTE ELSON & TOBIAS ROTHMUND

In the conversation that follows, Estrid Sørensen talks with Malte Elson and Tobias Rothmund, who co-authored the statement on media violence and aggression printed in the previous chapter. It describes the background for the publication of the statement as well as the disputes involved in its production and which followed its publication. It shows that it is anything but straightforward to assess and communicate what science says about the link between media violence and aggression. The work of summarizing the literature seems to be the least difficult part of this work. Many fundamental questions about psychological science arise: Questions about its theories and methods; about how to communicate its ideas to readers outside the field of psychology; about how to manage the diverse opinions and uncertainties about scientific evidence and about how to relate to colleagues who do not see the need for a statement at all. These are only some of the challenges and concerns that accompany two German psychological scientists in their research on computer game effects.

Rothmund: The statement was published in 2015 – two years ago – and the process of writing started considerably earlier. It refers to the then most recent publications on media violence, and since then many other studies have been published. However, the general themes and topics of psychological media effect research haven't changed and regrettably neither have the challenges mentioned in the statement been overcome. The disputes over psychological media effect research have a long tradition within and outside the scientific community.

Elson: There is nothing in the statement that has become out of date since its publication. However, were we to write it today, we would include a meta-analysis by Hilgard and colleagues (2017) that demonstrates publication bias in the famous

meta-study of Anderson et al. (2010). The latter is generally used as the core summary of the evidence of a link between computer games and aggression. It concludes that “exposure to violent video games is a causal risk factor for increased aggressive behavior, aggressive cognition, and aggressive affect and for decreased empathy and prosocial behavior” (Anderson et al., 2010, p. 151). Hilgard et al.’s study provides reason to be increasingly sceptical about this conclusion. I would also want to discuss the lack of engagement with transparency in the media violence research. There is an increased call for methodological transparency throughout psychological science, which unfortunately is not found in the media violence literature. I would want to emphasize that because it affects how one should assess the results. That said, the basic stance of our statement would not be different today; the questions we asked are still the questions that are considered relevant in the community.

Sørensen: Let’s return to those concerns in a moment. I’d like you to explain how the idea of the statement came up in the first place?

Elson: The German Psychological Society (*Deutsche Gesellschaft für Psychologie* [DGPs]) is organized in divisions, one of which is the Media Psychology Division...

Sørensen: ...and the DGPs is an academic society whose members are usually associated to universities, very differently from the American Psychological Association (APA), whose aim is not primarily academic, but rather to propagate the application of psychological knowledge in society at large.

Elson: Yes, DGPs is not comparable to APA in that regard. Yet, also in Germany, laypersons, journalists and others look to academic psychologists for their knowledge about, among other things, media effects. Accordingly, as a DGPs division, we are concerned with how to adequately inform the public, which obviously is particularly difficult in areas of controversial knowledge, such as the question of the link between computer games and aggression. In 2013, the DGPs Media Psychology Division launched a Facebook group, and one of the first discussions of that group was about the APA’s recent decision to revise its 2005 policy statement on media violence (APA, 2005). Some members of the Media Psychology Division found that the existing statements – produced mainly by US colleagues, among others by APA and by the International Society for Research on Aggression (ISRA, 2012) – did not present an adequately balanced view of the scientific evidence on media violence. Accordingly, they called for a statement that would better represent the existing diversity of scientific positions. The step towards actually writing the statement was also motivated by recent discussions in the Media Psychology Division about the need for better communication of scientific results to the lay public.

Rothmund: In 2012, the psychiatrist Manfred Spitzer published the popular science book *Digitale Demenz* (Digital dementia), which presented a critique of all kinds of new media in a way that, from a media psychology point of view, was problematically one-sided. When you are an expert in an area and you seek to produce nuanced evidence, it is highly disturbing when such self-appointed experts dominate public discussions, just as it potentially undermines scientific authority – and, in turn, your own chances to be taken seriously by the public. This was an additional motivation for formulating a statement that was evidence-based and nuanced in the sense that different scientific perspectives on the state of the evidence are reflected in the statement.

Elson: Contrary to the APA, DGPs has no established tradition for publishing policy statements, and it was certainly the first statement of the Media Psychology Division. Accordingly, the Division Chair was careful to consult the President of the DGPs before initiating the work. But it was a very informal process. There were ideas about possibly publishing the statement under the DGPs' name and in their official journal *Psychologische Rundschau*. Eventually, it turned out very differently...

Rothmund: I remember I received an e-mail from the Media Psychology Division board distributed to its members inviting those researching media violence to form an expert committee with the task of formulating a statement on media violence and aggression. I was one such researcher and I thought it would be important to have representatives of different perspectives on the committee, so it was clear to me that I wanted to join the committee.

Sørensen: Does that mean that you felt that your perspective was different?

Rothmund: Well, I knew that Malte Elson was quite critical towards the research on aggressive media effects, which he has also made clear in several publications – among others, together with Chris Ferguson, who is one of the protagonists of the whole debate on computer games and aggression (Elson & Ferguson, 2014). It also seemed reasonable to have a more moderate voice represented on the committee – someone whose perspective on this line of research is not as fundamentally critical as I perceived Malte Elson's perspective to be.

Elson: My opinion was that we needed a statement that could clearly present the state of the art to the public. But at the same time, I didn't think the statement should necessarily attempt to deliver a final answer to the question of whether or not media actually do make people aggressive. To me, it was important to explain that the academic community has diverse opinions on the matter. I wanted to have it stated that those questions aren't as easy to answer as one might probably think.

Rothmund: It was obvious that it would be difficult to reach consensus within the group. There were some clear divisions in the committee at the beginning. Elson

always said that “no, the research does not show that media violence causes aggression, because aggression can only meaningfully be measured in everyday activity”. But if you made this a criterion, there would be no study in psychology that could actually say anything about aggression. So, in order to be able to reach a conclusion about the relevance of this line of research, we extended our understanding of aggression to minor forms of aggressive behaviour and even to psychological preconditions such as aggressive *cognition* – in contrast to actual violent *acts*.

Sørensen: It sounds like what Thomas Kuhn (1996) calls *normal science* in which scientists adjust their questions and objects of study to make them answerable within the existing paradigm of theories and methods of the discipline.

Rothmund: Of course, that is certainly necessary. We discussed how to actually define our object of study – *aggression* – and we agreed on a definition of aggression as “behaviour conducted with the *intention* of harming or injuring another living creature” (Rothmund et al. 2018, this volume, p. 270, emphasis added). Based on this definition, aggression isn’t only about whether you’d actually knock down your neighbour if he insulted you. Aggressive acts include behaviours that are conducted with the intention of damaging the personal or social integrity of someone, for example by insulting someone or excluding them from your group. It is even possible to look at cognitive or affective antecedents of these kinds of behaviour that are more easily observable in a laboratory experiment. With this definition, we were able to gain a shared understanding of how to evaluate the informative value of this line of research.

Elson: We also avoided a good deal of disagreement by splitting up the committee tasks among its members rather than trying to work on everything as a group. We had formed a group of six members of the Media Psychology Division and we appointed Tobias Rothmund as the head of the committee. We then formulated ten questions to be answered – there was almost no discussion about the wording of those questions at all – and we then divided them among ourselves and started writing up our accounts of the state of the art.

Sørensen: When I read the statement, I was struck by its quite cautious style, which I understand is a result of these techniques through which you managed the differences within the group and the scientific uncertainty. To me, it does not seem to reflect the disputes that exist within the psychological community about the aggressive effects of violent games. There have been several quite fierce debates about this matter, to the extent that one of the parties told me in an interview, that when meeting someone holding a different view at a conference they would do everything to avoid being in the same room with them.

Rothmund: I find the emphasis on the controversy in this matter somewhat artificial. It is presented as being much stronger than the research results actually justify. The polarization between scientists who are pro and contra aggressive media effects is in my view a sociological phenomenon that results from the fact that scientists overly identify with their positions on a given topic. It is common for scientists to hold a particular hypothesis and repeatedly seek to generate evidence for this position. People like Anderson and Bushman (e.g. 2001) have their own agenda maintaining that the aggressive effects of media violence are much larger than we believe and that it is a significant problem. They accordingly produce scientific results that support this hypothesis. On the other hand, you have for instance Ferguson (e.g. 2015), who puts forward the position that violent media effect research is rubbish: it is methodological rubbish, it is rubbish because of this and it is rubbish because of that. Those people cultivate their polarized, one-sided perspectives on the matter; these perspectives have become part of their scientific identity, and this results in a polarized debate rather than in the generation of scientific progress by overcoming these opposing perspectives.

Sørensen: In Science Studies, there is a fundamental disagreement between two views on science: one based on Robert K. Merton's (1973) *Sociology of Science* and another based on the later *Sociology of Scientific Knowledge* (e.g. Bloor, 1976). While Merton tended to differentiate strongly between the social and normative structures of science on the one side and scientific knowledge itself on the other – which he argued was beyond the realm of sociology – the *Sociology of Scientific Knowledge* stated that the social and normative aspects of scientific structures are also productive of scientific knowledge and they influence scientific processes and results. You seem to follow Merton's idea in stating that it is indeed possible to evaluate the scientific results independently of the positioning and scientific identity of individual scientists.

Elson: There are surely some issues of scientific identity at play here. It is clearly easier to have a successful career as a scientist if you produce unequivocal evidence, than if you present ambiguous results or results that contradict your prior studies and thus contradict the perspective people in the scientific community associated with you. Generational differences may be relevant here as well. Worries about the potential negative effects of media are greater in older people. This is also the case among scientists and it may influence the kind of results they produce. But, in my view, there are also fundamentally differing opinions among scientists about which research methods can be considered to produce robust results and which cannot. This issue is currently discussed throughout psychology, but unfortunately less so in the area of media violence.

Sørensen: Are you thinking about the debates on *priming*¹ in psychology or the *hot sauce* and CRTT paradigms²?

Elson: Yes, it is about priming, about hot sauce and about fundamental aspects, such as the sample sizes and how we work as scientists – there is this new idea that, prior to running a study, researchers register their hypotheses and methods publicly in order to ensure that these are not changed after seeing the results of the research (e.g. van 't Veer & Giner-Sorolla, 2016) – and it is about transparent reporting, about *p-hacking*³, about the transformation of figures and matrices until you find a result that supports your own hypothesis, etc. All these fundamental questions nourish the oppositional positions in the media violence debate and they cast doubt on the relevance of psychological science for answering the question of media violence. If all these methodological problems were resolved, the polarizing in the interpretation of media violence studies would probably be resolved as well. However, scholars in this area have different positions as to whether me-

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- 1 *Priming* describes a cluster of different effects in which subtle stimuli purportedly govern human behaviour beyond people's awareness. An example is the so-called *Florida effect* according to which people move more slowly after having been presented – i.e. *primed* – with words associated with old age; that is, they have been primed to behave like elderly people (Bargh, Chen & Burrows, 1996). Recently, Kahnemann (2012) among others shed doubt on the reality of the phenomenon and the ability to replicate priming experiments.
 - 2 These methodological paradigms are used in the experimental measurement of aggression: During or after playing a violent computer game, an experimental subject is asked how much hot sauce he/she would give to another person (such as the game opponent) who is said to dislike spicy meals, or he/she is asked to give the other person a noise blast. The amount of hot sauce mentioned and the duration of the noise blasts are taken as a measure of the player's level of aggression. Several scholars have critiqued these methods for poor validity and standardization (Ritter & Eslea, 2005; Elson & Ferguson, 2014).
 - 3 The p-value is a statistical parameter used to indicate the significance of a relationship between two or more variables. Many journals only publish studies with a significant result (although non-significant results can be equally interesting). Because of this *publication bias*, the practice of *p-hacking* has been identified, which means that researchers keep searching in different ways in a data set – with different statistical methods – until the desired p-value is obtained, which makes it more likely that the study will be published (cf. Ionnaidis, 2005).

dia violence has an actual effect, and – more fundamentally – about how you produce evidence useful in answering that question. As long as this is the case, I consider it impossible to reach a consensus on the media violence question.

Sørensen: OK, so this would be the position that the social structures of science – such as publication bias – actually influence the scientific results, which gives you reason to be sceptical about the produced evidence.

Rothmund: If you are fundamentally critical, you'd say: "Reject all past research and start from scratch!" But there is also reason to have more confidence in past research and to say that this research does have some informative value. In light of the discussion about p-hacking it is difficult to say how big this informative value is exactly. So, we must be cautious in interpreting the evidence, and we tried to be cautious in our statement. All the discussions about methods, about scientific conduct, etc. are discussions that occur within the discipline and that will lead to better scientific practice in the future. There are many good initiatives currently operating and I don't see that the general assessment of the discipline is that all previous studies can be trashed. There is no need to ignore all prior research just because we have realized that we need to work differently in the future.

Sørensen: Maybe psychological science is moving from the Kuhnian *normal science* to what Funtowitz and Ravetz (1995) have coined *post-normal science*. They argue that, traditionally, uncertainty about the quality of science was managed by individual skill and communal practice, but that, increasingly, scientific results become relevant to policy issues – which is indeed the case with the question of media violence. In that case, the task of quality assurance often becomes controversial, involving conflicts over confidentiality. In this state of post-normal science, scientific consensus becomes increasingly difficult to reach and uncertainties about scientific results proliferate.

Rothmund: We talked about how much diversity and scientific uncertainty we should include in the statement. In the end, we did emphasize that science is uncertain and fragile by nature, but we did not contribute to diversity by juxtaposing alternative and independent perspectives. Providing alternative perspectives on the state of the evidence would leave it up to laypeople to decide about how they should position themselves in relation to this. I don't find that appropriate, since it would mean you can choose which position is more appealing to you. This almost sounds like there are alternative facts. It is important to me that we as scientists do not withdraw from our responsibility of providing a shared understanding of the state of empirical evidence.

Sørensen: Which implies presenting scientific results as being largely certain.

Rothmund: Look, we discussed quite controversially whether violence in entertainment media affects the thoughts, feelings, and behaviour of recipients.

Through weighing up the different opinions, we came up with a better understanding and phrasing of this issue than each of us would have reached individually: we both evaluated the meta-studies, the effects and effect sizes, the questions that are still unresolved and to what extent controversies exist. The APA statement on media violence (Appelbaum et al., 2015) was published soon after ours, with quite similar evaluations. I think this can be seen as a kind of validation of our procedures and our statement. Obviously, we reached our aim to accomplish a shared understanding of the current state of research.

Sørensen: So, you don't share Elson's more sceptical view on psychological science in general?

Rothmund: I do acknowledge the challenges of contemporary social sciences and of other sciences as well, but I didn't feel this statement was the place to settle those disputes. If we relate this to the current discussion about fake news, for instance, you could say that Spitzer's utterances are like fake news. But if your alternative is a highly complex account of challenges in psychological science, then people will simply conclude that Spitzer makes much more sense than psychological science does. He presents the matter clearly and to the point! What is the level of complexity that makes sense? I believe our statement was already too complex for many laypeople.

Sørensen: You felt it was necessary to simplify the situation to get the key message across to laypeople?

Rothmund: No, it is not about simplification. It is basically that we currently have a complex situation in psychology. But this does not mean that there is no relevant evidence whatsoever on the field of media violence. There *are* unambiguous results and there *is* robust evidence. And this evidence is more informative for laypeople than their own subjective opinions that are based on a much less substantial empirical basis.

Elson: Certainly, it wasn't pointless to write the statement, although much of the research in the field of media violence is in itself pointless. The problem is that it is impossible to assess the degree to which the body of evidence is biased. You stand before it and you can say for sure that it is not accurate, but you cannot tell the degree to which you can trust it.

Rothmund: In my opinion, it is more of a challenge for science to deal with these dynamics than it is informative for the lay public.

Sørensen: Let us talk a bit about the different positions within German psychology. It is not only media psychologists who study violent media.

Elson: Right, social psychologists also study the effects of media violence. This was also why the Media Psychology Division Chair, prior to announcing the call for members for the Expert Commission to formulate the statement, mentioned

this idea in a board meeting of the DGPs. And it caught the attention of the Social Psychology Division Chair, who expressed that their division would like to participate. So, this was a consideration from the beginning. However, for organizational reasons we ended up not calling for participation among the members of the Social Psychology Division. Instead, we later sent them a draft of the statement for comments.

Sørensen: The ISRA report on media violence was published in 2012 and authored by a commission that was chaired by a German social psychologist. In 2013, Barbara Krahe delivered a keynote at the annual meeting of the Social Psychology Division about the effects of violent computer games. The formation of your expert commission followed shortly after. Was it somehow in reaction to these endeavours within social psychology?

Rothmund: Not at all. As I mentioned earlier, it was difficult to reach consensus even in our small group of people. Therefore, we decided not to extend the group to the Social Psychology Division at the beginning of our endeavour. But then, after finalizing the statement, we invited social psychology colleagues to review the statement and to contribute to its formulation. Some reacted with hesitation, others with constructive approval and some with a rather dismissive attitude.

Elson: To me, some of the comments came across as rather unproductive, marking parts as trivial, pointing out parts that should be deleted, the need in the introduction to refer to the ISRA statement, etc. This seemed inappropriate to me as a response to an invitation to collaborate on a statement.

Rothmund: Some questioned the need for such a statement altogether, emphasizing that the statement published by ISRA in 2012 already existed. But the process and the legitimacy of the expert commission were also questioned, as were the competencies of its members. Our invitation may just have been too late in the process.

Sørensen: How then was it solved?

Rothmund: We solved it with the DGPs board. And we all – including the DGPs – learned quite a bit about the significance for many people of publishing such a statement. In fact, it wasn't only the Social Psychology Division that questioned the endeavour. After finalizing the statement, we first presented it to the members of the Media Psychology Division. Here, it was met with critical voices stating that they were not sure if they could actually support its publication. Others proposed holding a referendum among the members about the statement, which was heatedly discussed.

Elson: There were different opinions within the expert commission and there were different opinions in the Media Psychology Division. It is simply impossible to represent all the opinions in one definitive statement. Indeed, that's the whole idea

behind it. However, some colleagues felt that when the Media Psychology Division is seen as the initiator of the statement, the paper should speak for each one of its members. In the end, we agreed on introducing the statement with a disclaimer emphasizing that it does not represent each member's opinion, thus allowing individual members to distance themselves from the statement.

Rothmund: With the DGPs board we agreed that the statement should not be published as an official statement of the society and not on the DGPs website. On the one hand, it was feared that this would result in fierce resistance, and on the other, the statement's legitimacy could be questioned because it was not based on a formal procedure. Based on this experience, the DGPs board developed an official procedure for how to work out future statements. That, of course, was too late for our statement and we agreed with the DGPs board to state clearly in the statement that it was based on an initiative of the Media Psychology Division.

Sørensen: Thanks a lot for your thorough and frank accounts and insights into the complexities involved in the endeavour of publishing a scientific statement on violent media research: the various actors, whose authority is somehow addressed through the statement; the management of differences and uncertainties about scientific results; fundamental questions of methodology and theory in psychological science; the question of how to address non-scientific communities and of how to retain scientific authority in a popular and somewhat simplified discourse; and the influence of a few individual figures on the general perception of a scientific field, etc.

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From Concerns About Addiction to the Internet Gaming Disorder Diagnosis¹

RUNE KRISTIAN LUNDEDAL NIELSEN

Currently, only one type of human behaviour is officially classified as potentially addictive to humans, at least according to the fifth and most recent edition of the *Diagnostic and statistical manual of mental disorders (DSM-5)* (American Psychiatric Association, 2013). The *DSM*, published by the American Psychiatric Association (APA), provides clinicians, researchers and other mental health professionals with a common vocabulary, which is meant to ensure that diagnoses are accurate and consistent. As such, the advent of the *DSM* represents a significant step forward from times when the range of diagnoses a person could conceivably receive depended largely, or perhaps entirely, on which individual psychiatrist was consulted.

The *DSM* is meant to provide a common nomenclature for researchers and clinicians, which ensures that diagnoses are used consistently and accurately (ibid.). In everyday language, most relationships between a person and an activity or everyday object can be described as an addiction. Thus, terms like *workaholic*, *television addict*, *sexaholic*², *shopaholic*, etc. have long since entered our cultural vocabularies. However, in the official clinical vocabulary of the *DSM*, all addictions, except one, are substance addictions such as *tobacco use disorder* and *alcohol use disorder*³. Only one human activity is listed under the non-substance

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- 1 This chapter is based on chapter one of the PhD dissertation *Is game addiction a mental disorder?* (Nielsen, 2017).
 - 2 Wikipedia lists four 12-step programs designed to help sex addicts: *Sex Addicts Anonymous*, *Sex and Love Addicts Anonymous*, *Sexual Compulsives Anonymous* and *Sexual Recovery Anonymous* (Sexaholics Anonymous, 2016).
 - 3 In the *DSM-5* the word addiction is not used as a diagnostic term. The *DSM-5* instead

related addictive disorders: gambling. The *DSM-5* lists *Internet gaming disorder* as a disorder for further study, i.e. a disorder that is believed to exist pending further research. The distinction between clinical terminology and lay terminology is important because, while a lot of people might refer to themselves (or perhaps more commonly – other people in their lives) as ‘Netflix-addicts’, this label does not necessarily carry specific connotations of pathology, disease or even negative consequences. In a professional psychiatric and psychological sense, however, an addiction would have to cause significant distress, disability or risk in order to meet the criteria for a disorder. In the words of the *DSM-IV-TR* (APA, 2000) a mental disorder is defined as follows:

A clinically significant behavioural or psychological syndrome or pattern that occurs in an individual and that *is* associated with present distress (e.g., a painful symptom) or disability (i.e., impairment in one or more important areas of functioning) or with a significantly increased risk of suffering death, pain, disability, or an important loss of freedom. In addition, this syndrome or pattern must not be merely an expectable and culturally sanctioned response to a particular event, for example, the death of a loved one. Whatever its original cause, it must currently be considered a manifestation of a behavioural, psychological, or biological dysfunction in the individual. Neither deviant behaviour (e.g., political, religious, or sexual) nor conflicts that are primarily between the individual and society are mental disorders unless the deviance or conflict is a symptom of a dysfunction in the individual, as described above. (APA, 2000, p. xxxi, emphasis added)

Compared to its predecessor, the fifth edition of the *DSM* significantly broadens the scope of what can be considered a mental disorder. The definition no longer requires that disorders are associated with present distress or disability. The *DSM-5* replaces the word *is*, which I emphasized in the quote from the *DSM-IV-TR* above, with *usually*, as emphasized in the following passage:

A mental disorder is a syndrome characterized by clinically significant disturbance in an individual’s cognition, emotion regulation, or behaviour that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning. Mental disorders are *usually* associated with significant distress in social, occupational, or other

uses the more neutral term substance use disorder. Some clinicians, according to the APA, will use the term addiction to describe extreme cases, but because of its uncertain definition and potentially negative connotations the *DSM-5* does not use it (APA, 2013). It is used, however, in the overall classification of the substance-related addictive disorders.

important activities. An expectable or culturally approved response to a common stressor or loss, such as the death of a loved one, is not a mental disorder. Socially deviant behaviour (e.g., political, religious, or sexual) and conflicts that are primarily between the individual and society are not mental disorders unless the deviance or conflict results from a dysfunction in the individual, as described above. (APA, 2013, p. 20, emphasis added)

This change to the *DSM* opens the door for potentially classifying an unknown number of previously non-pathological behaviours as mental disorders. This is especially true because in the *DSM-5* the APA, at the same time, introduces *non-substance-related-disorders* under the *addictive disorders*, that is, the notion that human behaviour can become addictions. Members of the work group that voted to create a new category for behavioural addictions acknowledge that the move is controversial for exactly these reasons:

The inclusion of internet gaming disorder in Section 3 of *DSM-5* opens discussions for other ‘behavioural addictions’, a highly controversial topic. Introducing conditions into the *DSM-5* that are not well established or that do not cause significant distress and impairment (e.g. chocolate addiction) will lower the credibility of psychiatric disorders more generally, thereby undermining the seriousness of psychiatric disorders. Thus, strong empirical data will – and should be – required to include new mental disorders, including internet gaming disorder, in future versions of the *DSM*. (Petry & O’Brien, 2013, p. 1187)

Just which behaviours should be viewed with concern seems to be a highly personal and subjective matter. The present chapter will argue that the idea, that computer games cause addiction, lacks scientific evidence.

Petry and O’Brien (2013) caution that behaviours which do not cause significant distress and impairment should not lightly be included into diagnostic manuals. In the present writing, I advocate a more restrictive definition of mental disorders that would require significant distress or impairment to be present. If a given behaviour or belief is not associated with distress or disability or is caused by dysfunction, it cannot meaningfully be said to be a mental disorder (nor, by extension, can it be said to be an addiction). Not using such strict definitions runs the risk of over-pathologizing behaviour that deviates from cultural norms. Historically, societal worries have played too large of a role in the identification and definition of mental illness. *Nymphomania* and *homosexuality* are two diagnoses that are widely considered to be outdated, though not universally so.

The role of morality and cultural norms in the historical conceptualization of gambling as a mental disorder will be the topic of the next section. This is a relevant discussion because the *DSM* criteria for gambling disorder form the basis of Internet gaming disorder today.

GAMBLING AND MORALITY

One cannot discuss Internet gaming disorder without discussing *pathological gambling disorder* because the criteria for the latter form the basis for the former. One overview of the largest survey studies of computer game addiction found that 15 out of 23 surveys used screening tools that were directly based on *DSM* criteria (Griffiths, Kuss & King, 2012) (many others were indirectly inspired by the *DSM*). Because many of these studies simply replace the word *gambling* with *playing computer games*, it is worthwhile digging into the history of the concept of pathological gambling (now gambling disorder).

The desire to move away from moral judgments was a large part of the motivation for the induction of pathological gambling as a psychiatric disorder in the *DSM* (National Research Council, 1999). When gambling disorder was first introduced in the *DSM* in 1980, it was called pathological gambling. According to Reilly & Smith (2013), the diagnosis *pathological gambling* largely came about due to the efforts of Dr Robert Custer. Custer had been treating pathological gamblers and writing about their illness for years. The diagnosis was based on Custer's and other treatment professionals' clinical experience (*ibid.*). The *DSM-III* classified *pathological gambling* as an impulse control disorder, not an addiction; the disorder was described first with a statement about the essential feature of the disorder: the individual's experience of a mounting loss of control of their gambling behaviour due to inability to resist impulses to gambling. The disorder was further described with a list of seven items, which emphasized damage and disruption to the individual's family, personal, vocational or financial spheres, as listed in Box 1.

The typical pathological gambler was described as someone whose gambling preoccupation, urge and activity increase during periods of stress; furthermore, the problems that arise as a consequence of gambling only serve to intensify the gambling behaviour. Commonly, pathological gamblers were described as endorsing the belief that money, at the same time, is the cause of and the solution to all of their problems (*ibid.*).

According to an expert panel critical to the *DSM* (NRC, 1999), the introduction of pathological gambling into the *DSM* can be seen as a fundamental

Box 1: DSM-III criteria for pathological gambling

1. arrest for forgery, fraud, embezzlement, or income tax evasion due to attempts to obtain money for gambling
2. default on debts or other financial responsibilities
3. disrupted family or spouse relationship due to gambling
4. borrowing of money from illegal sources (loan sharks)
5. inability to account for loss of money or to produce evidence of winning money, if this is claimed
6. loss of work due to absenteeism in order to pursue gambling activity
7. necessity for another person to provide money to relieve a desperate financial situation

Source: APA, 1980, p. 293.

shift in the perception of people who gamble excessively: earlier people used to have gambling problems, however, after the *DSM-III*, these people were considered pathological gamblers. Gambling problems were medicalized and came to be seen as a robust disease state (NRC, 1999). Gambling, like alcoholism, came to be widely understood as a chronic psychiatric illness that one never fully recovers from. No matter how long pathological gamblers abstain from gambling, they are never cured; they are always in a state of recovery (NRC, 1999). According to the NRC, this view is based on belief rather than on scientific knowledge. They consider it to be unknown whether returning to social gambling is, in fact, possible or not: “There is no direct empirical evidence supporting either the possibility that pathological gamblers can or cannot return to and remain in a state of social or recreational gambling” (NRC, 1999, p. 20).

The gamblers’ self-help organization, Gamblers Anonymous, has played a large role in how the world perceives gambling and, by extension, Internet gaming addiction. The organization goes back to 1957, where its inaugural meeting of Gamblers Anonymous took place in Los Angeles. Central to the organization’s view is the idea that character change in the individual is the way to recovery; or at least to ameliorate gambling behaviour and its negative effects (*ibid.*). The self-help organization builds its approach on the basic tenant that positive change can be made by adopting similar spiritual principles used by those recovering from other addictions (*ibid.*).

The NRC notes that as Gamblers Anonymous expanded, the 20 questions they used to diagnose pathological gambling (see Box 2) became the *de facto* standard to evaluate whether or not gambling behaviours were compulsive (NRC, 1999).

Box 2: Gamblers Anonymous' twenty questions

1. Did you ever lose time from work or school due to gambling?
2. Has gambling ever made your home life unhappy?
3. Did gambling affect your reputation?
4. Have you ever felt remorse after gambling?
5. Did you ever gamble to get money with which to pay debts or otherwise solve financial difficulties?
6. Did gambling cause a decrease in your ambition or efficiency?
7. After losing did you feel you must return as soon as possible and win back your losses?
8. After a win did you have a strong urge to return and win more?
9. Did you often gamble until your last dollar was gone?
10. Did you ever borrow to finance your gambling?
11. Have you ever sold anything to finance gambling?
12. Were you reluctant to use "gambling money" for normal expenditures?
13. Did gambling make you careless of the welfare of yourself and your family?
14. Did you ever gamble longer than you had planned?
15. Have you ever gambled to escape worry or trouble?
16. Have you ever committed, or considered committing, an illegal act to finance gambling?
17. Did gambling cause you to have difficulty in sleeping?
18. Do arguments, disappointments or frustrations create within you an urge to gamble?
19. Did you ever have an urge to celebrate any good fortune by a few hours of gambling?
20. Have you ever considered self-destruction as a result of your gambling?

Source: NRC, 1999, p. 271.

These questions, in turn, became the basis for subsequent classification systems that determine the chronicity and seriousness of gambling problems. In the third version of the DSM, published in 1980, explanations of the cause of gambling problems began to focus on the gambler's personal attributes, rather than solely on social and economic consequences (ibid., p. 11).

Henry Lesieur and Robert Custer (1984) recount how, in the 19th century and for most of the 20th, the dominant view of those who gambled beyond their means was based on moral judgment. On the basis of Protestant ethics, the heavy gambler

was seen as a sinner or a criminal, who gambled out of a slothful desire to avoid honest work. Gradually, however, beginning with psychoanalytic theorists and continuing to the establishment of Gamblers Anonymous, this view was challenged. Lesieur and Custer argue that, in place of a moral model, a medical or illness model be embraced. This implies the need of treatment, rather than moral condemnation (*ibid.*).

According to the NRC (1999), the disorder was included in the DSM-III without any testing of the criteria beforehand, relying solely on clinical experience with little empirical support outside of the treatment context. Since most pathological gamblers never seek treatment, it may be problematic to base a clinical description solely on those who do (*ibid.*).

One practical reason for labelling excessive gambling behaviour as a disorder lies in the severe negative financial and personal consequences that, presumably, come with prolonged indulgence. This, combined with cognitive distortions, such as the belief that more gambling can fix gambling problems, as well as other hallmarks of gambling disorder (chasing behaviour, relapses after attempted abstinence, etc.) are common sense indicators that this type of gambling behaviour ought to be treated as a type of addictive disorder. It is important to keep in mind, however, the perspective that, in the words of some scholars: “the basis for believing that pathological gambling should be classified as an addiction is almost entirely theoretical” (NRC, 1999, p. 37).

In the case of excessive computer game playing, likewise, the basis for believing that an addictive disorder is its root cause is almost entirely theoretical. In the absence of thorough clinical case studies, we are left with the theoretical belief that, because computer games are games and gambling games are also games, they have similar consequences.

THEORETICAL ROOTS OF BEHAVIOURAL ADDICTION

A considerable part of the theoretical foundation of most game addiction research is based on the notion of behavioural addictions in general; and more specifically on the work of R. Iain F. Brown (e.g. 1991; 1997). In this theoretical perspective, many (if not all) mundane human activities can be addictive. Brown (1991) lists, in total, 40 addictions, of which 22 are substance addictions and 18 non-substance addictions. The list was originally presented in a paper at a conference on gambling and risk taking by Witman, Fuller and Taber (1987). These 18 non-substance addictions are extracted in Box 3.

Box 3: Addictive activities according to Witman and colleagues (1987)

Gambling for money
Stealing, shoplifting, petty theft, etc.
Spending just for the sake of spending
Work for the sake of being busy
Anger, fights and arguments.
Trying to manipulate and/or control other people
Trying to get attention for attention's sake
Reading for reading's sake
Trying to get others to take care of me and do things for me
Exercise, jogging, playing sports, or working out
Seeking and having sex with another person
Seeking and using pornography (sexually oriented pictures, book, etc.)
Watching television
Talking for talking's sake
Searching for, buying and collecting items
Lying (for no good reason)
Fast and/or reckless (not to include driving under the influence)
Physical violence

Source: Brown, 1991, pp. 112-113.

Among the substance oriented activities listed are psycho-active substances, which are commonly considered addictive (cocaine, heroin, amphetamines, morphine, marijuana, etc.), but it also includes other substances such as “sugar based foods (candy, baked goods, ice cream, etc.)”; “fatty, oily or greasy foods”; “salt from the shaker/salty foods”; “highly seasoned foods”; “laxatives”; etc. (ibid.). Based on this framework, any conceivable ingestible substance and any conceivable activity can, in my view, be described as an addiction. For Brown (1991), addiction is a value-free concept (or at least, he argues, it should be) and, as such, is more of a metaphorical or theoretical framework to understand and describe human behaviour, which does not necessarily entail the negative impact required of mental disorders. Brown (1991) builds this notion of addiction on the work of William Glasser (1976), who describes the phenomenon of *positive addiction*. In Glasser's view, positive addictions are the remedy to the human weakness that causes us to give up when the struggle becomes too much. Unlike negative addictions that weaken and destroy us, positive addictions strengthen us and make our lives more satisfying. The most salient examples of positive addictions in

Glasser's book *Positive addiction* (1976) are different kinds of exercise addictions. Clearly, the caveat, that some addictions are a source of strength, is important. Brown (1991) specifically mentions "gaming and simulation" (p. 112) as an addiction that might best be understood as a "Mixed Blessing Addiction" (p. 112).

Box 4: Proposed Internet addiction diagnostic criteria

a. Symptom criterion

All the following must be present:

Preoccupation with the internet (thinks about previous online activity or anticipates next online session)

Withdrawal, as manifested by a dysphoric mood, anxiety, irritability and boredom after several days without internet activity

At least one (or more) of the following:

Tolerance, marked increase in internet use required to achieve satisfaction

Persistent desire and/or unsuccessful attempts to control, cut back or discontinue internet use

Continued excessive use of internet despite knowledge of having a persistent or recurrent physical or psychological problem likely to have been caused or exacerbated by internet use

Loss of interests, previous hobbies, entertainment as a direct result of, and with the exception of, internet use

Uses the internet to escape or relieve a dysphoric mood (e.g. feelings of helplessness, guilt, anxiety)

b. Exclusion criterion

Excessive internet use is not better accounted for by psychotic disorders or bipolar I disorder

c. Clinically significant impairment criterion

Functional impairments (reduced social, academic, working ability), including loss of a significant relationship, job, educational or career opportunities

d. Course criterion

Duration of internet addiction must have lasted for an excess of 3 months, with at least 6 hours of internet usage (non-business/non-academic) per day.

This distinction between positive and negative addictions has been lost as the concept has been picked up and elaborated upon by different researchers. In Glasser's (1976) and Brown's (1991) work the distinction is still salient, but when Mark Griffiths (1996) picked up the term and later conceptualized and operationalized it (e.g. Griffiths & Davies, 2005), this qualification was no longer a part of the construct. Tao and colleagues (2010) are inspired by Griffiths (1996), among others, when they formulate proposed diagnostic criteria for 'Internet addiction' (see Box 4 below). Tao and colleagues' (2010) definition has rather broad inclusion criteria, but also rather strict exclusion criteria. According to the diagnostic criteria, a person can be said to be addicted to the Internet if the person thinks about online activity and also uses online activities to feel better. At first glance, then, the bar for when a person is considered to be an addict is pretty low. However, the final exclusion criteria states that Internet use has to exceed six hours a day for more than three months.

According to Petry and O'Brien (2013), this proposed definition forms the basis for Internet gaming disorder in the *DSM-5*. It is unclear to me why the workgroup, when adapting these criteria, decided to change the disorder from a general addiction to Internet activities into an addiction that focuses solely on Internet gaming. The *DSM-5*'s criteria do not feature the same strict exclusion criteria (see Box 5).

I would argue that what we have seen is a tendency to move towards broader and more inclusive definitions of what it is to suffer from an addictive mental disorder. This shift began with a theoretical move that took pathological gambling from a compulsive disorder to an addiction⁴. We can see this move occurring by comparing the original DSM-III (APA, 1980) criteria for gambling (listed in Box 1) with the revised version, DSM-III-R, which was published just seven years later shows (see Box 6).

Whereas the DSM-III focuses heavily on the observable outcomes or negative effects of gambling, the DSM-III-R focuses on psychological experiences of addiction. The latter are arguably more ambiguous in terms of negative impact. As an example, item number one in the DSM-III asks about conflicts with law en-

4 When gambling disorder was first introduced into the DSM in 1980 it was called pathological gambling and was categorized as an impulse control disorder along with disorders such as kleptomania (cf. APA, 1980). Pathological gambling remained the official term throughout the ensuing editions of the DSM (APA, 1987; 1994; 2000) until 2013 when the disorder was renamed gambling disorder and became a non-substance addiction (APA, 2013).

*Box 5: Internet gaming disorder***Proposed Criteria**

Persistent and recurrent use of the Internet to engage in games, often with other players, leading to clinically significant impairment or distress as indicated by five (or more) of the following in a 12-month period:

1. Preoccupation with Internet games. (The individual thinks about previous gaming activity or anticipates playing the next game; Internet gaming becomes the dominant activity in daily life). **Note:** This disorder is distinct from Internet gambling, which is included under gambling disorder.
2. Withdrawal symptoms when Internet gaming is taken away. (These symptoms are typically described as irritability, anxiety, or sadness, but there are no physical signs of pharmacological withdrawal.)
3. Tolerance – the need to spend increasing amounts of time engaged in Internet games.
4. Unsuccessful attempt to control the participation in Internet games.
5. Loss of interests in previous hobbies and entertainment as a result of, and with the exception of, Internet games.
6. Continued excessive use of Internet games despite knowledge of psychosocial problems.
7. Has deceived family members, therapists, or others regarding the amount of Internet gaming.
8. Use of Internet games to escape or relieve negative mood (e.g., feelings of helplessness, guilt, anxiety).
9. Has jeopardized or lost a significant relationship, job, or educational or career opportunity because of participation in Internet games.

Note: Only nongambling Internet games are included in this disorder. Use of the Internet for required activities in a business or profession is not included; nor is the disorder intended to include other recreational or social Internet use. Similarly, sexual Internet sites are excluded.

Specify current severity:

Internet gaming disorder can be mild, moderate, or severe depending on the degree of disruption of normal activities. Individuals with less severe Internet gaming disorder may exhibit fewer symptoms and less disruption of their lives. Those with severe Internet gaming disorder will have more hours spent on the computer and more severe loss of relationships or career or school opportunities.

Box 6: Pathological gambling

1. frequent preoccupation with gambling or with obtaining money to gamble
2. frequent gambling of larger amounts of money or over a longer period of time than intended
3. a need to increase the size or frequency of bets to achieve the desired excitement
4. restlessness or irritability if unable to gamble
5. repeated loss of money by gambling and returning another day to win back losses (“chasing”)
6. repeated efforts to reduce or stop gambling
7. frequent gambling when expected to meet social or occupational obligations
8. sacrifice of some important social, occupational, or recreational activity in order to gamble

Source: APA, 1987, p. 325.

forcement due to gambling, whereas item one of the DSM-III-R asks about preoccupation with (or thinking about) gambling. Thinking a lot about something is obviously a negative experience if the thoughts are egodystonic, i.e. are experienced as unpleasant, intrusive or incongruent with one’s view of oneself. Conversely, thinking a lot about something may obviously be positive if the thoughts are egosyntonic, i.e. pleasurable anticipation that is congruent with one’s view of oneself. Indeed, some languages have idioms to the effect that the joy of anticipation is the greatest joy⁵. The softening and broadening of the gambling criteria continued when researchers adapted the criteria to measure computer game addiction in prevalence studies.

5 In Denmark, the idiom is often ascribed to the Danish philosopher Søren Kierkegaard, who according to myth, once took his fiancée to see Mozart’s *Don Juan* only to usher her out during the overture with the words: Now we leave, now that you’ve had the best, the joy of anticipation! According to the fiancée the truth behind the myth is that they left after the first act because Søren Kierkegaard had a headache (Clausen, 1941, pp. 86-89, in Kirmmse, 1996, p. 83).

CONCLUSION

This chapter has sought to critically describe the process that has led to the proposal of Internet gaming disorder as a disorder for further study. In doing so, it has been argued that the horse has been put before the cart in two ways. First, it is problematic to base a model of addiction as a pathology on a model which views addictions as either positive, negative or “mixed-blessings” (cf. Brown, 1991). In other words, I have argued that it is important not to conflate *addiction-as-a-disorder* with *addiction-as-neither-positive-or-negative*. Second, it is problematic that the diagnostic criteria for Internet gaming disorder are not a product of clinical descriptions of the disorder, but are instead adapted from gambling disorder. This is especially problematic if the rationale for categorizing gambling disorder as an addiction is primarily theoretical, as the NRC suggests (1999). Based on the evidence produced in this chapter, I would argue that any psychiatric description of disordered gaming should be approached *bottom-up* with clinical descriptions of *pathological gaming*, as was the case when *pathological gambling* was first introduced in the *DSM*. The current *top-down* description, where diagnostic criteria from one domain is applied almost verbatim to another, runs the risk of pathologizing everyday behaviour. This *top-down* approach puts the horse before the cart by measuring computer game addiction before it has been established that an addiction exists in the first place.

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No Worries? Game Research in Denmark 1984-2014

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However narrow or wide its demarcation might be, following the establishment of game studies as an organized, interdisciplinary field (cf. Aarseth, 2001) and the establishment of the Digital Games Research Association (DiGRA) in 2003 (DiGRA, 2012), the academic activity of studying the entertainment phenomena colloquially known as *games* has gained a visible presence in universities across the industrialized world. Although research on games and play has existed prior to this upspring of game studies (Bateson, 1955; Caillois, 1961; Huizinga, 1971; Avedon, 1971; Sutton-Smith, 1997), the demarcation of game studies as a field of study runs in parallel with the relative popularity and economic success of the digitally-mediated games in software packages usually known as video/computer/digital games (Aarseth, 2003, p. 1). The increase in academic institutions that employ scholars who research games and gamers therefore motivates a retrospective that traces the history of computer game research. Concurrently, it is prudent to uncover how particular histories of game research occur in regional and local contexts (Wolf & Iwatani, 2015; Liboriussen & Martin, 2016). As scholars situated in a Danish context, we look backwards into the local history of Danish computer games research across the different national academic institutions that have or have had scholars who studied the phenomena known as *computer games*.

Of course, research focused on computers and computer games did not start in 2001, but some five decades earlier. The first research effort involving a computer game was Alexander Shafto “Sandy” Douglas’ doctoral dissertation on human-computer interaction (Douglas, 1954) at the University of Cambridge, in which he developed one of the very first the first computer games, *Noughts and Crosses* or *OXO* (Douglas, 1952), a tic-tac-toe simulator, in 1952.

While there has been scientific work on games in the decades that followed (such as Ken Thomson’s famous initial development of Unix in 1969, motivated

by his need for a better platform for his game *Space Travel* [Thompson, 1969]), the first proper research on the consequences of video gaming appears to be Thomas W. Malone's pioneering PhD dissertation on games and learning from 1980, *What makes things fun to learn? Heuristics for designing instructional computer games*. Malone was clearly not concerned with social problems related to gaming, but instead identified several positive aspects that make computer games potentially useful in learning contexts, emphasizing the key traits *challenge*, *fantasy* and *curiosity*. Challenge and curiosity perhaps speak for themselves, but with fantasy and his contrast between intrinsic and extrinsic fantasies, Malone is referring to the relation between the structural and the representational and thematic aspects of games, and thereby he pioneers a fundamental conceptual distinction in game studies to come, the much-discussed and endlessly reinvented division between the semiotic and the mechanic aspects.

Not much later, in May 1983, the first scientific symposium was held, *Video Games and Human Development: A Research Agenda for the 80's*, organized by the Harvard Graduate School of Education, with no less than 110 attendees. Among the findings and claims presented we find evergreens such as games "teach a range of other important intellectual skills" (Butterfield, 1983, para. 3) and "games actually promote socialization among peers" (Zito, 1983, para. 8). Patricia Greenfield, developmental psychologist from UCLA, predicted prophetically that computer games would replace television, and when we look at all the entertainment uses of today's game consoles in the living room, we see that this indeed has happened. These boxes are not just used for games, but also for the Internet streaming of live and recorded content (Youtube, Netflix, Twitch, etc.) that has marginalized old-fashioned cable or broadcast TV. Interestingly, in both *New York Times*' and *Washington Post*'s reports on the conference (Butterfield, 1983; Zito, 1983) it has been pointed out that despite the somewhat controversial topic, there has been no concern among the scientists presenting their papers, only optimism with regard to the positive potential of computer games, for homework, health and convalescence and for cognitive skills. The journalists also have pointed out that most of the research presented was from California, as was the very generous funding, 40,000 USD (around 100,000 € in 2017), sponsored by Atari's Institute for Educational Action Research. Today, computer game research results are much more divided between positive and negative effects, but in those early days, and despite contemporary lay concerns, it seems there has been little or no worry among scientists. It would be worthwhile, but far beyond the scope of this article, to investigate the geographical differences as well as the spread of game-critical vs game-positive research, not to mention their respective funding sources. Are there ideological interest groups at play?

The middle 1980s also saw the first humanities research on computer games, notably the PhD dissertations of Mary Ann Buckles (1985) and Brenda K. Laurel (1986). While neither dissertation focuses on social concerns, Buckles' is still interesting from a concern perspective. In her research on the first adventure game (Crowther and Woods' [1977] *Colossal Cave Adventure*), Buckles argued for the genre's cultural and artistic potential, not so much demonstrated as promised by the early game she analysed. However, while engaged in writing her dissertation, Buckles faced severe resistance from her dissertation committee, and after finally receiving her degree, she left academia in frustration to start a new career as a massage therapist (Erard, 2004). This very early example is still not atypical of what young researchers, three decades later, are facing in research environments where games are not considered proper investigative subjects, although, as we shall see, in Denmark and Scandinavia not so much.

The 1990s saw both more attention to social issues and also the first notes of concern, as witnessed by Eugene Provenzo Jr's *Video kids: Making sense of Nintendo* (1991), which was among the first to focus on aggression and sexism, while simultaneously discussing games' potential for education.

In light of this early history, Denmark did not arrive late to the game research table. The first article was Peter Bøgh Andersen's *Elektriske historier* (Electrical stories), in the magazine *Hug!* in 1984, the same year that the very first research article on adventure games, by Niesz and Holland, was published in the international journal *Critical Enquiry* (Niesz & Holland, 1984). Bøgh Andersen (1945-2010) would go on to become the grand old man of Danish computer game research, with both critical and design/development efforts over many decades. His pioneering doctoral dissertation on computer semiotics from 1990 (Andersen, 1990) would use computer games as one of the main empirical foci. The most active pioneer, however, was Jens F. Jensen, with 25 articles in the early years of 1988-2001, or 38 per cent of the total output in that period!

Denmark holds the honour of hosting the first international conference on computer games, as the 1983 Harvard symposium was merely a national event. *Computer Games and Digital Textualities* was held at the IT University of Copenhagen in March 2001 and organized by scholars Lisbeth Klastrup, Susana Tosca, Jesper Juul, Anker Helms Jørgensen, Raine Koskimaa and Troels Degn Johansson, all from said institution, but with international speakers and participants. Denmark also saw an early national organization of its game researchers, in the now defunct association Spilforskning.dk (2002-2008). The IT University of Copenhagen also formalized its research on games, which had been pioneered by then PhD

student Lisbeth Klastrup as early as in 1999, in the shape of an international research centre, the Center for Computer Games Research, in June 2003, and with Klastrup's PhD (2004) successfully defended at the same time.

All the Danish universities conducted substantial game research in a number of areas at a relatively early stage and notably students at Copenhagen University's computer science department developed the important early text-based MMO *DikuMUD* (Hammer, Seifert, Stærfeldt, Madsen & Nyboe, 1991). Denmark and the Nordic countries have always been in the forefront of digital media research. In 1973, Norway was the second country after the USA on the Internet/Arpanet and provided the uplink for the UK (NORSAR, n.d.). In addition to the generally high level of digital technology in the region, another important reason for the pioneering success of game research in Denmark, as well as in Norway, Sweden and Finland, was the fact that Nordic PhD programs in the 1980s and 90s were much more liberal in letting the students choose the topics of their dissertations than their Anglo-American or Continental counterparts. A pioneering student in the humanities would not be hindered by a conservative department or micro-managed by a zealous supervisor, at least not to the extent that would be the case in less liberal academic cultures, as witnessed by the case of Buckles. The Nordic PhD-like degrees (e.g. Dr. Art. in Norway) were quite new at the time, modelled on the German system with minimal supervision, but in contrast to the German system with the freedom to succeed or fail entirely placed on the candidate and in an academic environment much less hierarchical than the German one. In addition, the three- or four-year periods set aside for the doctoral work usually would not include several semesters or years of coursework, so that the doctoral candidates would have two to three years fully devoted to producing a monograph.

As the PhD students became professors, they would be in a very different position than most of their colleagues internationally, who would come to games in their post-doc or tenure-track phase, having spent their formative years as researchers working on something else. This advantage and head start afforded by the liberal Scandinavian academic culture is the reason behind the curious case of the Danish (but also Finish, Norwegian and Swedish) success in game studies and a lesson for how to achieve scholarly innovation in general. To illustrate how the Danish research sector expanded into games, we present a quantitative survey of Danish game research, based on publications in the years 1984-2014. Tracing the field of games research in Denmark through a quantitative lens provides a broad overview of the last 30 years in the development of the field and the volume of registered contributions by Danish game research scholars.

METHODOLOGY

Using Danish online databases and university employee pages, we collected the names of scholars, their institutions, their area of research and dates of publication. Investigating each publication's bibliography for further analysis was beyond the scope of the research. Neither did we explore the origin of funding for the respective scholars' field of study. Following this delimited research, we now outline the methodology of our study, its findings and subsequently hone in on the discussion of the apparent lack of attention to societal concerns over games as negative influences on youth and children.

In the period between November 2014 and March 2015, we collected data on the history of Danish games research. Qualifiers such as nationality of the scholar or place of residence at the time of publication were excluded and deemed irrelevant. Instead, the important qualifier was the Danish workplace affiliation of the publication's authors, as well as whether the publication in question was registered in the two Danish research databases Danish National Research Database (DDF) and The Royal Library and Copenhagen University Library Service (REX).

The primary source of collected data was DDF. This database is "collected from the Current Research Information Systems (CRIS) of Danish universities and other Danish research institutions" (Danish National Research Database, 2017) and participation by the universities is voluntary. It includes "published literature, such as journal articles, PhD theses, conference presentations and lecture notes" (ibid.) and it is operated by Denmark's Electronic Research Library (DEFF) with technical operations overseen by Technical University of Denmark's (DTU) library. The providers of data are Aalborg University (AAU), Aarhus University (AU), University of Copenhagen (KU), Ministry of Culture (KUM), Copenhagen Business School (CBS), Capital Region of Denmark (REGIONH), Technical University of Denmark (DTU), Roskilde University (RUC), Royal Danish Defense College (FAK), University of Southern Denmark (SDU), IT University of Copenhagen (ITU), University Colleges Denmark, Research Institutions in Architecture, Design and Conservation. These data providers cover the major research institutions that could potentially conduct research into games in Denmark.

We complemented the above findings with REX. This database covers all the research material produced by Danish educational institutions, as well as international research more broadly. We primarily used this as a complement to the DDF searches, especially in relation to searching for specific scholars.

In both DDF and REX we entered the English query terms *games*, *game*, *play*, *computer game*, *computer games*, *video game*, *video games*, *digital game*, *digital games*, *play*, *playing*, *gaming*, *digital play*, *gameplay*. Meanwhile, Danish search

queries were relegated to *spil*, *leg*, *computerspil*, *spiller*, *spille*, *lege*, *digitale spil*, *videospil*. We also figured that these terms would include research into concerns between games and youth and children, as to address our emphasis on Danish research of destructive or negative influences on youth and children through games.

We applied these search criteria to the two databases' abstracts, keywords and titles of the registered publications. Publications included were journal articles, book chapters, conference proceedings, conference presentations, books, dissertations and registered newspaper articles. We deliberately removed any master's theses and lecture notes that came up. The primary and ultimate condition of inclusion was whether a publication had been registered in the databases by the institutions themselves, as this is how both DDF and REX archive their data. This means that if research had been published, but not registered at the researcher's institution, then our survey would not be able to pick it up.

Due to the scope of the research, we did not distinguish between the forms of publications in our analysis of the results. Differences in academic discipline were also not accounted for. This means that our dataset is quantitative and does not consider qualitative aspects such as articles versus published books versus conference presentations.

Each of these search queries resulted in a certain amount of hits, which we then subsequently used to identify specific scholars. Using the location of the scholar, we then searched each individual scholar's publication list on the DDF and REX, as well as his or her own employee profile page on the institution's website. Co-authors on successful results were also discovered and subsequently researched to gather more results related to game studies. We then selected publications that were explicitly related to the analysis of computer games. We did not commit to close readings of each publication due to the amount of collected publications.

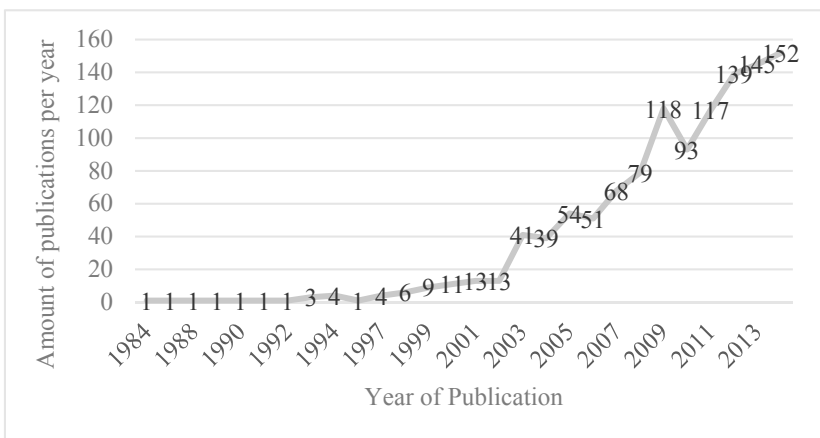
FINDINGS

In total, we discovered and collected 1168 different articles distributed across 118 different scholars. The discovered years ranged from 1984 to 2014, a total of 31 years, with '85, '86 and '95 being the only three years without any registered publications. These were the findings in Table 1.

Table 1: Research findings

Category	Registered publications
Total amount	1168,0
Total mean average per year	41,7
Amount of registered years	28,0
Median	12,0
Total average per year	37,7
80s average per year	1,0
90s average per year	3,3
00s average per year	48,7
10s average per year	129,2

A simple visualization of the data as seen in Figure 1 shows that Danish games researchers did not really publish much in the first two decades (1980s and 90s), evidenced by the low average numbers of each decade. It is not until the early 2000s that more and more game-related publications occur. By 2003, the amount of publications jumps from 13 to 41 and hovers around that amount for the next four to five years until we see in 2009 a sharp jump to 118 publications.

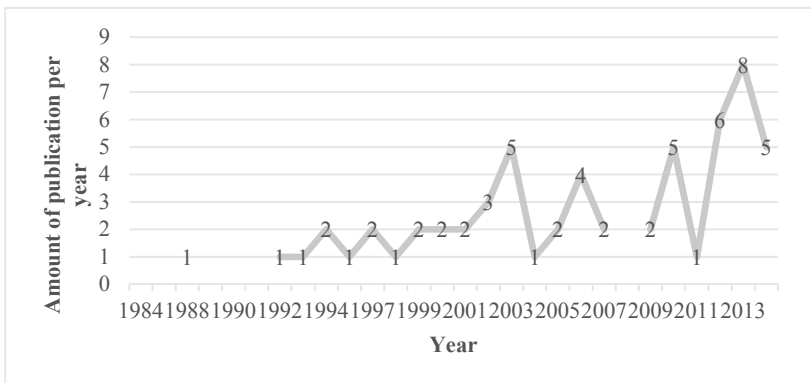
Figure 1: Total publications per year

At the same time, we see in Figure 1 that there was a short drop to 93 publications in 2010, but that this drop was only temporary, as the numbers show.

A HISTORICAL LOOK AT DANISH RESEARCH CONCERNS ON YOUTH & CHILDREN

In order to specify the data and elaborate on the present theme, we also looked into each publication to identify the extent to which Danish games research had dealt with the topic of concerns about youth and children playing games. In order to demarcate whether or not a publication addressed the issue of children and youth in relation to concerns, we looked at publication titles and researchers usually working within this field of research. We included a publication if it fulfilled the sufficient criteria related to children, kids, youth, young adults, play, addiction, violence, effects, excessive playing, the perceived distinction between real versus virtual and fictional behaviour. Based on these criteria, we found that of the combined 1168 results, only 60 publications addressed the topic of concerns over youth and children playing games. This means that around five per cent of the total amount of publications from 1984 to 2014 have addressed the otherwise often-mentioned phenomena of concerns over games and their effects on children and youth. Looking at Figure 2, we see that there are different spikes in 2003 and 2013 respectively. We imagine that these spikes might be motivated by research reactions to specific public controversies that have received media attention. Yet,

Figure 2: Publications focused on youth and children concerns

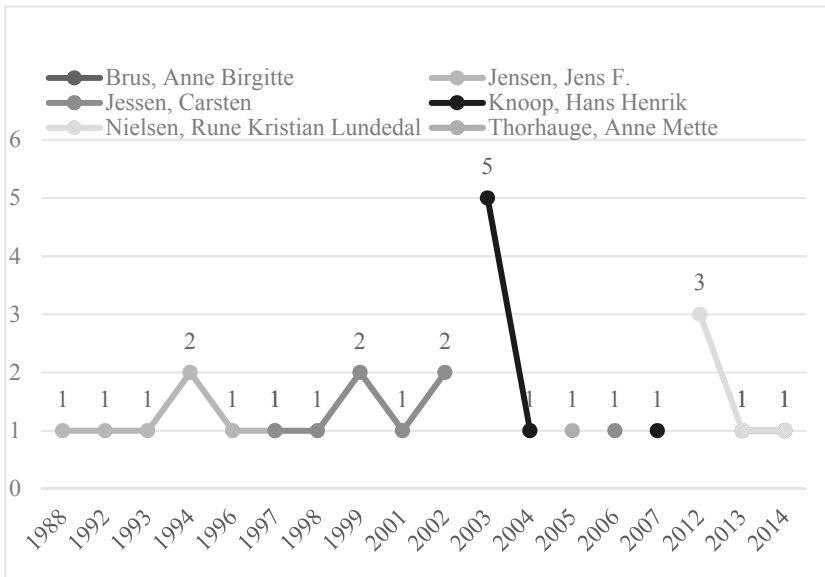


looking closer at 2003 we see that this is primarily attributed to four multiple publications by the same researcher Hans Henrik Knoop, thereby accounting for eighty per cent of that year's publications focused on concerns over youth and children, but Knoop would never revisit the topic afterwards. This could possibly be attributed to the school shooting in Erfurt, Germany, that sparked public debate on computer games in Denmark to the point where the Danish Minister of Culture Brian Mikkelsen even suggested a national rating on games (PC-spil kan gøre børn afhængige, 2003). Later in 2012 and 2013, we see a sharp increase once again, however this time by multiple researchers. We hypothesize that an increased focus on games and violence and addiction became more prominent following the aftermath of the 2011 Utøya massacre in Norway after some Danish media outlets reported on the relation between the mass murderer playing *World of Warcraft* (Blizzard, 2004) and his terrorism (Karlsen & Jørgensen, 2014). Also, in 2012, the national public broadcasting service Denmark's Radio (DR) conducted a self-made experiment where they compared playing games to reading books for youth and children in relation to aggression and violence (Kristiansen, 2011; Abrahamsen, 2011), which in turn spawned wider debate in Danish news media via opinion pieces and feature articles. Although this is conjecture, it might be possible that widely disseminated discourses like this in national media affect the research focus on game addiction and violence after the public at large increase their attention towards concerns over youth and children playing games.

Similarly, if we look further at the collected dataset and categorize by names we see that mainly six different authors are responsible for the output of publications focused on concerns about youth and children. These are mainly Anne Birgitte Brus, Jens F. Jensen, Carsten Jessen, Hans Henrik Knoop, Rune Kristian Lundedal Nielsen and Anne Mette Thorhauge as illustrated in Figure 3 below¹. If we look at Figure 3, it is interesting to note that each author up until 2014 has publicized their research on concerns over children and youth in isolation from one another, as if there is only room for one high-volume researcher at a time.

1 It is important to note that the timeframe of our dataset did not include the high output by two researchers, Anne Mette Thorhauge and Anne Birgitte Brus, who otherwise both have covered concerns over children and youth extensively within Danish games research. This is due to the fact that their publications are concentrated around 2015 and 2016, thus not being present in the 1984-2014 timeframe of our data collection. Regardless, by following both Thorhauge's and Brus' recent research, it is clear that they too have a prominence within the topic of concerns over children and youth, even though this might not be apparent from our limited dataset.

Figure 3: Six selected authors



LIMITATIONS AND DISCUSSION

With regard to the quality of our findings, there are several limitations to our study and the collected dataset. Our research tools were heavily reliant on online availability and digital registration of the publications in question.

This reliance on digital registration in online databases means that publications during the 1980s and early 1990s might have been unavailable and undiscovered. At the same time, scholars who might have left the field of game studies before digital registration became mandatory at their institutions would also be unavailable for our data collection and their publications invisible to us. Regardless, our survey still managed to pick up some individual publications from the 1980s and 90s, thus at the very least showing that the two databases, DDF and REX, did contain or include *some* publications from that non-digital period.

Finally, and perhaps most importantly, our dataset is quantitative rather than qualitative. In our analysis, there is no difference between a dissertation and a conference presentation. By not doing an in-depth analysis of the collected dataset, we run the risk of reproducing contemporary neoliberal quantification of academia onto Danish games research. The epistemic insights of game studies are not solely quantifiable and our analysis are at best superficial (cf. Ergül & Coşar, 2017, p.

104). With the ongoing austerity measures of the public sector across the welfare states in European countries, it is not prudent to re-enact and reproduce the same logic that has resulted in the defunding of qualitative research, which the humanities especially are focused on. It is therefore vital that any reading of our dataset and visual analysis keeps the limitations of our quantitative methodology in mind.

Our dataset and analysis show that digital games research in Denmark follows the popular growth of these games in the sense that the establishment of game studies in the early 2000s heralded more and broader academic scrutiny of the phenomena of games. The steady growth in production of articles focused on games from around 2000 to 2014 highlights the academic importance and cultural relevance that games continue to hold for Danish society and even international contexts. Finally, our dataset shows that publications on concerns about children and youth are statistically few: five per cent of the total amount of publications, while the most prominent authors in this area seem to be temporally secluded from one another, at least in terms of activity.

CONCLUSION: A LACK OF WORRIES?

Danish game research has had a strong global presence since the late 1990s and especially in the 00s, but mainly, and from the humble beginning of Bøgh Andersen's article in 1984, it never has been truly concerned with concerns and worries about games. Instead, the focus has been on aesthetics, design and social interaction, as well as education. Perhaps the optimistic, Californian spirit from the 1983 Harvard symposium has also framed the Danish research agenda? After all, there are very similar and dominant high-tech ideologies and social practices at play in both these cultures and this naturally affects their research sectors as well.

Nevertheless, the attention given to games in the media by Danish researchers is not always free of worries. Paradoxically, however, it is easier to find media statements of worries from scientists and researchers than it is to find actual research documenting those worries. Examples of this trend internationally would be the German psychiatrist Manfred Spitzer, whose 2014 popularization *Digitale Demenz* has been translated to several European languages and Susan Greenfield, a well-known and controversial British neuropsychologist who has made claims such as, "playing certain games can mimic addiction, and [...] the heaviest users of these games might soon begin to do a pretty good impersonation of an addict" and "[connections in the brain] can be temporarily disabled by activities with a strong sensory content – 'blowing' the mind. Or they can be inactivated permanently by degeneration – i.e. dementia" (Whitelocks, 2011, para. 3). In Denmark, we find

the same tendency of researchers making undocumented claims, e.g. Hans Henrik Knoop:

In computer games, you learn to act like an assassin or a psychopath and you will be able to use that knowledge in the real world. You are being trained in aggressive behaviour and this can make you more insensitive to the suffering of others. It is certainly not harmless (Forsker: Computerspil, 2003, para. 7, our translation).

Similarly, Albert Gjedde (2012) states:

There are people who, because of [their] special disposition, are in danger of becoming addicted to computer games and who, because of the addiction and its causes may lose the ability to distinguish between real violence and virtual violence when they play the most violent games (para. 2, our translation).

Coincidentally, Gjedde cannot be found as author on our list of Danish game research publications. In other words, Denmark has its share of the phenomenon of concerned researchers who express their worries in popular media, but who appear not to have conducted any scientific research on the matter. Also typically, this trend seems to be a relatively recent phenomenon in the three and a half decades of games research. Perhaps it speaks more to the agenda of popular mass media than to an actual research agenda; any researcher who has experienced being quoted incorrectly by news journalists should recognize how this sensationalist mechanism works.

Danish game research, like Danish culture in general, appears not to be very concerned with the potential negative aspects of digital media, in this case games. While there is some attention from the media, this has not led to dedicated research funding and therefore, not much research. Nevertheless, our survey and arguments in this article quantitatively trace the trajectory of Danish games research, thus providing an overview of the recent historical development of game studies as a demarcated field in the Danish institutional context.

Our conclusion is negative: we have not found much worry. This is of course hard to document (one cannot prove a negative observation), but based on our survey, we stand by it. We could be wrong, but the Danish research landscape, like the country, is small and easily traversed. Any strong worrying research would have stood out, not only in our survey but also in the media; and this has not been the case, as far as we can see. We ascribe this to Denmark's strongly liberal position, especially in terms of media use and moral values, where it clearly outranks

its neighbours when it comes to attitudes towards alcohol, pornography, prostitution, drugs and frivolity in general (Bondeson, 2001). It should not come as a surprise that this liberalism can also include games. As future research, a Nordic comparative study would be a good way of testing this hypothesis.

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Concerned with Computer Games: A Collective Analysis of Being and Becoming Gamer in Denmark

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In this chapter, we focus on a particular matter of concern within computer gaming practices: the concern of being or not being a gamer. This matter of concern emerged from within our collective investigations of gaming practices across various age groups. The empirical material under scrutiny was generated across a multiplicity of research projects, predominantly conducted in Denmark. The question of being versus not being a gamer, we argue, exemplifies interesting enactments of how computer game players become both concerned *with* and concerned *about* their gaming practices.

As a collective of researchers situated at universities in Denmark, and writing from within the field of psychology, we are particularly concerned with (human) subjectivity and processes of social and subjective becoming. Furthermore, we are all inspired and influenced by various neo-materialistic theories, which implies that we seek to understand the entangling material-discursive and social nuances, i.e. the complexities and the diversity of (human) subjectivity. We are concerned with zooming in on and analysing subjectivity and how it emerges from within the social and material relations of everyday life lived. From this follows that we are concerned about the danger that social and material relations are being forgotten or ignored in the study of subjectivity, and that in consequence, phenomena under scrutiny are not situated in the everyday life practices of those human beings with whom psychological theorizing is concerned. By means of a collective analysis of exemplifying empirical material, our aim is both to gain insight into one another's

ways of conceptualizing the social and material-discursive entanglements of everyday life and thus our respective ontological presumptions, and consequently also to challenge one another's ways of asking questions into the concerns of computer gaming subjects we have come to do research with.

Generally, concerns formulated in relation to everyday computer game production, regulation and use could potentially be understood in a myriad of ways, also because concerns emerge as complex, multifaceted and at times contradictory phenomena in everyday life. However, those academic and non-academic public discourses that most prominently emerge in our empirical material tend to focus on enacting two polarized understandings of concerns: Either concerns in terms of *being concerned about* meaning *worried* that computer games may be of detriment to specific individual and/or societal developments, or in terms of *being concerned with*, meaning *engaged* with computer games as productive-constructive forces in specific individual and/or societal developments.

What we as psychologically trained technology researchers are academically concerned with and about, then, is that this polarization of understandings shapes research outcomes as well as the public and professional debates without explicating its ontological and epistemological presumptions, i.e. the respective understanding of what a computer game concern is and from what position knowledge about it is produced and articulated. Hence, we are worried about debates that present and reproduce knowledge which implicitly accepts one of the two understandings of concern as more significant than the other, without grounding their understanding in the empirical complexity of all those who engage in computer gaming practices as part of their everyday life, including the potential ambiguity and contradictoriness of both understandings of computer game concerns engrained in these engagements. Our empirical examples instead show that concerns/worries about computer games and being concerned/engaged with computer game practices always emerge as mutually entangled in the complexity of gaming subjects' everyday lives.

MESSING WITH CONCERNS FROM WITHIN EVERYDAY LIFE

What our author collective is concerned with, then, is how computer game concerns emerge from within the everyday life of subjects who play computer games (henceforth generally referred to as *computer gaming subjects*, and in specific instances articulated as *players* or *gamers*, regardless of the platforms they play on). In this chapter, we argue that ontological and epistemological aspects of

knowledge production are intertwined (Haraway, 1991; 1997; Stengers, 1997; Law & Mol, 2002; Dreier, 2007; Barad, 2007; Teo, 2009). Thus, the understanding of concerns will take many forms. In this text we talk about these varying forms of understanding as fractal or as variously enacted *realities* (Law, 2002). By this we mean to emphasize that simultaneously enacted, but fragmented and possibly contradictory versions of realities will always be something that researchers have to relate to – but may also provide researchers the opportunity to expand and refine analytical potentials.

Therefore, this chapter presents our efforts to revisit and collectively analyse empirical material produced from within the everyday life of computer gaming practices, in order to question and transcend our respective epistemic partialities and ontological presumptions and collectively try to understand the situated character of computer gaming practices. Our aim is to keep the ontology of computer game concerns questionable and in movement, by allowing the possibility that these concerns may emerge as more complex, multifaceted and contradictory than each single one of us expected them to be before engaging in a collective methodology and analysis process. We focus on grasping the realities of being players and/or gamers from within the everyday life of those actually concerned with playing – the computer gaming subjects.

Accordingly, we will begin by illustrating a few of the enacted realities that should be well-known to many of our readers and will then destabilize them throughout the chapter to discuss how we can form more nuanced understandings of *whose* and *what* concerns we are researching. We argue that this depends on how we can formulate questions to research concerned about/with computer gaming subjects via various theoretical foci. To pursue this ambition, we let ourselves be inspired by John Law's understanding of *allegory*: "Allegory is about enacting, and knowing multiple realities. But [...] allegory is also about the movement between realities. In particular, it is about holding them together" (Law, 2004, p. 108). In this chapter, we will present a limited number of empirical stories we worked with in our collective analysis workshop, stories which exemplify how we have been rethinking our different conceptual frameworks together and how they came to empirically matter for debates about everyday computer game concerns.

In particular, we will do this so as to enact and show different performances and thus understandings of the computer gaming subject: "This is because it [allegory] makes space for ambivalence and ambiguity. In allegory, the realities made manifest do not necessarily have to fit together" (Law, 2004, p. 90). With inspiration from this method, we hope to illustrate the ambiguity of the computer gamer as a concept pointing to a subject performing an everyday life that includes computer gaming practices, and to render the concerns, ambiguities, nuances and

complexities that emerge out of this generative relationship visible. Allegory as method wishes to precisely allow for this process:

Even more important, it [allegory] is also generative. It messes with the boundaries between manifest absence, visible realities that can be acknowledged, and Otherness, those realities that are also being enacted but rendered invisible. It extends visibility – or it crafts and plays with different versions of visibility. By the same token it extends realities – or it crafts and plays with different and alternative versions of reality. (Law, 2004, pp. 97-98)

Before demonstrating how we came to collectively mess with the boundaries of visible and invisible concerns by collectively posing questions to our empirical examples, however, we will roughly illustrate a few of those visible realities that are more commonly acknowledged – also by the computer gaming subjects themselves. This is to serve as an argumentative background for underpinning the necessity of extending visibility and enacting alternative, less visible empirical realities.

VISIBLE CONCERNS ABOUT PLAYERS AND GAMERS

The first reality enacted is most commonly presented in popular media, and has a strong history: The image of boys sitting in dark rooms lost in fictional realities of violence – an image everyone should be able to recognize. It is the image that pops up most frequently when searching Google for *video game player*, *computer game player* or *gamer*. It taps into the concern of the parent and the stereotype of the addicted (teenage) boy, encapsulated in his room while becoming socially isolated, obese and losing connection to the ‘real world’. News, articles, videos, etc. commercialize this concern by offering advice on how to spot computer game addiction and set limits for screen time so as to allow for the healthy development of the child. This image is part of our (Western) culture, and is one to which the computer gaming subjects in our analyses – as well as caring others – relate to in various ways, as we will see.

Another enacted reality is one rendered visible by survey data. This data builds on a binary gender discourse, which enacts gender as a salient differentiating category. In the USA, the gender split of those playing computer games has been fluctuating between a male/female ratio of 60/40 per cent and 52/48 per cent since 2008 (Statista, 2016b). Age also appears as relevant survey category: For instance, data from Statista (2016a) shows that 27 per cent are under eighteen years old, 29 per cent are between eighteen and thirty-five years old, 18 per cent are thirty-six

to forty-nine years old and 26 per cent are fifty or older. This points to a much more even spread of gaming subjects across ages than the popular reality enacted in the media articulations illustrated above.

If we look at numbers from a report of the Entertainment Software Association, which is based on the same data set used by Statista, it found that the average computer gaming subject is thirty-five years old and that women aged eighteen and above represent 33 per cent of the gaming population, whereas males aged eighteen and younger represent only 15 per cent (Entertainment Software Association, 2015). In Europe, the Interactive Software Federation of Europe completed a consumer study in 2012 conducted in 16 European countries, where they found a gender split of 55 per cent male subjects and 45 per cent female subjects, with 51 per cent of gaming subjects below the age of thirty-five (Interactive Software Federation of Europe, 2012). Similar numbers were also reported from Australia in a report issued in 2016 by the Interactive Games and Entertainment Association (Brand & Todhunter, 2015): The median age of computer gaming subjects is generally in the thirties and the gender split is evening out to a near 50/50 split, with just slightly more males. However, the Australian report also shows that young males (teens and early twenties) spend significantly more time on in-depth playing than females, while so-called ‘casual gaming’ is evenly distributed. Later in life, the gender balance for in-depth playing eventually evens out. However, significantly more women than men play at an in-depth level after the age of seventy.

The data sets of course offer much more that we could delve into. But this is not the aim here. We merely wish to underline that survey data points to a different reality than the popular media illustration described above. This can be linked to the enactment of the gamer as a concept or identity marker for the computer gaming subject. In the *Digital Australia* report referred to above, findings related to the question “Are you a gamer?” led to the following interpretation:

The term ‘gamer’ means different things to different people. For 38% of those surveyed, a gamer is any person who plays any kind of game, even if casually or rarely; for 62% a gamer is someone who has been playing for many years, plays often and plays in-depth games. A quarter said the term has a negative meaning. Only 27% of the adult sample identified themselves as a gamer. It is clear the role of games in culture is something distinct from other media. (Brand & Todhunter, 2015, p. 13)

The discussion of what a gamer is plays into a third enactment of reality, which might at first glance seem unrelated to that of the survey data sets. It is the reality of rhetoric in everyday computer gaming practices. A diverging and yet specific

terminology is used in these practices and mastery of the respective language spoken is therefore essential in the enactment of oneself as a gamer or ‘real’ computer game player (cf. Sundén, 2012; Pulos, 2013).

The gamer term came to haunt us within and across our respective empirical material and subsequent collective debates. As psychological researchers we did not intuitively differentiate gamers from players of computer games: The terminology seemed somewhat interchangeable. What became apparent, though, was that in the societal space of computer game-playing subjects, the two terms carry (at least) two very different meanings across different realities within the allegory enacted throughout our collective analyses (cf. again Law, 2004).

What then is a gamer? And what is a player? How are gamers and players, respectively, concerned with this terminology? How are they concerned about it? And most importantly for us: How are these concepts helpful in approximating the realities they deem relevant? In the context of Andersen’s unpublished Master thesis study (cf. Andersen, 2015), a young man called Michael stated:

[I]n my opinion a gamer is, well you know, he doesn’t necessarily have to use a lot of hours on it. He just needs to have the interest and be up to date with what is new and what is upcoming and all that. Study stuff: ‘Why is this good’ and all that. And I don’t want to spend time doing that.¹

Computer gaming subjects conceptualize the term in slightly different ways, as will be shown later. But they find common ground in highlighting time spent on the games as a relevant analytical category. In the above excerpt, Michael does not define himself as a gamer, one of his reasons being that he does not want to spend the amount of time necessary to study in-depth and master the game. In his view, one would need to spend more time and effort playing than he does and furthermore master the various challenges programmed into the game in order to be recognized as a gamer. If we additionally relate investment of time and effort in order to become seen as a gamer to the survey data provided above by Brand & Todhunter (2015), the label gamer becomes predominantly accessible to male players, as they statistically spend more time playing computer games.

Given this variety of concern-related realities, what then becomes important for us as researchers is what we find within and across these different analytical

1 This is a previously unpublished excerpt from an interview conducted in the context of a Master’s thesis project by one of the authors (cf. Andersen, 2015). It was translated from Danish into English by the authors.

entanglements (Haraway, 1997; Barad, 2007): How are the various realities, computer game worries and engagements interrelated – how do they render one another visible and/or invisible? And how do different theoretical apparatuses, including varying understandings of subjectivity, of positionings, of performativities, etc., given our participation in multiple empirical realities emerging from within everyday life, question and nuance these empirical realities?

OPTING FOR THEORETICALLY DIVERSE INQUIRIES INTO COMPUTER GAME CONCERNS

Psychology has been playing a crucial and much-debated role in the formulation and discussion of computer game concerns (cf. in particular Nielsen, 2018, this volume). Recent sociomaterial and new materialist psychologies, however, inquire into and challenge psychology's most visible *foundations* (Brown & Stenner, 2009). They emphasize the sociomaterial and material-discursive relationality of embodied human existence and foreground the complexity and processuality of human subjectivity, subject formation and practice, as well as the central role which non-human agents play in these relations.

The authors of this chapter share the conviction that sociomaterial and new materialist psychologies invite more relevant and interesting analyses of computer gaming practices and related concerns. They enable a revitalization of notions of computer game concerns that emerge from within lived everyday life, which potentially question the above-mentioned dominating, polarized ontological presumptions of concerns as either worries or engagements – instead of as both. All of us have worked with different and yet similar inspirations and manifestations of critical qualitative psychologies on computer game concerned questions before, which can be related to the two major sociomaterial movements within psychology:

On the one hand, there are movements of thought exploring *technology and materiality from the perspective of subjectivity*; on the other, there are movements theorising in terms of the *emergence of enacted sociomaterial arrangements*, carefully tracing the multiplicity of human and non human actors involved in the *mutual becoming of subjectivity and materiality*. (Schraube & Sørensen, 2013, p. 3, emphasis in original)

1) The first set of theories enacted by our author collective can roughly be termed *Practice Psychology*: It develops its questions on subjectivity and experience from within a historically arranged practice and seeks to make its theorizing relevant to

those subjects constituting the respective sociomaterial practice. It has roots in Marxian thinking, resonates with *Social Practice Theory* (e.g. Lave & Wenger, 1991; Rogoff, 2003; Holland & Lave, 2009) and its reading of (*Cultural Historical*) *Activity Theory* (for an overview see Langemeyer & Nissen, 2011), and particularly manifests itself within the author collective as *Psychology from the Standpoint of the Subject* (Holzkamp, 2013; Motzkau & Schraube, 2015), with a focus on investigating the reciprocally constitutive human-technology relationship. Subjects create, through human practice, the technological arrangements that can potentially lead to emancipation as well as alienation from the conditions on which human everyday life is dependent. Conflictual-democratic, teleology-oriented inquiry into one another's experiencing of technological practice is a prerequisite for emancipating one's sociomaterial self-understanding from one-sided, alienating conceptualizations of everyday life (Chimirri, 2014; 2015).

2) A more emergentist conceptual approach brought into the collective inquiry is Karen Barad's *agential realism* (Barad, 2007), reengaged with Judith Butler's conceptualizations of subjectification and subject positioning (e.g. Butler, 1993). Barad emphasizes the entanglement of ontology and epistemology, as well as of matter and discourse, and offers conceptualizations such as *ethico-onto-epistemology* and *material-discursive intra-activity* to maintain the dynamic, mutual entangling and complex enactment of all phenomena. Together with Butler's strong sensitivity to processes of subject formation, her conceptualization of performativity and the continuous processuality involved, these conceptual perspectives enable particular kinds of refinements in qualitative new materialist and poststructuralist analyses (cf. Søndergaard, 2013; 2016).

In order to productively enact these partly conflictual theoretical grounds for arguing across sociomaterial practices, as well as across psychological and new materialist understandings of human subject formation and practice, this chapter furthermore proposes a methodology for collectively analysing empirical material. The aim of the analytical process is to challenge one another's researcher realities via allegory, ergo identifying commonalities as well as differences across practice-psychological, poststructuralist and new materialist psychological views on computer game concerns. Above all, it emphasizes the questions on computer gaming practices and concerns that are rendered possible through this collective methodology – and thus potentially more relevant and complex understandings of how computer game practices constitute a significant part of human everyday life and simultaneously can never be understood as isolated phenomena: Computer gaming practices and related concerns are always already related to other practices and concerns.

A COLLECTIVE METHODOLOGY FOR POSING QUESTIONS TO ONE ANOTHER'S COMPUTER GAME CONCERNS

For developing a methodology that follows and simultaneously challenges conceptual development and thus does justice to multiplying realities of inquiring into computer game concerns, we drew on a method originally developed from within design studies, but altered by a few adjustments. Design studies commonly propose solution-seeking, product-developing research designs and processes, thereby reducing the mutual mediation of social subjectivity and materiality to the designers' ability to determine material outcomes. Meanwhile, the explorative-iterative negotiation processes these design practices undergo before proposing a *solution* to a (pre-determined) *problem* tend to follow a relatively anti-deterministic rationale. Throughout the design process, prototypes for how to more precisely inquire into and understand problems and possible solutions are developed and *tested* together with other researchers, designers and/or stakeholders. Our author collective found this relational processuality of participatory design methodology to be particularly inspirational for our approach to posing collective questions to computer game concerns. As a helpful prototype for developing our methodology, we therefore built on Simonsen & Friberg's (2014) book chapter on *Collective analysis of qualitative data*. The authors adapted Brassard's (1989) *affinity diagramming* technique, which in turn is inspired by *grounded theory's* inductive methodology (Glaser & Strauss, 1967; Glaser, 1992).

Affinity diagramming renders it possible to relate collective brainstorming notes to one another across the various analytical foci the respective researchers (or others involved) bring into the workshop's brainstorming. Thereby a first collective categorization/generalization of what is at stake in the design and/or research process can be negotiated and approximated. Simonsen & Friberg (2014) then suggest attaining yet another generalization via *problem-mapping* (Lanzara & Mathiassen, 1985) or *diagnostic mapping*, as the authors call it in their modified version. Through diagnostic mapping, it is not only what is at stake (or the problem) that is negotiated and categorized, but also possible causes, consequences and ideas for solutions. This latter step seemed less helpful for our collective analysis, as we did not seek to design a product as a response to a delimited problem, but rather to enact multiplied and ambiguous realities of computer game concerns and problems, and the conceptual-analytical developments they call for. This keys into the aforementioned inspiration from Law's concept of the allegory, as we could use the collective analytical process in order to presence the nuances and complexity of an allegory that can show the multiplicity of, among others, gamer-player subjectivities created in and through the concerns with and about computer

gaming practices. From an agential realist perspective, one could say that we expanded the apparatus of inquiry in order to diffractively reread the question of computer game concerns through a multiplicity of empirical materials as well as through various analytical-conceptual frameworks. *Diffraction* refers to an analytical approach in which realities move through each other like waves, and by those kinds of movements enact still other, new realities: “Diffraction is meant to disrupt linear and fixed causalities, and to work toward ‘more promising interference patterns’” (van der Tuin, 2011, p. 26; cf. also Jensen, 2015; 2016).

For our purposes, we thus primarily decided to adapt the design studies’ affinity diagramming technique as a means of approximating a collective understanding of what may be at stake in specific empirical descriptions that we had previously generated across a variety of research projects. Brainstorming notes were created by each of us while the researcher who generated the respective empirical material read out the description (observational data, interviews), or while we collectively read/watched material (interview transcripts, a video recording).

More specifically, the empirical material consisted of the following, previously unpublished data sets that were all translated by the authors from Danish to English for the purpose of writing this chapter:

- Field notes from a project on bullying and violent computer games in an after-school centre (for children generally aged ten to fourteen). This material is part of a larger set of empirical materials produced in relation to a project on bullying among children in school (2007-2012) (cf. e.g. Schott & Søndergaard, 2014; Søndergaard, 2013; 2014; 2015; 2016).
- Interview transcripts from a project on gender and gaming among adult *World of Warcraft* (Blizzard Entertainment, 2004) players (cf. Andersen, 2015).
- Interview transcripts from an ongoing project on the practices of computer gaming subjects, generally aged fifteen to seventeen, in a boarding school (cf. Wulff Kristiansen, 2015).

The questions we came to pose to one another’s empirical material at the collective analysis workshop emerged from empirical questions posed and concerns formulated around, by and together with gaming subjects while conducting ethnographically inspired work situated in everyday computer gaming practices. As mentioned above, our different onto-epistemological approaches enact different realities. Thus, in merging our different empirical material we do not triangulate data to find one singular reality (e.g. Flick, 2014), but rather we explode various realities into new, emerging questions about computer games.

DISCERNING COMPUTER GAME CONCERNS COLLECTIVELY: GETTING CHALLENGED BY ONE ANOTHER AND EVERYDAY LIFE

In what follows, we will enact and play with a range of realities found in collectively inquiring into or cutting through our empirical data in various ways to bring out the ambiguities, tensions, multiplicities of understandings, positionings and subject formations concerned with and about computer game playing. We exemplify this by picking up on the previously introduced question of how the realities of being and becoming a gamer play into (gendered and generationed) concerns formulated by computer gaming subjects; specify this further by inquiring into the ontology of being-becoming a non/gamer; and finally explore how this relates to more contradictory realities of experiencing computer game violence. While the following examples and analyses were selected in order to particularly highlight questions and concerns of gamer ontology, gender and violence, it is important to mention that this represents merely a small excerpt of the discussions and analyses which took place at the workshop – selected in order to provide readers a first impression of how a collective analysis can open up alternative realities. At the same time, focusing on gamer-gender-violence concerns always implies rendering other concerns less visible. It is therefore crucial to ensure that any analysis is situated in the everyday practice and concerns of those concerned, in our case the computer gaming subjects. The non-academic relevance of the following analyses' findings/realities cannot be presupposed, but must be iteratively re-explored together with those concerned (which includes the researchers as well) and resituated accordingly.

What Is a Gamer?

As illustrated earlier, the concept of being or not being a gamer is one that is enacted within and across the digital/analogue realities of everyday computer gaming practices, i.e. based on manifold enactments across various sociomaterial arrangements: Everyday life is lived across many digital/analogue spaces and with many digital/analogue social relations. The rhetoric of gaming could thus be said to hold iterative power (cf. Butler, 1993) across both players/gamers and avatars' subjectivity (cf. Sundén, 2012; Eklund, 2015), and thereby be a deciding factor in determining which differences come to matter in related realities (cf. Law, 2004; Barad, 2007). The following analysis will elaborate on the relevance of inquiring into this entanglement through further empirical enactments.

Firstly, Michael, whom we already met earlier in this chapter, did not view himself as being a gamer. He deems himself unworthy of the term as he does not spend enough *time* on different games, nor enough time on what one might conceptualize as *mastering* the different games. Another subject who actually does view herself as a gamer was asked to define the term. Karina came to define it thusly:

Karina [...] someone who likes to play computer games, and I actually think the degree [of time spent] can be a little different. There are those who are hard-core, sitting there for 23 hours a day in front of their computer, just playing World of Warcraft. And then there are those who just play two to three hours, but I would still call them gamers. But those just playing Facebook games – they are not it! They need to leave [laughter].

Interviewer Then where is the limit in terms of being a gamer?

Karina We are on the top scale, time-wise, and you need to have the will and understanding for it. Just because someone plays World of Warcraft for half an hour, they don't become a gamer, obviously. They lack that 'need'. They must be hooked. They need to think: 'this is great. I want to do this again tomorrow'. I think that is it. And then the entire medium, you must be a little hooked on it.

Karina understands herself as a gamer. What she deems necessary in order to become worthy of the title relates to a need to play: You “must be hooked” on a game, before truly becoming a gamer. And a gamer is thus not the same as, but actually distinct from, simply being a player of computer games. There is furthermore a clear distinction between gamers or players of computer games and players of browser or Facebook games. What emerges is a kind of elitist ideal, where performativity and a form of professional vigour are important for the iteration of being or not being a gamer. Such as any other fixating categorization, this ideal of the gamer can be enacted as both inclusive and exclusive, and we could point to several instances of gamer also being used as a denigrating term.

Relating these interview realities of being a gamer to the above survey data realities calls upon an additional analysis, which enquires into how analogue gender plays into virtual encounters and bodies – given that time played, which is generally greater for male than female gamers, appears to be a discerning factor in obtaining recognition as a gamer, and that statistically speaking the analogue male gamer is more prevalent (cf. above with reference to Brand & Todhunter, 2015). It may also be of relevance to inquire into the game industry's co-produc-

tion of this ideal category and its entangledness with other social material-discursive ideals – for instance how the professionalization of a certain gaming practice is enacted in relation to sports-like events and/or future job security.

But back to our empirical examples of female gendered gaming subjects interviewed in the context of Andersen's (2015) study:

- Interviewer What do you associate with being a gamer?
- Lene Ehm. That, that you play primarily every day, basically. But also that you are committed, it's not just on a leisure-basis, but something you're passionate about. You have to always want to be better at your game.

Formerly, Lene identified with being a gamer. This changed, however, due to several conflicts arising in relation to other sociomaterial, intra-acting arrangements, among others pregnancy and her studies. What she provides us with via her reflections, is an elaboration of the performance aspect of being a gamer. She herself is then capable of analysing the complexities of her own everyday reality: How to be or not to be a gamer?

Non/Gamers? And Their Concerns

In this part we move from adults discussing what a gamer is, to teenage boys at a boarding school negotiating a gamer/non-gamer identity, as well as discussing their related frustrations and concerns. During a group discussion arranged by the researcher, they addressed their concerns concerning computer games: They painted a picture of how they were engaged with their computer games, but met with specific resistance from those around them in various ways – which was something the boys themselves had become concerned about. Engaging in computer gaming practices required special allowances to be acceptable. This emerged in a group discussion on the difference between engaging in playing soccer and computer games, conducted by one of the authors in the context of his Master thesis (cf. Wulff Kristiansen, 2015). Both could be regarded as activities where teams of players cooperate to score more points than an opposing team – sometimes in leagues, sometimes in single matches:

- Interviewer-2 The view that they [parents, teachers, some of their peers] kind of looked down on it [playing computer games] you were talking about...
- Ben I really find that, like, annoying. It... my life, when people look down on people who play computer games, that it's nerdy, it's wrong, then no... it's like

playing soccer for eight hours a day, or doing sports. We are just doing something else we find awesome for eight hours a day, so I've always been, like, annoyed with people. Also just, you know, when people have said it was nerdy and stupid and looked down on us just because we were playing computer games.

Alex Do you mean the teachers or the pupils of the boarding school?

Interviewer-2 Just the view you were just saying that the school has, and how they wanted to reduce playing time and try to get you to play less, or at least that's what I'm understanding from what you're saying?

Interviewer-1 Is it more acceptable here to play soccer than to play computer games?

Alex Yes, totally! Yes! And it's like that everywhere, and it really pisses me off!

Carl They just want to, I mean soccer is social, you know, but...

Ben But it...

Carl For example, like, because with soccer you are many people out together, but World of Warcraft is just as social for us, because we're just together in there, you know. Like, we sit together and play, and that is just as nice for us, you know, rather than... because it's not really our thing to go out and play soccer most of the time, but we're still social together.

The boys throughout the group interview expressed a strong sense of frustration with the view they felt was attached to the practice of playing computer games – that it was “nerdy”, “wrong” and something “people look down on”. The boys point out how they feel this affective reality is being enacted “everywhere” and how it “really annoys [us] a lot.”

The strong entanglement of time and control in computer game practices is a theme seen often in computer game research (cf. Aarsand, 2018, this volume; also Martin & Abmann, 2018, this volume). Where playing soccer, reading, etc. for hours or days is fine, strict time control is often enacted when computer games are involved. This becomes especially interesting when seeing how the boys from the boarding school speak about these constraints. On the one hand they express strong levels of frustration with the constraints imposed on them, while at the same time they express gratitude towards friends who got them to engage in things other than computer games. They point out how girlfriends and social lives at times run counter to playing computer games, while stressing how spending whole days or weekends playing computer games with the boys can become a form of male bonding experience. This multiple enactment of affect, where feelings of community, shame, frustration, defensiveness, attraction to an activity, etc. are created, is a perspective that requires approaches sensitive to the perspectives and affective

realities of situated computer gaming subjects. Furthermore, entangled conceptualizations of time must thus be rendered questionable, and how they play into the arrangement of everyday practices and related concerns. While most commonly, wasted versus sensible use of chronological time is particularly emphasized in concerns about (excessive) computer game playing, more circular understandings could open up for understanding how alternative time realities and affectivities can be something actively sought by gaming subjects.

Concerning Gender and Embodiment (and Violence)

Everyday concerns about and with gaming not only deal with how dedicated computer gaming subjects are or should be, or with how this dedication is related to gender norms, but often also focus upon the potential aggressive and violent aspects of many gaming scenarios, designs and practices. In the material generated within the previously mentioned project on bullying (Søndergaard, 2013; 2014; 2015; 2016), one theme that repeatedly emerged across the material centred on the meaning and mattering of violence, aggression and what some would term *playing with evil*. The play with such phenomena seems to engage children and young people intensely. In much research literature concerning computer games, it is precisely these games that are the focus of shared anxiety and concerns among adults: What does this playing with violence and with ‘evil’ do to the children and young people, who spend hours engaged in avatar shooting and combat scenarios?

We came, however, to pose different questions, such as: How is analogue/digital violence and evil enacted and processed, in the lives of which computer gaming subjects and in which games? More specifically: How is it picked up, (trans)formed, lived, embraced and/or rejected? And what, for instance, does the ironic conduct of digital violent acts mean in different situations to differently positioned computer gaming subjects under which life circumstances (cf. also Søndergaard, 2013; 2016)?

Entangled within the theme of aggression and evil, a variety of social categories were materially-discursively enacted across the different sets of empirical examples. Gender, for instance – as particularly emphasized here in order to connect it to the above analyses – intra-acted and saturated seemingly violent gaming scenarios in various forms. One case, written down as field notes by Søndergaard in the context of a large research project on bullying among children at school (cf. Schott & Søndergaard, 2014; Søndergaard 2013; 2014; 2015; 2016), recounts an episode which took place in a computer room at an afterschool centre filled with children aged ten to twelve:

A group of boys and a girl are playing Counter-Strike. The pedagogue has left the room and the children turn up the sound on all machines. They shout at each other and at their avatars as the game moves on:

Mick shouts angrily: ‘Daniel, you!’ and hits Daniel’s analogue body hard the moment after his avatar body is hit by Daniel’s avatar. ‘It’s because you play every day, man!’

The others get frustrated with Daniel because he keeps shooting them. They hit and kick him continuously (analogue space) – but Daniel stays seemingly unaffected, bends a bit to one side or the other to counter the hitting (analogue space) while his avatar (digital space) keeps moving and killing. The atmosphere is intense.

‘Yeah, I got him!’ James shouts out loud in triumph, having killed Sarah’s avatar.

Sarah: ‘It was a her!’

An avatar soldier has been whacked, falls forward, blood splashes everywhere. Getting no response Sarah shouts again, this time louder, that the man on the screen is a her – and next time it works. Ryan shouts: ‘I whacked her!’ and cheers loudly. Sarah says with badly hidden contempt in her voice: ‘Yeah! It wasn’t that hard, was it?’ stating her satisfaction with the correction of the gendered naming.

In this small field note excerpt, one of the themes that becomes evident is a negotiation of a gendering of violence: Is it possible to acknowledge war, killing, soldiering and fighting as female agency – or would a girl doing those things have to be addressed as male? The design of the game points out the gendering of such phenomena as male. All avatars are obviously male. But Sarah calls that premise into question: What kind of agentic embodiment counts in a game, the digital or the analogue – does the male virtual body demand male naming with *he*, or is it the subject’s female body that by virtual agency through a male avatar sets the premise for a *she*-naming? Where is the analytical cut to be enacted – between analogue and digital body? Between bodies and agencies regardless of analogue and digital situatedness? And what do the children make of the avatar agency offered to them in the games they play – which kinds of negotiations of social and in this case gendered order and gendered becoming do they engage in, how do they reiterate or transform that order, how do agential cuts between analogue and digital premises matter, dissolve, re-matter in transformed versions; and how do they hamper, assist or ease the desires and strategies of negotiation among the children?

Had we chosen not to selectively highlight the gender-violence entanglement above, still further questions to the empirical example could be raised – which, among others, could more generally point to the productive-creative side of violence: Why is it so relevant for our societies to uphold practices of violence and why is it so fascinating to many that computer game designers are attracted to

recurrently reproducing this topic? Are computer game practices not all-entangled with other practices that build on this fascination, both in digital and analogue terms? In any case: Concerns *about* violence must be considered together with *being concerned with* violence, noting as well how violence is co-constitutive of and co-constitutes the social and material-discursive arrangements we enact through the practices of everyday life.

CONCLUSION: COLLECTIVELY INQUIRING INTO ONE ANOTHER'S COMPUTER GAME CONCERNS

When delving into the empirical everyday practices of computer gaming human subjects, being concerned or engaged with and being concerned or worried about become entangled with one another and play a crucial role in shaping realities, such as understandings of what it means to be and become a gaming subject, as gamer, player, or none of these. The most visible and reproduced realities of concern, though, hinder a more nuanced, ambiguous and complex view of how this may create empirical problems for the gaming subjects in their respective daily lives – thus the concerns of those people computer game research is concerned with and about tend to become rendered invisible.

This is why this chapter aimed to propose psychological concepts inspired by sociomaterial practice psychology and new materialism as well as a methodology of collective analysis, both of which to keep the ontology of concerns and thereby our analytical enactments fluid and sensitive to gaming subjects' everyday lives. In consequence it argued for both a combined, ambiguous conceptual framework that calls for shedding a more contrasting light on computer game practices – a framework that situates psychological research about concerns within the everyday life of gaming subjects – as well as for a methodology of collective analysis, which enquires into this conceptual framework and simultaneously into the preferred realities of each member of the author collective. In order to pose questions and enact knowledge that is relevant to those concerned, then, psychology needs to ground its inquiries in everyday social material-discursive practice together with those concerned – and to have that knowledge explicitly inquired into and challenged by other onto-epistemological, theoretical-empirical realities.

Thus what the chapter calls for is an invitation to collectively inquire into one another's ontological presumptions about computer game concerns, irrespective of whether in academia, in non-academic professional practices, regulatory institutions, the industry, families or any other everyday life practice, and irrespective

of whether one considers oneself or others to be a gamer, a player, a game designer, a programmer, a regulator, a wholesaler, a parent or a researcher.

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Vernon Jones, BA (Hons), MA, is a Registered Social Worker with Health & Care Professions Council in the UK. Having worked as a statutory child protection social worker in the UK and as Program Manager with the NGO Save the Children, he has over 25 years front line experience and practical knowledge in relation to safeguarding children in various international contexts. He has been employed as the Head of Safety at MovieStarPlanet since October, 2012 and coordinates the company's child safeguarding measures.

Julia Kneer works as Assistant Professor at the Media and Communication department of the Erasmus University Rotterdam. Her international research includes media and social psychology as well as health communication. The main focus of her studies lies on violence, addiction, motivation and mood management regarding digital games as well as heavy metal music, stereotypes, smoking, social media and TV. Kneer currently holds the Chair of the Game Studies division of the International Communication Association.

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Rune Kristian Lundedal Nielsen, PhD, is a psychologist and an Assistant Professor at the IT University of Copenhagen at the Center for Computer Games Research. Dr Nielsen is a part of the Making Sense of Games project. The project has received funding from the European Research Council (ERC) under the European Union's H2020 ERC-ADG programme (grant agreement No 695528).

Jan Pfetsch is Visiting Professor and substitute head of the Department of Educational Psychology at the Institute of Education at the Technische Universität Berlin. He studied Psychology and Philosophy at the universities of Trier (Germany) and Valencia (Spain) and received his PhD from the University of Luxembourg in the area of prevention of aggression through fostering peer bystander

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Sandra Plontke studied Modern German Literature, Social Psychology and Social Anthropology at the Ruhr-University Bochum, Germany, where she currently is a researcher and Lecturer at the Chair of Social Theory and Social Psychology. She is also a Scientific Assistant at the Hans Kilian and Lotte Köhler Center (KKC) for Cultural Psychology and Historical Anthropology. She is an associated member of the Centre for Anthropological Knowledge in Scientific and Technological Cultures (CAST). Her main focus in research and teaching: Qualitative methods of picture and film analysis, *Bildwissenschaften*, media and design studies, cultural psychology, praxeology, STS and the sociology of knowledge.

Felix Raczkowski is a Postdoctoral Researcher at the Department for Media Studies at University of Bayreuth. He completed his PhD in Media Studies at Ruhr-University Bochum with a thesis on the instrumentalization of digital games and play, especially focusing on the media-historical precursors of gamification and serious games. Among his research interests are theories of play and games, game studies, media history and media aesthetics as well as motivational media.

Tobias Rothmund is holding a position as Assistant Professor for Political Psychology at the Institute for Communication Psychology and Media Education of the University of Koblenz-Landau. His research interests focus on the effects of digital media use, the moral underpinnings of political thinking and behaviour and motivated science reception.

Jan Schank gained his doctorate from Ruhr-University Bochum in 2015 with a dissertation on age-rating of computer games. His research interests include Ethnography and Ethnomethodology, Science and Technology Studies, Praxeographic Studies of Texts and Documents, and Practices of Regulation. Recent publication (in German): *W/wissen in der Alterskennzeichnung von Computerspielen* (Westdeutscher Universitätsverlag 2017).

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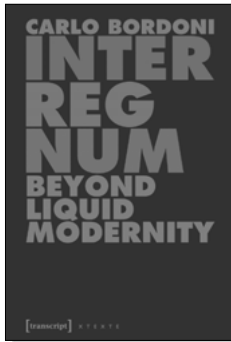
Estrid Sørensen is Professor of Cultural Psychology and Anthropology of Knowledge at the Ruhr-University in Bochum and a Co-Leader of the Centre of Anthropological Knowledge in Scientific and Technological Cultures (CAST) at this university. She holds a PhD in Psychology from the University of Copenhagen. She is committed to developing Science & Technology Studies perspectives in areas where these are not yet applied, such as psychology and educational studies. Her social studies of technologies involve research on educational technology, on computer game concerns and on IT-Security. In the area of science studies she does social studies of psychology. Apart from digitization her current main interest is on the socio-technical configuration of *the knower*.

Anne Mette Thorhauge is an Associate Professor in Media Studies at University of Copenhagen and Chair of the Danish media council for children and young people. As part of her work in the media council, she takes part in initiatives to strengthen children and young people's literacy and competencies in a society increasingly permeated by digital technologies. This includes a sustained focus on children as citizens with basic democratic rights as established by the UN convention on the rights of the child.

Anders Emil Wulff Kristiansen teaches Social Psychology of Everyday Life at the Department of People & Technology at Roskilde University, Denmark. He is interested in theorizing digital engagements and understandings of new materialist approaches to the study of psychology. More specifically, his work examines digital youth cultures and the entanglement of digital media and technologies in the everyday lives of children and youth.

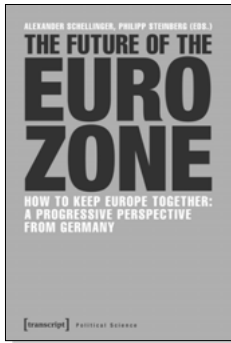
Carmen Zahn, PhD, is Full Professor and Vice Head of the Institute for Cooperation Research and Development at the School of Applied Psychology (APS), University of Applied Sciences Northwestern Switzerland in Olten. Her main research interests include: Learning technologies/learning with digital video; knowledge communication based on video and visual media; cognitive and collaborative processes in groups working with new multitouch technologies (tabletops, walls, tablets).

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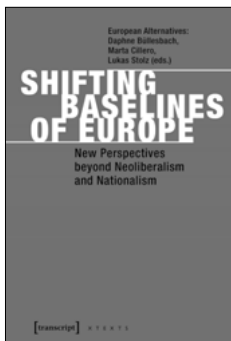
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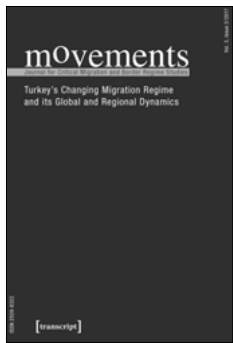
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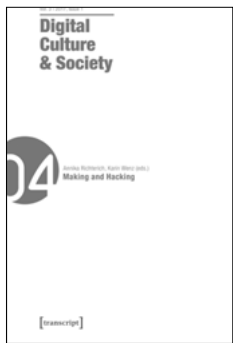
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