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DECLARATION OF AUTHENTICITY

I confirm I have conceived and written this thesis in English all by myself. Quotations from other authors are all clearly marked and acknowledged in the bibliographical references, either in the footnotes or within the text. Any ideas borrowed and/or passages paraphrased from the works of other authors have been truthfully acknowledged and identified in the footnotes.

Signature

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Abstract English

Children of both sexes show the same interest for technology and sciences only up to a certain age with girls often losing their affection during adolescence. As digital games are perceived as a soft entry into the world of technology, it is important to clarify if games directed at a female audience, games for both genders or even gender-neutral games offer an adequate option to achieve a certain gender equity. Therefore, the intention of this diploma thesis is to frame the topic of digital games and the female gender and to thereby investigate if former claims by academia, industry and gamers have already been implemented. Due to the absence of an overall consensus of frequently used terms like *gender*, *computer and video games*, or *girl gamer* in the sources available, an overview of the key terminology was required. Apart from more recent contributions to the canon, the collective volumes *From Barbie to Mortal Kombat*, *Beyond Barbie and Mortal Kombat*, *Doing Gender in Art, Media and Culture*, and *Wie wir spielen, was wir werden* served as starting point. In general, the investigation was carried out adopting an interdisciplinary, feminist approach within the field of gender studies. The research is particularly concerned with Western cultures and all sources either stem from the U.S. or Europe, with particular focus on English and German contributions. As hardly any Austrian data were available, I conducted a questionnaire at an Austrian grammar school. As regards the results of the study, a slight majority of girls who played digital games expected their future career to be related to technology.

Genderspezifische Unterschiede in den Bereichen Technik und Wissenschaft gelten als wissenschaftlich erwiesen. Diese manifestieren sich jedoch erst ab einem bestimmten Zeitpunkt des Heranwachsens und resultieren im Erwachsenenendasein in einer Kluft in ebendiesen Bereichen. Digitale Spiele werden als sanfter Einstieg in die Welt der Technologie angesehen. Ziel dieser Arbeit ist es mithilfe zweier Grundlagenwerke *From Barbie to Mortal Kombat* und *Beyond Barbie and Mortal Kombat*, sowie anhand weiterer aktueller Quellen zu dem Thema ‚Digitale Spiele und das weibliche Gender‘, wie *Doing Gender in Art, Media and Culture*, und *Wie wir spielen, was wir werden* einen aktuellen Forschungsstand festzuhalten und zu beleuchten, inwieweit Forderungen und angeregte Lösungsvorschläge bereits zum Einsatz gekommen sind. Im Zuge der Untersuchung aus interdisziplinärer sowie feministischer Perspektive galt es nun abzuwägen, ob digitale Spiele ausgerichtet auf eine weibliche Spielerschaft, gleich orientierte Medien oder gar genderneutrale Spiele eine geeignete Option darstellten. Des Weiteren war es nötig einen Überblick über oftmals verwendete Begriffe wie *gender*, *computer* und *video games*, sowie *girl gamer* zu schaffen, weil kein einheitlicher Konsens in der Literatur festzustellen war. Da von einem gemeinsamen Phänomen in westlichen Kulturen ausgegangen wird, wurden Quellen aus den USA und Europa, vor allem Deutschland, England und Österreich herangezogen. Aus Mangel an österreichischen Daten wurde zusätzlich ein Fragebogen an einer höherbildenden Schule in Wien erhoben, um eine exaktere Momentaufnahme zu ermöglichen. Die Auswertung der Daten zeigte unter anderem, dass jene Mädchen, welche angaben digitale Spiele zu konsumieren, sich eher vorstellen konnten einen technischen Beruf zu ergreifen. Im Bezug auf adäquate Spielausrichtung rücken gender-neutrale Spiele immer mehr in den Vordergrund.

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List of abbreviations

The following table describes various abbreviations and acronyms used throughout this diploma thesis.

Abbreviation	Meaning
“DID“	“Damsel in Distress“, see Sarkeesian
“WBD“	“Women as Background Decoration“, see Sarkeesian
AAA games	“Triple A“, games with high development budget
AESVI	Associazione Editori Sviluppatori Videogiochi Italiani
AAUW	American Association of University Women
<i>BBMK</i>	<i>Beyond Barbie and Mortal Kombat</i>
<i>BFD</i>	<i>Barbie Fashion Designer</i>
BIU	Bundesverband Interaktive Unterhaltungssoftware
<i>BMK</i>	<i>From Barbie to Mortal Kombat</i>
<i>COD</i>	<i>Call of Duty</i>
EB Games	formerly Electronic Boutique, U.S. computer and video game retailer
ESA	Entertainment Software Association
<i>FEMTECH</i>	Frauen in Forschung und Technologie
<i>fForte WIT</i>	Women in Technology
<i>FIT</i>	Frauen in die Technik
FPS, fps	First-person shooter
fs	female speaker
GGM	Games for Girls Movement
<i>GTA</i>	<i>Grand Theft Auto</i>
J4G	Just for Girls
MMO, mmo	massively multiplayer online see MMORGP
MMORPG, mmorpg	massively multiplayer online role-playing games
ms	male speaker
<i>MUT</i>	Mädchen und Technik
NPC	non-playable character
<i>OED</i>	<i>Oxford English Dictionary</i>
PEGI	Pan European Game Information
PSP	Playstation Portable
RPG, rpg	role-playing game
<i>UD</i>	<i>Urban Dictionary</i>
USK	Unterhaltungssoftware Selbstkontrolle

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1 Introduction

For a long time women were underrepresented in various areas connected to technological fields and sciences, including IT-related jobs. Nowadays, the situation has improved and the percentage of women in these areas has risen but as it still does not equal that of men, the gender gap continues to exist. Since gender equality has become a very important issue in Austria as well as the rest of the Western world, various disciplines try to isolate possible reasons to close or at least minimize the gender gap.

It has been observed that girls show interest in sciences and technology only up to a certain age.¹ Therefore, researchers have tried to identify reasons why a significant percentage of girls lose their enthusiasm for technology during adolescence.² In 2006, Jon Dovey and Helen Kennedy state that “[c]omputer games [...] are for many people the first ‘hands on’ experience [...] with digital technology“ (17). What is more, research has shown that digital gaming can be seen as “an entry point to the culture of computing and information technology“ (Brunner 2008: 41), thus the importance of investigating gender-related computer game preferences becomes evident.³

The idea of using digital games to attract females to technology has once raised the question if either girls-only media or games for both genders offer the best option. The overall aim of this paper is to present a comprehensive overview of digital gaming in relation to the female gender, including origins and future prospects, or in Cassell and Jenkins’ words, to identify “how little has changed, how much has changed, and how much needs to be done if more meaningful changes are going to occur“ (BBMK 6). To achieve this goal, apart from other sources of information, four collective volumes can be considered as major ones, i.e. *From Barbie to Mortal Kombat*, *Beyond Barbie and Mortal Kombat*, *Doing Gender in Art, Media and Culture*, and *Wie wir spielen, was wir werden*. A secondary purpose is to link and apply the collected material to the findings of a survey conducted by myself at a grammar school in Vienna.

¹ Cf. Barker, Snow, Garvin-Doxas, & Weston 2006 ctd. in Gee & Hayes: 62.

² Cf. Barker and Aspray, Gorriz and Medina 2000 ctd. in Gee and Hayes: 62.

³ Cf. Margolis & Fisher 2002, Tillberg & Cohoon 2005 ctd. in Gee & Hayes: 61; Brunner 2006; Cassell & Jenkins BMK 40; Loftus & Loftus 1983, Greenfield & Cocking 1996, Kiesler et al. 1985 ctq. in Cassell & Jenkins BMK 11; Rabasca 2000.

In the course of my research many questions emerged which were to be answered in the course of the paper. What is the current state of research on digital gaming in this context? Do girls and women still show a different attitude towards gaming, and if so, what are the factors involved? Is there an academic consensus on female propensities towards digital gaming? What exactly are digital games for girls and what are current theories of their distinctness? In how far have the issues addressed during the Games for Girls Movement⁴ caused notable changes and implementations in the culture of digital gaming?

Written in the field of gender studies, an interdisciplinary⁵, feminist approach is adopted for the overall discussion as gender studies seek to identify “power relations at an individual, institutional, national and geopolitical level“ in order to put an end to social inequalities, differences and sexual discrimination (Buikema & Tuin 2).

The diploma thesis at hand consists of a theoretical and an empirical part. The first part is dedicated to the theoretical framework needed for a deeper analysis of the issue of gendered digital gaming. It starts with an overview of theories of gender development, followed by an introduction to current methodologies for approaching digital games. The next two subchapters deal with research on children’s play behaviour and with research on gendered play preferences concerning digital games. This is followed by a section on potential relationships between feminism, pop culture, girls’ culture, and gaming in order to identify possible reasons why girls play or do not play digital games. Chapter three starts with a short outline of the history of digital games for females which is followed by different approaches to appropriate game design for women and girls, identified in the course of my research. The fourth chapter is dedicated to the various roles females can occupy in the context of digital games and the diverse reactions their participation has evoked so far. The roles include their representation in the games themselves, their involvement in the production processes and their engagement in the games as female gamers. Demographic data on the situation of women, girls and gaming in Western cultures such as Austria, Germany, the U.S., Canada and Italy, are included in the last but one chapter. The final chapter represents the empirical part of this paper and features a questionnaire conducted by myself at an Austrian grammar school, its findings and possible correlations with the theoretical insights gained by previous chapters.

⁴ Hereinafter referred to as GGM.

⁵ “In order to respect the complex way that gender behaves, it is essential that scholars within a discipline employ the findings and methods of other disciplines. Gender studies has therefore evolved as an interdisciplinary domain right from the start“ (Wekker 62).

2 Theory

This chapter provides the theoretical framework needed for an in-depth discussion of digital games in a gender context. The first part tries to unfold current controversies concerning gender, followed by an overview of different ways to approach and analyse digital games. The next section is dedicated to research on children's play behaviour in general, proceeded by a subchapter on play behaviour and gender specific preferences in the context of digital games. These and other findings are then applied to clarify why girls play or do not play digital games in the first place, and secondly to investigate why girls should play digital games.

2.1 How to define gender

A paper on digital games and their relation to gender requires a profound definition of both terms. But how to define gender when several feminist theorists contradict each other completely by saying "that gender construction is not uniform, that a sharp distinction between biological sex and social gender is false or (at least) not useful" (Mikkola 17).

According to entry 3.b. for *gender* in the Oxford English Dictionary, the term refers to "[t]he state of being male or female as expressed by social or cultural distinctions and differences, rather than biological ones". In general, as stated by Barbara Risman, "[m]ost people in Western cultures grow up learning that there are two and only two sexes, male and female, and two and only two genders, feminine and masculine" (Bem 1993, Lucal 2008, Wharton 2005 ctd. in Risman "Intro 1" 3) and that femininity and masculinity flow from biological sex characteristics" (Risman "Intro 1" 3).

Although some might accept these statements without ever questioning them, the complex issue of gender is multifarious and as a consequence of particular interest for various academic disciplines. Numerous publications have already been written on gender issues and more and more are following each year. Due to this flood of publications, several concepts and definitions of gender are being used interchangeably, both in academic and popular contexts. This absence of a scientific consensus might have evoked an even greater number of contributions to the very discourse of it. Therefore, I concentrate on sources which on the one hand discuss the developmental process of gender, possible problems with the term and also

the concept of gender itself, but also offer a comprehensive overview of the subject matter on the other hand.

Simone de Beauvoir's social-constructivist interpretation of gender serves as a basic starting point for further discussions on defining gender from a feminist perspective. According to de Beauvoir, we are born female or male but some of us "are made women in a society characterized by patriarchal gender relations" (1990/1949 ctd. in Buikema & Tuin 2). Hence she differentiates between biological givens and social conduct, sex and gender respectively. Considering that there is not only one feminist theory or type of feminism as such, I share Tuin's view that de Beauvoir's perspective embraces "a specific kind of feminism that does not necessarily have an eye for non-Western forms of feminism" (21). Nevertheless, de Beauvoir's "scheme of gendered oppositions", referring to traits of masculinity and femininity to be more precise, still forms "the pillars of contemporary feminism and of gender studies as a discipline" (Tuin 13). Furthermore, with her argument of the "absence of reciprocity between men and women" she states "that women – all women in any situation – are the negative and non-essential with respect to men who are manifested as the neutral (or positive) and the essential" (Tuin 14 – taken from *The Second Sex* de Beauvoir 1988 1949:18).⁶

In general, gender as being socially constructed is not only the leading theory in professional literature on gender studies but also dominates the discourse of gender and digital games. Since the beginnings of feminism and the introduction of the term gender and its distinction from biological sex more than half a century has passed. Despite the "fact [that] gender as an analytic category has only emerged in the late twentieth century" (Cassell and Jenkins *BMK* 5) there is still no clear, nor universal or comprehensive definition of gender. What is more, distinct theories on how gender is constructed circuit the professional literature. Hence, numerous researchers try to put an end to this seemingly never-ending discussion by either offering suggestions for comprehensive definitions or by suggesting new concepts.

Investigating the field of digital games from the perspective of gender studies, the need of a universal definition of gender becomes evident. But does such a definition really exist?

In general, cultural studies, in particular its branch gender studies, differentiates between *sex* and *gender*. The term *sex* is used when referring to the biological sex whereas *gender* refers to

⁶ Even though I do not completely agree with de Beauvoir, there is some truth in this statement. For instance, as far as digital gaming is concerned, the term *gamer* is still regarded as masculine and neutral whereas the word combination *female gamer* evokes completely different connotations. See also chapter 4.3.

the socially acquired behaviour of men and women. (Seidl *Faszination Computerspielen* 97). Engaging in the discussion of gender being distinct from biological sex, it is important to determine the factors involved. However, isolating these factors seems quite an impossible thing to do, as no one is determined by the exactly same social factors everywhere and at any time, which suggests that gender, or rather gendered identities, are fluid concepts (Buikema and Tuin 2). Or in Risman's words, "individuals do not possess a clearly defined gender that is the same everywhere and all the time" (6).

Judith Butler differentiates between sex and gender and holds the view of gender being socially constructed as well. She argues that gender is performative as it is not only culturally acquired but also manifested through the respective culture and its cultural habits. With her argument of gender performativity, she affirms that gender is performative as, while performing, it always constitutes itself. In other words, the way we behave, our "repetitive performance of gender", again shapes and recreates our perception of gender. As observed by Risman, although using a different term, others tie in with Butler's view, as

[s]ome social scientists call gender a performance, while others a masquerade. The terms "performance" and "masquerade" emphasise that it is through the ways in which we present ourselves in our daily encounters with others that gender is created and recreated (6).

In *Gender Trouble*, Butler declares that "[g]ender is not something one is, it is something one does [...] it is a sequence of acts rather than a being". Additionally, she argues the term woman is a work in progress, open for change, currently changing and "open to intervention and resignification" (Butler 1999, 9 in Mikkola 12).

According to Cornelia Brunner the issue of gender and computer games is very difficult to grasp in its complexity and diversity. She feels that this might be due to the reason that many people who write about this topic still confuse the concept of gender with sex "even when paying lip service to the idea that gender is a socially constructed concept" (Brunner 2008, 35).⁷ Therefore, she suggests to adapt the "*butch-femme continuum*" concept used by the Lesbian, Gay, Bisexual, Transgender, Intersex and Questioning Community (LGBTIQ). They promote the terms *butch* or *femme* to describe rather masculine or feminine traits, behaviour, perspectives, or attitudes which can but do not have to be related to the biological sex. For that reason, Brunner promotes the descriptive *butch-femme* approach in order to "separate gender from sex" (Brunner 2008: 35). As everyone's personality is a combination of various

⁷ Cf. example in Kalnig: 3 "developers of both genders".

butch and *femme* characteristics some people may be “at the more extreme ends of the continuum” (Brunner 2008: 36) and some might go towards what can be regarded as gender-neutral. But how can these theoretical definitions be made accessible to the general public? How can they be embedded in people’s everyday lives, in order to implement societal changes? Does the substitution of two binary oppositions with two others not again promote dualistic, categorical thinking?

The social cognitive theory of gender development is a concept frequently applied throughout literature. Developed by Kay Bussey and Alfred Bandura this theory is based on a combination of theories “integrat[ing] psychological and sociostructural determinants within a unified conceptual structure” (676). Although Bussey and Bandura published their findings more than two decades ago, their insights into the complex mechanism of gender are still relevant and have been frequently adopted by researchers investigating the field of gender and digital games. For instance, Tilo Hartmann and Christoph Klimmt define Bussey and Bandura’s theory as follows

In this theoretical perspective, gender roles and conceptions are the product of a broad network of social influences operating independently in a variety of societal subsystems. (1999: 676 qtd. in Hartmann and Klimmt)

Apart from introducing their own theory, Bussey and Bandura’s article presents an overview of the most influential theoretical perspectives on gender role development up to the 90s. According to them, most theories on gender role development basically differ in three aspects or dimensions. The first one is concerned with “the relative emphasis placed on psychological, biological, and sociostructural determinants” (Bussey & Bandura 676). In other words, it not only clarifies the perspective of analysis but also which arguments are taken into account. The second one distinguishes theories according to their respective emphasis of the most important channel by which gender is being transmitted. Finally, the third dimension discusses the most important moments of time when gender is developed. With reference to the first dimension, some scholars argue that gender is developed according to certain intrapsychic processes, some favour sociostructural conditions, and yet others see the different roles in human reproduction as the main cause of different gender development (Bussey & Bandura 676).

A comprehensive text which compares several attempts of defining gender is presented by Mari Mikkola’s entry featured in the psychological database of the University of Stanford. Her overview and summary of “feminist critiques of prevalent understanding of gender and

sex, and the distinction itself“ (26) addresses the probably most influential and dominant theories on this issue. Mikkola not only contrasts various theories of gender development but also highlights common problems of terminology. Additionally, she discusses possible future perspectives on how the issue of finding new valid definitions might lead to political change, as far as feminist political purpose is concerned.

Claims for political change require an adequate feminist method in order to be implemented. Although, according to Harding, the need for a universal definition of feminist inquiry has been an issue for a long time (17), there appears to be no consensus on the most appropriate method. It seems that “feminist method is whatever is the opposite of excessive empiricism or of positivist strains in social research“ (Harding 19). General suggestions as for instance Catherine MacKinnon’s consciousness-raising “leaves biologists and social scientists puzzled about what, exactly, they should *do* differently in their laboratories, office or field work“ (Harding 18).⁸

As gender issues are closely linked to feminism and postfeminism, with one of its primary goals being the end of women’s oppression and inequalities, Mikkola’s contribution emphasises the importance of discussing the differences between *sex* and *gender* from a feminist perspective. She points out that many feminist positions on gender development differ according to their underlying metaphysical perspective of Gender Realism. Describing the gender ‘woman‘ relies on the assumption that “women as a group [...] share some characteristic feature, experience, common condition or criterion that defines their gender and the possession of which makes some individuals women“ (Mikkola 3.1.). Taking this perception into account, the question arises if such a feature really exists, and, what is more, if by narrowing down this complex issue, many important aspects might be neglected.

In fact, Gender Realism has been heavily criticised as it does not pay attention to racial, cultural and class differences between women but assumes a normative ideal of womanhood.⁹ Elizabeth Spelman argues “[i]f gender were separable from, for example race and class [...] all women would experience womanhood in the same way“ (Spelman 1988 qtd. in Mikkola 3.1.1.).¹⁰

⁸ Cf. editor’s note in MacKinnon 515.

⁹ Cf. Mikkola 3.1.1. on Spelman’s particularity and normativity argument.

¹⁰ This argument, a central one in the Games for Girls Movement, will be resumed in chapter 3.1. See also Buikema 2.

So, accepting two binary oppositions, man and woman, the question arises in what circumstances they differ and if so, by what extent and for which reason. The simplest argument, and in my opinion the most insupportable one, is provided by proponents of biological determinism who argue that all men and women differ according to their biological sex. In other words, it is believed that behavioural and psychological differences in men and women are the result of differently constructed bodies and minds (Geddes and Thompson qtd. in Mikkola 1.1.).

Although positions based on biological differences have been regarded as problematic, many people (also feminists amongst others) have accepted biological sex classifications uninfluenced by social or cultural factors (Mikkola 1.1.). Following this line of thought, an individual is considered a woman when possessing two x-chromosomes. But as science is always in search of *the* universal definition or truth, what about intersexed people who cannot be classified as man or woman according to their chromosomes, for instance? Or what if, a genetical examination of our genetic code would display some variations from what is considered to be normal? Would that make us less woman or man? Hence biological sex classifications have been criticised, and have also shown that biological features such as chromosomes are not enough to include or exclude individuals in the sex or gender category man or woman. Yet, “[h]istorically many feminists have understood ‘woman’ differently: not as a sex term, but as a gender term that depends on social and cultural factors” (Mikkola 1). Furthermore, in order to disprove notions that convey messages such as “biology is destiny“, the term gender itself was created to separate biological differences from social or psychological ones (Mikkola 1).

By arguing that our personalities of being women and men are being shaped by the way we are brought up by our parents, as well as by what we experience in our surroundings, the concept of gender socialisation according to social learning theorists takes into account almost any possible influence and is thereby difficult to disprove.

Despite the claim that social learning theory’s perception of gender construction has been found difficult to refute, critical voices do exist. For instance, Nancy Chodorow believes “social learning theory to be too simplistic to explain gender differences [and that] gender is a matter of feminine and masculine personalities that develop in early infancy as responses to prevalent parenting practices” (Chodorow 1978; 1995 qtd. in Mikkola 2.2.). She argues that girls and boys’ psychic development differs because mothers as the primary caretakers

identify differently with their sons and daughters. A mother is said to unconsciously encourage “her son to psychologically individuate himself from her” and discourage “the daughter from individuating herself”. Hence the son is able to “develop well defined rigid ego boundaries” whereas the daughter is urged “to develop flexible and blurry ego boundaries” (Chodorow 1995: 202-206 qtd. in Mikkola 2.2.).

Some feminists even regard a distinction between sex and gender as obstructive because it reflects “politically problematic dualistic thinking”. Moreover, they criticise that by using oppositions, the lower, or even pejorative term is still usually associated with women, which instead of being an improvement is merely a shift of terms. Nevertheless, as already outlined before, this distinction helped to overcome the once prevailing biologically oriented approaches. Although apparently an advocate of a social construction of gender, Mikkola criticises that if gender was indeed socially constructed by changing certain “social practices, conventions or conditions on which gender depends” (Mikkola 3.4.), we somehow should already have been able to dispose of these problematic categories. As this is not the case these approaches are maintained in turn.

The Kaleidoscope of Gender also tries to unveil the discourse of gender and claims to “offer a conceptual framework, a scheme to organize the confusing, almost limitless, ways in which gender has come to be defined in contemporary social science” (10). Previously mentioned controversies are not seen as an obstacle to overcome, rather the diversity of contributions is appreciated as “[m]odern social sciences offer us a very different image of gender” (Risman Intro 5)¹¹. In search of answers to the controversy of gender, several researchers conclude “that the behaviour of women depends on time and place, and context and situation, not on fixed gender differences” (Risman Intro 5)¹².

Thus, with any new and innovative perspective, the discourse becomes more complicated and even more confusing, leaving us in a situation which Mikkola describes as follows

How should the category of women be understood if feminists accept the [...] arguments that gender construction is not uniform, that a sharp distinction between biological sex and social gender is false or (at least) not useful, and that various features associated with women play a role in what it is to be a woman, none of which are individually necessary and jointly sufficient? (Mikkola 3.4.)

¹¹ Cf. Lorber 1994, Tavris 1992, Vespa 2009 ctd. in Risman Intro 5.

¹² Cf. Lorber 1994, Tavris 1992, Vespa 2009 ctd. in Risman Intro 5.

As Elisabeth List perceptively points out, the reason for the wide range of different opinions might be rooted in the discourse itself which has become more and more theoretical, operating on “metalevels“ (transl. List 19). Making new contributions to this controversial issue has become an academic urge, thereby shaping the canon of literature on gender for a long time (List 20). Even two decades ago, it had already been claimed that the concept of gender differentiation had become a merely academic issue without any relation to the everyday reality of women and their problems. (loosely transl. List 14). Yet, in accordance with List these contributions can be regarded as absolutely essential for the respective canon (List 22).

So what can we hope for the future? Will an alteration of gender differences be the solution? And how exactly can these changes be achieved? Throughout history, some feminists claimed that gender differences can be altered and indeed should be. Chodorow, for instance, suggests that a change in parenting might be the key. She argues if both parents were “equally involved in parenting“ (Chodorow 1995: 214 ctd. in Mikkola 2.2.), children would more easily “develop sufficiently individuated senses of selves [...] which in turn [would help] to eradicate common gender stereotypical behaviours“ (Mikkola 2.2.).¹³

Overall, a traditional definition of the term gender as listed in the OED is applied in this paper. Furthermore, the concept of gender as a continuum seems to provide the most reasonable suggestion to explain human diversity. Additionally, Brunner’s *butch-femme* concept is also of essential value for this paper’s understanding of gender, as it seems that features ascribed to girls or women in fact refer to a *femme* personality most of the time. Therefore, I assume that what is often considered to be a female attitude towards digital games, is indeed a *femme* one. Nevertheless, due to the absence of a better alternative,¹⁴ I am compelled to use the sex category female and male throughout this paper, not only in the theoretical but also in its practical part, the questionnaire. Beauvoir’s notion of features associated with femininity and masculinity, as well as Butler’s performativity argument can be considered as crucial for the discourse of gender and its ramifications concerning digital games.

¹³ See also ch. 2.5.1.

¹⁴ My original intention was to use the terms *butch* and *femme* throughout this paper, when referring to traits or features associated with masculinity or femininity. However, as this paper is based on research conducted by others, their original wording is maintained.

2.2 How to approach digital games

Apart from an efficient definition of gender, a paper on digital games and gender also requires a profound definition of what exactly digital games are. First of all, digital games can be approached from a theoretical perspective, that is as games or as texts. Another way is to classify them according to the device they are played on. Thirdly, referring to more concrete constituents of digital games, they can be categorized into certain genres.¹⁵

Similarly to the extremely diverse and partly incomprehensible amount of definitions of gender, there is also no overall consensus as far as a uniform terminology or genre classification of digital games is concerned. This absence of an agreement on the use of the same terms for the same concepts renders relating and comparing those findings very difficult, as for example different devices are accompanied by different circumstances and conditions. As far as possible relations between gender and specific preferences for digital games are concerned, terms like computer game, video game, electronic game and console game are often used interchangeably without any further specifications or explanations, thus neglecting the possibility that individual devices are connected to certain likes and dislikes.¹⁶ Perhaps it never occurred to the first researchers that devices could make a substantial difference to the outcome of their findings as they probably did not play these games themselves.

Kerr observes that “[m]any books use a platform-specific term like ‘video games’¹⁷ or ‘computer games’ to refer to the entire field of digital games“ (Kerr 3).¹⁸ Wagner notes that in general, a distinction was made between computer, video and console games in the past (loosely trans. Wagner 50). Nowadays these descriptions have been extended and also include games for handhelds and smartphones. Due to technological progress and innovation, games are available on many devices, starting with computers, various console systems and portable ones such as handhelds or mobile phones. As my frequent use of the word combination digital games shows, I decided to follow Kerr who uses “the term ‘digital games’ to refer to the entire field and to embrace arcade, computer, console and mobile games in all their diversity“ (3). Other researchers, as for example Wagner, utilise the term digital games as an umbrella term for all types of games available on electronic devices, too (50). Despite

¹⁵ Zapf proposes a different arrangement. For more information see Zapf 2009, 11-25.

¹⁶ Cf. voices on gendered hardware or devices in Arthurs & Zacharias 103.

¹⁷ Cf. Gee & Hayes 2010, Cassell & Jenkins *BMK*, Lippe 2006, Brunner, Sarkeesian.

¹⁸ Cf. Herz (1997), Poole (2000:35) and Wolf (2001:17) qtd. in Kerr 3.

this, the terms computer games, video games, console games, and arcade game are used throughout this paper, but only to either refer to the respective device, or to quote other theorists.

Returning to the main argument of this chapter, how can digital games be discussed from a theoretical perspective? In general, there are many approaches as far as games are concerned (loosely transl. Wagner 47)¹⁹. On the one hand, a great range of methods enables researchers to choose the one corresponding to their very objective. On the other hand, Wagner admits that an overall definition can be useful, in order to have an “interpretational context which helps to analyze cultural phenomena on a metalevel of computer games“ (transl. 49). Kerr also states that “there is little agreement in this field as to the best methods to be used to study digital games“ (Kerr 8). Zapf points out that many approaches concerning the right methodology for analysing digital games pose interesting questions although they might not be in accordance with scientific criteria (12). However, well-accepted scientific theories in this area do exist. Despite literary or cultural approaches, there is also the mediatheoretical approach which focusses on the “societal relevance“ of computer games (Zapf 11). This approach proceeds on the assumption that firstly, societies are influenced by mass media in so far as they provide information for interaction (cf. Hunziker 1996:98, 102 in Zapf 11) and secondly, the nature of the material dictates which content is being communicated (loosely transl. McLuhan 1966: 8-9 ctd. in Zapf 12).

Kerr differentiates between those who see digital games “as a form of narrative (Kerr 11) and use “narrative theories“ and those who classify digital games as games and use “play and game theory“, the narratologists and ludologists respectively (Kerr 33).²⁰

Initially game scholars polarised into those who viewed digital games as a new form of narrative – *the narratologists* – and those who opposed this approach and viewed digital games first and foremost as games – *the ludologists*. By 2004 something of an *entente* had emerged between these two camps, with some academics trying to accomodate both perspectives and others looking elsewhere for inspiration. (Kerr 11)

According to Kerr “[t]here are three key play theorists whose work is widely referenced by ludologists“, namely Johan Huizinga, Roger Caillois and Brian Sutton-Smith (30-31). Additionally, she also mentions Marshall McLuhan, John Fiske and Roger Silverstone whose

¹⁹ For more information see Salen & Zimmermann 2003 qtd. in Wagner 47.

²⁰ Brunner also uses the term ‘narratives‘ see Brunner 2008: 41.

contributions she considers as “interesting [...] on play within the media and communications field as well“ (32).

Some, for instance Flitner, argue that many digital games cannot be treated as real games as they lack many features which characterize traditional games ²¹. Generally speaking, as observed by Wagner, most attempts of defining *game* include the same or very similar features. Overall, games always involve some set of rules and emotions. They are interactive and can be narrowed down to rules, interaction, emotions, and virtuality (Wagner 49). Both, Kerr and Wagner, see Jesper Juul as an important key figure as far as finding the right approach for digital games (in a cultural context) is concerned (Kerr 3, 34; Wagner 48-49). Moreover, Wagner regards Juul’s approach as qualified to “discuss cultural issues when approaching computer games“ (transl. Wagner 49).

As mentioned above, digital games can also be treated as texts and be approached from a narratological perspective (Kerr 20-41). To be more concrete, they are described on the basis of their narrative features and analysed with methods coming from different disciplines, as for instance literary theory.²² Fleming investigates children’s toys in their relation to popular culture, power and gender structures. Defining computer games as a type of interactive toy, he regards toys as cultural texts which are “organised by a master-narrative“²³ (124). Furthermore, he states that the “narrativisation of toys“ (Fleming 102) enables us to employ literary devices to approach them.

Kerr defines digital games “as a transmedial cultural form [which] plays an important role in reshaping communication patterns, social structures and cultural practices across space and time“ (1). Regarding digital games as cultural texts, offers the possibility of including a historical perspective as “[c]ultural texts make history because they are part of social processes and practices“ (King and Douai 2). Equally important is Dovey and Kennedy’s argument that digital games “have emerged from within a set of [masculine] contexts [...] (science, mathematics, technology, the military) and have therefore inherited [a] particular cultural coding“ (36). Digital games are not only accompanied by a specific cultural coding, they also reproduce and reinforce cultural stereotypes as they are “cultural texts“ which

²¹ Cf. Flitner 186.

²² Media critic Anita Sarkeesian investigates the representation of women in digital games via using literary devices such as tropes.

²³ Critique of Sarkeesian’s view on her YouTube channel. Some claim that games of a certain genre simply follow the structure of the master narrative of a hero story and are male-centred hence. As Sarkeesian shut down the comment function of her channel, no exact source other than my memory can be provided.

“[immerse] children into current gender stereotypes“ despite “their potential for social change“ (King and Douai 2). In short, as resumed by King and Douai “[f]eminist research in critical media literacy has illustrated how popular culture has worked to reproduce patriarchal power structures and gendered identities“ (2). This is also closely linked to the fact that these structures are deeply embedded in Western popular culture nowadays. Nevertheless, including digital games in the huge corpus of popular culture does not facilitate finding a proper approach, both, in general, and especially in a gender-related context as “[p]op culture is as complicated, frustrating, and full of mixed signals for women as it’s ever been“ (Zeisler 148). Therefore, “[i]ts imperative that feminists continue to analyze it, create it, critique it – and ultimately, make it better“ (Zeisler 148). But digital games are not only part of pop culture in sense of passive consumption. As Lippe states “playing video games very often leads to the wish to create them“ which then, in a broader sense, leads to the production of popular culture as a consequence (abstract Lippe 2006). Hence she agrees with Willis by claiming that playing computer games does not only imply consuming but also producing new “meaning, symbols and contents“ (1991 qtd. in abstract Lippe²⁴). Complementary to this, Kerr highlights that digital games have the potential to be examined as media texts (20-41) which perfectly blends in with a theory frequently applied by theorists of cultural studies. In their opinion texts and any kind of media, digital games included, do not only reflect the norms of the respective society they are produced in but also constitute them (Seidl *Faszination Computerspielen* 96).

If we believe Kücklich, the methodological debate whether narratology or ludology offers the best option to describe and investigate digital games, has already been resolved (27). In the context of digital games, the choice between a narrative or a ludological approach always depends on genre (Kücklich 27). Furthermore, Kücklich highlights that due to rapid progress and development of digital games there is always the need to adapt and question current methods of analysis (28). This opinion is shared by many others to some extent, as recent critics argue that both approaches are not adequate and opt for a completely new system. As a precise classification of digital games into pre-existing categories cannot be achieved without certain inconsistencies, a combination as well as an adaption of existing approaches appears to offer the best solution because the majority of characteristic features of digital games can thus be considered (Holleman).

²⁴ According to Lippe’s abstract 1990; however, as the book was first published in 1991, I cited the correct date.

At the level of genre, several attempts of classification can be identified. Kerr, for example, mentions two classifications by Herz and Poole which can be seen in Fig. 1 Genre comparison (40). However, as both of them are not commonly applied in German speaking countries, it makes more sense to refer to genre labels suggested by the BIU²⁵, the USK²⁶ or PEGI²⁷. Primarily concerned with the rating of digital games, their classifications, though generally being very similar, differ to a certain degree nevertheless. A comparison of all five of them in Fig. 1 Genre comparison²⁸ proves that whilst similar terms are used, the same games are listed in different categories. This happens mainly for two reasons. First, slightly varying or even completely different terms for seemingly identical categories make comparing and assigning of the results of genre studies and digital games respectively, a challenge. Additionally, differing affiliation is very likely as a classification always requires focussing on particular features. With reference to Fig. 1, *Tomb Raider* is classified as ‘Adventure’ by Kerr, as ‘Action-Adventure’ by the USK, and ‘Action’ by PEGI. In general, the genre category referred to as action, action/adventure, adventure, and classic adventure appears to be the most arguable one, as exemplified by *Prince of Persia*, or *Counter Strike*. Games dominated by elements of simulation or sports can easily be identified which is perhaps the reason for the matching classifications of the respective categories.

In order to efficiently compare as well as relate findings of diverse sources a universal classification of game genres is absolutely essential. With reference to Europe, the rating and genre system of PEGI is an attempt to unify the diverging systems, however this has yet to be fully accomplished.²⁹ As many games can be ascribed to more than one genre, researchers should indicate which classifications they refer to in their texts. Without a universal genre classification of digital games, the reliability of many findings in this field is to be questioned.

In summary, it can be stated that from a rather theoretical point of view, digital games can be treated as games or as texts, depending on the very results one wants to achieve. On the other hand, more concrete arrangements, as for example classifications according to certain genres,

²⁵ BIU = Bundesverband Interaktive Unterhaltungssoftware. Based on the one of the USK, the arrangement of the BIU provides a more detailed arrangement.

²⁶ USK = Unterhaltungssoftware Selbstkontrolle. “[E]stablished by the computer games industry“, this “organisation [is] responsible for the classification of computer games in Germany“ (USK “About Us“). As there is often only one German version of a game, this classification system is also common in Austria and Switzerland.

²⁷ PEGI = Pan European Game Information.

²⁸ This table, which serves to visualise the differences and similarities in the above mentioned genre arrangements, was created by myself. Titles in bold indicate multiple entries in the table.

²⁹ For instance, in the study “3. Oö. Jugend-Medien-Studie 2013“ a different system of genre classifications is used.

also do exist and are frequently used. When discussing features in the games themselves, as for instance female representation, a narratological approach is apparently favoured, whereas when analysing overall game preferences, play theory is employed by many researchers. With reference to my own analysis, more focus was put on narrative features of digital games, such as character representation or specific genre characteristics.

2.3 Children's play behaviour in general

Assuming there are gender-related differences as far as digital games are concerned, it is important to locate their origins. Therefore, this chapter presents an overview of theories on play behaviour in general and discusses the following controversies. Firstly, do girls and boys show different behaviour when playing and if so, what seems to be the most prevalent notion? Furthermore, do diverse positions help to identify any correlations concerning gender in relation with specific game preferences? Additionally, to what extent can these findings be transferred to discuss digital games in a gender-related context? What is more, what are the most plausible triggers which might attract or repel a certain gender?

“Psychologists have used play style as a construct to characterise child play behaviour, combining toy selection, rough-and-tumble play (or lack thereof) and activity level”³⁰. In general, a feminine play style is associated with “limited physical activity“, a choice of feminine toys, or “a lack of rough and tumble play“ and though “both sexes engage“ in both play styles, the feminine one is more often displayed by girls (Heeter & Winn in *BBMK* 285).

Diverse play styles involve different kinds of competition too. A boy's status is dependent on “explicit factors such as strength, speed, and skills“ and “[c]ompetition among boys tends likewise to be fairly explicit“. Competition between girls is not as direct and more subtle as it uses “[c]overt tools such as exclusion and secrets“. These observations by Laurel have often been criticised. However, she insists “that acknowledging these tendencies and using narrative to explore alternative ways of expressing and dealing with them was healthier for girls than denying their existence“ (Laurel *BBMK* 30).

It has been observed that boys and girls already show different play behaviour and have different preferences for toys in kindergarten (Hubbard 2007). Various theories exist to

³⁰ Cf. Maccoby and Jacklin 1987; Alexander and Hines 1994 ctd. in Heeter & Winn in *BBMK* 285.

explain their choices though none of them explicitly focusses on female or feminist issues (Arthurs & Zacharias 107). Generally two different positions can be ascertained, considering intrinsic or extrinsic factors respectively. Evolutionary psychologists, for example, consider internal biological differences between girls and boys to explain specific, gendered toy preferences. In an article, Satoshi Kanazawa also opts for a biological origin and tries to support this theory by mentioning two studies conducted at the A&M University of Texas in 2002 (2008) in which monkeys were provided with gender specific toys and the time each animal spent with each toy was measured. According to the researchers, the male ones were more interested in playing with the 'masculine' toy, the car, whereas the female monkeys spent more time with the 'feminine' one, the doll, but both spent equal time with the genderless toy, the game ball (Kanazawa 2008).

Apart from biologically orientated reasons, children's choice of play and games as well as their toy preferences can also be investigated by taking extrinsic factors into account. It has been observed that, although maybe unintentionally, parents raise their children differently depending on the children's biological sex. For example, parents tend to describe male newborns as strong and vivid, whereas female ones are characterized as delicate and soft, be this the case or not. (Renzetti & Curran 1992 ctd. in Mikkola 2.1.). As a matter of fact, parents are an important key element in children's upbringing. They are the ones who provide their offspring with stereotypical toys which correspond to the respective gender they want to enforce (Kimmel 2000: 122-126 in Mikkola 2.1.).

Even twenty years ago, when Dan Fleming wrote *Powerplay: Toys as Popular Culture*, it was well known that toys per se are gendered (202) and that children act out scenes with them (102) in correspondence to the respective gender they identify with. Stereotypes which are deeply rooted in our culture are likely to be reinforced, a fact which has been noted by many researchers and often been mentioned up to this point.

According to Dovey and Kennedy, there are several types of gendered play which can be investigated by identifying the amount of traits traditionally ascribed to femininity or masculinity. When writing of gendered playground space, they refer to the reality that

a dominant proportion of boys' play tends to 'take over' a disproportionate amount of space, whilst 'quiet' boys' games (like Pokemon trading!) or girls' play activities are often relegated to the sidelines.³¹

³¹ Young 1990; Wearing 1998 ctd. in Dovey and Kennedy 2006: 36.

Traditionally, girls are not encouraged to engage in active and wild play, but are rather coerced to contain themselves from rough play.³² This can be linked to

[t]he dominant construction of 'femininity' [which] requires that girls and women demonstrate 'appropriate' feminine bodily comportment and pleasures that are often at odds with active, competitive or even destructive forms of play.³³

Connected to the previously mentioned perception of children of different genders, it follows that boys are often encouraged to partake in active play whereas girls are often exhorted when doing so.³⁴ However, multiple research reveals that girls have the same aggressive potential as boys. Nevertheless, girls “channel their aggression in covert ways due to the greater prohibitions and sanctions attached to [their] overt acts of aggression, particularly physical display of aggression“ (Kennedy ctd. in Arthurs & Zacharias 108). In private or professional surroundings girls are still often encouraged to socialize whereas boys are not expected to blend in as easily. As a consequence, “[a] common theme in discussing girls’ pleasures and cultural practices“ (Kennedy in Arthurs & Zacharias 108) is related to different ways of containment whereas “[p]leasures and aggressions are [...] deeply intertwined in our social conceptions of male play“ (Kennedy in Arthurs & Zacharias 107). This explains why game genres, as for instance first-person shooters³⁵ which primarily operate on combative problem solutions, are typically associated with masculinity, hence a male pastime.

Computer gameplay as a specific activity takes place within and forms part of a culture that is not gender neutral and gendered structures of inclusion and exclusion are at work in the mediation of access to both games and play in a number of different ways. (Dovey & Kennedy 36)

The way children are raised and their actions are culturally sanctioned according to their respective gender appears to be the most important catalyst for different choices of play and games. So, if toys and these cultural sanctions play an important role in socialisation and the way young children perceive themselves and their surroundings, it seems only plausible that the often mentioned technological disinterest attributed to women and girls is the result of early childhood socialisation or at least strongly linked to it.

³² Cf. also Hartmann & Klimmt on masculine and feminine play style in Heeter & Winn: 285.

³³ (Young 1990; Wearing 1998 ctd. in Dovey and Kennedy 2006: 36).

³⁴ For more information on children and forming of identity turn to Fromme & Biermann 113.

³⁵ Commonly abbreviated to FPS.

2.4 Gender-related preferences concerning digital games

Underlying the position that there are fundamental differences between what boys and girls want from computer games is a discourse that posits essential differences in girls' and boys' cultural tastes, interests, and competencies[.] (Cassell & Jenkins *BMK* 25)

Although sometimes necessary, overgeneralization can be problematic when discussing gender issues as traditional stereotypes might be perpetuated that way. On the other hand, research which concentrates on preferences concerning digital games³⁶ with a particular gender (or often just simple biological sex) has to generalize for reasons of simplicity. Cassell and Jenkins emphasise that if you want girls to take part in the gaming culture, such generalizations “may seem necessary [...] to open up a space for girls to participate within this medium at all“ (Cassell & Jenkins *BMK* 25). Simply put, perhaps only what is searched for can also be found, as it has often been observed that “much empirical research – as well as market research – finds that boys and girls like different things, act in different ways, have differential success at various tasks“ (Cassell & Jenkins *BMK* 6). So, with reference to digital games themselves, the following questions arise again. What has been found out so far? Which games are preferred by whom? Are there specific content preferences? Do possible differences not really lie in the games themselves but can rather be traced back to what is transported by them?

As digital games comprise features which are either associated with masculinity or femininity, some researchers assume a correlation between certain game preferences and the respective amount of feminine or masculine characteristics. For example, Dovey and Kennedy identified that more active games tend to carry traits of traditional masculinity whereas features ascribed to traditional femininity are more likely to be found in passive ones.

Feinstein argues on a larger scale by noting that “video games preserve many aspects of traditional play spaces and culture that motivate children to [l]earn about the environment that they find themselves living in“ (1997 qtd. in Jenkins “Complete Freedom of Movement“ *BMK* 263). Thus, he argues that digital games are gendered spaces too, similar to real life playgrounds.

As explained by Sheri Graner Ray, “males and females deal with [digital] game basics in very different ways.“ She reports that “from the first contact with a title their differences in approach can be seen“ (Graner Ray 180). She contends that hypersexualised female avatar

³⁶ Cf. Kerr 112, on player preferences.

presentation on the packaging of a computer game “may be pleasing for male players“(181) on the one hand but can repel female players right away on the other hand. The same is true for gender-stereotyped avatars who have the potential to offend female players. Furthermore, Graner Ray believes that on average female and male gamers differ according to their learning styles because “[f]emales want a modeling style of learning, whereas males prefer a more explorative method“ (Gottfried 86 ctd. in Graner Ray 181).

Graner Ray also emphasises that “[even] the basic concept of a game“ has the potential to serve as a “barrier for some players“ (181). Every computer or video game presents the player with a conflict which needs to be overcome in order to succeed in the game. Graner Ray is of the opinion that if

it is apparent from the game description that the resolution of the conflict is only going to be handled in the traditional male manner—that is, a confrontational resolution—then this will dissuade those players that would normally choose other resolution styles, such as negotiation or compromise. (Graner Ray 181)

Apart from rather external factors, such as the packaging and layout of a computer game, it is also important to consider more content-related issues in the games themselves, as for example different types of reward for success or sanctions for failure. If we believe Graner Ray, “males prefer punishment for error in a game“ whereas “females prefer forgiveness“. Moreover, she mentions that simply winning a game is often not enough as females “want to find a solution that is mutually beneficial and socially significant“ (Graner Ray 182).

Elisabeth Hayes argues more on the level of genre. According to her research, when comparing boys and girls’ preferences in computer game genres, girls on average tend to play so-called casual games. These games have the big advantage that they can be played here and there and that they do not involve much time. On the other hand, Hayes criticises that they lack the possibility of modding which she considers to be an important feature of digital games (Boudreau 2010). Concentrating in her technosocial research on a series of gender-neutral games: *The Sims*, she observed that girls who played titles of *The Sims* series, were eager to deepen their programming skills which enabled them to create their own game content. As modding requires intensive involvement with a computer game and also helps acquiring advanced computing skills, Hayes’ findings thereby demonstrate that computer games can serve as an entry point to programming indeed (Gee & Hayes 2010).

Tilo Hartmann and Christoph Klimmt’s research contains most of the previously addressed features. Due to lack of empirical data on the gender gap in digital gaming, they conducted

two studies, entitled “Content Factors and Women’s Preference for an Electronic Game“ and “Competitiveness and Women’s Preferences for Electronic Games“ in Germany. They criticised that “[m]ost attempts to explain the gender gap in computer game involvement focus on the content and the design of typical games“³⁷ (Hartmann & Klimmt). Having done extensive research on this issue they identified several content-related factors which they regarded to be decisive for women’s preference or disapproval of a computer game. These include stereotypical portrayal of female characters, acts of violence and the amount of social interaction offered, as well as a factor related to social competition.

An innovative approach is presented by Caroline Pelletier’s contribution to the discourse. According to her, the ways we perceive our likes and dislikes concerning digital games vary over “time and context“ as they are always connected to how we position ourselves in relation to our surroundings (Pelletier *BBMK* 152). Following Butler’s notion of fluid, changeable gender identities, which “people construct for themselves“ (Butler 1993, 1999, 2004 ctd. in Pelletier *BBMK* 147), she argues that “rather than relying on essentialist definitions“ of “boy or girl“, it is necessary to investigate “how people construct their identity [both] in a broad cultural context as well as in specific situations“ to explain their diverse interpretations of games (Pelletier *BBMK* 158). Furthermore, research which operates with dichotomic pairs such as boy/girl or woman/man, is likely to trigger findings which reflect “the very norms its research questions assume and uphold“ (Pelletier *BBMK* 158).

Similar to other researchers, Caroline Pelletier admits that “[d]iscussions about gender and computer games have tended to focus on preferences in game play and content“ (Pelletier *BBMK* 145). However, her arguments take a different direction when she states that “the meaning of a game is not contained in the games itself“ but we rather make sense of it depending on the cultural context we find ourselves in at the respective moment (Pelletier *BBMK* 145). According to Pelletier’s findings “young people construct games as gendered in order to construct themselves as gendered, as divided or united by gender“ (Pelletier *BBMK* 145). Yet “[i]n contexts where gender differences assume less significance, games are interpreted and produced according to different criteria“ (Pelletier *BBMK* 145). In communication with adolescents Pelletier questions pre-existing research on relations between preferences and gender. She concludes that “gender is not the cause for the preferences in a straightforward way, but precisely their outcome; gender is what is produced

³⁷ Cf. AAUW 2000, Cassell 2002, Miller, Chaika & Groppe 1996 as suggested in Hartmann & Klimmt.

as an effect of their statement“ (Pelletier *BBMK* 147). Perhaps unintentionally the male and female participants of her study gave responses corresponding to pre-existing gender norms. The girls’ answers included popular assumptions concerning digital games and gender³⁸ whereas the boys expressed “their own preferences by opposing their experience to that of the girls”“ (Pelletier *BBMK* 151). While specifying preferred game genres the boys excluded titles of adventure and platform games which might be popular with females even if the answers from a former questionnaire revealed those games to be among their favourite ones (Pelletier *BBMK* 152). Pelletier identified that even if a boy and a girl “played and enjoyed many of the same games“, they constructed “their gaming experience“ differently in order to unintentionally “signify their gender [...] to themselves and to others“ (Pelletier *BBMK* 152). These findings complement those of Heeter and Winn who discovered that girls and women tend to experience themselves as less-skilled players in mixed settings (*BBMK* 183).

2.5 Why girls play or do not play digital games

Once, digital games “were the sole domain of the nerdy male“ and the gaming landscape was filled with “slavishly real flight simulators, "God" simulations, mildly pornographic role-playing and gory shoot 'em up[s]“ (Holland 2002). Meanwhile, science and technology-related fields have lost their nerd factor due to various reasons.³⁹ Many TV series feature, for instance, cool female and male scientists who solve their cases drawing from their scientific and technical knowledge. However, the technology behind the respective processes remains invisible, as Brunner argues, and is still difficult to access for certain types of thinkers (2008: 41).

The previous chapter presented positions on gender-related propensities concerning digital games, this chapter discusses possible explanations for the respective choices. Overall, there are many theories which try to explain why a substantial number of girls show less interest in digital games than boys. Some researchers believe children’s different socialisation to be responsible for that. Others regard individual learning styles or diverse approaches towards technology, digital games in particular, as the underlying cause. Yet others see the main problems in the games themselves as well as in their marketing.

³⁸ E.g. “games are boys’ toys played by antisocial geeks on dedicated technologies“ (Pelletier *BBMK* 151).

³⁹ Many TV series feature cool, female and male scientists, e.g. *Bones*, and all series of the *CSI* franchise.

2.5.1 Differences in socialisation and acculturation

According to a study from the University of Dallas, girls' tastes and preferences concerning computer games are directly correlated to their mothers' attitudes towards computer games (Hubbard 2007).⁴⁰ In other words, the more open-minded a mother is about digital games in general, the more likely the daughter will be interested in them, as girls identify with their mothers up to a certain extent and construct their own feminine identities based on them. Of course, mothers do not provide the only role model of feminine behaviour. Furthermore, Dovey and Kennedy state that

[t]he assumption of a normalized version of femininity takes place through processes of sanction and reward from parents, teachers and peers, and through familiarity with dominant models of the 'feminine' in the media. (Dovey & Kennedy 36)

Other findings suggest that potential gender-specific preferences are related to a certain 'incompatibility' of the culture of digital gaming and girls' culture. Jenkins, for instance, argues that "the video game culture is not a world that children construct for themselves but rather a world made by adult companies and sold to children" (Jenkins *BMK* 276), implying that girls and boys often choose those games which appear to have been designed for their respective gender.

What is more, apart from game-related preferences, girls and boys on average display a different gaming experience. According to research by Caywood and Heeter (2006), "boys play digital games for more hours per week than girls do at every age studied" (Heeter & Winn *BBMK* 183). This experience gap can be linked to the notion of digital gaming as a typical masculine leisure activity. Game behaviour studies reveal that if a boy does not play digital games "it marks him out as not sharing a popular peer interest" (Durkin 2006 in Heeter, et al in *BBMK* 182) whereas a girl indifferent to gaming does not appear to experience social disadvantages.

Game designer and developer Brenda Romero is also of the opinion that digital gaming is still primarily linked to boys and men's culture and that a "cultural thing [...] happens even before women and girls approach the industry" (*GTFO*). She reports that her daughter aspires to become a game developer, programmer or game designer herself, whereas none of her daughter's female friends consider programming or game developing as a future career – or as

⁴⁰ See also Chodorow 1995: 202-206 qtd. in Mikkola.

she calls it, it “is not even on the[ir] radar“. On the other hand, her younger son shares his passion of gaming with all of his friends (*GTFO*).

If digital games are generally associated with male pastime, gaming might not even be considered as an appropriate spare time activity by females. Holland claims that digital games are not presented as suitable for females because they “are not encouraged to explore games as an alternative leisure activity“ (2002). But if their interest is somehow captured, they have the same potential of “getting sucked in to [sic!] one game or another, eventually“ (Holland 2002). The difficulty of finding the right channel to reach them seems to be the main obstacle.

According to Bryce and Rutter, “societal attitudes and academic research on computer gaming continue to align the leisure pastime with boys, violence and a masculine culture“ (244). Traditionally, activities in domestic spaces are mainly associated with femininity whereas those in public surroundings with masculinity. Investigating spaces and situations where digital gaming occurs reveals similar connotations as “many public gaming spaces [...] are male-dominated“ (Bryce & Rutter 249). Female gamers seem to be more attracted by gaming in more private spaces (Bryce & Rutter 250), and as about half of online gamers are female, “there is growing evidence that many females prefer to participate in gaming within domestic contexts with friends, families and partners“ (Buchanan & Funk 1996; Griffiths & Hunt 1995 ctd. in Bryce & Rutter 250).

Most men in my circle of friends admitted to have bought at least one game because of an advert in some periodical.⁴¹ The female ones could not report the same experience as magazines targeted at a female readership usually do not include advertisements for digital games. In fact, periodicals for girls rarely advertise digital games and if so, rather stereotypical ones. The same is true for magazines for adult women which focus mostly on beauty and health issues.⁴² Apart from my personal observation, even developers have criticised the marketing conventions of digital games and confirmed that “most marketing to women is word-to-mouth“ (Michael 2005) whereas marketing to a male audience includes many forms of advertising due to a larger budget.

⁴¹ Cf. Michael 2005 “Maximtype magazines have lots of ads for FPS games“.

⁴² This is a personal assumption.

2.5.2 Diverse ways to approach technology

In general, approaching technology also requires unhindered access to it. However, this access appears not to be granted to all genders and gender-related differences in this context have long been observed.⁴³ Overall, parents less likely equip their daughters with their own home computers than their sons. Even if girls are provided with their own consoles or own PCs, their “[a]ccess to the technology and the gaming is [often] controlled by the male player who assumes the role of expert by interpolating the female gamer into a subordinate role“ (Bryce & Rutter 252). Treating girl gamers as “not being skilled“ (Bryce & Rutter 252) enough, is an attitude that somehow enforces and perpetuates the notion of digital gaming as a male domain.

Several researchers maintain that boys/men and girls/women approach technology in different ways.⁴⁴ Girls/women are said to regard computers as a tool in contrast to boys/men who generally associate gaming and computers with fun – a notion which led to the production of educationally-oriented games for girls without any aspects of fun. With reference to an adult audience Graner Ray argues similarly by claiming that men and women use computers for different purposes.⁴⁵ She states that “[m]ales wish to conquer the machine“ whereas “[f]emales want to work with it“ (182).⁴⁶ As “activities for girls get shelved in education[...] while boygames get placed on fun shelves“ (Anna) and

because of the limited amount of cross-gender entertainment software, females have come to view computers not so much as an entertainment medium, but as a communications and productivity tool instead. (Turkle 98 qtd. in Graner Ray 183)

It has been observed that, already in elementary school, children perceive the field of technology and computers as a male-dominated one (Jansen-Schulz & Kastel 130). This can mainly be ascribed to Western tendency of presenting technology in a *butch* manner, as identified by Brunner. As far as computer and video games are concerned, Brunner admits that “[t]he basic research underlying [her] theory of how gendered sensibilities differ when it

⁴³ Cf. Sander & Vollbrecht 1984.

⁴⁴ Again, I believe Brunner’s concept of *butch/femme* personalities to be more appropriate here than the labelling of boys/girls or male/female etc.

⁴⁵ Cf. socialization with computers in Graner Ray 3; gender difference towards computers in Graner Ray 6; approach to computers in Graner Ray 11.

⁴⁶ It seems Graner-Ray completely relies on older research conducted by others.

comes to technology was conducted decades ago“ (Brunner 2008: 36).⁴⁷ According to her findings, *butch* thinkers concentrate on the machines and on the power they give them whereas *femme* thinkers are more interested in the purpose of the machines and what they can do with them. Moreover, *butch* and *femme* thinking are simply two very different ways to approach technology. The *femme* approach can be seen as a more holistic one towards technology as it also includes various factors concerning cultural, social and natural consequences of the integration of technology in our environment (Brunner 2008: 36). A *butch* perspective is more about extending and pushing further the boundaries of technology and ignoring potential problems as these might be solved by future technologies. As far as this technological desire is concerned, *butch* thinkers were mostly men, according to Brunner’s findings which is unusual for the field of gender studies (Brunner 2006).

As little was known, Brunner and her team also “conducted a study, Designing for Diversity, to examine how electronic games can facilitate positive understandings of IT professions among diverse groups of children, particularly girls“ (Brunner 2008: 41). They hypothesised that traditionally schools often present technology and sciences in a *butch* manner with “more emphasis on the machines than problem solving“ (Brunner 2008: 41).

In order to adjust these imbalances of representation, media awareness projects have been initiated. With regard to Austrian initiatives, Jansen-Schulz and Kastel offer several leading principles to be employed in schools.⁴⁸ They suggest that while accepting and appreciating boys and girls’ diverse experiences regarding technology and IT, it is equally important to make them aware of new ones, unrelated to the children’s respective gender. Self-evidently, derogatory behaviour towards children’s different technological aptitude is to be refused. Depending on the respective situation it has to be decided if a gender-mixed or a gender-homogenous group promotes equal opportunities for both genders. At the same time it is also important to ensure equal access to technological devices for both genders, as boys tend to conquer the computers available while girls tend to shy away for several reasons.⁴⁹ What is

⁴⁷ The findings from interviews with high technology professionals in the late eighties showed that there is a *femme* and a *butch* way to describe a career path. Here *butch* refers to describing in linear, step-by-step moves which seemingly focus on the career goal right from childhood onwards. The *femme* way (even if it was exactly the same career path as that of a *butch* thinker) also included external influences (being in the right place at the right time, being supported by others) Interestingly, the female interviewees were more aware of all the people who helped them throughout their career path than the male participants. According to Brunner, this is simply a matter of gender acculturation as it is still hard for women to claim achievement on their own and for men to admit that someone supported them (Brunner 2006).

⁴⁸ In fact, there are fifteen principles but I integrated only a selection of them.

⁴⁹ See ch. 2.5.1, p. 23 and ch. 2.5.2.

more, boys and girls are to be equally involved in technology-related activities, as for instance in shutting down computers. And above all, a gender-neutral language should generally be applied when dealing with adolescents (Jansen-Schulz & Kastel 132-133).

2.5.3 Game-related factors

Several critics claim that the games themselves contain elements which discourage girls⁵⁰, including the character portrayal and even the basic concept of a game (Graner Ray 181). According to Graner Ray, poor avatar construction is one major reason why a game “will be less attractive to the average female” (95). For this reason, a game can have fantastic graphics and terrific game balance but as long as “there is no ability to choose a female avatar, or the female selection is limited or poor in quality“, argues Graner Ray, the player will not feel addressed by it (95).

In general, as players usually interact with their games via using an avatar, characters or avatars play a significant role as far as enjoyment and comfort are concerned. “In early games like *Asteroid* or *Pac-Man*, player representation was quite simple [... but] as technology advanced, player representation became more detailed“ (Graner Ray 94). Hence, the better an avatar has been constructed, the more the gamer will be able to identify with it which in consequence “will increase the player’s comfort level within a game“ (Graner Ray 94). Furthermore, complex and playable characters might be one reason for the excessive success of RPGS, in particular MMORPGS, which are played by millions of people (Peterson 2008).

Many male game designers probably feel comfortable when choosing a female avatar and “cannot understand a female player’s discomfort with playing a male character“ (Graner Ray 95). She contends that “[t]his discomfort stems not from hypersensitivity“ but can rather be explained by relating it to the sociological concept of the pyramid of power⁵¹ (Sutherland 96 qtd. in Graner Ray 95).

The majority of dominant, gender-based societal structures in the world today are patriarchal in nature [t]herefore, in the modern model for most societies, the males are in the upper layers of the pyramid and females are in the lower layers. (Graner Ray 96)

⁵⁰ It seems that most researchers actually refer to *femme* thinking when using the terms girls or women.

⁵¹ “The pyramid of power refers to a phenomenon that occurs in all cultures and societies in response to their multi-layered power structures“, which means that “in all societies, there are more people with less power and less people with more power“ (Graner Ray 95).

It is important to note that “people are not only comfortable in their own strata, but they are also comfortable functioning in the levels below their own“ (Graner Ray 96). However, this does not work in the other direction, which results in people feeling uncomfortable when they are asked to fulfil a function above their own level. As “Western cultures are predominantly patriarchal“ (Graner Ray 98) male players are not uncomfortable with playing female characters because they “simply [step] down a level on the pyramid“ (Graner Ray 98). On the other hand, if a woman uses a male avatar, she has to “move up the pyramid and step into a role for which she does not know the rules (Graner Ray 98). Male developers are likely to have always been on top of the pyramid, hence it is difficult for them to see things from a lower position.⁵² It can be concluded that in order “[t]o make females comfortable with a game and to make games more appealing to them it is vitally important to provide [female] avatars that [...] [are] equally and fairly represented“ (Graner Ray 100).

In concordance with Graner Ray’s view, Hartmann and Klimmt also argue that stereotypical female character portrayal could hinder women and girls to identify with the respective characters and may even discourage them from playing. Moreover, they state that the lack of possible self-identification could “cause cognitive conflicts and annoyance [...] especially if the subjective construction by the player involves a feminist self-concept“ as suggested by Cassell (Hartmann & Klimmt 2002).

Despite research that assumes potential relationships between female aversions and stereotypical character representation in digital games, critical voices do exist. For instance Bryce and Rutter claim that

[i]n the context of gender and gaming it is overly deterministic to assume that there is a causal relationship between female representation in a text, and the nature of consumption of that text by female gamers. (Bryce & Rutter 248)

Some critics even regard the ongoing discussion as futile, as girls “already use computers, often for hours every day. They play games, they chat to their friends, they buy and sell things in auction rooms [and] they read stockmarket reports“ (Holland 2002).

Traditional perceptions of gender differences in gaming are challenged by recent insights of Heather Nofziger. Arguing that differences in gaming are not linked to gender but can rather be related to preferences in particular platforms, she highlights the importance of accessibility of technological devices once more. She states that gamers of both genders “are engaging

⁵² See ch. 3.2.4 for the difference between a designer’s notion of a gender-neutral character and its public perception.

with video games in largely the same manner“. Moreover, Nofziger insists that “the overarching pattern and their average level of investment do not differ significantly“, in fact, “[t]he truly significant differences, rather, emerge along platform lines“.

Though portable devices such as Nintendo 3DS or Sony PSP do exist, mobile gaming often takes place on smartphones or tablets these days. In the Western world smartphones and tablets are widely used. Furthermore, as technological progress has enabled gamers to utilise their mobile phones or tablets for digital gaming, these devices are doubtlessly “the most accessible and welcoming platform on the market“ (Nofziger). What is more, the wide range of free titles to choose from at a convenient price plays an important role, too. This excellent price-performance ratio, as well as the ability of playing in between for a short period of time and their overall accessibility are contributing factors to their popularity.

As presented in chapter 4.5, the number of female gamers almost equals that of male ones by 2014. According to Nofziger, the easier the access to the gaming device, the higher the percentage of female gamers, as illustrated in fig. 10. Former propositions of differences in female and male expectations of gaming experience could not be confirmed by Nofziger’s research. On the contrary, her findings suggest an overall tendency of equal willingness of both genders to invest in games, and equal interest in the same types of gaming experiences.⁵³

Considering the vast range of different game genres available on PC, there was no separate section dedicated for PC gaming in Nofziger’s research. Nevertheless, some of her data on PC gaming describe it, with 65%, as still dominated by male players. However, with reference to genre preferences, the same genres are preferred by players of both genders, “with RPGs, MMORPGs and Strategy games being among players' top five genres“ (Nofziger).

2.6 Reasons why girls should play digital games

Analysing digital games in connection with gender raises the question if there are specific reasons for playing, apart from the fun itself. According to Graner Ray, there are mainly two arguments why girls should play digital games. First, an “ideological“ or feminist⁵⁴ one, and secondly, an “economic“ one (183). However, there also appears to be a third practical one.

⁵³ Cf. figures 8 & 11.

⁵⁴ See also Agosto 2009 for an additional feminist approach to reasons for girls to play digital games.

Although the focus of this paper is not on economy but rather on cultural studies and gender studies, all three arguments are of equal importance here.

The academic world⁵⁵ agrees on the opinion that digital “[g]ames serve as an entry point to the culture of computing and information technology“ (Cassell & Jenkins *BMK* 40).⁵⁶ They are “children’s gateways to computers“ (statement by Sandra Calvert qtd. in Rabasca 2000) and it can be taken for granted that playing digital games “increases their comfort level with technology“ (Graner Ray 183). Therefore, as highlighted by Graner Ray, if girls do not enjoy everyday technology, how should they “excel with technology“ in their future in order to further “maintain economic parity with males“ (Graner Ray 183). If boys get familiar with technology in a playful manner via gaming, it has to be feared that girls lack an important experience needed for their later lives. What is more, a lack of affinity to technology “has ramifications for the kinds of careers people choose“ (statement by Sandra Calvert qtd. in Rabasca 2000) and many higher-paying jobs require technical literacy.

As digital games are part of today’s popular culture, lacking such an experience is certainly not an advantage in today’s society.⁵⁷ In the mid-1990s, when “[r]esearchers discussed about masculine cultures of technology and women’s invisibility in the history of technology and computing“ (Kangas)⁵⁸, the concept of digital divide was also of academic interest as educators were concerned about the gender gap between girls and boys regarding the use of technical devices (Kangas). In Austria, for example, many gender mainstreaming projects were initiated to get more women and girls engaged in technology-related fields in order to oppose social imbalances.⁵⁹

Despite the above mentioned reasons, it can be hoped that the still prevalent notion of girls and women being inept gamers might eventually evolve for the better if more females are actively engaged in gaming. Nowadays these games are part of Western mainstream culture as they have attracted a broad audience over the last three decades. To put it in a nutshell, it once started with some ‘geeks‘ coming from a rather technical background and has now reached a point where the average gamer is someone in their midthirties from next door.⁶⁰

⁵⁵ Cf. Cassell & Jenkins *BMK*, Kafai et. al. 2008.

⁵⁶ See also Gee & Hayes on the issue of entering programming via digital gaming.

⁵⁷ Cf. Cassell & Jenkins *BMK* 11; Loftus and Loftus 1983; Greenfield and Cocking 1996; Kiesler et al. 1985.

⁵⁸ Cf. Wajcman 1991 and Lupton 1993 as suggested by Kangas.

⁵⁹ These include among others *FEMTECH* (Frauen in Forschung und Technologie), *FIT* (Frauen in die Technik), *Österreichisches Frauenprojekt*, *fForte WIT* (Women in Technology), *MUT* (Mädchen und Technik).

⁶⁰ For more information see ch. 4.5.

However, in general, the idea of technology and sciences being a man's field seems hard to eradicate from people's minds as even young children are very aware of this stereotypical assumption. To mention one example, in the course of the "Draw a Scientist: Wer macht Wissenschaft" project by Vienna's children's museum ZOOM, young children were asked how they imagined a scientist and many of them drew pictures of elderly men.

Apart from ideological reasons, several research studies suggest that playing digital games has rather practical advantages as well. It has been documented that playing digital games leads to enhancement of cognitive skills (Johnson 2006). What is more, research of Fernette and Brock Eide implies that visually demanding and dynamic video games enhance spatial ability (Eide). As, according to Eide, "men generally outperform women on spatial tasks", playing such games could be helpful "for women (and spatially-weak men)" to amplify their spatial awareness which is essential when working in fields such as "engineering, architecture, or science".

3 Digital Games

The first part of this chapter concentrates on important moments in the history of digital games in a gender-specific context, on games directed at or related to a female audience. The second one discusses different approaches concerning appropriate game design for a female audience, evaluating if either equal or different games offer the best solution. This is followed by a chapter which explores different female perspectives on the issue of digital games. First, female representation in games is discussed and illustrated with examples. Secondly, the situation of women involved in the production process is included. Defining *girl gamer* is the central idea of the third subchapter whereas the final one presents statistics on female participation in the culture of digital games.

Overall, chapter three tries to answer the following questions: What were the most important reasons for the games for girls' boom? What were the main triggers? Where did all this happen? Can this period of time be structured chronologically? What were the most prominent consequences? Which aspects have been criticized the most so far? How has the female gender been represented in the fictional world of games and in the real world of players, designers and producers?

3.1 Historical outline of digital games for girls and women

The history of computer games for girls is very complex and cannot be dealt with briefly without ignoring important aspects. Some researchers concentrate on the historical development of female characters, others are only concerned with games which claim to meet female interests, and yet others only investigate specific devices. There are those whose analyses focus on games marketed at a female consumership and those who also include games which sold particularly well, according to sales figures and market research on female game consumption.

The real boom of girl games started in 1996 with the publication of *Barbie Fashion Designer*, a computer game by Mattel⁶¹. By selling over 500.000 copies during the Christmas season of 1996, *BFD* is regarded as the first successful computer game primarily aimed at girls. The period which followed the huge success of this game is commonly referred to as the *Games*

⁶¹ More information on Mattel in Forster 200.

for *Girls Movement* (Subrahmanyam BMK 46). However, girls also played computer games before the mid-1990s as outlined later on.

The integration of playable female characters as well as their public acceptance can be considered as an important step in the history of digital games for girls. In 1989, Sierra Online released their fourth title of the *King's Quest* series which included female protagonists, due to efforts of Roberta Williams. As soon as the industry had realized that female protagonists did not turn off male gamers, other companies decided to incorporate at least "one female character for the user to choose" (Cassell and Jenkins BMK 9-10). However, although female characters have been included since then (*King's Quest*) "[v]iolent games without positive representation [of women continue] to dominate the field" (Cassell & Jenkins BMK 19).⁶²

In 1991 *Pac-Man*, one of the first video game superstars, proved to be very successful with girls too. *Pac-Man* was not clearly male-biased and shortly afterwards followed by a sequel *Ms. Pacman*.⁶³ Two other games which were considerably appreciated by girls, according to Kangas, were *New Zealand Story* and *Bubble Bobble*.⁶⁴ Nevertheless, despite some games being popular with girls "girls' culture was [still] not matching well with computer hobbies of that time" (Kangas).

One of the next financially successful games, apart from the PC- game *Doom*, which "has had the most long lasting impact on the gaming world" (Kent 457) in general was *Myst*. Published in 1993, *Myst* was regarded as "a breakthrough game with adult females" according to Kangas. Being completely different from the former digital games which only had focused on sports, action, fighting and racing, it was a "surrealistic adventure [game] with elaborate puzzles" (Kent 456) "with only a limited number of characters and not much interaction but visually very appealing" (Kent 457), instead.⁶⁵

In 1994 Sanctuary Woods released the first computer game which was especially targeted at a young female audience. This game, *Hawaii High: The Mystery of the Tiki* was not very successful commercially "probably due to the low budget accorded to such a ground-breaking project". Nevertheless, it "introduce[d] some of the features that would dominate the girls'

⁶² Cf. also Sarkeesian.

⁶³ Cf. *Ms. Pac-Man* in *Gender Inclusive Game Design* by Sheri Graner Ray, 18.

⁶⁴ Interestingly, those two games were not mentioned in *From Barbie to Mortal Kombat*.

⁶⁵ Cf. Popularity of *Myst* on <www.episodeseason.com/myst-game.html> .

game movement [...] [as for example] more character centred plots, issues of friendship and social relationships, and bright colourful graphics“ (Cassell & Jenkins *BMK* 10).

The launch of the Sony Playstation in 1994 is also regarded as a turning point in the history of digital gaming. According to Kangas, the gaming industry had focused more or less on producing computer games for adults and console games only for children.⁶⁶ The invention of the Sony Playstation console triggered off a change in the whole gaming culture and made console gaming generally acceptable.

In 1996, Eidos released the PC game *Tomb Raider* which, maybe due to its female protagonist, was accepted by players from both sexes. The female audience appreciated “having a powerful female, Lara Croft, as the main character“ whereas men were attracted by “Lara's comely figure“ (Holland 2002).⁶⁷

In the same year, another computer game containing a famous woman was released: *Barbie Fashion Designer*. One reason for its immense popularity could be that, in general, products of the Barbie⁶⁸ franchise used to sell well in those days. According to Boomen, “[t]he secret of BFD’s success was not the Barbie brand as such; Mattel had also issued the games Barbie Storytelling and Barbie Rapunzel (where Rapunzel had to rescue the prince), which did not sell particularly well“ (203).

However, as a consequence of its huge success, the industry realized that up to then they had ignored an important target group: girls as consumers of computer games. Therefore, market research concerning this new consumer group had to be done in order to design games which could fulfil the needs of the newly-found consumer. Unfortunately, the research was strongly focused on

differences between girls’ play and boys’ play, rather than addressing similarities or proposing other reasons for differences among individuals. [It] also made blank generalizations about “girls“ as a collective whole, rather than analyzing the complexities within the overarching category of “girls“. (Galloway)

⁶⁶ As I could not find anything to disprove her statement, I simply had to accept it.

⁶⁷ It is rumoured that Angelina Jolie, who portrayed Lara Croft in several films, divorced her first husband “after he became a Tomb Raider addict, spending more time with Lara than her“ (Holland 2002).

⁶⁸ “Can Barbie be considered as a heroine of woman’s lib? Frankly, most feminists do not think so“. [...] “Feminists condemned her as a gender dichotomizing commodity marketed for the stereotypical white heterosexual girl“. [...] “From a feminist perspective, therefore, Barbie is at least an ambivalent figure who embodies a rigid gender dichotomy as well as a broad range of ‘femininities‘ “ (Boomen 194).

In short, the whole movement operated on the underlying belief that girls needed different games *because* they were essentially different from boys. Thus, those new games for girls had to reflect those differences, resulting in the production and creation of “girls-only or girl-directed media that [stood] alongside more boy-centred media“ (Cassell & Jenkins *BMK* 24).⁶⁹

In *From Barbie to Mortal Kombat*, Cassell and Jenkins agree on three main reasons for the industry’s focus on the computer games for girls’ market (*BMK* 14). Later on, they revised their list in *Beyond Barbie to Mortal Kombat* and added two more goals of this movement, arriving at five important factors (Jenkins & Cassell *BBMK* 7-9). First of all, the three major competitors on the computer and video game sector of that time, that is to say Sega, Nintendo and Playstation had “entered a phase of heightened competition“ (Cassell & Jenkins *BMK* 14). Secondly, they therefore needed to expand the market by reaching new target groups and it was presumed that parents would buy these games to arouse their daughters’ interest in home computers. Entrepreneurial feminism⁷⁰ appears to be the third reason for the immense focus on the girls’ computer games market (Cassell & Jenkins *BMK* 15-16). Furthermore, “[t]echnological changes had lowered the entry into the marketplace“ as the invention of the CD-ROM enabled digital gaming at home without acquiring an additional console system (Jenkins & Cassell *BBMK* 8). Last but not least, aesthetic factors regarding “more psychologically nuanced characters, softer color palettes, more richly layered soundtracks, new interfaces and more complex stories“ (Jenkins & Cassell *BBMK* 8-9) appear to be the fifth reason.

As identified by Cassell and Jenkins, the most important publishing companies in the early days of computer games for girls were Girl Games Inc., Her Interactive⁷¹, Purple Moon⁷² and Girl Tech. Kangas includes Rhinestone Publishing as well. All of these companies were founded in the U.S. and the majority of those girl games were not sold outside the U.S. Surprisingly, European game developers did not engage in the competition of that time, as far as computer games for girls were concerned (Kangas). In general, digital games written for girls were of minor quality and did not include a wide range of gaming genres in those days.

⁶⁹ Advantages and disadvantages of this approach are discussed in greater detail in ch. 3.2.3.

⁷⁰ The sociological term *entrepreneurial feminism* refers to a recent trend of women opening their businesses at a faster rate than men, thus empowering themselves to become financially independent and to actively influence and shape their respective culture.

⁷¹ Cf. Forster 142.

⁷² Purple Moon was taken over by Mattel in 1999.

Girl games remained closer to clickable multimedia than actual games. Many games were overly girlish and/or even childish. According the designers, the games were just as girls liked them to be. At that time the focus was heavily on the PC market. Despite the lower prices or girl games' titles people were not into buying pink girl games [...]. (Kangas)

Many of those who had hoped to get rich by producing computer games for girls failed. Only few companies of the early days of computer games for girls did enter the new millenium, as for example Purple Moon and Girl Games Inc. (Kangas). By providing only a limited budget and cutting back production cost, "the quality of the games dropped [as well as] the sales figures" which led to the closing up or restructuring of many companies (Graner Ray 15).⁷³ On the other hand, American Laser which published original concepts and edutainment software for a female target group also disappeared completely and was sold to Her Interactive (Forster 19). Considering that most of these companies produced games which emphasised pre-existing gender roles and seemed to push girls into the stereotypical 'girly corner', it is hardly surprising that many girls did not feel attracted by their games.

It is often hard to differentiate between academic and industrial efforts when discussing the issue of digital games for girls. Or, as Cassell and Jenkins wrote, it is not possible to draw a clear line "or split between the feminist academic and the media industry insider" (*BMK* 17). They identified three reasons for the huge body of written contributions. First of all, the number of female game designers and producers who worked in this area and "made their choice based as much on their political commitment as on their economic goals" was increasing. Another reason was that "the lines between academic and market research [were] blurring" due to the fact that the industry had done extensive sociological, psychological and cognitive research about girls' cultural interests and their relationship with digital technology. Thirdly, many of the important key figures of the GGM were the first ones who dealt with the issue on an academic level by writing dissertations, academic articles and books (Cassell & Jenkins *BMK* 17).

However, industry insiders, academic theorists and feminists as well as gamers heavily criticized the general separatist attitude which shaped the period of the GGM. On part of the industry for example, Teresa Duncan "stressed the need for less market research driven development and more creativity in inventing game genres to satisfy alternative tastes and sensitivities" (Cassell & Jenkins *BMK* 24). Moreover, she insisted that the strong reliance on

⁷³ According to Galloway, the newly published girls' computer games sold very badly resulting in the closure of many of the previously mentioned girls' games companies (2008).

only market research would “[result] in a ‘perfunctory’ feminism she [found] even more meaningless than ‘slapping the pink bow on ‘Pacman[‘]’ (FeedMagazine 1997 qtd. in Cassell & Jenkins *BMK* 24).

In general, carrying out empirical research always runs the risk of “giving [children] as answers what they think they’re supposed to say” because “desires are manufactured by the toy industry itself long before the researchers get a chance to talk with them” to find out what they really want (Cassell & Jenkins *BMK* 19). With regard to these problems concerning market research on the issue of girls and their preferences and attitudes towards computer games, how did the industry defend their choices? Developers claimed that “most of the chain stores demand[ed] immediate success” (Cassell & Jenkins *BMK* 15) otherwise the respective games would have promptly disappeared from the counters. What is more, they argued that someone had to start to broaden the way and that it would have been too risky to simply ignore the results of market research (Cassell & Jenkins *BMK* 20). Some companies, as for instance Purple Moon, entered unknown territory by drawing new insights from “both quantitative and qualitative research methods” (Kerr 98). However, even those companies failed in their attempt to produce successful girl games.

Up to the mid-nineties, “[m]ost available video and computer games [were still] created and marketed for boys“, despite smaller companies which focused on the production of girls’ games and bigger developer firms which were more cautious by creating gender-neutral games (Chaika) .

Overall, the continually rising interest and rapid progress in home computers and home video game technology led to a declining interest in video arcades which have always been regarded as unsafe places thus never matching well with traditional girls’ culture. With advances in technology and global networks and an overabundance of games observing the whole market of digital games has become virtually impossible. However, rapid technological progress enabled developers to integrate more playable female characters in their games, as for instance in *Call of Duty*⁷⁴, and to generate devices which address various types of games and allow interactive gameplay.

Another important milestone is represented by the release of the first title of the *Sims* franchise in 2000. *The Sims*, which is said to have been the bestselling PC game so far

⁷⁴ Cf. Totilo 2013.

(Walker), attracting a range of different gamer types, has proved to be very popular with girls and women (Forster 361-362). The release of *The Sims* is regarded as a turning point for several reasons. First of all, because it has been attracting a large female audience and secondly because many women have been involved in its production process (Jenkins & Cassell *BBMK* 12). Considering features proposed during the GGM⁷⁵, most of them are implemented in *The Sims* and their predecessors. These include relatable leading characters, game play which allows different play styles and a variety of possible outcomes embedded in an everyday setting, to name a few. Despite the presence of all of these features, Cassell and Jenkins argue that the transformative influence of *The Sims* actually “had very little to do with its design features or content“ (*BBMK* 12). In their opinion, the success is strongly linked to the game’s potential of generating your own content which as a consequence led to “a vigorous fan culture“. Being very popular with a female playership, *The Sims*’ fan culture can be compared to “traditional fan culture [...] which historically [was] dominated by female participants“ (Jenkins & Cassell *BBMK* 12-13).

In spite of niches that have always “welcomed women as participants“ (Jenkins & Cassell *BBMK* 14) and “games [that] have always been attractive to girls as well as boys“ (Cassell & Jenkins *BMK* 9) academia agrees that “[t]he game industry is still designing games primarily for men“ (Jenkins & Cassell *BBMK* 14). “[W]omen [are] seen as – at best – a secondary market“ (Jenkins & Cassell *BBMK* 14) and digital games “are still predominantly made by men (and usually white men at that) for like-minded boys and men“ (Dovey & Kennedy 36). Similarly, Kerr finds that the industry is still mainly concerned with “marketing to hardcore male gamers“ as it is “dominated by males and heterosexual masculine fantasies“(100-101) and Lazzaro contends that “[t]he video game market has been chasing the same core gamer they originally attracted – the twenty-three-year-old male social recluse – by offering more and more mature themes“ (*BBMK* 208). Complementary to this, Anita Sarkeesian’s analysis of more contemporary computer games confirms that the same patterns in games are being consistently recycled (“DID I“).

⁷⁵ Cf. Laurel *BMK*.

3.2 Different approaches to digital games for girls and women

The issue is whether girls should be encouraged to beat boys, or that a girls-only place should be created? The first scenario implies that girls change and ignore their different cultural interests; the second adheres to a stereotypical Barbiefied frame and confines girls to a separate world. Yet, we should be careful in dismissing traditional girls' interests. (Boomen 203)

Apart from digital games, the industry concerned with toys, games, i.e. with leisure and fun, is permeated by the ongoing debate between supporters of gender neutrality and those who put emphasis on interests linked to traditional understandings of masculinity and femininity. To quote Orenstein, “[s]o who has it right? Should gender be systematically expunged from playthings“ (“Genderless Toys“ 2011)? Or does “meeting girls halfway in an attempt to stoke their interest in engineering“, computing, programming or other male-dominated areas provide a more realistic option (Orenstein “Genderless Toys“ 2011)?

If girls were to access the world of technology and science in a playful way via digital gaming, the question arises of how to exactly achieve this as neither academia nor industry insiders have come to an agreement so far.⁷⁶ As illustrated by the opening quotation, their opinions on this issue differ widely. There are those who lay emphasis on gender equality and opt for the same games for both genders, whereas others, assuming substantial gender differences in this context, request completely different games.⁷⁷ Of course, apart from doing research on perfect game design, it is also important to simultaneously examine what is offered on the one hand, and requested by female players on the other hand.

This chapter presents voices in favour of and against four different perspectives on how to develop and promote appealing digital games for girls and women. Apart from digital games directed at a younger audience, also those that target more mature players are included with reference to the argument of chapter 2.5.1.⁷⁸ The first approach includes opinions in favour of offering both genders the same games with no alterations. Complementary to this, the second one deals with games modified to various degrees, whereas the third approach is concerned with girls-only media, and the final one with gender-neutral digital games.

⁷⁶ Cf. Boomen 203; Cassell & Jenkins *BMK* ; or both Kerr 123: “political gender issues“ and “construction of games“; Kerr 156-158 on gender & technology; Kerr 97 on gender in general.

⁷⁷ Cf. Buikema; Cassell & Jenkins *BMK* 24.

⁷⁸ See ch. 2.5.1 Correlation between girls' and their mothers' attitudes towards technology and gaming (Holland 2007).

3.2.1 Same games for both genders

Encouraging girls to “play existing games with an eye toward their future benefit” (Jenkins & Cassell *BBMK* 9) is a theoretical approach worth striving for. However, reality is different and this egalitarian notion of equal games for all genders does have its drawbacks. Many games have always been popular with both genders, having been created under aspects of fun and entertainment without a specific target group in mind (Cassell & Jenkins *BMK* 25).⁷⁹ Therefore, if girls and women have always played these games, why change them at all?

With “masculinity remain[ing] the invisible norm“, producing the same games for both genders implies that “unselfconscious efforts are likely to simply perpetuate male dominance“ (Cassell & Jenkins *BMK* 25). Most criticism generally addresses the overuse of stereotypical images which have shaped the world of digital gaming to a great extent. Digital games, being part of popular culture, influence Western society and culture. Assuming that gender is indeed performative, it becomes obvious that the way women and men are depicted is too important to be ignored.⁸⁰ (DID I).

Due to women’s underrepresentation in the gaming industry⁸¹, especially in production and design process, it is not surprising that many games are basically designed in a *butch* manner and draw on a set of rules typically associated with masculinity⁸², as supposedly, male game designers are trapped in familiar patterns from their own world of experience.

Another controversial issue, apart from content-related ones, regards the packaging of digital games for both genders. For reasons of marketing, it is necessary to design a cover art which immediately addresses a specific audience and evokes certain expectations. So, the question arises what games targeted at both genders should look like as the industry has not yet found a solution to this problem.

All in all, the idea of equal games for both genders raises a series of unanswered questions which suggests the need of a more appropriate approach.

⁷⁹ For more information on “fun-specific games“, e.g. *Quake* and *Doom*, see Richard 2004: 74.

⁸⁰ Apart from limited ways of problem solving, the most questionable features include female characters’ frequent portrayal as sexual objects in submissive roles. For more information, see ch. 4.1.

⁸¹ See ch. 4.2.

⁸² Cf. Brunner in ch. 2.5.

3.2.2 Same games for both genders with modifications

With reference to the previous chapter, proposing different games for diverse genders does not seem to offer a better alternative. It has been argued that games should be altered in some way to attract a female audience. However, modifying games to fulfil the needs of women and girls is a ‘double-edged sword’ because it perpetuates dualistic thinking once again. The probably least sophisticated suggestions in this context include easier or simplified versions of pre-existing games whereas the more elaborate ones concentrate on better character development, more playable female characters and more varied plot devices. In general, these simplified versions either are games where the overall gameplay itself is easier to handle or where the content is trivialized by leaving out, for example, violent situations.

In 1985 Ebyx published *Barbie* for the Commodore-64 (Laurel *BBMK* 22), a game which contained slow-moving marshmallows instead of fast-moving projectiles as ammunition due to the common assumption that females disliked shooting games. This notion that most girls only enjoy non-violent computer games seems to be a widespread belief even nowadays. Perhaps for that reason, the internet is littered with recommendations on computer games for girls which mostly comprise undemanding minigames about shopping, dressing, decorating and travelling. Thus, it can be assumed that according to these findings there was only a limited female audience for a wider range of games. Nevertheless, “[w]omen do play violent games”, and games of different genres, as endorsed by Peterson. In fact, she points out that

the *Grand Theft Auto* series⁸³, [as well as ...] the *Halo*, *Tomb Raider*, and *Perfect Dark* series⁸⁴ are well-represented in [her female] friends’ collections. (Peterson 2008)

Apart from content-related alterations, other modifications also address features typically associated with femininity. For instance, Richard mentions a female-specific card game developed by a feminist association, in which flowers were added to the games design to make it appear more feminine and to attract more female gamers (2004: 27). Such simplistic makeovers can be ascribed to the industry’s reliance on market research and have been severely criticized for a long time. On the part of the industry for example, Teresa Duncan called for “more creativity in inventing game genres to satisfy alternative tastes and sensitivities” (Cassell & Jenkins *BMK* 24). She feared that a strong reliance on nothing but market research would “[result] in a [‘]perfunctory[‘] feminism” which she regarded as even

⁸³ The GTA series contains elements of various genres, e.g. shooting from a third-person perspective, exploring an open world, ...

⁸⁴ All three of them are FPS.

more pointless than attaching a “pink bow“ to Pac-Man (FeedM-agazine 1997 qtd. in Cassell and Jenkins *BMK* 24).

Interestingly, Ms. Pac-Man might be the most famous example of a modified version that has become even more successful than its pre-existing, official version. Perhaps its success can partly be ascribed to its more feminine design which has attracted a wider audience. According to Graner-Ray “[i]t wasn’t until the appearance of [Ms. Pac-Man,] a small yellow ball with a pink bow on top that the industry saw the birth of gender in a video game“ (18). Unknown to many, Ms. Pac-Man was a user developed hack programme and apart from obvious changes such as a bow, lipstick and a mole, different colour schemes, music and new intermissions were added as well.⁸⁵ Due to graphic limitations in 1981, the adding of a bow to Ms. Pac-Man’s outfit and the reddening of her lips were the only options to feminise a pre-existing character. Additionally, the screen colours were changed to pastels (Graner Ray 18). In general, Graner Ray approves of modifying existing games as long as these modifications do not result in absurd alterations such as “putting Doom into a pink box or making funny games about kittens“ (Graner Ray 180).

In order to make a game more attractive to a female audience, simple feminisation of an already character seems to be downright ridiculous. Nevertheless, even this change can be regarded as a major improvement since for a long time protagonists of computer games used to be male, and “[w]omen rarely appear[ed] in them, except as damsels requiring rescue, or rewards for successful completion of the mission“ (Cassell & Jenkins *BMK* 7).

Due to the lack of playable female characters, it was claimed that girls or women could not identify with their characters or avatars while playing because the absence of a character of a player’s respective gender might hinder self-identification. In an early study of arcade games which investigated the amount of female representation, it was reported that only a small minority of eight percent of the respective games featured female characters (Provenzo 1991 qtd. in Cassell & Jenkins *BMK* 7). Nowadays more female characters are included, but an analysis of current digital games still implies a prevalent imbalance of adequate gender portrayal.⁸⁶

⁸⁵ For more informaton on Ms.Pac-Man, see <http://www.mspacman1.com/history/>.

⁸⁶ See also ch. 4.1.

In general, identification with one's avatar is important for the fun of computer gaming. Thus, game designers decided to create female characters in order to attract more girl gamers. However, offering a female avatar is not enough to reach a female audience, as various unsuccessful attempts involving stereotypical character portrayal during the GGM proved.⁸⁷

Originally an arcade game, the *Mortal Kombat* series is one of the most successful ones of the beat'em-up genre.⁸⁸ Although there are more male characters to choose from, women warriors do exist and are in no way inferior to their male counterparts. "[T]he only female option in the original *Mortal Kombat*" Sonya Blade,⁸⁹ "[a] former law enforcement agent [and] super effective fighter," has become one of the most popular women fighters (Bridgman). What is more, she is considered as "a major achievement" because she is "probably one of the least sexualized female characters in a major fighting franchise" (Bridgman).

Generally, women characters have often been constructed according to simple aesthetic stereotypes in computer games. For example, according to a study by Christine Ward Gailey, the most prominent ones include "good but passive princesses as objects which motivate the action, and bad, eroticized women as competitors who must be beaten back by the protagonist" (1993 ctd. in Cassell & Jenkins *BMK* 8). Although times have changed, the basics of digital gaming narratives appear to have not. Latoya Peterson, a female games activist, reported in 2008 that

[f]ar too long, women characters in video games have been narrowly developed side characters – sexual conquests, damsels in distress, or treacherous femme fatales. These three basic archetypes are manifested again and again in popular games, leading to dissatisfied female players who are either turned off by the characters outright or who find that they cannot relate to the rigid definition of femininity these characters portray. (2008)

Peterson proposes that female characters simply "need another dimension to their personality [and that the producers should] think outside of the basic stereotypes featured in games" (2008). Furthermore, she regards the quality of a game as being more important than a wide range of female and male avatars to choose from.

⁸⁷ Most of the time games featured a pretty, white protagonist whose primary goal was shopping, forming relationships and finding her Prince Charming.

⁸⁸ Nowadays later titles of the *Mortal Kombat* series are available on various platforms.

⁸⁹ However, Cassell and Jenkins report that in the first part of *Mortal Kombat* "[n]one of the warriors [was] female [and that] no women play[ed] active roles" (*BMK* 9).

Kelly also emphasises that girls and boys like the same games by arguing that the “key to reaching gamers of all kinds“ is designing games which make fun and are innovative. Additionally, similar to Graner Ray and Duncan, he considers the industry’s tendency for one-sided⁹⁰ or inefficient marketing or advertising of digital games to women and girls as a major problem. Building game narratives on stereotypical women’s issues, for example turning a popular book like “The Devil Wears Prada“ into a game does not guarantee the same success in this medium (Kelly). Instead, Kelly calls for “fun games that anybody would want to play“ and for their selling in more neutral surroundings because females seem to avoid games-only stores such as EB Games.⁹¹

3.2.3 Digital games targeted at girls and women

Whilst the former two subchapters discussed identical, as well as slightly modified or recycled games, this chapter is concerned with those where the underlying game basics had to be altered in order to reach female players.⁹² In general,

the majority of attempts to exploit the female gamer market [...] have been firmly based within a discourse that seeks to work within and reproduce contemporary gendered stereotypes of what may be “appropriate“ for female gamers. (Bryce & Rutter 247).

The question arose whether games should include “a recognisably ‘feminine’ theme in order to encourage female gaming“ (Bryce & Rutter 247) which eventually led to the creation and production of “girls-only or girl-directed media that [stood] alongside more boy-centred media“ (Cassell & Jenkins *BMK* 24). Merely addressing issues from the personal sphere, this type of games shaped the whole GGM.

Playing to stereotypical female interests like shopping, fashion, and singing will net a small section of the women who like to play video games – but most women gamers look for quality of game play before plunking down \$50 for the latest releases. (Peterson 2008)

Contrary to Peterson’s claim, many franchise series still focus on stereotypical female preferences. Despite the critique that “girls are stereotyped to being passive, soft and vain individuals“ (“Brattydolls“) games concerned with issues such as shopping, hairstyle and make up, and befriending animals, as for instance *Bratz:Rock Angels*, are often presented as

⁹⁰ “If games are appealing to both girls and guys, but mostly guys are buying them, then you need to market your games better“ (Kelly).

⁹¹ “EB Games (formerly Electronic Boutique and Eb World)“ is an electronic chainstore for digital games (https://en.wikipedia.org/wiki/EB_Games).

⁹² Cf. Graner-Ray “game basics“ Brunner *femme*, clash of cultures.

the best option for young girls. Finding a game which succeeds in addressing girls' or women's issues without focussing too much on stereotypes, seems quite an impossible thing to do.

Going back in time, Knowledge Adventure's *Let's talk about me* dates back to 1997. Designed for female teenagers, it is divided into four areas labelled 'my personality', 'my body', 'my future' and 'my life'.⁹³ The first section includes quizzes about relationships with parents, friends, and boys, to name a few, whereas 'my body' deals with fashion, health and puberty, as for instance "design[ing] the ultimate outfit or hairstyle [...] tak[ing] a health quiz, [and] learn[ing] about different parts of the body". The section about 'my future' is dedicated to various alternative ways of predicting the future such as "biorhythms, horoscopes, interpreting dreams and reading palms" whereas 'my life' includes organisational tools, such as a "diary, a scrapbook, an addressbook and a planner" ("Mathequity").

Once girls had been identified as a new market for computer games, "[m]arketers obviously [understood] that" apart from including different content, "electronic activities for girls needed to be packaged very differently from similar packages for boys" (Chaika). Therefore, digital games targeted at a young female consumership have usually been packaged in different shades of pink to give them a soft, feminine look straightaway as illustrated by Fig. 4 and Fig. 5. With reference to *Barbie Fashion Designer*, the choice of pink seems to be related to the convention of packaging the whole Barbie series in various shades of that colour. Thus, it could be argued that *Barbie Fashion Designer* somehow influenced the industry's overall tendency of using the colour pink for girls' stuff. However, the first *Barbie* line once used to reflect daily life colours, hence, pink packaging of girls' games cannot be ascribed to the world's most famous doll in general. Rather, Jo Paoletti states, it can be traced back to "the mid-1980s, when amplifying age and sex differences became a key strategy of children's marketing" (Orenstein 2006). Despite recent connotations of the colours pink and blue, when "colors were first introduced to the nursery in the early part of the 20th century pink was considered the more masculine hue, a pastel version of red. Blue with its intimations of the Virgin Mary, constancy and faithfulness, was thought to be dainty" (Orenstein 2006).

In one of his early publications, Provenzos argues that most covers featured stereotypical gender portrayals (Cassell & Jenkins *BMK* 7). Cassell and Jenkins dispute his conclusions and presume "inherent problems in methodology" as "video game ads and covers are more likely

⁹³ Cf. Mathequity - website dedicated to computer games for mathematical empowerment.

to exaggerate the gender address of the product in order to reach [the] dominant market“ (8). Brunner clarifies that there are innovative attempts in design of game packaging which have already been implemented to some extent. Nevertheless, as the industry relies on well-known structures, the outward appearance as well as the marketing of games remains unchanged. Therefore, it is hardly surprising that traditional packaging design is still prevalent and innovative attempts are scarce (Brunner, Bennett, & Honey *BMK* 1999: 82-84).

Almost twenty years after Cassell and Jenkins' observation, girls-only-media still shape the landscape of digital games, at least as far as titles for a younger audience are concerned. Although girl-directed media can be found on various devices, the Nintendo DS and 3DS seem to offer the widest range of pink, girly media. Ubisoft's *Sophies Freunde*⁹⁴ or Dtp entertainment AG *J4G*⁹⁵ franchise are two examples of a series of games which are either mainly concerned with domestic issues, such as baking, cooking (*Cooking Mama*), babysitting or nurturing a child⁹⁶ or with personal issues, such as dressing up, keeping a journal (*Diary Girl*), socializing, riding, or finding the right partner, e.g. Prince Charming for the princess, or a rockstar as boyfriend.

Although the developer of the *J4G* series became insolvent in 2012, games evolving around these one-sided themes are still being published by Ubisoft in the *Imagine*⁹⁷ line. These games apparently dominate the market for digital media for young girls, therefore their focus on traditional, stereotypical women's issues remains at least questionable. Female gamers are often frustrated by the industry's tendency of depicting women in traditional feminine roles on their covers, which sometimes even results in drastic reactions using offensive language, telling publishers to “[p]iss off and cook [their] own damn meal“ (Cuevas).

⁹⁴ E.g. the latest release, *Sophies Freunde Collection* (2014), includes *Fashionworld*, *Babysitting*, and *Modedesigner*. See also <http://ubisoft.de>.

⁹⁵ The *J4G* (Just for Girls) series comprises titles such as *My Boyfriend: Verliebt in einen Star*; *Wedding Planner: Traumhochzeiten garantiert*; *Boyfriend: Der Sommer meines Lebens*; *Boyfriend: Meine erste große Liebe*; *VIP News: Die Star Journalistin*; *Princess in Love*; *America's Next Topmodel*; *A Girl's World*.

⁹⁶ The game's description of *My Little Baby* only addresses females (“frisch gebackene Mutter“, “stolze Mutter“, “Muttergefühle“).

⁹⁷ See also <<http://www.ign.com/articles/2008/07/16/ubisofts-imagine-series-takes-the-lead-in-video-games-for-girls>> .

3.2.4 Gender-neutral digital games

The previously mentioned approaches, the one concentrating on girls-only media in particular, have often been criticized by activists and players for various reasons. Some haven't even claimed that games for girls are "a serious step back", highlighting "the need to make genderless [games that] appeal to both genders equally" in order to reach more gamers (Michael fs). Hence, an additional "scenario, also probed by the girls' games movement, consists of transforming game genres towards 'gender neutrality'" (Boomen 204) as "[s]ince the mid-nineties, the gaming industry has looked at the female marketing with more interest, taking into account varying male/female propensities and the importance of gender neutral games" (Ritchie 3).

But how to achieve a certain genderlessness or neutrality? Which features are required to make a game gender-neutral? And, what is more, do gender-neutral characters offer a plausible alternative? If so, how can these characters be genderless or androgynous⁹⁸ without being comical? Or can gender neutrality be attained by adapting the content of the games? In how far is cover art of importance for this discussion? Can gender neutrality possibly be linked to a specific game genre or rather to any digital game?

It seems that digital games which proved to be successful with both genders can often be regarded as gender-neutral, being

abstract-pattern games such as "Tetris" and "Baku Baku," puzzle games such as "Myst,"⁹⁹ and exploration games such as "Donkey Kong Country," "Sonic the Hedgehog," "Ecco the Dolphin," and "Nights into Dreams." (Cassell & Jenkins *BMK* 9)¹⁰⁰

Gender neutrality is often highlighted in the context of educational gaming.¹⁰¹ For example, Seriousgames.net, a developer of educational games, states to "have used animal characters or non-gender specific characters as tour guides in [their game ...] *Playing History: The Plague*". There, the game play is narrated by a mouse which is "attribute[d its] gendered identity" by

⁹⁸ Cf. Cassell & Jenkins *BMK* 9.

⁹⁹ "And like *The Sims*, 1993's *Myst*, a fantasy about escaping from a beautifully rendered island, was gender-neutral. An intellectual game that relied on puzzle solving rather than action, it is derided by many (male) gamers as boring — but that didn't stop it selling 3.5 million copies to become one of the biggest sellers of all time" (Holland 2002).

¹⁰⁰ In contrast to Cassell and Jenkins' usage of quoting, in this paper, digital games are treated as independent works, and are therefore in italics.

¹⁰¹ It is argued that for "a male dominated game development company it's very important to be constantly aware of this when making decisions about the themes and designs" (Anna "Do Girls Play Computer Games").

the players in order to raise “greater interest in the game and the content from both genders” (Seriousgames.net). However, when comparing other title covers of the *Playing History* series it remains questionable if they truly epitomize gender neutrality.

Critics claim that gender-neutral games do not reflect reality because “[i]n order to be gender-fair“ you have “to be gender-specific“ (Orenstein 2011) as by stripping gender from games, players might be hindered to identify with their characters and be deterred from gaming. *Minecraft* is an excellent example of a recent, successful game.¹⁰² This game is generally perceived to be gender-neutral. It is basically about “breaking and placing blocks“, with pixelated graphics which make the game appear even blockier. According to the game’s ex-lead designer Markus Persson,

[t]he human model is intended to represent a Human Being. [...] The blocky shape gives it a bit of a traditional masculine look, but adding a separate female mesh would just make it worse by having one specific model for female Human Beings and male ones. That would force players to make a decisions [sic] about gender in a game where gender doesn’t even exist.

However, as the game’s leading character appears to have a beard, this explanation is not generally approved¹⁰³ and voices of disagreement can frequently be found. With reference to Persson’s claim of gender being practically non-existent in this game, a mother of a young female *Minecraft* player writes as follows:

This might actually be a good argument, if Steve wasn’t obviously male. Notch and the rest of the Mojang team could have created an actually gender neutral [sic!] character, complete with a gender neutral [sic] name. [...] They could name it Casey or Alex or Jordan, do away with the five o’clock shadow, tweak the clothing and hair slightly, and they’d be good to go. (Libby Anne)

Interestingly, the later on added female player Alex appears to be more gender-neutral than the game’s first character, Steve. What is more, it has been observed that the game’s merchandising still centres around Steve which renders Persson’s first claim unreliable. On the one hand Steve, the human model, “was supposed to be gender neutral [sic] [and its labelling] just an offhand remark“ whereas on the other hand their “highly gendered marketing push centered around an obviously male and clearly labeled Steve [italics removed from all quotes here]“ (Libby Anne). Assuming that Persson was indeed convinced of having developed a genderless leading character, his attitude can be explained by Graner Ray’s

¹⁰² Cf. Kain on best-selling games of 2014 in the U.S.

¹⁰³ Due to public reactions to his post, he writes on his blog “I do regret using masculine terms to talk about the default character. These days I try to use the up-and-coming use of [‘]they[‘] as a genderless pronoun“ (Notch).

arguments in chapter 2.5.3. and Cassell and Jenkin's proposition of masculinity as the still prevalent invisible norm in chapter 3.2.1 (Cassell & Jenkins *BMK* 25) .

Nevertheless, some publishers have achieved the seemingly impossible. *The Sims* series serve as a very good example of gender-neutral games, as they include "all the features and narratives" (Cassell & Jenkins *BMK* 33) which were demanded when the issue of gender-neutral games became significantly important for the first time, as previously discussed.

Apart from the *Sims* series, award-winning game *Journey* (2012) also incorporated genderless characters without appearing comical or bizzare. Robin Hunicke, executive producer of *Journey* (2012), holds the opinion that a strong reliance on heavy male or female stereotypes is not necessary which is why her team deliberately chose to hide the player's gender, race and age in *Journey* (2012).¹⁰⁴ What is more, she insists that integrating more openly queer characters simply reflects the reality of life, i.e. the diversity of people (*GTFO*).

¹⁰⁴ See the game's website for more info on *Journey*: <http://thatgamecompany.com/games/journey/>.

4 Girls and women as constituents, producers and consumers of digital games

This chapter is dedicated to the various roles occupied by women and girls with reference to the world of digital games. The issue is tackled from various perspectives. Whereas the first subchapter deals with female representation in the digital world of gaming, the second one discusses the situation of women working in the industry of digital games. This is followed by an analysis of the term *girl gamer*. Additionally, demographic data are included in the last subchapter not only to draw a more accurate picture of the current situation of gaming participation but also to show a certain trend in it.

4.1 Female representation in digital games

In 1998, Cassell and Jenkins reported as follows:

Video games provide a prime example of the social construction of gender. Women rarely appear in them, except as damsels requiring rescue, or rewards for successful completion of the mission. (Cassell & Jenkins *BMK* 7)

The above quotation is not unique, rather, similar statements are littered across publications on gender and digital gaming.¹⁰⁵ Having done extensive research, Cassell and Jenkins conclude that games are “still largely about epic struggles and use the same gender stereotypes” (Cassell & Jenkins *BMK* 33). Almost a decade later, Hartmann and Klimmt resume that “[s]everal authors have documented that most digital games rely heavily on *stereotypes and archaic role models* to portray female characters”¹⁰⁶ and that “visual portrayals of females tend to highlight physical attributes (e.g. through clothing) or exaggerate female sexuality”.¹⁰⁷

It could be assumed that the situation has changed and the above statements were just a product of their time (“DID II”). So, what has changed so far? Do current digital games really offer a more balanced picture of gender without drawing too heavily on pre-existing

¹⁰⁵ E.g. Fantone states “women’s bodies are overrepresented and stereotypical, because of the market underlying these new media productions, which target a wide audience” (2003).

¹⁰⁶ Cf. Dietz 1998, Jansz & Martis 2003, Sherman 1997 ctd. in Hartmann & Klimmt.

¹⁰⁷ Cf. Beasley & Stanley 2002, Downs & Smith 2005, Schleiner 2001 ctd. in Hartmann and Klimmt.

stereotypes? Are there more playable female characters? Has the industry implemented some of the claims stipulated by critics?

Empirical studies corresponding to scientific criteria are scarce in Germany and Austria. Melanie Gecius's analysis from 1995/1996 of forty-four video and computer games represents one of the earliest and most comprehensive ones. Gecius investigates these games with regard to representation and distribution of gender roles, including visual appearance and characteristic behaviour of male and female protagonists (Grapenthin 162). According to Gecius, the female characters are clearly outnumbered and mostly represented as minor non-playable characters. Overall, they are portrayed rather passively as accessory or reward and have to be rescued from the antagonist by a male hero as they seem incapable of doing so themselves. Their portrayal mostly consists of beautiful, slim, and very well-proportioned young women in tight, impractical clothes stressing their feminine attributes (Gecius 1997:76 in Grapenthin 164). Male characters rely on their own physical strength whereas the female ones tend to use magic for defense or attack (Gecius 1997: 92 in Grapenthin 165). Gecius identifies eight common female character types, four playable main characters, and four non-playable minor ones of which the former are labelled as follows: the clever woman (e.g. Emily Hartwood *Alone in the Dark*), the martial fighter (e.g. Samus Aran *Metroid*), the bold girl (e.g. Lilly *Illusions of Time*), and the modern princess (e.g. the girl of *Secret of Mana*).¹⁰⁸ The minor, non-playable characters are mostly reduced to their physical attributes. They include the beautiful princess (e.g. Zelda¹⁰⁹), the female eye candy, the sex monster, and the motherly woman (Gecius 1997: 91 in Grapenthin 165).¹¹⁰

Hella Grapenthin's research is also concerned with gender representation in computer and video games. In her analysis from 2009, Grapenthin investigates the distribution of gender roles as well as their portrayal in eight popular and successful action and adventure games. According to her findings, the choice of games is based on premises such as immense popularity and success both with children and adult players, their affiliation to a specific genre, the existence of at least four instalments, the presence of one apparent main character

¹⁰⁸ Translated from German die "clevere Frau", die "martialische Kämpferin", das "freche Mädchen", die "moderne Prinzessin" (Gecius 1997: 91-92 in Grapenthin 165).

¹⁰⁹ Cf. Grapenthin 165. Grapenthin ascribes Peach and Zelda to the wrong game, as the former belongs to *Super Mario World*, but not the latter one.

¹¹⁰ Translated from German die "schöne Prinzessin", die "weiblich Reizende", das "Sexmonster" und die "Mütterliche" (Gecius 1997: 91 in Grapenthin 165).

throughout the series, and an age limit of six, twelve and eighteen years (Grapenthin 167-168).

Anita Sarkeesian's analysis provides the most recent and extensive contribution to the discourse of female representation in digital games. Being a feminist media critic, she examines "the plot devices and patterns most often associated with female characters in gaming from a systemic, big picture perspective" ("DID I").

In general, digital game worlds are inhabited by playable and non-playable characters, so-called NPCs. Female NPCs can be subdivided into those important to the main story line of a game and those whose lives or deaths have no impact on the main story line whatsoever. Important ones often trigger the main quest, mission or side mission¹¹¹, whereas minor ones merely serve as background decoration to make a game appear more vivid.

Using a female character as the main catalyst for a male protagonist's journey, is not a trope restricted to digital games, rather, this plot device is frequently used in all kinds of media, especially in literature. Sarkeesian's interpretation of the damsel in distress trope defines it as a female character reduced to a state of helplessness who then has to be rescued "by a typically male hero". However, being helpless neither implies that the damselled characters have to be one-dimensional or weak nor do they have to be victims for the entire game because games usually feature more than one trope ("DID I"). It is also important to note that not all damsels are depicted in the same way. Some damselled female characters are more active, as for example Princess Zelda, who sometimes helps or accompanies Link, the protagonist ("DID I"), whereas others, as for instance Princess Peach, are more passively portrayed ("DID I").

Though Sarkeesian's analysis includes recent games as well, she arrives at a similar conclusion as Gecius when asserting that encounters with male and female NPCs are differently presented most of the time. What is more, women are still often objectified and depicted in violent, sexualised sceneries including assault (*Metro-Last Knight* (2013) in "WBD"), rape¹¹² and death. "Women's brutalized bodies", as Sarkeesian highlights, merely serve as a background decoration so to easily trigger emotions because a "great part of the

¹¹¹ E.g. side mission "Damsel in distress" in *Assassin's Creed II* (2009), as identified by Sarkeesian in "WBD".

¹¹² E.g. in *GTA V* (2013) the player can choose to either watch or prevent a woman from being raped (WBD 8:38).

industry is trapped in the pattern of building game narratives on brutalized female bodies“ (“DID II“).

A classic definition of a damselled character requires the character to be alive, even if only at the beginning of the quest.¹¹³ However, as digital games feature several female characters who find themselves trapped in a variety of deathlike conditions, Sarkeesian refers to combinations of the damsel in distress trope with others evolving around victimized women as trope hybrids (“DID II“). Deriving either directly from other media or being frequently used in them¹¹⁴, these other variations include, for instance, “the damsel in the refrigerator“ (based on “the woman in the refrigerator“¹¹⁵) trope and the “euthanized damsel“ (“DID II“) trope. The damsel in the refrigerator¹¹⁶ refers to a female character who is rendered helpless twice as her soul has to be rescued after her brutal killing.

In general, Sarkeesian argues that the death of women characters serves as the main trigger for revenge quests in many recent, popular games. Very often the protagonist’s wife, girlfriend or daughter is murdered or abducted and sometimes even all of them are killed¹¹⁷, whereas in some games various tropes are combined in the same plot line¹¹⁸. Interestingly, as stated by Sarkeesian “[r]everse roles are practically non-existent and so unusual that it borders on the absurd“ (“DID II“).

In a larger pattern of gaming narratives, the games’ main themes are not about killing women¹¹⁹ and many diverse tropes are embedded. However, plot devices that feature women in submissive roles, especially the *euthanized damsel* trope which uses violence “to bring the women back to senses“, remain problematic. Having completely lost control, women are killed for their own good by the male protagonist in this trope. Often these characters even have to ask for being killed and to thank their saviour with their last breath (“DID II“).¹²⁰

¹¹³ Or when the hero believes her to be alive.

¹¹⁴ According to Sarkeesian, the most common tropes to be found here are “the disposable woman“, “the mercy killing“, “the woman in the refrigerator“ (“DID II“).

¹¹⁵ This term was coined in the 1990s by Gail Simone (“DID II“) and refers to a trope frequently used in comics.

¹¹⁶ As identified by Sarkeesian to be found in *Ghouls’n Ghosts* (1988), *MediEval 2* (2000), *Castlevania: Lords of Shadow* (2010), *Dante’s Inferno* (2010), *Shadows of the Damned* (2011), *The Darkness II* (2012).

¹¹⁷ Wife and daughter killed in *Max Payne* (2001); *God of War* (2005) (“DID II“) as identified by Sarkeesian.

¹¹⁸ Wife murdered and daughter has to be rescued in *Outlaw* (1997); *Kane and Lynch: Dead Men* (2007); *Prototype 2* (2012); *Inversion* (2012); *Asura’s Wrath* (2012); *Dishonoured* (2012). (“DID II“) as identified by Sarkeesian.

¹¹⁹ E.g. According to a German study by Nagenborg whose analysis also included popular games with goals other than killing, “several types of combats/ fights can be found in every second game that hits the German market“ (loosely transl. Nagenborg 265).

¹²⁰ E.g. *Gears of War: Ghost of Sparta* (2010) Kratos finds his mother who transforms into a monster which he then has to kill. With her last breath she thanks him; *Grabbed by the Ghoulies* (2003) Girlfriend transforms into an ogre who has to be knocked out to retransform;

Therefore, the death of the female characters is more important than their living condition. Representing an artificial ideal of purity and innocence, these women characters often serve as symbols or triggers for the main, male-centred story.¹²¹

Sarkeesian insists that the “damsel in distress trope disempowers female characters and robs them of the chance to be heroes“ (“DID I“) as in order to become a hero, it is important to solve difficult tasks and to overcome various obstacles on your own. She argues that the female characters serve to empower the male protagonist¹²² which becomes obvious when female and male characters are captured. Then they both rely on the male character’s strength and skills, the male one to regain his freedom and the female one to be rescued by him.

Very often, “females [in games] are princesses who need to be saved by the strong hero, usually a male character“ (Ritchie 2). Interestingly, two of the most popular female characters in digital gaming are two princesses, Princess Peach and Princess Zelda.¹²³ Princess Peach somehow represents “the quint-essential stock character of the damsel in distress“ (“DID I“) because she is kidnapped in thirteen out of fourteen titles of the *Super Mario Bros* core series.¹²⁴ Despite being reduced to a side character in most instalments of the *Super Mario Bros* series, Peach is also the main character in a game (“DID II“) in which stereotypical women’s issues, such as a premenstrual syndrome joke, are also incorporated.¹²⁵ In contrast to Princess Peach, Princess Zelda has never been “a star in her own adventure[...] nor a truly playable character in the core series“ (“DID I“). Although she inhabits a more active role in disguise in some titles of the series, the moment her true nature is revealed, she usually returns to being passive and has to be saved once again (“DID I“).

Sarkeesian states that a great many gaming narratives tell male-centred stories with female characters serving as “disposable objects“ (“DID II“). The objectification of female characters in digital games as well as their reduction to and oversexualisation of their sexual bodies in

Shadows of the Damned (2011) Final enemy is the hero’s girlfriend who has then to be killed. Similar scenarios to be found in *Legend of Zelda: Twilight Princess* (2006); *Resident Evil 5* (2009); *Devil Summoner: Raidou Kuzunoha vs. The Soulless Army* (2006); *Ninja Gaiden* (2012); *Pandora’s Tower* (2013); as identified by Sarkeesian in “DID II“.

¹²¹ Eg. *Castlemania: Lords of Shadows* (2010); *The Darkness II* (2012) (“DID II“), as identified by Sarkeesian.

¹²² E.g. in *Vigilante* (1988). “The skinheads have taken Madonna hostage. Take the power into your hands!“, as identified by Sarkeesian in “DID I“.

¹²³ Both characters have been designed by Shigeru Miyamoto.

¹²⁴ “DID I“: In *Super Mario Bros. 2* Peach is not abducted. However, as *Super Mario Bros 2* is based on another game, Peach became a protagonist because another playable character was needed.

¹²⁵ This refers to some extra powers of Peach. It is implied that Peach, like all women, is in a bad mood when menstruating.

particular has already been discussed by several authors.¹²⁶ Female characters are often reduced to mere objects and become “a prize or goal to be won“ or “a treasure to be found“ (“DID I“). “In the game of patriarchy, women are the ball“, Sarkeesian points out, hinting at games where the female characters literally get pushed back and forth between the male protagonists (“DID II“).¹²⁷ However, and with reference to criticism on female objectification in digital games, there are two sides to every question. In fact, depicting femininity or masculinity in digital games without drawing on stereotypes proves to be very difficult.

If we believe Sarkeesian, problematic female characters “ha[ve] seen a bit of resurgence in recent years“ (“DID II“) for two reasons. First of all, many of the old platform games are being transferred to current devices due to game nostalgia (“DID I“). Secondly, a female character in need of rescue provides a simple way to motivate a hero (“DID II“). Although the idea of a woman character to be rescued was not invented by Nintendo, it can be argued that overall it set a “standard for the industry“ (“DID I“). Throughout the 80s and 90s, in particular in classic arcade games but also in platform games, shoot‘em-ups, first person shooters and role-playing games (“DID I“), the abduction of a woman character often triggered the protagonist’s journey. All too often, this situation was realised via framing the female character “as a possession being stolen from the protagonists“ (“DID I“).¹²⁸

Sarkeesian thinks that developers probably “do not give much thought to the underlying messages their games are sending“ (“DID II“). She argues that “these games don’t exist in a vacuum“ and “are an important part of a larger social and cultural eco-system“ (“DID I“). Popular culture influences our lives and culture to a great extent, in the same way frequently used images in media have an impact on our society and culture. The way behaviour of men and women is portrayed is an important issue as an overuse of depicting female characters in subordinate, weak roles does have counter-productive effects (“DID I“).¹²⁹

When women are consistently shown as sex objects rather than agents, consistently depicted in demeaning and degrading ways, and consistently shown as submissive, the result is to condone and support violence against women, coercion of women, and anti-woman attitudes. (Media Awareness Network “Issues Girls“)

The way relationships are presented to blossom from occurrences associated with violence in a great many games is questionable too. According to Sarkeesian, this reinforces the

¹²⁶ Cf. Forster 163 on oversexualisation of female bodies in *Dead or Alive*, or objectification in Graner Ray 2004, and Gecius 1997.

¹²⁷ E.g. In *Super Mario Bros*, Princess Peach is frequently pushed back and forth between Mario and Bowser (“DID II“).

¹²⁸ E.g. *My Hero* (1986), *Kung-Fu Master* (1984), *Haunted Castle* (1988), as identified by Sarkeesian in “DID I“.

¹²⁹ See also Dill on correlations between sexism in games and in reality.

widespread notion of women being more desirable in vulnerable and passive moments (“DID II“) and although there is no “monkey see, monkey do“ effect with the media we consume, cultural influence works in more “subtle ways“ (“DID II“). However, several empirical studies document that the consumption of media with violent content, digital games being no exception, increases the likelihood of aggressive behaviour in children as well as adults (Anderson und Bushman 2001 in Barlett & Anderson 228). Furthermore, media narratives of all kinds, including digital games, do shape our cultural beliefs and opinions. The reduction of women to sexual objects of desire¹³⁰, background decoration, or objects of possession¹³¹, “tends to reinforce the dominant gender paradigm which casts men as aggressive and demanding and frames women as subordinate and dependent“ (“DID II“).

Overall, female characters who die or suffer in digital games are not the main problem because dramatic storytelling requires this from time to time. Nevertheless, the way their deaths are framed is of importance (“DID II“). What is more, if male characters have to slaughter all their enemies in order to revenge the loss of their beloveds, their limited range of problem solving remains questionable too.

Since the early days of research on digital games and gender, there has been a common concern about “[v]iolent games without positive representations of women“ dominating the landscape of popular digital games as these serve as “means of socialization for young boys in our culture“ (Cassell & Jenkins *BMK* 10). In the US, every nine minutes a woman is insulted or threatened and more than three women are murdered by their partners every day. Male perpetrators “often state their victims deserved or wanted it“ (“WBD“) which again questions an overuse of tropes such as the “euthanized damsels“. Taking this into account, the downplaying of the one-sided portrayal of female characters in violent situations can be regarded as highly dubious.

¹³⁰ Seductive women, as Aphrodite in *God of War III* (2010), who lure the male protagonist into having sexual intercourse, for whatsoever reason, are rather the rule than the exception (Personal observation from gaming experience).

¹³¹ The female characters are taken from the protagonist *Shadows of the Damned* (2011); *The Darkness II* (2012) in “DID II“ as identified by Sarkeesian. From my own gaming experience, in a recent jump’n’run game *Limbo* (2010), the quest of the main protagonist is triggered off by the abduction of his sister.

4.2 Women involved in production processes of digital games

It is commonly assumed that if more women were involved in the production cycle of digital games, more games would be sold eventually as more females of varying age would be attracted to these games.¹³² And yet, the percentage of women who are part of these design and production processes of digital games has not increased as expected.

According to Terdiman, by 2005, with 88,5% of game designers being male, women were still underrepresented in the industry of digital games, particularly in the development departments. Ms. Fulton, ex-producer of Ion Storm's *Deus Ex*, is convinced that video games "are a man's world" (Hafner 2004).

In 2007, the Game Developers Association "estimated that just under 12 percent of the game workforce [was] made up of women" (Kalnig 2007). When Lucy Bradshaw, currently Senior Vice President of EA, was interviewed in the same year, she said that "[g]ames [were] redefining themselves" and "women [were] playing games [...] because computers [were] much more part of [their] lives" (Kalnig 2007). Despite Bradshaw's statement, Boomen criticised in 2009 that the percentage of women in the industry of digital games were not increasing and that even less women chose a career path in computer science-related fields (Boomen 2003).¹³³ Despite Boomen's claim, current US statistics draw a different picture as "[f]rom 2009 to 2014, the number of female developers in the game design industry has doubled" (Persky). Nevertheless, "it is still a largely male-dominated profession" as twenty-two per cent of developers are female (Persky).

So, assuming these sources are right, why are there less women than men working in the game industry? First of all, it is not the case that literally no women were working in the industry of digital games, but as Paula Fellbaum highlights, "traditionally, women in the video game industry tend to end up in administrative or art roles rather than in development or design" (Terdiman 2005). These above mentioned estimated ten per cent of women can rather be found in departments related to "customer service, marketing and quality assurance" than in those linked to development (Hafner 2004).

¹³² Cf. Terdimann 2005, Hafner 2004, Ritchie 2006.

¹³³ Presumably she refers to Dutch statistics?

Secondly, women in leading positions in the industry do exist¹³⁴, however, these are rare occurrences compared to how many influential men dominate the field and their mere existence does not imply public recognition. Recent findings suggest that adults in professions which do not correlate with their traditional gender roles inspire young people to contemplate alternative education and job opportunities. It follows that if children are hardly aware of role models occupying positions which challenge traditional understandings of gender roles, including women working in the gaming industry, it is less likely that they will consider future opportunities deviating from the well-known and traditional norm (APA “Gender...“).

In *Game Generations*, only two of forty-one developers and game pioneers are women, namely Jane Jenson (Magdans 118-119) and Jade Raymond (Magdans 152-157). Jenson is also mentioned in *Die Computer und Videospielmacher*, which presents over 1850 people involved in the computer and video game sector. Amongst this great number of people, I identified twenty-three women¹³⁵ related to the industry of computer and video games of which only two, Roberta Williams and Rebecca Heinemann¹³⁶, received their own bibliographical entry¹³⁷ in contrast to over 400 entries of influential men.¹³⁸ *The Ultimate History of Computer and Video Games* neither features Williams, nor Jenson, nor Raymond, nor other well-known and successful women developers, producers, and designers.

Thirdly, motivational factors are assumed to be the most influential reason for many women not entering the industry of digital games. One contributing factor to the previously mentioned gender gap in gaming experience as well as in the industry of digital games could be that many men apparently start off as gamers and later on turn their hobby into their job (Hafner 2004) – a theory supported by the fact that many famous people in the IT sector admitted to having been avid gamers before turning to programming (Wilhelm

¹³⁴ Cf. Gaudiosi 2014.

¹³⁵ Cf. Forster 2008: 1. Joanna Alexander 367 (independent developer); 2. Yael Barroz (developer) 263; 3. Naomi Bessen (marketing expert, founder of BEAM) 43; 4. Laura Buddine (co-founder of Tiger Media) 328; 5. Anne Brown (co-founder of Centregold) 66; 6. Danielle Bunten (born as a man, now a woman, research on girls’ games) 58; 7. Madeline Canepa (co-founder of Crystal Dynamics, ex-manager of Sega) 81; 8. Cathy Carlston (Brøderbund) 56; 9. Amy Chang (co-founder of Mikoishi) 211; 10. Jane Cavanagh (chairwoman of Eidos) 102; 11. Cathi Court (producer at Valkyrie Studios) 343f; 12. Amanda Dee (programmer at Origin) 286; 13. Shelley Day (co-founder of Cavedog) 64; 14. Elaine Ditton (co-founder of Incredible Technologies) 153; 15. Annie Fox (co-founder of first computer center worldwide) 117; 16. Alexis Galley 263; 17. Alexandra Gerb (sponsor) 290; 18. Sherry McKenna (co-founder of Oddworld Inhabitants) 235; 19. Veronica Megler (worked for Australian developer Melbourne House) 216; 20. Sylvia Schmitt (co-founder of Working Design) 360; 21. Anita Sinclair (co-founder of Magnetic Scrolls) 195; 22. Roberta Williams (*King’s Quest*) 356f; 23. Marcine Wolverson (precursor of video games) 210.

¹³⁶ Rebecca Heinemann is transgender and was born a man.

¹³⁷ I omitted some names irrelevant to the sector of digital games e.g. Ruth Handler, inventor of Barbie, the doll.

¹³⁸ To be more precise, all in all there are 410 entries.

“Zuckerberg“). Women who lack this experience in their adolescence do not consider a similar career path as without a “background of having done mods and hacking since [their] pre-teen[days]“ (Michael fs) as well as the prevalent notion of only-hardcore-gamers-are-welcome a great number of women seems to be deterred. Besides, acquiring sufficient knowledge of hacking is hard as female gamers are very likely to “get turned off by the behaviour of the men/boys playing, trying to get their attention“ (Michael ms).

Kalnig relates women’s underrepresentation to “the work practices of the industry“ which are hardly compatible with having a family (3)¹³⁹. Stories of women who state that they were in great demand until they strove for some private life are frequently to be found.¹⁴⁰ For this reason, people who want to combine a technological career with a functioning family life turn to other IT areas which are better paid at better conditions (Terdiman). Mia Consalvo shares Kalnig’s opinion as “efforts to increase women’s participation in the tech field (including game development) have typically ignored or denied the reality of the work environment (*BBMK* 178).

However, Jen Carlson, a programmer from Sierra Online, predicts that the game industry will become more women-friendly because the “more of those good employees are women, [the] more women-friendly policies will come around“ (Kalnig 3). Some also compare the situation to a “vicious cycle“ because a “lack of women in the industry makes it hard to recruit women“(Michael fs). Similar to how technology-related fields are presented in our culture, “the way schools recruit for video game courses is male centric [sic]“ too (Michael fs).

It is commonly believed that a change of the current situation will only occur the moment more women choose a career in the industry as then perhaps “the prohibitive stereotypes will simply fall away“ (Ritchie 3). Some also opt for a better working atmosphere at the gaming companies and call for more user-friendly and intuitive interfaces which might attract females to gaming. Closely connected to this thought is also the argument that games should, apart from their ‘normal’ version, provide one with a less violent game play as well (Hafner 2004).¹⁴¹

According to an analysis of popular computer games regarding violent content conducted by Smith et al. (2003), violence is explicitly positively portrayed and morally justified whereas

¹³⁹ Cf. Consalvo 182-183 on work load and extensive working hours.

¹⁴⁰ Cf. Michael.

¹⁴¹ E.g. *Deus Ex* (Hafner 2004).

victims are marginalised (Klimmt 69). As many popular games belong to the FPS genre, this might not be surprising due to the fact that shooting requires a positive attitude towards ammunition to some extent. Nevertheless, the fact that successful games tend to feature a stereotypical portrayal of female characters, be they victimized or not, has to be critically examined (Klimmt 69).

However, some critics do not regard games without violent content as a major improvement. If we believe Sarkeesian, it is not the case that women are appalled by violence, but the frequent employment of depicting women in situations of violence has rebound effects on our culture. Perhaps, instead of repeatedly drawing on stereotypical motifs and ways of problem solving, diverse design teams will develop games which address these issues in a more balanced way. Thus, “widening the range of people who make games“ can be regarded as a key element to evoke change in “existing social norms in game-related social practices“ (Pelletier *BBMK* 158). What is more, diversity in the development will lead to creation of better games as well (Terdiman; Consalvo 177).¹⁴²

If more women worked in the industry and more varied games were produced which could attract more women to the industry as well, the gender gap could eventually be closed (Hafner 2004).¹⁴³ In order to achieve this state, it seems necessary to abandon attempts of developing “one game that will appeal to all women“ and to internalize that girls and women “are not a single mind“ and “not a single genre“ but “a large, diversified audience with a wide variety of tastes, interests, and needs in entertainment“ (Graner Ray in “Wanted: Female Video Game Developers“ 2).¹⁴⁴

4.3 Girl gamers

Recapitulating what has been discussed so far, it is hardly surprising that girls and women could be easily appalled by the world of digital games. Word combinations containing the term *girl* still seem to evoke negative associations in Western cultures, the expression *girl*

¹⁴² Cf. also Michael 2005 “one-dimensional games“ without female design staff.

¹⁴³ See also WIGI (Women in Games International) which “promotes diversity in video game development, publishing, media, education and workplaces, based on a fundamental belief that increased equality and camaraderie among genders can make global impacts for superior products, more consumer enjoyment and a stronger gaming industry“ retrieved from <http://www.womeningamesinternational.org/index.html>.

¹⁴⁴ See also Kerr 93 on women as part of the industry.

gamer being no exception.¹⁴⁵ Similar to the term *girl games*, which appears to be an opposite of *games*, the term *girl gamer* is also negatively connoted to some extent. The notion of girls being somehow inept players is sometimes even incorporated in the games themselves. For example in *Legend of Zelda – Ocarina of Time* from 1998, the player is challenged as follows “Willst thou get the girl or play like one?” (*The Legend of Zelda – Ocarina of Time* 1998 qtd. in “DID I”).

So, who exactly is a *girl gamer*? In general, a *girl gamer* is a female who plays digital games on a regular basis. As several definitions are available, a basic one is perhaps the most appropriate one to work with. However, playing on a regular basis, is a rather vague definition to indicate a certain frequency. The same is true for the terms *girl* and *female* as they refer to a large and diversified group of individuals. This is perhaps the most important reason why some researchers, for instance Graner Ray, emphasise that “[t]here is no definition of a female gamer, and trying to tack a label to them does a disservice. The female gamer is simply a female who plays games. She's just as diverse as any other market out there” (Kelly).

Contrary to Graner Ray’s opinion, user-based online dictionaries include entries on *girl gamer*.¹⁴⁶ The Urban Dictionary, for example, offers several slightly differing interpretations of this term and lists the following entries under the umbrella term ‘Girl Gamer’¹⁴⁷. One entry describes a *girl gamer* as “the chick that goes on voice chat on Halo, Call of Duty etc. to act all ditzzy[sic] and flirty” (Chaotic Good Half Elf Mage). The same author defines *girl gamer* as a “girl who plays games [and] will play like any ordinary male gamer” who “enjoys every genre of game under the sun” and “is not necessarily ugly” (Chaotic Good Half Elf Mage). The user Necronner characterizes *girl gamers* as females who play “as much videogames [sic] as a Gamer [sic]” and emphasises that the common belief of *girl gamers* having bad looks “is more a stereotype than anything else”. According to this definition, *girl gamers* “are a rare species” who [play] any kind of games “whether they be board, Pen & Paper RPGs, or Collectible Card Games [sic]” (Necronner). Simplistic definitions that define “girl gamer [as a] casual or hardcore gamer who is a girl” (GrimReaper476) can also be found. Another entry describes a *girl gamer* as a “girl who plays games” on various devices and is someone who has a “normal social life, a lot of friends, and a good sense of fashion” (Gamegirl_nw). The entry by NoWaiJose differentiates between *girl gamer* and *Gamer girl*, accusing the latter of

¹⁴⁵ Cf. advertisement for hygiene product “Always #Like a Girl”.

¹⁴⁶ Though not classic ones like the *Oxford English Dictionary*.

¹⁴⁷ The exact term used in each entry can be found in the bibliographical references.

only gaming for attention. In this user's view, *girl gamer* refers to "female gamers who play video games out of genuine love and entertainment" whereas *Gamer girl* is attributed to those "who enter the gaming world to express the fact that they are simultaneously females and gamers" (NoWaiJose). Other definitions include "the female version of the ultimate Gamer" (sambammxo [sic]). User Iridosmine's description seems to be the most comprehensive one, relating *girl gamer* to "a female gamer who enjoys playing games and regularly does so" (Iridosmine) In this user's definition it is not important whether they are casual or hardcore gamers, neither is a specific genre preference or proficiency in diverse games necessary to be included.

Apart from user-generated definitions, attempts of finding a comprehensive, functioning definition of *girl gamer* or *girl games* were strived for on an official, organised level as well. For example, the term *grrrlgames* instead of *girl games* was promoted as using the terms *girl* and *game* in an online search engine resulted in various obscene sites. Both terms were used contemporaneously "[and only l]ater the terms diluted when more girls were getting into gaming" and when it was feared that parallel usage would probably "further dualities" (Kangas).¹⁴⁸

Apart from problems concerning a comprehensive definition of who is to be included under the umbrella term *girl gamer*, female players are exposed to several severe problems, among them sexual harassment to name just one. Being reduced to their sexual body is a problem many women still have to face in their everyday lives, digital gaming included. For that reason, several "[g]irl gamers may also pretend to be male in order to avoid comments about their gender while gaming, which can make girl gamers seem even rarer" (Iridosmine).

Nevertheless some girl gamers neither want to hide their gender, nor do they want to accept sexist comments without consequences for the perpetrators. Instead they seek to raise awareness about the issue of harassment in digital games, and in particular online-games. Jenny Haniver, a girl gamer and passionate player of the *Call of Duty* series and founder of the website *Not in the Kitchen Anymore* "documents and examines her experiences as a female gamer through a collection of transcribed audio clips recorded" during online gaming sessions (Haniver "About"). On this page she offers a collection of "dated, hostile, and

¹⁴⁸ "Developers discussed if [*girl games*] would be an opposite of [*normal games*]. Is it a division between good and bad design or inept gamers (later the term casual gamer has sometimes been used with similar meaning) vs. hardcore gamers[?]" (Kangas 7).

downright weird reactions men (and the occasional woman) display upon meeting women in-game“ (Haniver “About“).

Perhaps unknown to the general public, despite playing digital games as a leisure activity some people game for a living in professional teams. Most of these teams are male-dominated, nevertheless there are high-ranked female gamers and even some all-female gaming teams (Levy). One of the most popular and often cited all-female professional gaming teams¹⁴⁹, Ubisoft’s Frag Dolls, was retired by May 2015.¹⁵⁰ According to Morgan Romine, cultural anthropologist and ex-team captain of the Frag Dolls, the “world of video games has evolved“ and people are no longer surprised that girls play digital games too. She reports that although “gender equity“ has not been reached yet, the numbers are rising. Nevertheless, she admits that “among the most popular AAA games“ female players are still underrepresented (Romine).

4.4 Controversial reactions to female participation in digital gaming

In general, discussing digital games and their relations to gender is a highly emotional issue, and several researchers have been attacked for “not having [...] facts right and not being [real gamers]“ (Jenkins & Cassell *BBMK* 11). In some cases the mere analysis itself even has unleashed a certain readiness in many gamers to use violence. Challenging the passive portrayal of women in digital games, Sarkeesian’s feminist analysis has received great public attention and has been appreciated by academia. However, many responses on YouTube draw a different picture. In fact, Sarkeesian had to deactivate the comment function on her YouTube account due to assaults, rape threats, and derogative, insulting and abusive comments. But this is only the tip of the iceberg as “[b]omb threats for her public talks“ as well as “death and rape threats from opponents of her recent work“ (Wingfield) have almost become routine. In Sarkeesian’s opinion she has been attacked by those who “feel like their cultural domain is being invaded by evil feminist interlopers [...] who suggest that games can be more diverse and inclusive“ (Katz).

Other unconventional thinkers, among these two young female developers, Zoe Quinn and Brianna Wu, have also been exposed to rape and death threats for their cause (Stuart).

¹⁴⁹ Cf. Ritchie 2.

¹⁵⁰ If we believe rumours in gaming forums, possibly for financial reasons.

Though Sarkeesian is not the only one who experienced assault, “[t]he threats against [her] are the most noxious example of a weekslong campaign to discredit or intimidate outspoken critics of the male-dominated gaming industry and its culture“ (Wingfield). This campaign started in August 2014, when Zoe Quinn, developer of award-winning *Depression Quest*, became object to her ex-boyfriend’s wrath who tried to discredit her professional reputation using social media on the internet. This personally motivated revenge campaign was seized on and continued by those who despised a critical discussion of video games as they assumed a greater conspiracy behind the cultural analysis of digital games. Having perceived it as a movement against those “who want to see more diversity in gaming [...] at the expense of quality“ (Stuart), the opponents started using the hashtag #GamerGate.¹⁵¹ Due to anonymity on the Internet, this movement became more organised and transformed into the above mentioned anti-feminist movement of worrying levels (Stuart). In Sarkeesian’s opinion, the still existing notion of digital games being part of a “male-centered (and hetero-normative) culture“ highlights the need of “conscious, very deliberate efforts“ of reflecting on how “to stop perpetuating sexism in the design and advertising of games“ (Katz).

Numerous incidents of sexual harassment led to the documentary *GTFO*¹⁵² in 2015. Video game developers, journalists, and academics discuss the problem of sexual harassment in games, also seeking to explain the “human motivation behind [these] acts of harassment“ (*GTFO* 2015). The women who talk about their personal experience decided to go public in order to raise sensitivity towards this issue. Their cases are not isolated at all but have unfortunately become a very common cultural phenomenon in gaming. It appears that many female gamers only have two choices: either they quietly tolerate being harassed or insulted or they choose to share their experiences publicly in the media in which case the harassment continues on an even larger scale.

The game designer Courtney Stanton, for example, received rape and death threats because she had asked a publisher for a change in a game’s merchandise in 2010. When her name got public, her blog, which used to get ten clicks a day, suddenly received 20 000 a day and she is still being harassed, five years later, for her suggestion, though on a minor scale.¹⁵³

¹⁵¹ Therefore, the term Gamergate controversy is commonly used when referring to the movement and the above mentioned incidents.

¹⁵² A slang expression for ‘get the fuck out’

¹⁵³ In online gaming the term *rape* is often used metaphorically, referring to the complete destruction of an opponent. Cf. also Courtney Stanton in *GTFO*.

Jennifer Brandes Hepler, a former senior writer at BioWare, received up to 500 threats a day due to the article “The cancer that is killing BioWare“. Fans of the *Dragon Age* series did not appreciate that she introduced diversity in form of gay romance scenes into the game.

There are many possible explanations for sexual harassment in digital gaming. Haniver links it to the one-sided portrayal of women characters in games which appears to confuse some gamers when they encounter a woman gamer. Additionally, for almost three decades, male-centred marketing and also the games themselves conveyed a message of ‘boys and men only’ which led to a sense of male ownership of digital games within Western cultures (Jennifer Brandes Hepler, Sarkeesian in *GFTO*).

4.5 Gender gap in digital gaming

Over the last twenty years, many game researchers and educational theorists have observed a gender gap in game involvement in the Western world. Apart from statistical data collected by gaming associations or official institutions, also minor studies conducted by individuals offer significant insights.

According to an American study conducted by the research group IDC by order of the *Entertainment Software Association*, 62% of players of computer games were male in 2008. (Entertainment Software Association, March 2008). As far as Canada is concerned, the gap between male and female gamers was slightly larger. Based on the findings of a study by the Canada-based *Media Awareness Network*, only about 30% of gamers were female.¹⁵⁴ Nevertheless, Latoya Peterson, a feminist media expert¹⁵⁵, already predicted in 2008 that the numbers of female gamers would rise in the future (Peterson 2008).

German research shows a similar distribution. The results of two German studies from 2005, concerning video game involvement of six- to thirteen-year-olds and twelve- to nineteen-year-olds, implied there was still a considerable gap. Hartmann and Klimmt, who were in charge of these studies, observed that male interest in video game involvement was two or three times as high as that of females (Hartmann & Klimmt 2006).

¹⁵⁴ Cf. special issues for girls <http://www.media-awareness.ca/english/parents/video_games/issues_girls_videogames.cfm>.

¹⁵⁵ Forbes Magazine lists her amongst the most influential people in media in 2013. For more information on her work and contributions, see <<http://latoyapeterson.com/about/>>.

What is more, Italian research from the late 2000s also reported significant differences in game involvement. In a study from 2008, which investigated various aspects of Italian children and teenagers' lives, the usage of technical devices was of interest too. It was observed that by the year 2008, 18,7 % of the three- to five-year-old boys played video games in contrast to girls of the same age group with only 9,5%. Between the age of six to ten the percentage of video gamers rose up to 70,4 % of boys and 39,9% of girls.¹⁵⁶

As predicted and hoped by many, the number of female gamers had already risen by the beginning of the new decade. According to a study by the *Entertainment Software Association*, the percentage of female gamers increased in comparison to 2008 in the U.S., resulting in 48% female gamers and 52% male gamers in 2014. As far as the purchase of games is concerned, both genders were equally represented.¹⁵⁷

The *Entertainment Software Association of Canada* lists similar results: according to their report of 2014, 48% of Canadian gamers are female.¹⁵⁸ Unlike the American report, the Canadian one also includes information on preferences concerning genre in relation to age and gender. This allows interesting insights and assumptions of possible likes and dislikes. For example, a significant percentage (45%) of six- to twelve-year-old girls play kid role playing games, whereas 56% of boys of the same age group rather play action or adventure games. Arcade games are the most popular computer games for female teenagers from eleven to seventeen years. Nevertheless the figures slightly drop, as only 27% play these games. By contrast, 53% of boys of the same age group play shooter games of various types. The proportion of female gamers increases again from the age of eighteen to thirty-four to 40% of women who number education games, puzzle or word games and games that challenge mental ability among their game repertory whereas 42% of men of the same age group state to play role-playing games.¹⁵⁹

German as well as Italian statistics show a similar trend. According to the *BIU*, the percentage of female gamers in Germany had risen by 12% in comparison to 2013, with 47% of gamers being female at the beginning of 2014.¹⁶⁰ Italian research from 2011 described a significant

¹⁵⁶ Cf. official statistics: http://www.istat.it/salastampa/comunicati/non_calendario/20081117_00/

¹⁵⁷ Cf. <http://www.theesa.com/wp-content/uploads/2014/10/ESA_EF_2014.pdf>.

¹⁵⁸ In this report a gamer is defined as "someone who has played a computer or video game in the past 4 weeks".

¹⁵⁹ See <http://theesa.ca/wp-content/uploads/2014/11/ESAC-Essential-Facts-2014.pdf>

¹⁶⁰ Survey with 25.000 participants conducted by GfK institute in Germany.

rise of female players over the last decade too. According to AESVI¹⁶¹, an association of Italian video game developers and publishers, the female percentage of gamers had risen up to 48% within the sixteen- to sixty-four-year-olds by 2011.

Apart from the following studies, no comparable official data were available for Austria. The official institute for statistics provides research on general media behaviour or preferences in freetime activities. However, the gathered data do not include specific information about gender differences concerning digital games. In Dominik Batthyány's study from 2009, a thousand Austrian pupils were interviewed about their gaming behaviour. Twelve percent could be classified as pathological players who displayed addiction-like behaviour, with only one third of them being female.

In 2013, another survey on media behaviour of children conducted in Upper Austria, where adolescents from 11-18 years, parents and pedagogical staff from Upper Austria were interviewed, reported similar findings to Batthyány's: It was observed that computer games are the most important freetime activity for boys, whereas family and friends are more important for girls. As can be seen in Fig. 7, when ranking their genre preferences in descending order, apart from one match¹⁶² no similarities could be observed between genre preferences of boys and girls.

¹⁶¹ For more information, visit <http://www.aesvi.it/>.

¹⁶² The genre 'Adventure' reached fifth place with both genders in this study.

5 Questionnaire

As previously mentioned, empirical studies on digital gaming in a gendered context are rare and Austrian data regarding this issue are even harder to locate. Therefore, and in order to gain new insights about an assumed gender gap in digital gaming, I conducted a survey at an Austrian grammar school. An additional aim was to assess if statements introduced in the theoretical part of this paper could be confirmed. Therefore my research questions include the following¹⁶³:

Firstly, linked to chapter 4.5 and covered by the questions 10, 11, and 12 in the questionnaire, do participants of both genders play digital games and if so, how much time do they spend while doing so?

Secondly, with reference to chapter 2.5.1 and covered by question 14 as well as loosely covered by question 15, is digital gaming equally important for boys and girls to be accepted in their peer groups?

Thirdly, covered by the questions 4, 5, 6, and 7, and with reference to chapter 2.5.2, do girls and boys have different access to computers and gaming devices?

Fourthly, referring to chapter 2.5.1 and covered by question 24, do girls and boys perceive gaming as a gendered activity?

Fifthly, linked to chapter 2.4 and covered by question 27, how do boys and girls assess gaming proficiency in a gendered context?¹⁶⁴

Sixthly, with reference to chapter 2.5.3 and covered by questions 19 and 20, can significant genre or device preferences concerning a particular gender be observed?

Seventhly, do the participants feel addressed by current games?

Finally, is there a correlation between an affinity to gaming and a possible technology-related career in the future?

¹⁶³ But they are not exclusively limited to them.

¹⁶⁴ See also Pelletier *BBMK* 2008.

A quantitative descriptive research methodology¹⁶⁵ was chosen and a paper-pencil questionnaire was administered to students at the BG & BRG 3, Boerhaavegasse 15, 1030 Vienna at the end of June in 2011. Permission of the Vienna Board of Education as well as parental permission of all participants was obtained beforehand. First-formers were handed the questionnaire in German whereas the ones from the second to seventh form obtained the English version in the course of their English lessons.

The questionnaire, of which a full version is included in the appendix, consists of twenty-eight questions. It starts with questions concerning biographical background and proceeds with more specific ones related to digital gaming. Furthermore, the genre classifications used in question 20 are a combination of Herz and Poole's mentioned in chapter 2.2 but with minor modifications and additions.

All in all, eight classes participated in the survey, five lower grades and three upper ones. The questionnaire was completed by 166 participants, 55 boys and 111 girls. If necessary, contradicting or missing data will be indicated in the following descriptions.

The programme SPSS was used to evaluate the questionnaire. The Pearson correlation coefficient was adopted to see correlations between the variables. Contingency tables were chosen as a form of representation. Despite the overall descriptions of the tables being in German¹⁶⁶, all variables are in English.

The questions from the former page are dealt with in chronological order and an evaluation of the gathered data shows the following results:

Almost all of the male participants, that is 98,1%, played digital games whereas less than two thirds of the female participants, to be exact 60,2%, admitted doing so.¹⁶⁷ Thus, although a considerable percentage of girls were interested in digital games, a gap could still be observed.

According to Durkin, digital gaming is, particularly for boys, an important peer interest which has to be shared in order to be accepted by their peers (Durkin 2006 in Heeter, et al in *BBMK*

¹⁶⁵ Overall, the questions were designed particularly with regard to Andreas Diekmann's *Empirische Sozialforschung* in order to avoid common mistakes in questionnaire design.

¹⁶⁶ Due to the overall complexity of the programme, the language was not changed in the basic settings.

182) However, over 90% of male as well as female participants regarded gaming as an activity unimportant for their peers.¹⁶⁸

The proposition that girls are less likely to be equipped with their own computers could not be confirmed. As far as access to their own computer is concerned, no differences could be observed as 67% of the girls and 60% of the boys had their own computers at home. Unfortunately questions 4b and 4c were rendered invalid because most of the participants gave contradictory answers due to comprehension problems. Therefore, no conclusions could be drawn whether parents displayed a different attitude towards equipping their male or female offspring with their own computers.

As mentioned in the theoretical part of this thesis, several findings suggest that gaming is still perceived as belonging to the male domain. The answers to question 24 offer no distinct results as only a slight majority of two thirds of the female participants (63,2 %) perceived digital gaming as a domain occupied by both genders. This is in contrast to the answers of the male participants of which 41,5% regard gaming as a male activity. The results are clear in so far as neither boys nor girls perceive gaming appertained to the female domain.¹⁶⁹

The notion of boys and men being more apt gamers is still present due to several reasons. As mentioned in the theoretical part, on average girls and boys display a different gaming experience as “boys play digital games for more hours per week than girls do at every age studied“ (Caywood and Heeter 2006 in Heeter & Winn BBMK 183). With reference to the participants’ assessment of gaming competency, a proportion of 1:1 and 1:2 could be observed, with male and female participants respectively, as 50,9% of the boys and 67,9% of the girls believed that boys and girls were equally good at playing digital games. Unfortunately, no clear conclusions could be drawn from the questions 27b or 27c as a significant proportion of those who believed boys and girls to be equally capable answered these questions as well. Nevertheless, regardless of this fact, a clear majority of boys assessed their skills as being better. Boys thought training or natural skills to be equally responsible for their competency whereas the majority of girls appeared to agree on training being responsible for the boys proficiency.¹⁷⁰

¹⁶⁸ See Table 2.

¹⁶⁹ See Appendix, Table 4.

¹⁷⁰ See Appendix, Table 5, 6, and 7.

First of all, as far as genre or device preferences are concerned many participants, particularly the female ones, had comprehension problems and chose more than one genre rendering a considerable amount of forms invalid. However, with reference to the valid ones, the three most popular game genres with the female participants include, in descending order, simulation games, action or adventure games, and music and party games, each with 30%, 26% and 18% respectively. This forms a stark contrast to the male rating as with 35,6 % about a third of the male participants named shooters as their favourite genre whereas none of the girls (at least as far as the valid forms are regarded) chose this genre. The second most popular game genre were sports games with 20,0%, followed by fighting games with 15,6%.

¹⁷¹

Only a minority of 11,8% of the female participants felt addressed by current games, in contrast to the male ones, where more than half of the participants, 51,9% to be exact, admitted doing so. However, when considering the results of the positive variables, i.e. ‘yes’ and ‘partly’, a substantial majority of the girls and almost all of the boys claimed to feel addressed by current games, with 72,4% and 92,6% respectively. This can possibly be linked to male-centred marketing.¹⁷²

Overall, a slight majority of (65 of 108) girls who played digital games expected their future career to be related to technology. This is in clear contrast to those of boy gamers, as almost all of the male participants imagined their professional future in a sector related to technology. Grouping the positive variables ‘yes’, ‘definitely’ and ‘quite likely’ together, only 38,5% of the boys who admitted playing digital games assumed that their future career would be technology-related. On the other hand, only 5,5% of the girls who played digital games envisioned their future jobs to be technology-related.¹⁷³

Of course, the questionnaire would have allowed more possible correlations. However, as these questionnaire is not the main focus of this thesis and despite not being representative for the whole Austrian population, its evaluation could confirm some of the formerly mentioned hypotheses or propositions of the theoretical part.

¹⁷¹ See Appendix, Table 8.

¹⁷² See Appendix, Table 9.

¹⁷³ See Appendix, Table 1. Only the answers 1 (yes, definitely) and 2 (quite likely) are taken into account here.

6 Conclusion

The overall absence of universal definitions regarding important key terms in the context of gender and gaming as well as the usage of diverse terms for referring to the same digital games, rendered establishing a status quo difficult. What is more, different and sometimes even contradictory approaches and the repetitive reference to the same sources did not facilitate the research process. As far as key terminology is concerned, it has been shown that currently no universal definition of *gender*, applicable in all circumstances and scientific fields, exists due to the complexity and diversity of women and men, and in general, humankind. Three concepts remain highly useful, however. First, a basic differentiation between biological *sex* and culturally acquired *gender*, secondly, Butler's concept of *gender* being performative, and thirdly Brunner's proposal of *femme* and *butch* sensibilities to explain gender-related propensities in gaming.

Similar to the confusing discourse of *gender*, there is also some dissent on the issue of how to approach digital games most effectively, as shown in chapter 2.2. Despite their analyses from diverse perspectives, the position of digital games in pop culture is indisputable, and widely accepted. Based on Huizinga's notion of the essentiality of games and play for the evolvement of human culture, and operating on Wagner's notion of digital games as cultural texts and part of pop culture, digital games inhabit an essential part of human culture. As far as cultural influence is concerned, digital games do not only mirror the norms of the respective society they are produced in, but also create and reinforce them. Recent events such as the #Gamergate controversy once again place emphasis on the importance of a critical examination of stereotypical contents in digital games. A comparison of common genre classifications of digital games showed that findings on female propensities towards certain game genres have to be treated with caution, as these genre arrangements can vary to a great extent.

The question if girls and women still show a different attitude towards gaming than boys or men cannot be easily answered either. As there is no linear evolvement of games for women and girls as such, instead of creating a chronological, linear path of events, important milestones were presented in this context. Finding an answer to what digital games for women and girls exactly are, proved to be a challenge as well. As far as 'the' approach or 'the' game that unifies interests of the female gender is concerned, there has been no scientific breakthrough so far. Academia commonly agrees on the non-existence of women and girls as

a collective whole, which suggests a variety of female gamer personalities that cannot be addressed by one game. “[G]irls and women are dealing with multiple conflicting subjectivities that are far from simple to delineate and define“ (Arthurs & Zacharias 105), directs the attention once more to Brunner’s *butch* and *femme* ways of approaching both, technology and digital games. Reflecting on the diverse positions in the chapters 2.4 and 2.5, I her approach offers the best solution to explain different ways of thinking and certain preferences in gaming.

All of the approaches discussed in chapter 3.2. have their advantages and disadvantages and the ongoing discussions on identifying ‘the’ approach have not been resolved yet. Furthermore, controversial questions whether it is “good or bad to reflect social realities of most girls’ lives“ (Laurel *BBMK* 26), or if genderless characters or contents provide an adequate solution could neither be proven nor disproven. Nevertheless, I assume that offering feminised digital games might be worth the effort as perhaps those girls or women in need of technological skills might only then be attracted. I completely agree with Jenkins and Cassell that those girls and women offended by overtly girlish or only-girls games would be interested in technology either way (*BBMK* 9).

Furthermore, as there seems to be “no simple answer to “what girls like to play“ or “how girls play“ (Interview Mia Consalvo in Arthurs & Zacharias 104), identifying reasons for preferences in the context of digital gaming remains somehow unsatisfactory. For instance, the call for more quality in gaming does not offer solid arguments to what exactly has to be changed. After having analysed the data on female propensities and possible deterrent factors presented in the chapters 2.3., 2.4., 2.5., and 2.6., I regard Nofziger’s recent findings to explain female convergence in participation in digital gaming as an essential enrichment to the discourse.

Despite the above mentioned disagreement on several issues in this context, academia appears to be united as far as female underrepresentation in the real and virtual world of digital games is concerned. In short, with reference to current statistics female gamers are gaining ground but the field of digital gaming is still male-dominated. The public perception of digital gaming as belonging to the male domain appears to have remained the same as this notion emerged in diverse settings and was therefore discussed in several chapters. The overall female participation has risen, reaching almost parity with the male one in Western countries. Yet, this rise in engagement neither closed the gender gap, nor increased female participation

in the industry of digital games. As illustrated by Sarkeesian, the landscape of digital gaming has changed, as for example more playable, sensible female characters have been designed. Nevertheless, a great number of gaming narratives still presents women in archaic, stereotypical and subordinate roles. What is more, examples from my personal experience correspond well with recent publications on the situation of women in gaming as, particularly due to the Gamergate controversy, the frequently observed sexual harassment of female gamers has gained public attention.

Digital gaming as an easy lead into technology was one of the fundamental pre-assumptions of this thesis. Thus, I had hoped to find proof or at least locate recent findings which verify that greater involvement in gaming indeed leads to greater female participation in technologically oriented areas. Yet, although the percentage of female gamers has risen, I could not detect recent empirical research which indeed proved that the rise of female gamers was correlated to a rise in technology and science, apart from Gee and Hayes' one. Despite Boomen's statement that "[g]irls might be playing and tinkering around more with computers, but this is not converted into computer job participation" (Boomen 203), the proposition of game involvement leading to greater female engagement in technology-related fields could not be disproven either.

However, though not being representative for the Austrian population, the results of my questionnaire, give at least some ideas. The percentage of female gamers was considerably smaller than that of the boys. Overall, boys and girls assessed male proficiency in gaming as higher than the female one, although for different reasons. Digital gaming might not lead straight to deeper technological engagement, however, it appears to reduce mutual reservations, as those girls who played digital games were unsure about a possible technology-related future, whereas the ones who did not play games were definitely sure about not embracing a technological career in their future (In how far their assumptions proved to be true, remains unanswered here).

First of all, considering the precarious situation of contemporary empirical research on digital games as an easy-lead into technology, the need of further empirical research becomes evident. In order to facilitate future research, I suggest the establishment of databases, or catalogues containing the core texts with information on their underlying principles, perspectives, classifications, and terminology. Additionally, it would be useful to expand and match various research questions used by many gaming associations as well as by statistical

agencies in order to gain comparable and relatable results. Finally, detailed research containing more gender parameters is needed so as to identify gender trends in digital gaming.

With reference to my own research, a possible follow-up project could include a more detailed evaluation of my questionnaire or a rerun of it at an Austrian school as both of these suggestions might offer interesting insights.

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9 Appendix

9.1 Images, figures and tables

Fig. 1 Genre comparison

Herz (1997)	Poole (2000) ¹⁷⁴	Examples of Herz and Poole's classifications in Kerr	BIU	USK	Examples USK	PEGI	Examples PEGI
1. Action	1. Shoot'em ups	<i>Spacewar, Half-Life, Doom, Quake, Counter Strike</i>	1. Action-Adventure	1. Action-Adventure	<i>Tomb Raider, Assassin's Creed, Prince of Persia</i>	1. Action Adventure	<i>Tomb Raider, Super Smash Bros.; Call of Duty: Advanced Warfare; Mortal Kombat, Prince of Persia</i> - all of them only labelled with 'Action'
			2. Shooter games	2. Shooter games	<i>Call of Duty: Advanced Warfare, Halo 3, Counter Strike</i>	2. Shoot'em Up (sic)	No sample game featured in the PEGI database.
	2. Racing Games	<i>Gran Turismo, Project Gotham Racing</i>				3. Racer	<i>Gran Turismo, Burnout</i>
2. Fighting	3. Beat'em ups	<i>Tekken, Mortal Kombat</i>					
3. Sport	4. Sport	<i>Pong, NBA Inside Down, Tiger Woods Golf, Pro Evolution Soccer, Jonah Lomu Rugby</i>	3. Sports games	3. Sports games	<i>Gran Turismo</i>	4. Sports	<i>Tiger Woods Golf, Pro Evolution Soccer</i>
4. Puzzle	5. Puzzle	<i>Tetris</i>	4. Brain Teaser	4. Brain Teaser	<i>Tetris</i>	5. Puzzle	<i>Tetris, Zoo Keeper</i>
5. Adventure	6. Platform	<i>Legend of Zelda, Tomb Raider, Donkey Kong, Prince of Persia, Mario</i>	5. Classical Adventure	5. Classical Adventure		6. Adventure	<i>Monkey Island, Broken Sword, Legend of Zelda: Ocarina of Time, Assassin's Creed, Counter Strike</i>
						7. Platform/Platformer	<i>Super Mario</i>
6. Role Playing	7. Role playing	<i>Ultima Online, Legend of Zelda: Ocarina</i>	6. Role Playing Game	6. Role Playing Game ¹⁷⁵	<i>Final Fantasy</i> (action-	8. RPG	<i>Final Fantasy</i>

¹⁷⁴ Cf. Kerr 40 (for both Herz and Poole).

		<i>of Time, Shenmue</i>			oriented RPG)		
					Online RPG	9. MMO	<i>World of Warcraft</i>
7. Simulation	8. God Games	<i>Flight Simulator, SimEarth, Theme Hospital, Roller Coaster Tycoon</i>	7. Simulation	7. Simulation	Sims 1,2,3,4	10. Sims	Microsoft <i>Flight Simulator</i>
8.Strategy	9. Real time strategy games	<i>Civilization, Age of Empires, Command and Conquer</i>	8. Strategy	8. Strategy	<i>Command and Conquer</i>	11. Strategy	<i>Command and Conquer, Total War</i>
			9. Arcade	9. Arcade ¹⁷⁶	<i>Singstar</i> (Arcade/ Music)	12. Rhythm-Dance	<i>Singstar</i>
					<i>Super Smash Bros., Tekken, and Mortal Kombat</i> (Arcade/ Beat-em Up [sic])		
			10. Jump'n'Run	10. Jump'n'Run	<i>Donkey Kong</i>	Classified as ‘Other’: <i>Tekken</i>	
			11. Children/Creative	11. Children/Creative			
			12. Management	12. Management			
				13. Lifestyle	Sophies Freunde		
			13. Serious games				
			14. Board and Card games	14. Board and Card games			
			15. Genremix	15. Genremix			
Herz (1997)	Poole (2000)	Examples of Herz and Poole’s classifications in Kerr	BIU	USK	Examples USK	PEGI	Examples PEGI

This table, which serves to visualise the differences and similarities in the formerly mentioned genre arrangements, was created by myself. Titles in bold indicate multiple entries in the table. As release dates of games were not necessary for the purpose of this table, they were omitted due to space constraints.

¹⁷⁵ Further subdivided into turn-based role-playing game, action-oriented role-playing game, online role-playing game (MMORPG).

¹⁷⁶ Further subdivided into arcade racer, arcade – beat'em up, arcade shoot'em up, arcade music, arcade game of skill.

	USK	PEGI
Call of Duty: Advanced Warfare	Shooter/ Ego	Action
Madden NFL 15	Sports	Sports
Destiny	Shooter/ Ego	Action
GrandTheft Auto V	Genremix	Action
Minecraft	Genremix	Adventure
Super Smash Bros. (for Nintendo 3DS and Wii U)	Arcade/ Beat'em Up	Action
NBA 2K15	no rating available	Sports
Watch Dogs	(Dedsec edition) genremix	Adventure
Fifa 15	Sports	Sports
Call of Duty: Ghosts	Shooter/ Ego	Action

Fig. 2 Forbes' list of most popular games

2014. This list refers to sales numbers from the US.

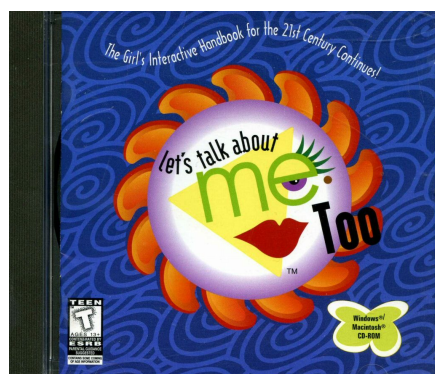


Fig. 3 Cover of *Let's Talk about Me*. Retrieved from <http://www.museumofplay.org/online-collections/22/66/109.11996>> 20 June 2015.



Fig. 5 Eye Toy: *Play Pom Pom Party*. Retrieved from <http://at.playstation.com/ps2/games/detail/item103260/EyeToyTM-Play-PomPom-Party/>> 20 June 2015.

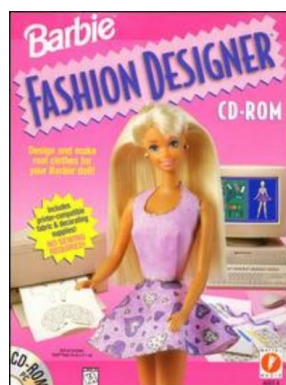


Fig. 4 Barbie *Fashion Designer*. Retrieved from <http://www.amazon.de/EyeToy-PomPom-Party-inkl-PomPoms/dp/B001F513RS>> 20 June 2015.



Fig. 6 Eye Toy: *Play Hero*. Retrieved from <http://at.playstation.com/ps2/games/detail/item103271/EyeToyTM-Play-Hero/>> 20 June 2015

Nutzung verschiedener Spiele

➊ Jungs bevorzugen Action-, Sport- und Rennspiele, Mädchen Geschicklichkeits- und Denkspiele!

Man spielt am liebsten -

Basis: Jugendliche, die Computerspiele spielen, 74%=100%

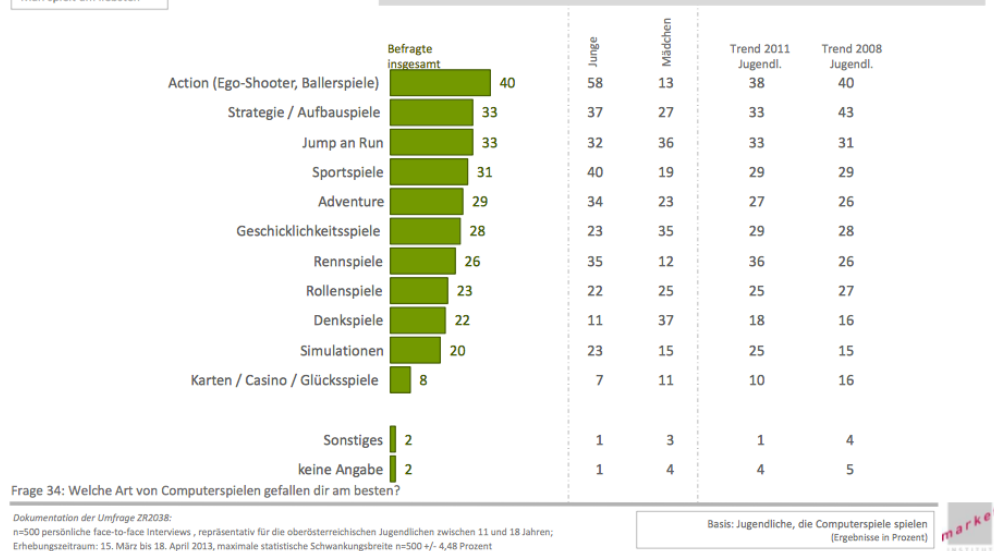


Fig. 7 Genre preferences. Retrieved from sheet 36 from “3. Oö Jugend-Medien-Studie 2013“.

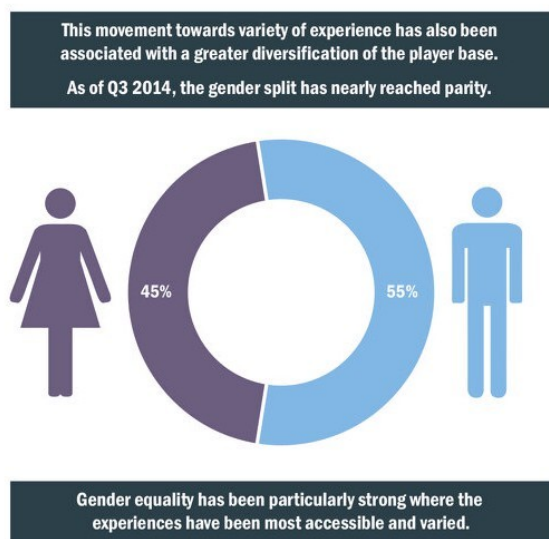


Fig. 8 Percentage of gamers according to gender. All rights reserved EEDAR. See Nofziger for source information.

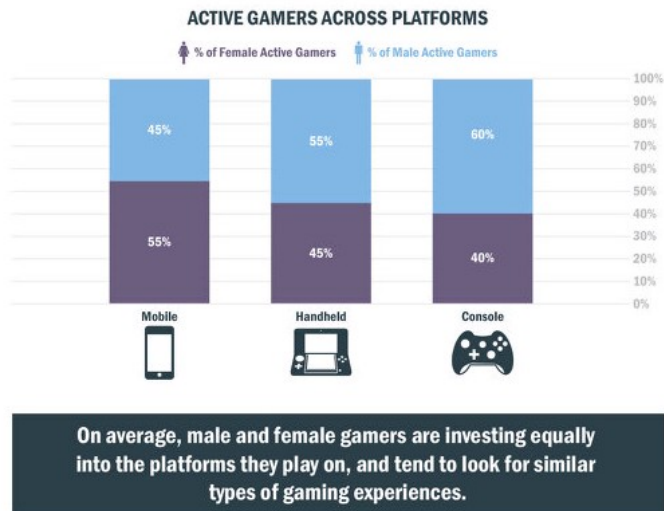


Fig. 9 Active gamers across platforms. All rights reserved EEDAR. See Nofziger for source information.

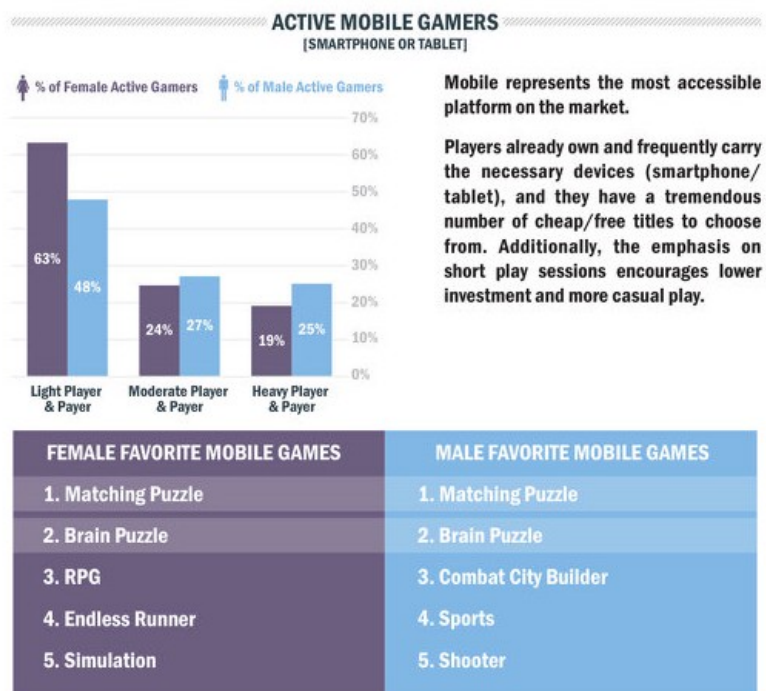


Fig. 10 Active mobile gamers. All rights reserved EEDAR. See Nofziger for source information.

9.2 Questionnaire

9.2.1 English version

Questionnaire (Tick off only one box for each question. Exception: More than 1 answer is possible for question 5.)

1. You are

- | | |
|--------|--------------------------|
| male | ☐ |
| female | ☐ |

2. How old are you?

- | | |
|-------|--------------------------|
| 10-12 | ☐ |
| 13-15 | ☐ |
| 16+ | ☐ |

3. Do you have any siblings?

- | | |
|----|--------------------------|
| 0 | ☐ |
| 1 | ☐ |
| 2 | ☐ |
| 3+ | ☐ |

4. Do you have a computer of your own?

- | | |
|-----|--------------------------|
| Yes | ☐ |
| No | ☐ |

❖ If yes, was it especially bought for you?

- | | |
|-----|--------------------------|
| Yes | ☐ |
| No | ☐ |

❖ If no – do you have access to one at home?

- | | |
|-----|--------------------------|
| Yes | ☐ |
| No | ☐ |

5. Do you own any video game consoles? (More than one answer possible)

- | | |
|------------------|--------------------------|
| PS2 | ☐ |
| PS3 | ☐ |
| Xbox | ☐ |
| Xbox 360 | ☐ |
| Wii | ☐ |
| PSP | ☐ |
| Nintendo DS | ☐ |
| No, none of them | ☐ |

6. Who introduced you to the world of computer games?

- | | |
|-----------|--------------------------|
| Parents | ☐ |
| Siblings | ☐ |
| Friends | ☐ |
| Teachers | ☐ |
| Relatives | ☐ |
| No one | ☐ |

7. How old were you when you played a computer game for the first time?

- | | |
|--------------|--------------------------|
| < 6 years | ☐ |
| 6 - 10 years | ☐ |
| 11 -14 | ☐ |
| 15 > | ☐ |

8. Did you like it?

- | | |
|------------------|--------------------------|
| Yes | ☐ |
| No | ☐ |
| I don't remember | ☐ |

❖ Why?

- | | |
|------------|--------------------------|
| Graphics | ☐ |
| Packaging | ☐ |
| Story | ☐ |
| Characters | ☐ |

9. Do you feel comfortable when working with a computer?

- | | |
|-----------------|--------------------------|
| Yes, absolutely | ☐ |
| Mostly | ☐ |
| Sometimes | ☐ |
| No, not at all | ☐ |

10. Do you play computer or console games?

- | | |
|-----|--------------------------|
| Yes | ☐ |
| No | ☐ |

If the answer is "No" turn to question 23!

11. How often do you play (includes console and computer gaming)?

- | | |
|---------------|--------------------------|
| Daily | ☐ |
| 2-3 per week | ☐ |
| 1 per week | ☐ |
| 1-2 per month | ☐ |
| Rarely ever | ☐ |

12. How much time do you spend on playing computer games/ console games during one session?

- Up to 1 hour ☐
- 1-2 hours ☐
- More than two hours ☐
13. Do you prefer playing... ?
- Alone ☐
- With friends ☐
14. Is computer and console gaming important in your peer group to be accepted?
- Yes ☐
- No ☐
15. Do your friends and family know about your playing computer games?
- Yes ☐
- No ☐
16. Do your parents supervise your gaming?
- Yes, always ☐
- Sometimes ☐
- Never ☐
17. How do you acquire your games?
- By yourself ☐
- Parents ☐
- Friends ☐
18. What makes you acquire a game in the first place?
- Story ☐
- Characters ☐
- Graphics ☐
- Packaging ☐
19. What types of electronic device do you prefer?
- PC ☐
- Console games ☐
- Handhelds ☐
- Mobile ☐
20. What is your favourite genre of computer games/ console games?
- | | | |
|-------------------|--------------------------|--------------------------------------|
| Shooter | ☐ | e.g. Call of Duty |
| Role playing | ☐ | e.g. WoW, Dragon Age |
| Fighting | ☐ | e.g. Mortal Kombat, Tekken |
| Action/ Adventure | ☐ | e.g. Tomb Raider, Donkey Kong, Mario |
| Simulation | ☐ | e.g. The Sims Series, Spore |
| Strategy | ☐ | e.g. Command & Conquer, Civilization |

- | | | |
|--------------|--------------------------|-----------------------------------|
| Racing games | ☐ | e.g. Need for Speed |
| Music and | | |
| Party games | ☐ | e.g. Sing Star, Lips, Guitar Hero |
| Sports games | ☐ | e.g. NBA, FIFA |
| Puzzle games | ☐ | e.g. Tetris, Angry Birds |

21. What is most important in a game in general?

- Story ☐
- Characters/ avatars ☐
- Graphics ☐

22. Do you feel addressed by current games?

- Yes ☐
- Partly ☐
- No ☐

23. Have you ever come across the term “modding“?

- Yes ☐
- No ☐

Definition modding: Modifying a piece of hardware or software; for example creating game content

❖ Do you actively participate in creating game content?

- Yes ☐
- No ☐

24. Do you have the feeling that computer gaming is a

- Male domain ☐
- Female domain ☐
- Both ☐

25. Are there any typical boy games?

- Yes ☐
- No ☐

❖ If yes, what is typical of them?

- Story ☐
- Characters ☐
- Graphics ☐
- Packaging ☐

26. Are there any typical girl games?

- Yes ☐
- No ☐

❖ If yes, what is typical of them?

- Story ☐
- Characters ☐
- Graphics ☐
- Packaging ☐

27. Are boys and girls equally good at playing computer games?

- Yes ☐
- No ☐

❖ If no, who is better?

- Boys ☐
- Girls ☐

❖ And why?

- Natural skills ☐
- Training ☐

28. Think about your future? Would you like to do something technology-related later on?

- Yes, definitely ☐
- Quite likely ☐
- Maybe ☐
- Very unlikely ☐
- No, never ☐

9.2.2 German version

Fragebogen (Bitte jeweils nur EINE Antwort ankreuzen. Nur bei Frage 5 sind mehrere Antworten möglich.)

1. Du bist

- männlich ☐
- weiblich ☐

2. Wie alt bist du?

- 10-12 ☐
- 13-15 ☐
- 16+ ☐

3. Hast du Geschwister?

- 0 ☐
- 1 ☐
- 2 ☐

3+ ☐

4. Hast du einen eigenen Computer?

Ja ☐

Nein ☐

❖ Wenn ja, wurde er speziell für dich gekauft?

Ja ☐

Nein ☐

❖ Wenn nein, hast du zuhause Zugang zu einem Computer?

Ja ☐

Nein ☐

5. Besitzt du eine oder mehrere Spielkonsolen? (Mehr als eine Antwort möglich)

PS2 ☐

PS3 ☐

Xbox ☐

Xbox 360 ☐

Wii ☐

PSP ☐

Nintendo DS ☐

Nein, keine davon ☐

6. Wer machte dich mit Computerspielen zuerst vertraut?

Eltern ☐

Geschwister ☐

Freunde ☐

Lehrer ☐

Verwandte ☐

Niemand ☐

7. Wie alt warst du, als du dein erstes Computer- oder Konsolenspiel gespielt hast?

< 6 Jahre ☐

6 - 10 Jahre ☐

11 -14 ☐

15 > ☐

8. Mochtest du es?

Ja ☐

Nein ☐

Weiß ich nicht mehr ☐

❖ Warum mochtest du es (nicht)?

Grafik ☐

Verpackung ☐

- Handlung ☐
Charaktere ☐

9. Fühlst du dich wohl, wenn du mit einem Computer arbeitest?

- Ja, total ☐
Meistens ☐
Manchmal ☐
Nein, gar nicht ☐

10. Spielst du Computer- oder Konsolenspiele?

- Ja ☐
Nein ☐

Falls „Nein“, geh weiter zu Frage 23.

11. Wie oft spielst du Computer oder Konsolenspiele?

- täglich ☐
2-3 x pro Woche ☐
1 x pro Woche ☐
1-2 x im Monat ☐
sehr selten ☐

12. Wie lange spielst du während einer Sitzung?

- Bis zu einer Stunde ☐
1-2 Stunden ☐
Mehr als 2 Stunden ☐

13. Spielst du lieber ... ?

- Allein ☐
Mit Freunden ☐

14. Ist Computer- oder Konsolenspielen wichtig um in deinem Freundeskreis akzeptiert zu werden?

- Ja ☐
Nein ☐

15. Wissen deine Eltern oder dein Freundeskreis, dass du Computer oder Konsolenspiele spielst?

- Ja ☐
Nein ☐

16. Überwachen deine Eltern dein Spielverhalten?

- Ja, immer ☐
Manchmal ☐
Nie ☐

17. Wie erwirbst du deine Spiele?

- Selbst ☐
Von meinen Eltern ☐
Von Freunden ☐

18. Was bringt dich am ehesten dazu ein Spiel zu kaufen?

- Handlung ☐
Charaktere ☐
Grafik ☐
Verpackung ☐

19. Welche Form von elektronischen Spielgeräten hast du am liebsten?

- PC ☐
Spielkonsole ☐
Portable Konsolen ☐
Mobiltelefon ☐

20. Was ist dein Lieblingsgenre bei digitalen Spielen?

- | | | |
|------------------------|--------------------------|--------------------------------------|
| Shooter | ☐ | z.B. Call of Duty |
| Rollenspiele | ☐ | z.B. WoW, Dragon Age |
| Kampfspiele | ☐ | z.B. Mortal Kombat, Tekken |
| Action/ Abenteuer | ☐ | z.B. Tomb Raider, Donkey Kong, Mario |
| Simulation | ☐ | z.B. Die Sims (1,2,3), Spore |
| Strategiespiele | ☐ | z.B. Command & Conquer, Civilization |
| Rennspiele | ☐ | z.B. Need for Speed |
| Musik- und Partyspiele | ☐ | z.B. Singstar, Lips, Guitar Hero |
| Sportspiele | ☐ | z.B. NBA, FIFA |
| Denk- und Puzzlespiele | ☐ | z.B. Tetris, Angry Birds |

21. Was ist dir bei einem digitalen Spiel am wichtigsten?

- Handlung ☐
Charaktere ☐
Grafik ☐
Freie
Gestaltungsmöglichkeit ☐

22. Sprechen dich aktuelle Computer- oder Konsolenspiele an?

- Ja ☐
Teilweise ☐
Nein ☐

23. Bist du mit dem Begriff "modding" vertraut?

- Ja ☐

Nein ☐

Definition modding: Hardware oder Software selbst verändern, z.B. Inhalte wie Oberflächen/ Charaktere selbst erstellen

❖ Hast du schon einmal selbst Spielinhalt erstellt?

Ja ☐

Nein ☐

24. Glaubst du, Computerspielen ist eher

eine männliche ☐

eine weibliche ☐

keine geschlechtsspezifische
Tätigkeit ☐

25. Gibt es Computerspiele speziell für Jungs?

Ja ☐

Nein ☐

❖ Wenn ja, was ist typisch für diese?

Handlung ☐

Charaktere ☐

Grafik ☐

Verpackung ☐

26. Gibt es Computerspiele speziell für Mädchen?

Ja ☐

Nein ☐

❖ Wenn ja, was ist typisch für diese?

Handlung ☐

Charaktere ☐

Grafik ☐

Verpackung ☐

27. Sind Jungs und Mädchen gleich gut im Computerspielen?

Ja ☐

Nein ☐

❖ Wenn nein, wer ist besser?

Jungs ☐

Mädchen ☐

❖ Warum?

Natürliche Begabung ☐

Übung ☐

28. Denk an deine Zukunft! Möchtest du später einen Beruf ausüben, für den man technologisches Wissen braucht?

Ja, auf jeden Fall ☐

Sehr wahrscheinlich ☐

Vielleicht ☐

Sehr unwahrscheinlich ☐

Nein, keinesfalls ☐

9.3 Evaluation of questionnaire

Table 1

10 * 28 Kreuztabelle

1			28					Gesamt
			yes, definitely	quite likely	maybe	very unlikely	no, never	
male	10	yes	8	12	20	8	3	51
		no	0	0	0	1	0	1
	Gesamt		8	12	20	9	3	52
female	10	yes	4	2	23	23	13	65
		no	0	1	12	13	17	43
	Gesamt		4	3	35	36	30	108

Table 2

14

1			Häufigkeit	Prozent	Gültige Prozente	Kumulierte Prozente
male	Gültig	yes	4	7,3	7,4	7,4
		no	50	90,9	92,6	100,0
		Gesamt	54	98,2	100,0	
	Fehlend	,00	1	1,8		
	Gesamt		55	100,0		
female	Gültig	yes	7	6,3	9,0	9,0
		no	71	64,0	91,0	100,0
		Gesamt	78	70,3	100,0	
	Fehlend	,00	33	29,7		
	Gesamt		111	100,0		

Table 3**1 * 4a Kreuztabelle**

Anzahl

		4a		Gesamt
		yes	no	
1	male	33	22	55
	female	74	37	111
Gesamt		107	59	166

Table 4

24

1			Häufigkeit	Prozent	Gültige Prozente	Kumulierte Prozente
male	Gültig	male domain	29	52,7	54,7	54,7
		female domain	2	3,6	3,8	58,5
		both	22	40,0	41,5	100,0
		Gesamt	53	96,4	100,0	
	Fehlend	,00	2	3,6		
Gesamt			55	100,0		
female	Gültig	male domain	36	32,4	34,0	34,0
		female domain	3	2,7	2,8	36,8
		both	67	60,4	63,2	100,0
		Gesamt	106	95,5	100,0	
	Fehlend	,00	5	4,5		
Gesamt			111	100,0		

Table 5

27a

1			Häufigkeit	Prozent	Gültige Prozente	Kumulierte Prozente
male	Gültig	yes	28	50,9	50,9	50,9
		no	27	49,1	49,1	100,0
		Gesamt	55	100,0	100,0	
female	Gültig	yes	74	66,7	67,9	67,9
		no	35	31,5	32,1	100,0
		Gesamt	109	98,2	100,0	
	Fehlend	,00	2	1,8		
	Gesamt		111	100,0		

Table 6

27b

1			Häufigkeit	Prozent	Gültige Prozente	Kumulierte Prozente
male	Gültig	boys	27	49,1	93,1	93,1
		girls	1	1,8	3,4	96,6
		4,00	1	1,8	3,4	100,0
		Gesamt	29	52,7	100,0	
	Fehlend	,00	26	47,3		
	Gesamt		55	100,0		
female	Gültig	boys	33	29,7	89,2	89,2
		girls	4	3,6	10,8	100,0
		Gesamt	37	33,3	100,0	
	Fehlend	,00	74	66,7		
	Gesamt		111	100,0		

Table 7

27c

1			Häufigkeit	Prozent	Gültige Prozente	Kumulierte Prozente
male	Gültig	natural skills	14	25,5	41,2	41,2
		training	19	34,5	55,9	97,1
		3,00	1	1,8	2,9	100,0
		Gesamt	34	61,8	100,0	
	Fehlend	,00	21	38,2		
	Gesamt		55	100,0		
female	Gültig	natural skills	7	6,3	15,9	15,9
		training	37	33,3	84,1	100,0
		Gesamt	44	39,6	100,0	
	Fehlend	,00	67	60,4		
	Gesamt		111	100,0		

Table 8

20

1			Häufigkeit	Prozent	Gültige Prozente	Kumulierte Prozente
male	Gültig	shooter	16	29,1	35,6	35,6
		role playing	1	1,8	2,2	37,8
		fighting	7	12,7	15,6	53,3
		action/ adventure	5	9,1	11,1	64,4
		simulation	3	5,5	6,7	71,1
		strategy	1	1,8	2,2	73,3
		racing games	2	3,6	4,4	77,8
		sports games	9	16,4	20,0	97,8
		puzzle games	1	1,8	2,2	100,0
		Gesamt	45	81,8	100,0	
	Fehlend	,00	10	18,2		
	Gesamt		55	100,0		
female	Gültig	shooter	3	2,7	6,0	6,0
		role playing	1	,9	2,0	8,0
		action/ adventure	13	11,7	26,0	34,0
		simulation	15	13,5	30,0	64,0
		strategy	2	1,8	4,0	68,0
		music and party games	9	8,1	18,0	86,0
		sports games	2	1,8	4,0	90,0
		puzzle games	5	4,5	10,0	100,0
		Gesamt	50	45,0	100,0	
	Fehlend	,00	61	55,0		
	Gesamt		111	100,0		

Table 9

22

1			Häufigkeit	Prozent	Gültige Prozente	Kumulierte Prozente
male	Gültig	yes	28	50,9	51,9	51,9
		partly	22	40,0	40,7	92,6
		no	4	7,3	7,4	100,0
		Gesamt	54	98,2	100,0	
	Fehlend	,00	1	1,8		
	Gesamt		55	100,0		
female	Gültig	yes	9	8,1	11,8	11,8
		partly	46	41,4	60,5	72,4
		no	21	18,9	27,6	100,0
		Gesamt	76	68,5	100,0	
	Fehlend	,00	35	31,5		
	Gesamt		111	100,0		

10 Annex

10.1 Curriculum vitae – English version

Curriculum Vitae

Name: Michaela Kögl
Date of Birth: 10 May 1984
michaela.koegl@gmx.at

Education

Mar 2003 -	University of Vienna Student at the Department of English and American Studies and the Department of Romance Languages
Feb 2007 - July 2007	University of Padua (Erasmus Programme) Student at the Department of Philological Studies
Oct 2002 - Feb 2003	University of Vienna Student at the Faculty of Medicine

Employment

Sept 2015-	Vienna Board of Education (SSR Wien) English teacher/ tutor at a Viennese grammar school
Nov 2013- Aug 2015	Maternity leave
Oct. 2012 - Oct. 2013	Vienna Board of Education (SSR Wien) English teacher/ tutor at a Viennese grammar school
2003 - 2012	Bipa (drugstore/ perfume shop) Sales Assistant; part-time job
Dec 2002 - Jan 2003	Ikea Customer Service Staff; marginal employment
Sept 2002 Aug 2000	Grabner Instruments OMV Customer Service; Internship

Skills

Languages	German (mother tongue), English (fluent), Italian (fluent), Spanish (basic), Hungarian (basic)
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10.2 Curriculum Vitae – Deutsche Fassung

Curriculum Vitae

Name: Michaela Kögl
Geburtsdatum: 10. Mai 1984
michaela.koegl@gmx.at

Ausbildung

März 2003 -

Universität Wien

Lehramtsstudium Englisch/Italienisch

Februar 2007 -
Juli 2007

Università di Padova (Erasmus Programm)

Oktober 2002 -
Februar 2003

Universität Wien

Humanmedizin

Berufserfahrung

September 2015-

Stadtschulrat Wien

Engischlehrerin und Erzieherin an einem Wiener Gymnasium

November 2013 -
August 2015

Mutterschaftskarenzierung

Oktober 2012 -
Oktober 2013

Stadtschulrat Wien

Engischlehrerin und Erzieherin an einem Wiener Gymnasium

2003 - 2012

Bipa

Verkäuferin, Teilzeitbeschäftigung

Dezember 2002 -
Januar 2003

Ikea

Kundenservice, geringfügige Beschäftigung

September 2002

Grabner Instruments

Praktikum

August 2000

OMV

Kundenservice, Praktikum

Fähigkeiten

Sprachen

Deutsch (Muttersprache), Englisch (fließend), Italienisch (fließend), Spanisch und Ungarisch (Grundkenntnisse)