Gender and the Games Industry: The Experiences of Female Game Workers

by

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Abstract

In the digital games industry women are statistical and cultural outliers. Using a cultural studies lens, this thesis examines the experiences of women game-makers in order to more deeply understand the attitudes of female game-workers, and to ascertain whether work in the male dominated gamed industry can be 'good work' for women. When compared to other cultural sectors, female game workers face unique barriers to sustaining careers in this high status industry. Gender stereotypes keep many women from fully participating in games industry culture which in turn discriminates against any worker who does not fit in to the 'might is right' mindset. Female game workers are getting mixed signals from an industry that appears to desire gender diversity in order to attract the growing ranks of female gamers, but is resistant to change sexist and discriminatory work practices that continue to alienate women.

Keywords: Gender; video game industry; creative labour; work; technology

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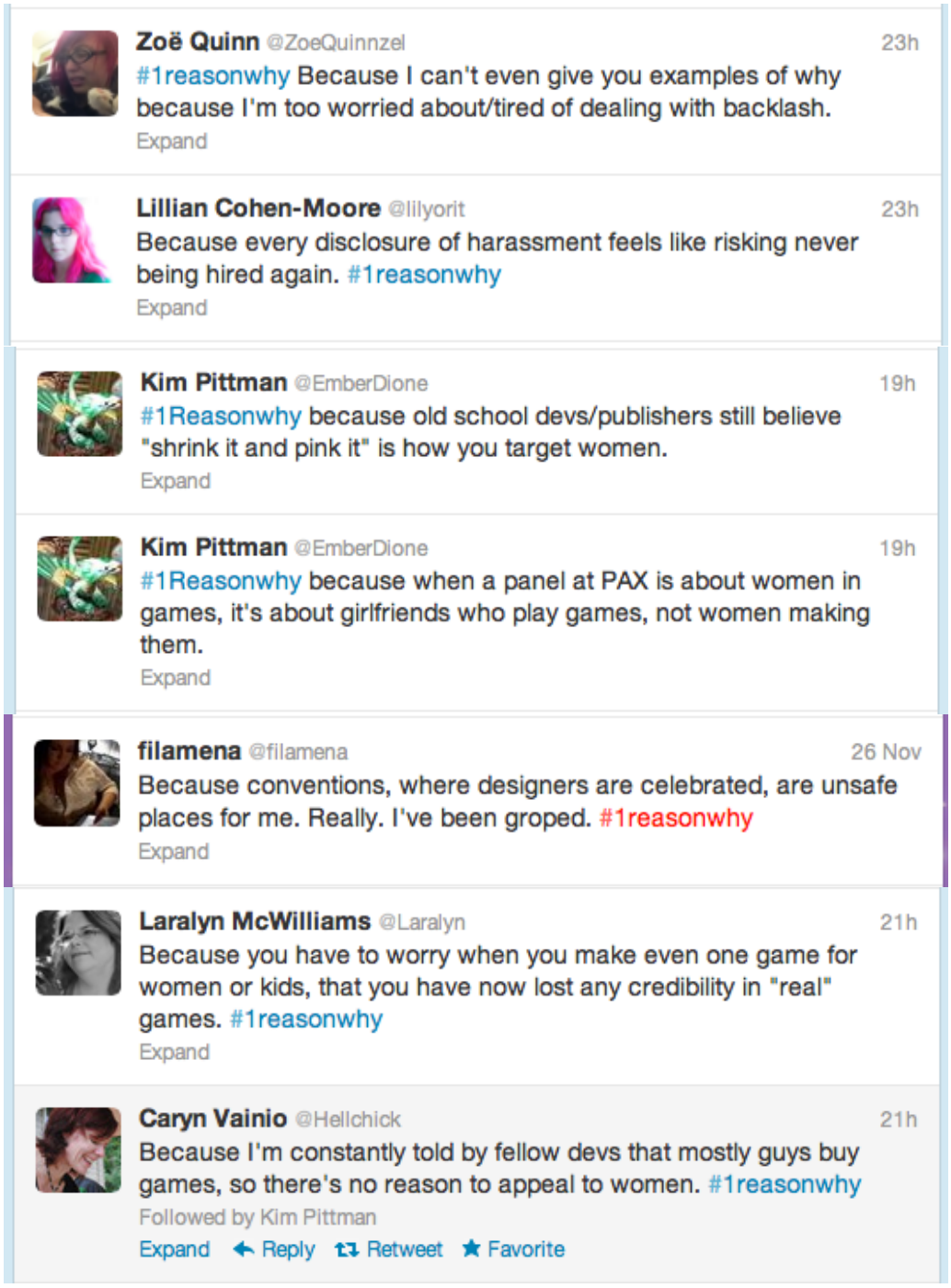
List of Acronyms

CMF	Canadian Media Fund
E3	The Electronic Entertainment Expo
ELSPA	Entertainment & Leisure Software Publishers Association (UK)
ESA	Entertainment Software Association (U.S.)
ESAC	Entertainment Software Association of Canada
GDC	Gamer Developers Conference
IGDA	International Game Developers Association
ICT	Information, Communication and Technology
IP	Intellectual Property
IT	Information Technology
MMO	Massively Multiple Online (Game), also often referred to as an MMORPG, Massively Multiple Online Role-Playing Game
SIG	Special Interest Group
SPWG	Semi-permanent work group
STEM	Science, Technology, Engineering & Math
STEAM	Science, Technology, Engineering, Art & Math
WIG	Women in Games International
WIFT	Women in Film & Television

#1ReasonWhy



Zoë Quinn @ZoeQuinnzel 23h
#1reasonwhy Because I can't even give you examples of why because I'm too worried about/tired of dealing with backlash.
Expand

Lillian Cohen-Moore @lilyorit 23h
Because every disclosure of harassment feels like risking never being hired again. #1reasonwhy
Expand

Kim Pittman @EmberDione 19h
#1Reasonwhy because old school devs/publishers still believe "shrink it and pink it" is how you target women.
Expand

Kim Pittman @EmberDione 19h
#1Reasonwhy because when a panel at PAX is about women in games, it's about girlfriends who play games, not women making them.
Expand

filamena @filamena 26 Nov
Because conventions, where designers are celebrated, are unsafe places for me. Really. I've been groped. #1reasonwhy
Expand

Laralyn McWilliams @Laralyn 21h
Because you have to worry when you make even one game for women or kids, that you have now lost any credibility in "real" games. #1reasonwhy
Expand

Caryn Vainio @Hellchick 21h
Because I'm constantly told by fellow devs that mostly guys buy games, so there's no reason to appeal to women. #1reasonwhy
Followed by Kim Pittman
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1. Introduction

In our society media and communications technology are a regular part of our daily lives. Creating media content or software is an increasingly accessible and popular career choice for many. Yet there is an inherent paradox in media and cultural labour; media workers must negotiate open and flexible work practices that provide opportunities for some to achieve fantastic success, while others struggle with income insecurity and significant challenges to sustaining life-long careers. While some of the differences between success and failure can be ascribed to timing, luck, talent and ability, there is often more to the story. As Gillian Ursell (2000) points out: "Human beings…do not come to the arenas of social creativity with equal degrees of freedom. The task of explaining what makes for inequality remains" (p. 810). In this thesis I set out to examine one particular sub-set of creative workers: female game-workers.

On November 27th 2012 Twitter lit up with the hash tag '#1reasonwhy'. Thousands of women working in the video game industry took to the mini-blog site to tweet their experiences of working in a 'sexist industry'. It quickly became a forum for women in the industry to share stories of the "vicious sexism they've faced on the job" (Raja, 2012). The tweets from women ranged from complaints of unequal pay to feeling harassed at game conferences. They detail uncomfortable working environments and "an industry where women gamers are little more than an afterthought" (Benedetti, 2012). As quickly as women could share their experiences, a backlash followed. Some women worried that tweeting about their experiences would be a negative career move. The games industry is now a major entertainment sector and mainstream media outlets quickly picked up on the story with articles on the websites of Mother Jones, Time Magazine, Forbes.com and NBC News appearing before the day was out. This particular outpouring was a reflection of a serious gender problem, and public stories such as these make it harder for the industry to ignore. Women in the games industry are asking for change; they are frustrated by the culture of the industry, and are tired of feeling alienated by the careers they feel passionate about.

This thesis aims to unpack and understand the work experiences of female game workers. In the games industry, women are statistical and cultural outliers. Digital games are well known for being a male-dominated profession and past-time. Women are estimated to make up less than 12% of the games workforce, but comprise over 40% of the game players and nearly 50% of game purchasers (Entertainment Software Association, 2012). Female game workers face a range of barriers to entering and maintaining careers in this popular, creative and high status industry. The paucity of women working in the industry is a result of inequalities embedded in the work and the workplace.

Background & Rationale

I have been an independent television producer for 10 years. Since 2009 I have also worked for Women in View, a non-profit organization with the mandate to address systemic gender barriers in media work. As part of that work I had the opportunity to speak with over 100 women across Canada in television, film, digital media and games. We spoke to them about their experiences of gender and sexism in their work, and what they feel they needed to level the playing field with their male peers. We assumed that because legacy media and games are converging on our screens, that their work is also converging – that a woman making a video game would have similar experiences and face similar issues to a woman making a television show. However, it soon became clear to us that the experiences of women game-makers are not the same at all.

The problem we encountered was that we were relying on a large body of discourse that spoke about women, gender, and creative occupations in the specific context of cultural creative work or the too-general fields of 'new media'. Women in traditional media occupations are accustomed to discourses of gender as they are a part of the film and media landscape through groups such as Women in Film & Television and well-publicized research such as the *Celluloid Ceiling* reports (e.g.: Lauzen, 2012). This familiarity gave us a kind of 'short-hand' for talking about the issues with women in legacy media. However, women in gaming appeared to lack access to a feminist discourse about gender, and while they shared many of the same experiences and concerns, we grew to understand that their problems and experiences were unique. For instance, career pathways for entrance and advancement are very different between

sectors (Jesse, 2006), game work is highly technical and requires entirely different education and expertise from film or television. Women in games also appeared to reject common tropes such as 'glass ceilings' and 'boys clubs'. As a result, we put our research on women in games on hold and focused on more familiar territory. We lacked a clear understanding of how women's experiences as game workers were distinct from legacy media, and this became the motivation for this thesis.

Another seed of inspiration for this thesis is the work of Julie Prescott and Jan Bogg from the University of Liverpool. They published several quantitative studies in 2010 and 2011 exploring women's experiences of work in the male-dominated environments of the computer games industry. They concluded that women in gaming share many of the same problems and issues of women in the broad Information and Communication Technology (ICT) and Science, Technology, Engineering and Math (STEM) fields. For future research, they pointed to the rising cultural role that games are having because of their dominance as an entertainment medium. They identified the need to compare the experiences of women in gaming to women in other creative and cultural fields such as film or television.

The core of my examination is: how do female game creators experience work in the male-dominated games industry, and what can studies of cultural labour learn from this? My goal is to understand how work in this industry may be unique and different from other cultural and creative work. In particular, I am interested in how the digital games industry is gendered, and how women in gaming navigate and interpret systemic barriers in their work lives. To do this I have interviewed 15 women working in core content positions in the digital games industry. The focus of the interviews was their attitudes and experiences of being a woman and working in the male-dominated field of games. They were asked about daily work experiences, how they felt about sexism in games, and their attitudes about sexism and whether they faced any gender based barriers in their careers.

Women are missing all along the pipeline for game development. Fewer women are taking computer degrees (Cohoon & Aspray, 2008, p. x), which means few women will have the skills necessary for the games industry. That women are classified in technology as software users and not designers means that women "will continue to be

denied participation in some of the most challenging and financially rewarding jobs in the economy, and correspondingly, that the IT industry will be denied the diverse perspectives and ideas that the participation by both genders can afford" (Katz, Aronis, Wilson, Allbritton, & Soffa, 2006, p. 352). Women are avoiding the digital games industry for a host of reasons including:

> …extreme working conditions and poor quality of life, a misconception that girls don't play games, the industry practice of making games that makers (most of whom are men) like to play, an unfriendly workplace environment and 'garage hacker' culture, and alienating business practices such as 'booth babes' at trade shows. (Fullerton, Fron, Pearce, & Morie, 2008, p. 164)

Notwithstanding that women still struggle for parity in some areas of media work, it is widely accepted that women direct, produce and write television and film. In my 12 years in the business, no one once told me that 'women don't watch television', that I wasn't a 'real' producer, nor was I ever mistaken as a girlfriend of one. I have never felt like a commodity, or that I did not belong in my industry. Yet these are not uncommon experiences of many women in game work. Studying the experiences of women in game work is important because as the recent tweeting protests indicate, sexism appears deeply entrenched and rampant in the games industry. It pervades gaming technology, the workplace, and the games themselves.

Game Work: A Hybrid Cultural Sector

"The future of gaming isn't just technology—it's culture." – Jamin Warren. (Cruz, 2012)

Research on the digital games industry and game workers often comes from scholars who study Information and Communication Technology (ICT) sectors and the broader Science, Technology, Engineering and Math (STEM) fields. This is because the digital games industry was built out of the computer and software fields and has only recently grown into its status as a cultural and mass media sector. As gaming content convergences with traditional screen based content such as film, television and mobile spaces, it is important to consider the industry from both the perspective as a cultural industry and as a technology based industry. The industry today shares similarities with both the modern entertainment industry and ICT and STEM fields. Even though computer code underlies every game, modern video games can be complex stories with

movie-like scenarios played out through complex characters and plots. Large gaming studios resemble movie studios with green screens, sound stages, and writers, directors, composers and professional actors work alongside computer programmers and IT developers. My view of the industry comes primarily from a cultural studies perspective, but I will incorporate the literature and themes from STEM scholars where appropriate, particularly in considering the role of the history of the industry and the role of technology in shaping industry culture and work practices.

As sites for the creation of artistic content and mass media, the cultural industries have been a popular area of research for cultural studies scholars. David Hesmondhalgh & Sarah Baker (2008) explain that the main locus of artistic-creative work takes place in the media. The media is an important disseminator of culture, and they are the "core creative or cultural industries in that they provide most of the employment and revenue" (p. 101). In our modern 'creative economy' the role of the media takes on great significance. The modern economy deals in information, and the media are prime producers and purveyors of ideas, information and culture. This sets the media industries apart in studies of their products, organization, structure and workforce.

The video game sector is a relatively recent arrival on the cultural industries scene. It occupies a unique position in the economy and among industries – almost as if policy makers, analysts and academics still haven't quite agreed on what to do with it. The Canadian Framework for Cultural Statistics includes a definition of culture that encompasses everything *but* games: "written media, the film industry, broadcasting, sound recording and music publishing, performing arts, visual arts, crafts, architecture, photography, design, advertising, museums, art galleries, archives, libraries and culture education" (The Conference Board of Canada, 2008, p. 3). The problem is that digital interactive media is not defined as a separate industry under any statistical classification system. In the creative economy, video games straddle two industry sectors:

> The content creation portion, which includes activities related to factors such as animation, music, audio, characterization, art direction, script, special effects, acting, design and motion-capture photography, already resides within culture in the film industry, while the middleware or specialized software used to bring the effects together is considered part of the information and communications technology (ICT) sector. (The Conference Board of Canada, 2008, p. 3)

The games industry is a hybrid sector both in terms of the content and technology used to create games, but also because of its impact. Games exist on the cutting edge of communication technology, often driving advances in computing, artificial intelligence, software and audio-visual hardware. Game studios often invent the hardware and software they need to create their games. Game workers are often trained in technological degrees like computer science and engineering. Games are a cultural sector because video games are now mainstream cultural products made by creative workers and consumed by the majority of the population. Game play has become a significant part of today's society and culture. It is unique among mass media because it is deeply interactive, and audiences (gamers) not only interact with the games (by playing them) but also interact with designers to influence the process of game creation itself. Gamer demographics diversify and grow every year and the stereotype of the young male gamer alone in his basement no longer fits. Men, women, and children of all ages now play games in some form. However, in large part the industry still clings to familiar notions of the gaming consumer (and worker) as young, male, heterosexual, and white.

As a hybrid sector, we can expect to find a mix of cultures and work practices in the games industry. Both new and old working practices can be found in both sectors of gaming and legacy media, but there are differences in the way each sector organizes production that impacts women. The research of Bielby & Bielby (1996, p. 267) "highlights the importance of attending to the industrial context, social networks, organizational arrangements and the symbolic content of the commodities produced to fully understand the barriers to women's full participation in the production of media narratives." They suggest that the organization of creative production contributes to the persistence of gender inequality, through features such as short-term employment contracts, informal hiring through reputation and the domination of male decision-makers. Studies of both sectors mention shared characteristics such as the prevalence of project-based work, employment precarity, demanding work schedules that can impinge on work/life balance, the prevalence of masculine and youth cultures and the entrenchment of the 'old boys club' (Gill, 2002; 2011; Perrons, 2003; Christopherson, 2008; Prescott & Bogg, 2010, 2011; Bielby & Bielby, 1996; Gill & Pratt, 2008; Davis, 2010; Murray & Gollmitzer, 2009; Deuze, 2007; Hesmondhalgh & Baker, 2011).

On paper the issues facing women in game work may be largely similar to women in traditional media, but the context in which they take place and the impacts they have on their professional identities and the responses by women may be significantly different. Among some women in the gaming community that I have spoken to, there is a sense that the film and television sectors have "been there, done that" when it comes to handling sexism in the workplace and that the gaming sector could look to legacy media for lessons (personal communication, May 4, 2012). However, the culture of the games industry is unique and it contributes to and permits the prevalence of a culture of sexism[1]. What this means for cultural studies scholars of cultural labour is that the same lessons learned from television, film, or even new media workers cannot be assumed to cross over en masse into the games workforce.

The game industry is unique for how its culture, organizations, audience and content are constructed as gendered. There is a strong connection between the technology of production and consumption of games; the stereotype is that games are made for young men, by young men. This ideal game player/maker is sometimes called a 'third gender' that bears as much resemblance to a real man as it does to a woman (Fron, Fullerton, Ford Morie, & Pearce, 2007, p. 7). There are larger societal discourses that will impact how women in these careers will feel about and manage their experiences. Game work in general is theorized by some as being rooted in an individualized and pragmatic approach to one's professional identity (Deuze, Bowen Martin, & Allen, 2007). Rosalind Gill (2002) puts forward the concept that women in media are subject to individualistic discourses that leave little room for systemic understandings of their personal experiences. She concludes that part of the problem is that post-feminist discourses have robbed women of a framework that could help them understand their experiences as more than personal failings. In addition, the internal discourses in business and male-dominated fields may be also be hyper-masculine, demanding work behaviours that are branded as 'male', making it harder for women to fit in to the image of the ideal worker in her chosen field.

Despite there being so much stacked against them, this thesis will argue that the smart money is on the women. Women in games appear to feel very empowered and

[1] The culture of the games industry is discussed in detail in Section 5.1.

optimistic about their futures in their industry. The game industry is much newer than other media industries and it is only in the last decade or so that it has become a mainstream cultural medium[1]. It has experienced rapid growth and is fast-forwarding through a range of professional issues that took legacy media more than a century to sort through. Women in games may not have the same history of feminist interventions that other media forms have, but that does not mean they are behind. After speaking with women in the industry one is left with the impression that their understanding of gender and their passion for the industry may in fact put them in a better position to achieve parity than women in other sectors. Female game makers are not fighting to reverse 100 or even 50 years of systemic patriarchy. They exude a 'take no prisoners' attitude and don't hide their frustration at the barriers they face in the industry. They also show incredible commitment to change it. They have good reason to be optimistic. Women in games today are a hot commodity and are sought after by companies looking to improve their workforce gender diversity. They are uniquely positioned as highly visible faces in an industry that is moving quickly and searching for solutions to a host of workplace growing pains and ways to reach new markets and innovate.

Thesis Outline

This thesis will begin with a review of the existing literature by outlining the theoretical foundations for thinking about media labour, and in particular theories that deal with creative work under informational capitalism. The new informational and knowledge based economy is the foundation for new forms of work and the new lifestyles that accompany it. The new emphasis on knowledge and innovation has created an economic climate where creativity is encouraged and desired by capitalism. Creative and cultural industries have been able to leverage new communications technologies to expand the monetization and profit margins of intellectual property (IP) libraries, making the exploitation of IP one of the world's largest economic engines. Creative workers have been on the cutting edge of new forms of work that have provided many benefits like flexible work schedules, and work that has the potential to satisfy desires for personal expression, meaning, sociality and social contribution. These

[1] I cover the history and rise of the games industry in comparison to film in Section 3.1.

benefits, however, come at a cost for creative workers in the form of the erosion of the welfare state, increased risk, precarious careers and alienation from passionate work.

As this study is primarily concerned with the experiences of women in the digital games industry, I will contexualize gender and technology in the history of the games industry in Chapter 3. This section will end with a close look at the structures and workforce composition of the modern games industry. I will compare the digital games industry to other media industries in Canada like the well studied television and film sectors. I will then review the most recent statistics on the gender composition of the workforce. The goal here is to understand the scope and shape of the under-representation of women in the digital games industry. Women are a minority in the games workforce, and game work is gender-segregated horizontally and vertically. There are fewer women in senior leadership occupations in the games industry, and also far fewer women in core development positions like programming and game design. One of the core problems, however, is that the industry is not regularly studied and the information available on the industry is very difficult to find and parse.

Section 2 of this thesis contains the results of the interviews with fifteen female game workers organized along three major themes: culture & work, content, and audiences. The culture of the games industry affords female game workers with a multiplicity of advantages and disadvantages. In Chapter 5 I will review games industry culture and the experiences reported by female game workers in relation to the most commonly debated workplace issues reported in the literature on creative work. Specifically I will cover 'DIY learning', work-life balance, long hours, exclusionary networking, advancement barriers, and the role of creativity & passion. As the digital games industry is a hybrid technology/culture sector, work practices from cultural, mass media and STEM industries combine to create unique pressures that are not always present in other creative fields. These include the masculine culture of the industry, unique forms of sexism and discrimination, the challenge of 'fitting in' with the team-based work environment, and combatting persistent gendered technological stereotypes.

In Chapter 6 I take a look at how the content of games themselves and the representations of women in games alienate female game workers and affect their feelings about their work. Content also plays a role in choices to continue working at a

company, in a particular industry sector, or leave the industry altogether. Game content is also a site of new expression and opportunity for some female game workers.

Chapter 7 takes a look at the role of the audience. The games industry has a unique relationship with its audience compared to other media. Gamers are often co-creators of games and are a critical recruiting base for companies looking for new hires. However, female game workers have a problematic relationship with certain segments of gamers and it has a direct impact on their experience of work. In particular I'll explore how experiences of bullying, harassment and threats of violence from members of the audience are silencing female game workers with consequences for their career potential in a reputation based industry. I will conclude with some final thoughts on the future of the industry and recommendations for future research.

Section 1: Theoretical Overview

2. The New Economy and the Rise of Creative Labour

2.1. Theoretical Foundations of Cultural Labour: The Socio-political context.

In this opening section I will review the literature to provide the theoretical context for a discussion of creative labour. I will begin by contextualizing the larger social and economic contexts that form informational capitalism, the industrialization of creative work, and the rise of the knowledge worker. The shift in our society to informational capitalism has meant that work centred on information, knowledge, innovation and creativity has become economically vital. Creative workers are now key producers of economic production and value. Thus their work is an important area of study, not the least of which is because creative work often has direct impacts on society at large. It is also critical because increasing numbers of the workforce count themselves as knowledge and creative workers. While the work holds the promise of personal satisfaction and fulfillment, it also contains the conditions that make workers ripe for exploitation and exposure to large amounts of economic and personal risk. After identifying the key debates around creative labour, I will turn to a specific look at work in the digital games industry. My primary aim will be to bring work in this sector into the purview of cultural labour scholarship. This field has traditionally been counted among technological (STEM) industries, but recently the rise of the digital games industry as a cultural medium means that cultural studies scholars also need to apply their body of knowledge to this growing field.

The New Economy

Labour in our modern society must be framed within the context of the principal economic engine that drives it. Human society was once dominated by agricultural production and the majority of the population laboured on the providing of food. The industrial revolution brought manufacturing to the forefront of economic production. Developed nations now live in a post-industrial economy where the dominant form of production is services and information (Hardt & Negri, 2000; Bell, 1973 (2004); Castells,

1997/2010; Florida, 2002). The socio-technical revolution has been described by numerous authors in popularized terms ranging from Machlup's 1962 'knowledge economy' to Castells' 1997 'network society', each attempting to describe the nature of a new era in human organization and technology. Building on Max Weber's theory of bureaucracy as a control technology, James Beninger (1986) categorized the transformation in terms of a 'control revolution' whereby the insatiable informational needs of the Industrial Revolution's bureaucratic technologies sponsored the proliferation of computer technologies in the 1950's. The result is an informational society measured in terms of the re-distribution of labour from agricultural and manufacturing jobs to those in the newly dominant informational and service sectors of the economy (Beninger, 1986; Bell, 1973 (2004)). This shift in labour is also commonly referred to as post-Fordist (Gill & Pratt, 2008; Ross, 2008) or post-industrial (Bell, 1973/2004).

Manuel Castells, one of the leading thinkers on the information society, characterizes informational capitalism through its globalization, decentralized organization, the individualization of work and market deregulation (Castells, 1997/2010). When the world became digital in the 1980's and '90's, breakthroughs in information technologies began to converge - creating new technological fields like informatics, bio-technology, micro-electronics and genomics. The resulting informational capitalism is one where the dominant operations are – with the help of information technology – organized globally as networks and based on the processing of symbols. In this model, the whole of society organizes "around the principles of maximizing knowledge-based productivity through the development and diffusion of information technologies, and by fulfilling the prerequisites for their utilization (Castells, 1997/2010, p. 219).

This shift in economic production and the focus on information has had enormous effects on the way we work and live. In the informational economy, labour becomes informational and economic growth becomes based on innovation (Himanen, 2004, p. 422). Himanen argues that in the informational economy, economic competition is based on how well companies innovate, which has meant that labour has shifted from routine, to work that requires innovation and creativity. The culture of the informational economy is also different, and formed by the culture and work ethic of the builders of the

new economy - the computer hackers who were behind the internet and the World Wide Web. The hacker culture is defined by a unique work ethic: enthusiasm for trying new ideas and continuous learning, flexible working patterns, the open sharing of ideas, creative passion, and belonging to a group that share the same creative passion. Himanen's concept of a 'hacker ethic' is very useful, but we must remember that the culture of the new economy is the result of the work preferences of a group of technologists from Silicon Valley as well as complex sets of economic, social and historical forces that narrow the choices available to, and shape the life preferences of, would-be culture-changers.

New Labour for a New Economy

A new production system requires a new kind of labour. Under informational capitalism, society and labour become organized to meet the new informational (and technological) demands of capital. The development and diffusion of information technologies and computers have enabled the creation of new occupations that have never existed before. Overall, we have seen a fundamental transformation of work, workers and organizations. Castells (2010) argues that we now have a core labour force that is focused on information-based tasks, and a disposable labour force that can be automated and/or hired/fired/offshored. The global and networked nature of the new economy further means that organizations use outsourcing and subcontracting as forms of externalized labour in a flexible adaptation to market conditions (p 296). The form of labour that has germinated in this new organization of capital is often called immaterial labour. Immaterial labour produces no material or durable good, such as a service, a cultural product, knowledge, or communication (Hardt & Negri, 2000, p. 290). It is the putting-to-work of emotional, affective, and linguistic activities in the context of information technologies (Brophy, 2006, p. 621). Immaterial labour is a broad category that captures disparate activities such as software development, cultural and artistic work, management jobs of all kinds, lawyers and doctors. On the face of it these occupations share little in common, but what they do share is the central role played by knowledge, information, affect, and communication. In other words, the dominant economic production in informational capitalism comes directly from the human mind.

Immaterial labour is such a broad category that it's usefulness as a concept is sometimes questioned (Brophy, 2006, p. 621). Yet immaterial labour is useful primarily as a discursive category because the inclusion of affect (feeling and emotion) is particularly interesting when we consider creative work. Hardt & Negri (2000) categorize work in the entertainment industry as an example of affective labour:

> The other face of immaterial labor is the affective labor of human contact and interaction. Health services, for example, rely centrally on caring and affective labor, and the entertainment industry is likewise focused on the creation and manipulation of affect. This labor is immaterial, even if it is corporeal and affective, in the sense that its products are intangible, a feeling of ease, well-being, satisfaction, excitement, or passion…Such affective production, exchange, and communication are generally associated with human contact, but that contact can be either actual or virtual, as it is in the entertainment industry. (Hardt & Negri, 2000, p. 292)

Hardt & Negri (2000) theorize that affective labour produces "social networks, forms of community, biopower…production has been enriched to the level of complexity of human interaction" (p 293). Affect is important, but immaterial labour which produces culture also involves activities that are not traditionally recognized as work, such as "the kinds of activities involved in defining and fixing cultural and artistic standards, fashions, tastes, consumer norms and, more strategically, public opinion" (Gill & Pratt, 2008, p. 8).

One of the most significant transformations of work under informational capitalism is the individualization of labour (Deuze, 2007, p. 4; Castells, 1997/2010, p. 282). In the information age, the individual now carries the brunt of the risk of finding and keeping a job. Technology is driving work trends towards flexibility. Thanks to new communication networks, workers can work anytime, anywhere, on a multitude of projects at once. In the context of labour, individualization refers to both the fragility and "disintegration of social institutions - such as class, gender roles, family and community" and the "increasing demands being put on individuals by a rapidly globalizing society" (Deuze, 2007, p. 4). The individual has become the center of all things, and the way workstyles have evolved in the course of the last century matches this development.

New forms of labour must also been seen in the context of what is being lost. Informational capitalism has also seen the erosion of union relationships, the diminution of traditional forms of employment, and the various forms of life-support workers have

come to expect under the Western welfare state. These changes expose workers in the new economy to greater risks as work and life becomes increasingly individualized and organized to suite the dominant global economic model of production.

> in general terms, it is not unreasonable to anticipate that, faced with phenomena such as intensified competition and falling relative productivity, and/or informed by free market or other legitimating ideologies and facilitated by state policies, capital will erode its package of responsibilities. Under such circumstances, capitalists can be expected to whittle away the employment relation, by refusing arrangements to negotiate and consult with workers' representatives, by abandoning commitments to training and to tenure, to holiday, sick and maternity pay and pensions, by demanding overtime at flat rate, by expecting workers to fit their free time to the job, by requiring workers to equip and insure themselves, even by leaving it to workers to organize and maintain the labour market. (Ursell, 2000, p. 806)

In the new economy the types of labour have changed and become fluid and flexible. Even the definition of labour must be seen as a flexible concept. As Burston, Dyer-Witherford and Hearn (2010) point out, the same conundrum emerges when we begin to consider the analytical category of 'labour'. The line dividing labour and non-labour, work and life, has become fluid:

> Labour…must also be understood as a larger category with which to analyze many different facets of daily life. People still labour in the traditional sense…but contemporary life likewise compels us, for instance, as audiences for ever more recombinant forms of entertainment and news programming, to labour on ever-multiplying numbers of texts (as readers, facebook fans, mashup artists)…Additionally, as individuals are subject to precarious, unstable forms of employment that demand they put their personalities, communicative capacities and emotions into their jobs, they are encouraged to see their intimate lives as resources to be exploited for profit and, as a consequence, new forms of labour on the self are brought into being. (p. 215)

The line between work and life is perhaps more blurred for creative and cultural workers. This convergence of work, life and play is what Mark Deuze (2007) calls 'liquid modernity' (p. 43). Work and life are now flexible categories that feedback into each other and shift and redefine throughout our lives. While this may be immensely satisfying to some workers, it is also a new form of labour that has grown out of and supports the new creative economy.

Creativity as the New Economy Doctrine

> Creativity has come to be valued - and systems have evolved to encourage and harness it - because new technologies, new industries, new wealth and all other good economic things flow from it (Florida, 2002, p. 21).

Expanding on economic theories that assign a central role to idea generation, creativity and knowledge, Richard Florida (2002) takes the concept of immaterial and affective labour one step further. He argues that creativity has become the key element of innovation and labour in the 'Creative Economy'; "...more workers than ever control the means of production because it is inside their heads; they are the means of production" (Florida, 2002, p. 37). Creativity and ideas are especially potent under informational capitalism because as goods they are never depleted and increase in value the more they are used. In the creative economy, it is human creativity itself that is being harnessed for economic growth. One facet that is largely ignored by Florida is that when creativity is seen as a *resource* in the creative economy, the subjective passions, experiences and thoughts of workers become the target of exploitation. On the one hand, creative workers get paid to do something they might well do anyways, but this comes at a cost:

> Perhaps the most insidious occupational hazard of no-collar work is that it can enlist employees' freest thoughts and impulses in the service of salaried time. In knowledge companies that trade in creative ideas, services, and solutions, everything that employees do, think, or say in their waking moments is potential grist for the industrial mill. When elements of play in the office or at home/offsite are factored into creative output, then the work tempo is being recalibrated to incorporate activities, feelings, and ideas that are normally pursued during employees' free time. For employees who consolidate office and home, who work and play in the same clothes, and whose social life draws heavily on their immediate colleagues, there are no longer any boundaries between work and leisure. (Ross, 2003, np)

As such a valued commodity, it is no surprise then that creativity is sought after in the new economy. David Hesmondhalgh and Susan Baker (2011) argue that in the last few decades, creativity has become elevated to the level of doctrine in modern economic policy (p. 3). Creative industries policies are now part of many government agendas but are little more than employment strategies that aim to use creative industries to replace the steadily declining role of manufacturing in national economies.

> These policies have explicitly aimed to increase the number of jobs centred on symbol making in modern economies. Crucially, these creative jobs have been presented by policy-makers and other commentators as desirable not only because of their economic benefits, but also because they supposedly offer greater fulfillment and self-actualization that other kinds of work. (Hesmondhalgh & Baker, 2011, p. 5)

Creativity is not new to society, and in fact is often lauded as one of the core human (non-technical) abilities present from our days as cave-dwellers. However, management and economic analysts have been positioning creativity as the key to gaining global competitive advantage.

> Art products are the objects of intense financial speculation; cultural productions are top hit-makers in the jackpot end of the New Economy; 'cultural districts' are posited as the key to urban prosperity; and creative industries policy is embraced as they anchor of regional development by governments around the world on the lookout for a catch-up industrial plan. In the business world, creativity is viewed as a wonderstuff for transforming workplaces into powerhouses of value, while intellectual property - the lucrative prized of creative endeavor - is increasingly regarded as the 'oil of the 21st century'. (Ross, 2008, p. 32)

On the face of it, creative industries discourses laud the self-gratification of creative work. Rather than being based in a desire for the intrinsic satisfaction that arises from creative work, however, creative industries policies aim to improve productivity, expand capital markets, and capitalize on human innovation. This has meant that traditional polices that served to protect workers have been eroding on the basis that they stifle creativity and innovation.

> In the new cultural economy, with its emphasis on individual talent, initiatives like equal opportunities legislation, anti-discrimination policies, collective representation and so on tend to be viewed as inappropriate hangovers from the old economy, structures that inhibit creativity and introduce elements of drag into the necessarily fast and free-flowing process of reflexive production. (Banks & Milestone, 2011, p. 79)

The valorization of creativity in economic policy goes hand in hand with the valorization of the ideal creative worker. Creative workers use of creativity is so significant that Florida (2002) argues that it comprises a new class - a ‘Creative Class’ of workers based on their common use of creativity as a key element of their jobs (p. 8). The creative class includes the traditional core of artists and creators, but Florida expands

the social group to encompass professionals in business, finance, law, and other fields we would not traditionally associate with personal acts of imagination;

> I define the core of the Creative Class to include people in science and engineering, architecture and design education, arts, music and entertainment, whose economic function is to create new ideas, new technology and/or new creative content. …all members of the Creative Class…share a common creative ethos that values creativity, individuality, difference and merit. For the members of the creative Class, every aspect and every manifestation of creativity - technological, cultural and economic - is interlinked and inseparable. (Florida, 2002, p. 8)

Florida theorizes that Creative Class workers share a common set of social values and enjoy non-traditional work practices. Florida's work has been the target of some significant critiques (Ross, 2008; Hesmondhalgh & Baker, 2011) for his broad definition of creativity and overly enthusiastic view of creative work practices; I believe these critiques are well placed. Biologists, or hairdressers, - as creative as they may be individually - should not (always) be in the same category as artists, or other workers we more traditionally associate with creative work. There are more significant work and social differences *within* Richard Florida's creative class, than between creative workers and 'non-creative' workers. However, the centralizing of the role of creativity is a step in a useful direction. Florida's conception of the creative class as a unique social group with non-traditional and unique characteristics is useful for considering the specificity of creative labour. I also find that his characterization of the common creative ethos of the creative class productively captures a new culture of work that is prevalent in the creative fields.

2.2. Defining Creative Labour

Whether creative workers make up a new creative class or not, the number of people making a living from artistic and cultural creativity has expanded dramatically (Castells, 1997/2010; Gill, 2002; Christopherson, 2008; Boyle & Magor, 2008), by some accounts as much as 375% since the 1950's (Florida, 2002, p. 47). The broad concepts of immaterial, affective, and creative labour take us only part of the way towards understanding the kind of cultural labour that I wish to examine. It is important to develop a specific understanding of creative work because this type of work has risen in

prominence under informational capitalism and the products produced by creative work have significant impacts on the broader culture. Hesmondhalgh & Baker (2011) argue, and I agree, that an understanding of the specificities of creative labour is both possible and necessary to understand the experiences of workers in the cultural industries (p. 52).

The cultural industries are well studied from a variety of perspectives, but the study of creative labour has not been popular among academics until recently (Hesmondhalgh & Baker, 2011, p. 55). Digital media and the proliferation of the World Wide Web have prompted some to hail amateur production and the many-to-many style of communication (e.g.: social media like Twitter, Youtube, Facebook, etc.) we have today as the hallmark of the breakdown between content producers and consumers. While this may be true, the fact remains that increasing numbers of workers are making their primary living through work in the creative and cultural industries. This labour has unique characteristics that separate it from other activities. Using too broad a concept, such as 'knowledge worker' in analyzing creative labour in cultural industries will lead to the exclusion of key issues and crucial distinctions.

> …such a broad conception risks eliminating the specific importance of *culture*, of *mediated communication*, and of the *content* of communication products. Cultural producers can be seen as having, compared with other groups in society, the capacity to make texts…which are then circulated, to greater or lesser effect, to wider groups, primarily through the institutions and technologies we call the media. (Hesmondhalgh and Baker, 2011, p. 59)

I agree with this assessment. A television worker is not precisely the same as a call centre worker, for example. Creative and cultural workers are particularly involved in the production of symbols and social meaning. They produce a very particular type of product that is *primarily and simultaneously* symbolic, aesthetic, expressive and informational. Mark Deuze (2007, p. 54) argues for a definition that encapsulates the complexities of cultural production that includes both the commercial context of production along with the individual creativity and passion of practitioners. The task of defining creative work is further complicated by the different ways in which work trends such as media convergence, workforce casualization and flexibility manifest in creative work in variable ways depending on the context of specific genres, products and organizations (Deuze, Media Work, 2007, p. 92).

The Characteristics of Creative Labour

Notwithstanding the variability in the forms of creative work, it is possible to identify some common elements. As summarized by Rosalind Gill and Andy Pratt (2008), creative labour is characterized by a number of stable features including project based temporary employment, long, unpredictable and flexible hours, and:

> …the collapse or erasure of the boundaries between work and play; poor pay; high levels of mobility; passionate attachment to the work and to the identity of creative labourer (e.g. web designer, artist, fashion designer); an attitudinal mindset that is a blend of bohemianism and entrepreneurialism; informal work environments and distinctive forms of sociality; and profound experiences of insecurity and anxiety about finding work, earning enough money and 'keeping up' in rapidly changing fields (Banks, 2007; Banks and Milestone, in press; Batt et al., 1999; Caves, 2000; Christopherson, 2002, 2003; Christopherson and van Jaarsveld, 2005; Gill, 2002, 2007; Jarvis and Pratt, 2006; Kennedy, in press; Kotamraju, 2002; McRobbie, 2002, 2003, 2006, 2007b; Milestone, 1997; Neff et al., 2005; O'Connor et al., 2000; Perrons, 2007; Richards and Milestone, 2000; Ross, 2003; Taylor and Littleton, 2008a; Ursell, 2000). (Gill & Pratt, 2008, p. 14)

Creative workers typically care deeply about their work and see themselves as *more independent* than employees (Deuze, 2007, p. 66). Hesmondhalgh & Baker identify autonomy as a key element of creative work, specifically that creative and workplace autonomy is highly desired by creative labour (Hesmondhalgh & Baker, 2011, p. 39). As Mark Deuze (2007) argues, there are many more workers wanting in to the industry than jobs available and so in exchange most will accept long hours, low wages, low job security and no benefits (p. 82). Yet creative workers often see these as providing a level of autonomy - freeing them from the constraints of working for one employer, working on one project, or using a single skill. Moreoever, creative workers epitomize the blended liquid-life where the boundaries between work, play and life are blurry or non-existent. Game work is the epitome of this where play-leisure-and work combine into one activity.

To navigate project based work-styles and the need to stay ahead of the curve, creative workers are also cultural entrepreneurs, blurring the lines between employee on the one side and employer on the other (Ellmeier, 2003, p. 11).

> The redistribution of risk away from the state and from employers and on to the individual - makes each person responsible and accountable for their lives. In this labour context…this forms a precarious new culture of independence. The shift to

> make “enterprise” an individual quality rather than an organizational one is part of an attempt by managers to regulate a professional identity as flexible, adaptable, and willing to move between activities and assignments and take responsibility for their own failures and successes. (Deuze, 2007, p. 86)

As Andrea Ellmeier (2003) points out, cultural entrepreneurialism means being multi-skilled and having command over the creative side of work, as well as being able to run a business, and deal with product manufacturing (p. 11). This individualization of work means that entrepreneurs assume more of the risk of doing business than traditional employees and have few of the safety nets of the welfare state (Gill, 2002, p. 81; McRobbie, 2002, p. 518; Christopherson, 2008, p. 74). For creative workers this means that they bear the costs of training, health care, providing and maintaining the tools of their trade, and business development, distribution and ongoing business overhead that may have nothing to do with creative work like accounting, dealing with regulatory requirements, and tax preparation.

Autonomy and entrepreneurialism often comes with a price-tag and creative work tends to be marked by endemic insecurity or precarity. Precarity refers to the insecurity that arises from contingent and flexible work under post-Fordist management styles. The concept of precarity relies on a transformation of stable work under Fordism (careers-for-life, union protection), to less stable relationships of labour and life: less job security, blurred lines between work and leisure, eroding safety nets and union powers, and a lack of benefits (Brophy, 2006, p. 621).

> Once they are in, some of the players thrive, but most subsist, neither as employers or employees, in a limbo of uncertainty, juggling their options, massaging their contracts, never knowing where their next project or source of income is coming from....it is more like the survivor challenge of an action video game, where skills, sense of timing and general alertness to the main chance enables the protagonist to fend off threats and claim the prize. (Ross, 2008, p. 36)

Precarity is also closely tied to the increasing flexibilization of work. Precarity and flexibility are longstanding characteristics of ‘bottom-end’ work, and are now characteristics of creative and cultural work as self-employment increases and union protections decrease or are non-existent. The expectation of work in the network society is that workers must adapt to being flexible if they are to survive informational capitalism (Webster, 2006, p. 105).

Precarious work is also said to be gendered, affecting women disproportionately because they tend to appear in higher proportions than men in part time, temporary contract jobs (Murray & Gollmitzer, 2009, np). Women are also theorized to be behind-the-scenes contributors to men's creative work that requires long hours and flexible relationships between work and home life.

> It is the family and domestic labour of women (as non-cultural workers) that ensures that men are furnished with opportunities to take up the new reflexive roles that demand total flexibility and independence from familial time claims. Primarily thanks to dutiful women, men are simply more able to become reflexive cultural workers, just as they have historically enjoyed greater access to labour markets across most industrial sectors. (Banks & Milestone, 2011, p. 78)

Precarity as a political subject applied to creative labour has critics who claim that unstable employment has been the historical norm in capitalism, with Fordism the exception (Neilson & Rossiter, 2008; Gill & Pratt, 2008). Applied to creative work, however, the concept of precarity helps us counter overly-hyped views of work in the cultural industries and consider the risks borne by creative workers throughout their careers and the potential for exploitation of precarious workers.

Creative workers also commonly report that they are driven to their work by passion and a desire for self-actualization and self-realization through work (Gill & Pratt, 2008, p. 15; Consalvo, 2008, p. 185; Hesmondhalgh & Baker, 2011, p. 141). The downside is that passion often also means deep personal and emotional engagement with work. This can also lead to exhaustion, insecurity, and entangled lives where one's identity is entirely tied up with work (Gill & Pratt, 2008, p. 15; Hesmondhalgh & Baker, 2011, p. 148). Intensive practices of self-monitoring can help creative workers achieve a balance where they do not "topple over into an excessive level of identification with their occupation" (Hesmondhalgh & Baker, 2011, p. 151). Where workers are less independent, employers also can exploit worker involvement by pressuring them to more intensely self-supervise and work harder through peer pressure (Hesmondhalgh & Baker, 2011, p. 35).

To feed their passion, creative workers are often willing to work long hours and blur the lines between home life and work life. As Andrew Ross (2003) says, "not by any boss's coercive bidding, but through the seductive channel of 'work you just couldn't help

doing,' had the twelve-hour day made its furtive return" (Chapter 8, np). While much of new media work is marked by informality and flexibility (the ability for workers to determine their own hours), this has meant for many workers that they are free to work all hours of the day because the needs of the project are paramount. Dianne Perrons (2003, p. 71) and Rosalind Gill (2002, p. 84) draw attention to the gendered aspect of long hours cultures and flexible employment patterns. Long hours work cultures often lead to a choice for women between family care responsibilities and their careers.

Evaluating Creative Labour: Good or Bad Work?

Creative work has the potential for enormous personal and financial rewards, but can provide little in the way of security to workers while demanding continuous learning and 24/7 style dedication. Advocates of creative work tend to over-emphasize the positive aspects while ignoring how creative workers struggle to manage risk, raise families, or create stable incomes. Given these two opposing pictures of creative work, can we say whether creative labour is good or bad work?

David Hesmondhalgh and Susan Baker made a significant contribution to the debate about the nature of work in the cultural industries in the 2011 book *Creative Labour.* The central notion of the book was to find a middle ground between utopian and dystopian descriptions of creative labour. In some accounts creative work is constructed as holding the key to self-realization, creative expression, autonomy, recognition and flexibility. The critical backlash turned each of these elements on its head claiming that creative work's dark side turned on self-exploitation, extreme insecurity, casualization, isolation and alienation (Hesmondhalgh & Baker, 2011, p. 6). Given this, how are we to evaluate work in the cultural industries? David Hesmondhalgh and Sarah Baker (2011) propose that we need a way to measure the quality of work in the creative sectors in order to understand whether creative work can be good work. Their concept of good work and bad work includes the elements of:

> …good wages, working hours and high levels of safety, autonomy, interest and involvement, sociality, self-esteem, self-realization, work-life balance and security. Conversely this is a conception of bad work as involving poor wages, working hours and levels of safety, powerlessness; boredom; isolation; low self-esteem or shame; frustrated self-realization, overwork and risk. (Hesmondhalgh & Baker, 2011, p 36)

These factors all relate to the subjective experience and processes of work, but they also include the creative products that workers make in their formulation of good and bad work. Good creative work involves the creation of high quality products (and high quality production processes) and products that contribute to the common good while bad work involves the creation of inferior products (or low quality processes) and products that fail to contribute to the well-being of others (p. 39). This brings in an ethical dimension to the evaluation of creative work. The assumption is that creative workers will prefer to work on ethically positive texts, and will be alienated by texts that have negative social outcomes. Autonomy has a potential role to play here as well. Autonomy permits workers to choose or influence the texts they work on, allowing them to avoid creating texts that they find unethical. Creative workers also embody an ethics of pursuing excellence: being good at one's job and contributing to the evolving history of a practice contributes to the experience of work as fulfilling and contributing to self-realization for creative workers (p. 38).

Self-realization is a key feature in the definition of good work, but like so many other things, it can be a basis for exploitation for some workers. Gillian Ursell (2000) draws upon the work of Rose (1999) and Foucault to explain that creative work requires a technology of the self that necessitates self-entrepreneurship and the construction of the self with a view to marketability (p. 810). She also points out that freedom is no longer defined as freedom from want, "it is the capacity for self-realization which can be obtained only through individual activity" (p. 810). Ursell also reminds us that analyses of creative labour and self-realization must explain why some individuals or groups are better able to self-realize than others (p. 810). One of the key issues with definitions of good and bad work and applying them is that there are important gender aspects to many of these elements. For instance, the possibilities of self-realization through creative work are limited and there are significant age and gender aspects to those limitations, particularly in occupations with youth orientated cultures and gender segmentation (Hesmondhalgh & Baker, 2011, p. 148). The digital games industry is a good example of these kinds of limits. The highly masculine stereotypes associated with video game creation and play can alienate women from many of the occupations in the sector and work against any potential for self-realization.

Unique Characteristics of Game work

In studies of media workers, the delimiting characteristic of the samples is often not the type of work being done or the content being produced, but the working practices employed by that form of work. Rosalind Gill's 2002 study of new media workers for example included a variety of content creators such as digital animators, web designers, online game designers and artists. Each of these workers were engaged in freelance work and identified as independent. In her case, the study of 'new media' workers was less about the new technologies being employed, than the new forms of work that they embodied. I've already argued that the games industry is unique and is deserving of special consideration apart from other occupations and cultural fields. This is not to say that game work is homogenous. Workers in the games industry exemplify a wide variety of work styles, ranging from long term full time employees to 'bedroom coders' – single artists working independently from home. Creative work in the games industry shares many of the characteristics discussed above but is also different in some important ways from other new media sectors. Characteristics such as longer-term contracts, lack of workforce diversity, and ongoing issues with exploitative work practices may be more specific or more pronounced in the games industry (Kerr, 2011, p. 234).

Many forms of new media work involve the execution of an individual vision. Web designers often work alone. Even film directors and writers are largely treated as auteurs and carry heavy responsibility for the aesthetic vision of a media product. Opportunities for autonomous work and individual vision are more difficult to come by in game work. Gamework exists on a spectrum somewhere between post-industrial practices of immaterial labour and elements of Fordist organization of work (Deuze, Bowen Martin, & Allen, 2007). Some small independent studios or individual developers may retain an auteur relationship to the games they make, but much of work in the games industry is structured in team formats where workers occupy highly specialized and narrowly defined roles within (more or less) hierarchical structures (Deuze, Bowen Martin, & Allen, 2007, p. 343). In a mid to large size studio, a worker on a game may spend years just working on explosion physics, or focus entirely on programming one character out of hundreds. Even independent developers are rarely in the position to be entirely responsible for the creative vision and execution of a game. Game production requires technical expertise and access to technology. As game complexity increases, so do

team sizes and the narrowness of the specializations. The largest games are now made by teams numbering in the hundreds with separate teams working on the technical back end and others working on story, art, sound, and so forth. This makes notions of creative autonomy, auteurship and creative control challenging to ascribe as a measurable quality to game work. At the same time, team sociability and opportunities to contribute meaningfully are very important in game work. Games are also an example of a co-creative medium (Jenkins, 2006; Kerr, 2011) where audience/gamers interact with designers and software to create the games that they play. While games can be driven by auteur visions, particularly in the independent sector, they tend to be carried out less through individual creativity and more through a range of interactions between actors and driven by market needs (Kerr, 2011, p. 225).

Game work, like other types of media work, is still organized around projects, but appears to be less reliant on precarious and flexible employment practices. This is partly due to the way games are produced and by whom. The game industry has a lower percentage of freelancers than other media sectors (Kerr, 2011, p. 232). The vast majority of employment in the games sector is in large studios who produce big budget Triple A titles. These games can take years to make, a far longer production time frame than television or film work. As production wraps up on one game, many workers simply shift to new teams within the studio and begin the next project. The majority of game workers also appear to work on salary and have access to employment benefits like health care, vacation pay and retirement plans (Game Developer Magazine, 2012).

Game work is also unique because it has a closer relationship to technology than many other sectors. Technological skill is a key element of the professional identity of all game creators[1]. Technology in the games industry is more than a tool – it is the driving force behind the culture, content and work practices in the industry.

> Each new console does not simply mean an incremental increase in platform power and speed but can mean a complete reappraisal of production networks, worker skills, budgets, and management cultures. (Kerr, 2011, p. 229)

[1] In TV or film work, for example, it is only the camera department who interfaces with the technology of the camera, or the editor who interfaces with the computer editing software. In game work, all workers interface with computer hardware and software.

Technology changes quickly in the games industry and its path is unpredictable. This creates an environment of insecurity for workers who often feel as though they don't know what the future of their industry will be, never mind their own careers. The pressure to keep up with technological innovations is intense, and knowing what skills will be needed in a year's time is nearly impossible to predict or plan for. This also increases the risk for workers who need to plan for time off to start a family or take additional training as doing so could be career ending.

Game work also features a closer relationship to audiences than many other cultural sectors. Games are a truly interactive medium and game players contribute heavily to the culture of game work, not the least of which is because employers regularly hire from the player base to fill open positions. "In a very real sense players are involved in co-creation of the game through their interactions in the game and their contributions to a range of related artifacts such as Web sites" (Kerr, 2011, p. 233). Player interactions can be disruptive – as with online bullying, or exploitative game cheats, or they can be additive – as through the modding community where players contribute free labour to the creation of game extensions which are often picked up by the game publishers.

Many cultural sectors have a youthful age profile, but game work is exceptional in this regard. Most game workers are in their twenties or thirties and come from the DIY non-commercial hacker culture. Some evidence shows that exploitative work practices and other pressures (such as the need for constant up-skilling, demanding work hours, and others) lead to widespread burnout resulting in older or more experienced staff leaving the industry (Kerr, 2011, p. 232). In part because of the youthful age profile of the industry, and the rapid growth in the past decade, the industry is still professionalizing. This means that there is a general lack of standardization and formalization of work practices in the industry. This has led to problems with poor management and poor working conditions (Kerr, 2011, p. 230). There are clues, however that this may be slowly changing. College programs in computer game design and production are springing up, and the women I spoke with felt that the industry was slowly maturing and getting better at retaining its older talent and was working towards standardizing production practices.

Game work is also unique in Canada among cultural industries in that it is non-unionized and unregulated. As a result the industry has had significant issues with long hours and exploitative work practices that have resulted in class action lawsuits and public outcries from disgruntled and exhausted employees and spouses (Dyer-Witherford & de Peuter, 2006). In Canada we have a long history of subsuming broadcasting and film into our definition of culture. Over the past century, many policies have been put in place that protect the creation of unique 'Canadian content' in film and television as a protection against being culturally overwhelmed by content from the United States. To support the creation of Canadian content, the government supports the Canadian Broadcasting Corporation (CBC) - a national broadcaster, the National Film Board (NFB) - a national film producer, Telefilm - a national financier and promoter of Canadian films, and the Canadian Media Fund (CMF) - a national financier and promoter of Canadian television and digital media. The gaming sector, however, has no such cultural pedigree. As a cultural product, games are not classified for their degree of Canadian content and receive little of the same government support that other cultural sectors do. This has begun to change however, as game companies can now access some tax incentives as well as funding through the experimental stream of the Canadian Media Fund.

Finally, I want to propose a controversial hypothesis: that passion and personal engagement plays a greater role in game work than in other creative sectors. Identification with the work is a common feature of many kinds of creative labour and is tied to the public nature and personal investment that comes with creative work (Hesmondhalgh & Baker, 2011, p. 148). Game work takes this one step further: it is based on a paid-to-play / work-as-play ethos (Dyer-Witherford & de Peuter, 2006, p. 601; Deuze, Bowen Martin, & Allen, 2007, p. 349; de Peuter & Dyer-Witherford, 2005). Industry labour is sourced from fan bases and game workers are frequently fanatical about the games they make and play. Playing video games is a constant break-time activity in game studios and teams frequently socialize over sessions of team play. By comparison, my own experience of television work was never in the context of fun or play. Making legacy media is seen as stressful and hard work – often rewarding and enjoyable – but not at the level found in game work. Game work requires that workers not just identify with the work, but with the medium, content and with the audience as

well. Passionate engagement with the medium is not just a characteristic or benefit of game work – it is a job requirement. Being a gamer (passionate game-player) is constructed as an identity. The benefits of this identity are supported by hiring practices that demand it, and for workplaces that make game play available, easy, and expected. The risk to the worker is that this can lead to an over-identification with the work and open the door to a variety of exploitations such as long hours or unpaid work. As I will also show below, the exploitation of play and passion can lead to burnout and the loss of experienced workers.

3. Gender, Technology & The Digital Games Industry

This chapter will serve as the contextual foundation for my qualitative study of women's experiences of work in the digital games industry. To provide the framework for the perspectives of female game workers I will begin by reviewing the history of the digital games industry. The key foundational frameworks for this paper are that the games industry is hyper-masculine and encourages hyper-identification with the genre (which itself is hyper-masculine). This leads to the marginalization of women who work in the industry and also worked to dissuade new women from choosing the games industry as a viable career. Far from being inevitable, this sitution was created through historical and social factors that impacted the evolution of the industry. In order to fully understand the modern culture of the industry, it is critical to understand the social context in which the industry evolved and what factors led to the masculinization of the industry.

From the history of the industry I will then review the concepts of gender and communities of practice. "Gendered communities of practice" is a concept that I will use to help understand the experiences of female game workers. This theory allows me to consider how and why gendered behaviours operate in the workplace and in creative workplaces in particular. I also draw on Judy Wacjman's framework of technofeminism to bring together feminist thought with technology. More than most other cultural industries, digital games are intimately tied to technology and its uses. The social elements that played a part in the building of the industry also worked to create stereotypes of computer technology and games as a male activity. Video games are technologically and culturally gendered activities which so far have created an industry that has been largely limited to men producing cultural play-products intended for consumption by other men. Challenging technological stereotypes is as important as challenging social and gender stereotypes if we are to see more gender equity in this industry.

This chapter will end with an overview of the structure of the modern games industry. The goal is to describe the gender composition of the digital games workforce and explore the reasons why gender is a critical path of inquiry in this cultural industry. Research on the games workforce is scarce and the picture is largely fuzzy, mainly due to statistical definitions that fail to recognize the industry as separate either from other media and cultural workforces or from other software and IT professions. Despite the challenges, the available data paints enough of a picture to begin to see where women are horizontally and vertically marginalized in the industry.

3.1. A Brief History of the Games Industry

The culture of the new informational economy is very different from the industrial economy (Himanen, 2004, p. 423). It follows that organizations in this new economy would have a culture uniquely suited to the informational economy. Unlike other industries, however, cultural industries have internal cultures that must meet the demands of the culture of innovation, while they also produce culture. It is with the internal culture of the digital games industry that I am most concerned with here. That culture is formed, in large part, by the historical and social context in which the industry evolved. The gaming industry is known for a unique brand of macho-geek gamer culture, burning out workers with demanding work schedules, constant change and instability, and for privileging the youthful and masculine. These characteristics are rooted in the way in which the industry evolved.

The digital games industry formed in the context of a larger social/work revolution where both blue and white collar workers demanded the humanization of the workforce and jobs that were engaging and interesting. By the 1980's companies were focusing on building strong corporate cultures that according to Andrew Ross would boost productivity and company loyalty by "forging emotional bonds among employees and with the company that would feel just as meaningful as those encountered outside the workplace, among families or friends" (Ross, 2003, Chapter 2). An ideal model of a new type of work was found in the high-tech companies of Silicon Valley where youth-inspired passionate informality was a panacea to the puritanical work practices of the traditional corporation:

> ...many Valley startups followed the example of Hewlett-Packard's corporate campus, preserving intact the spirit of a college environment, where tech employees had acquired their monkish social habits and observance of geek dietary laws, along with their self-directed capacity for working without direct supervision, including the gonzo knack of pulling all-nighters to meet deadlines. The HP Way and its imitators fostered corporate versions of the never-never land of the eternal graduate student. (Ross, 2003, Chapter 2)

These new-age tech companies embraced an anti-authoritarian work mentality that grew to become a cultural ethos - a 'no-collar' culture of openness, non-conformity, cooperation and self-management (Ross, 2003). Working long hours to solve creative problems was a standard feature of the 'geeksploitation' of programmers and information technology (IT) professionals. In the 1990's the new workforce culture came from the combination of IT culture and the bohemian maverick style of the urban artist in what Andrew Ross (2003) calls 'the industrialization of bohemia', and what Richard Florida (2002) calls the rise of 'the creative ethos' (p. 21). This mix of maverick individualism and the hacker values of computer programmers and engineers helped to spawn a culture/economy based on innovation and a workforce of enthusiastic anti-commercial technologists. It was in the social context of the re-imagining of work and the new informational economy that the games industry began.

The interactive digital games industry originated from at least two dominant innovations: the first video game and the first computer game. Today we have one games industry, but its roots began in competing battlefields; one from the university engineering departments and hacker culture, and the other in the protectionist military industrial complex (Kent, 2001).

Inventor Ralph Baer was an engineer who worked for a U.S. military contractor. While his team was developing technology for strictly military use, Baer convinced his employer to let him develop a video game console as a side project. The result was the world's first video game console (the precursor of today's XBox and Playstation's). His machine, The Odyssey, was launched in 1972 and marks the "T-minus zero, the year the industry achieved liftoff" (Boyer, 2002, p. 178). Ten years earlier in February 1962 a team at MIT created 'Spacewar', the world's first computer game. The men who invented the game were part of the engineering department and members of the Tech Model Railroad Club on campus. The game was invented as a demonstration of the capabilities

of a new computer and was made by allowing the code to be open to hackers on the MIT campus who then added elements like gravity calculations, starry backgrounds, and explosions (Kent, 2001, p. 19). Thus Spacewar became a symbol of computing innovation, as well as the values and ethics of hacker culture (Kent, 2001, p. 20; Lowood, 2009, p. 8). An entire generation of computer science students was introduced to Spacewar-running computers and one of these students was Nolan Bushnell the inventor of the world's first video game console – Atari, the console that launched games into the mainstream.

Male inventors, designers, animators and entrepreneurs, dominate the early written history of the games industry. The only female game developer mentioned in Steven Kent's (2001) 600 page plus history of video games is Dona Bailey, the co-creator of Centipede, and the only female game designer at Atari. Centipede is recognized as one of the first games that had a broad appeal to women gamers, perhaps due to Dona's influence on the game design (Kent, 2001, p. 160). In a spectacular example of writing women out of history, Electronic Gaming Monthly magazine celebrated the thirty-year history of the industry with a run-down of industry milestones through history. In their version, women are not absent, but are reduced to humorous anecdotes rather than serious contributors.

- 1765 Abigail Adams becomes the first presidential daughter. Villains take note and plot a rash of first-daughter kidnappings for late '80's video games…
- 1920 Women granted right to vote in U.S., opening the door for numerous Barbie games and cake-baking simulators…
- 1963 Silicon breast implants introduced. See Lara Croft, Virtua Fighter's Sarah Bryant and every game from Dead or Alive creator Tomonobu Itagaki. (Boyer, 2002, p. 179)

EGN's article is not an official history, but it is representative of the overall image of the industry and how it pictures itself as a long line of male innovators. Granted - women have played a small part in the evolution of the industry, but the few – like Dona Bailey - that have been there are often forgotten or deemed unimportant. In addition, histories regularly ignore gaming genres like education or social games, in which women may tend to have a higher presence. Thus the games industry itself is largely constructed as being entirely made up of games oriented to the 'core' audience - the

young male gamer. It is akin to writing the history of cinema and only including Hollywood blockbuster action films.

Women, however, do take centre stage during the so-called ‘girl game’ movement. In the 1990's, some in the industry began to notice that girls were being largely left out and that they could represent an untapped market. The technology gap for girls was also broadening and it was felt that games would be a good way to get girls interested in computers (Jenkins & Cassell, 2008, p. 7). This period also saw a growing number of women starting their own gaming companies. The games that were produced for the most part were called ‘pink games’ and were based on traditional feminine values and strong gender stereotypes. The signature successes of the movement included games like "Barbie: Fashion Designer", "My Little Pony" and "Powerpuff Girls" (Kafai, Heeter, Denner, & Sun, 2008, p. xiv). As a counterpoint, some companies produced 'purple games' - so named after Brenda Laurel's game company Purple Moon. Her games were said to get beyond gender stereotypes and appeal to the real life experiences and interests of girls.

While it proved that some girls would play games, the girl game movement largely failed on two fronts. It was unsuccessful in convincing industry insiders to think seriously about gender or diversifying content, and it failed to dislodge the game or the computer as a toy for boys. “Without a more general cultural sense of the diversity of gendered experience, girl games are just another tool with which to construct a gender divide” (Jenkins & Cassell, 2008, p. 14). Today, the choices for girls have grown exponentially beyond Barbie in a market where every movie or television franchise comes along with a video game, but we are still a long way from gender equity in game content. As well, the culture of the industry is still predominantly masculine, with significant consequences for female game-workers.

3.2. Gender & Communities of Practice

Before examining the games industry and women’s experiences as game workers, I need to contextualize the concept of gender. Gender can mean either male or female, but specifically refers to social and cultural differences rather than biological

ones. In this study I am examining how women (the biological category) in the games industry are impacted by and deal with questions of gender, that is: the expectations, conventions, practices and performance of traits that are culturally seen as masculine or feminine. I adopt the position that gender identity is partially performative[1] (Butler, 1990; Jenson & de Castell, 2008), socially and historically constructed, and exists on a spectrum where masculinities and femininities are variable and numerous (Paechter, 2003). Gender is best seen as a verb, something that is continually changing over one's life (Emslie & Hunt, 2009). Gender in this sense is a rejection of dualistic biological determinism and essentialist notions of gender as biological sex.

Gender is a critical element of our social and cultural identity. One's gender identity affects expectations about the kinds of activities a person can and should partake in. Gender affects the expectations put on an individual, and the expectations we have of others as gendered beings (Barker & Aspray, 2006, p. 10). The objects associated with those activities and expectations also take on meanings as either male or female. "Gender works not only through men and women but also through the classification of our activities, and the attribution of worth and significance to those activities" (Beale, 1998, p. 233). Gender then is also a factor in how we see activities such as our work and play, and the meanings associated with those activities. Everything from the structure of the labour market, to workplace relations, the control of work processes and wage relations are affected by gender (Acker, 1990, p. 146). Carrie Paechter's approach to gender combines Butler's (1990) theories about the performative nature of gender with Wenger's (1998) ideas of communities of practice. She uses the concept of gendered communities of practice to address the question of how and why particular forms of gender are performed at particular times and places. This concept is helpful in considering how gender is performed in work. I have found this concept particularly fruitful in framing the gendered practices found in game studios.

A community of practice is a group that has a collectively learned and shared practice. Newcomers to the group, over time, have to learn the culture and practices of the community in order to become full members. In this model, children can be said to

[1] Gender identity is performative, as per Judith Butler (1990), meaning that gendered attributes and acts are not expressive of a pre-existing identity, rather they are social performances made up of stylizations, gestures, and acts, etc., that together constitute the illusion of a gender identity (Butler, J, 1990., p 179).

be learning the practices of masculinities and femininities in order to become men and women respectively (Paechter, 2003, p. 70). The community gains its coherence through the shared meanings and practices, and the process of learning is dynamic and ongoing, constantly being updated and tuned by the community members. Identity is formed through both our internal conceptions, but also through the external assessment of the various communities of practice to which we belong. Being a member of a gendered community can require the display of particular characteristics, behaviours, and "whether someone is recognized as…a full member of the community of masculine or feminine practice will depend on their level of conformity to a whole constellation of practices" (Paechter, 2003, p. 74).

A workplace or an entire industry can also be said to be a community of practice, or perhaps more accurately, an intersection of communities of practice. Belonging to a work community of practice may be more relevant in creative industries where so much of the work demands high levels of personal investment and where workers invest a great deal of personal identity in to the work. In these industries, networking and a heavy reliance on one's reputation for work is also key. In the creative workplace, gender is just one of the aspects of our identity that a creative worker will negotiate in any given day. They also have to juggle membership (and thus behaviours and expectations) in racial and ethnic communities, professional communities (such as genre, medium, occupation), as well as class, economic, political, aesthetic, or indeed any number of socially or institutionally constituted communities.

Our gender identity and the communities of practice to which we hold membership have a corresponding impact on work experiences, which then become reified in many ways; for instance in specific work practices and the products made for mass consumption.

> The women and men who finance, write, produce, market and distribute feature films and television programming are 'doing gender' in a way that simultaneously shapes the work experiences and opportunities of those who participate in the industry and determines the images of gender consumed by a global audience. (Bielby & Bielby, 1996, p. 267)

Many men use work as a place to display stereotypical masculine attributes such as toughness and physicality even when those attributes are unnecessary for the work

itself. Doing masculinity and doing work have perhaps become conflated such that 'work' has become its own community of practice, where everyone experiences subtle pressure to 'do masculinity' at work in order to be perceived as competent (Fletcher, 2004, p. 654).

3.3. Technofeminism and Technology in the Games Industry

The games industry exists in tight partnership with technology; its culture and work practices are intimately connected to computer and information technologies. Technology is the primary form of power in our modern technological society (Feenberg, 2010, p 81). It defines, limits, and enables social relations, the access and control of resources, and structures our experiences, institutions and society.

> It is realized through designs that narrow the range of interests and concerns that can be represented by the normal functioning of the technology and the institutions that depend on it. This narrowing distorts the structure of experience and causes human suffering and damage to the natural environment. (Feenberg, 2010, p. 81)

As a key player in power relations, it is a natural object of concern for feminists who seek to understand the role technology plays in creating gendered power relationships. It is also a subject we need to contend with in considering gender and the games industry.

Feminist approaches to technology have varied since the middle of the last century. Second wave feminism regarded technology as inherently patriarchal. Liberal feminism considers technology to be neutral, defining the key questions as problems of opportunity, access and employment. Today we still see liberal feminist leanings in efforts to encourage girls to take math or science programs, or learn computer coding. The limitation of this approach is that it tends to locate the problem in women, and thus the solution is in helping women adapt to the system, without looking at how the existing technologies, structures and institutions themselves can be more welcoming (Wajcman, 2007, p. 289).

> The equal opportunity recommendation, moreover, asks women to exchange major aspects of their gender identity for a masculine version without prescribing

> a similar 'degendering' process for men. For example, the current career structure for a professional scientist dictates long unbroken periods of intensive study and research that do not allow for child care and domestic responsibilities. In order to succeed, women have to model themselves on men who have traditionally avoided such commitments. (Wajcman, 2004, p. 15)

In the 1990's 'cyber-feminism' recast technology as liberatory, much like the utopian discourses of the internet and the democratization of society that would arise from the network society. The work of Donna Haraway is particularly interesting and influential in this arena. She calls for a new feminist imaginary where women embrace technology as a form of agency, the key to empowerment and a post-gendered world. This approach is perhaps too optimistic, however, as it tends toward technological determinism. STS researcher and feminist Judy Wacjman (2007; 2004) advocates for 'technofeminism' which combines feminist and technology studies. Technofeminism treats technology much like gender - in that neither is pre-existing or fixed - rather they are mutually shaping and socially and historically constructed. The central tenet of technofeminism is that people, society and technology co-evolve. Technology affords or inhibits particular gendered power relations, and people and society also both drive and inhibit certain technologies. Gender relations are embedded in, and constructed by society, and thus become embedded in technology. Gendered identities and discourses are produced along with technology. According to this framework, the marginalization of women in technology has a profound influence on the design, meaning and use of artifacts all along the value chain from design, manufacture, marketing and consumption.

> While it is impossible to specify in advance the desirable design characteristics of artefacts and information systems that would guarantee more inclusiveness, it is imperative that women are involved throughout the processes and practices of shaping technological innovation...Drawing more women into design – the configuration of artefacts – is not only an equal employment opportunities issue but is also crucially about how the world we live in is designed, and for whom. (Wajcman, 2007, p. 296)

Gaming technology, such as computers, consoles, controllers, and software, is more heavily gendered as male. This has consequences for women's use of technology and reduces the chance that women will choose a career in software or gaming. There is a critical gender divide particularly in computers (Cooper, 2006). As discussed earlier, computers were created and designed in institutions with heavily masculine cultures, such as engineering departments at American universities. Social stereotypes of gender-

appropriate behaviours and disciplines, along with the masculine (nerd) culture of computing, created the stereotype that computers are the province of boys and men, not girls and women. The particular history of games with its roots in the military industrial complex and computer engineering labs, also created video games (and their corresponding technologies) as an exclusive past-time of boys. Today the problem of the digital gender divide begins early as most children begin their interaction with computers through the video game. Children either learn to play video games themselves, watch others play them or are aware that their older siblings, neighbours, or friends are playing with them (Cooper, 2006). "The problem that went unnoticed for too long was that it is predominantly boys who visit video arcades and it is predominantly boys who spend hours with their favourite games" (Cooper, 2006, p. 323).

It is important for us to care about whether women and girls are attracted to games. The attraction is determined partially by cultural constructions of gender which are connected to those of power:

> It is not just that girls seem to like today's computer games less than boys do, but that these differential preferences are associated with differential access to technological fields as the children grow older, and this differential access threatens to worsen as technological literacy increasingly becomes a general precondition for employment. (Cassell & Jenkins, 1998, p. 11)

Gender imbalance in technology is an instance of gender segregation in modern society and it works to exclude women from the professional creation and use of technology (Cohoon, 2008, p. 206). As technofeminist theory points out, technology is co-created with society and embedded with gender norms, which inherently involves narrowing the range of interests embodied in the technology. Involving women in the creation of technology is key to expanding the normative use of computers and games by women.

3.4. Women & the Modern Digital Games Industry

3.4.1. An Overview of the Global Digital Games Industry

In the last forty years we have witnessed nothing less than the rise of a wholly unique mass entertainment medium. The video game business has grown from university computer labs to a multi-billion dollar global industry that rivals Hollywood and

the music industry in competing for consumer entertainment profits (Deuze, Bowen Martin, & Allen, 2007, p. 336). As Charles Leadbeater and Kate Oakely (2001) point out; “A single creation of the UK [games] industry - Lara Croft - earned more overseas for the UK than the Spice Girls, who in turn earned more in their peak year than some manufacturing industries” (p. 30). To understand the extent of the cultural propagation of digital games, let’s compare them to theatrical motion pictures. The U.S. game market hit $18.6 billion in 2011 compared to only $10.6 billion for movie tickets (Motion Picture Association of America, 2012). The game industry is projected to grow a minimum of 10% each year and has done so every year since 2005 (Cruz, 2012), whereas the movie industry shrunk by 4% from 2010 to 2011 (Motion Picture Association of America, 2012). The games industry now commands a larger audience than movie releases. The Entertainment Software Association (2011) estimates that 72% of US households play computer or video games. The Motion Picture Association of America puts the proportion of American households who attend movies lower, at 67%. As a species, we now spend over three billion hours a week playing video games, with some people spending as much as 40 hours a week playing games (McGonigal, 2011, np). Video games are no longer a cultural or technological backwater, nor are they the solitary hobby of basement dwelling teenagers. They are a mainstream activity enjoyed by a significant majority of the population.

The games industry is still located largely outside of traditional media institutions. Yet it has much in common with the structure and work practices we see in other cultural sectors such as film or television as well as with software and computer industries. Mass media such as television, film and news are dominated by a few global corporate players. A similar situation exists in the games industry. Generally speaking, the industry is organized much like a pyramid. There are a great number of small and independent game developers at the bottom of the industry, with a very small number of global companies at the top (Deuze, Bowen Martin, & Allen, 2007, p. 342; Dyer-Witherford & Sharman, 2005). The large game publishers at the top of the global market also tend to control the primary distribution gateways to consumers. Games are designed in one country, engineered and components developed in others and then sold to a worldwide audience. The key elements of the industry must be seen in the context of a global shift towards flexible cultural labour, distributed across national boundaries. Large global

publishers like EA, Activision-Blizzard and Ubisoft, for example, finance, market and distribute games, but also acquire and participate in development studios. They often operate in every global market "thus controlling - much like the Hollywood movie studios - the major distribution bottleneck of the industry" (Deuze, 2007, p. 211).

Until very recently, the industry was divided based on two technologies, also known as platforms; computer games were played on personal computers and video games were played on game consoles (e.g.: Playstation or XBox). Both are largely controlled by the large global publishers and developers (Sony, Microsoft). Now an array of platforms such as online games, mobile phones, cloud gaming and tablets exists. New platforms have created a market for low-cost casual games that can be played on these new platforms. Digital distribution is now possible through faster broadband infrastructures, enabling consumers to purchase and download games without having to visit a retail store. Digital downloading through open services such as STEAM[1] has opened pathways for independent game developers to bypass large publishers and sell their games directly to consumers.

Even though the market is more open to independent developers than ever before, the Triple-A games still dominate in terms of revenue. Triple-A games are large selling games with budgets between $10 and $50 million (and growing), production teams numbering in the hundreds or thousands, and development cycles measured in years. Games at the top of the market tend to be technologically advanced - even cutting edge. Consumer expectations are high and risk of failure is mitigated in much the same way that Hollywood studios do - by concentrating on well known and proven properties. The games industry is at least as addicted to the sequel and franchise as Hollywood. Triple-A games can be long term franchises with endless sequels spanning decades. One of the most successful online role playing game - World of Warcraft - began as a franchise in 1994 and is now in its 18th year. Nintendo's "Mario" is the best-selling game franchise of all time, with the lead character of Mario appearing in over 200 games starting from 1981 and the latest set to release during Christmas 2012. The best selling video game of 2010 was "Call of Duty: Black Ops", the seventh sequel in the series.

[1] STEAM is a digital distribution and communication platform developed by Valve Corporation. They carry software for online play or download from both independent developers and large publishers. As of December 2012 they claimed to host 1860 games and over 54 million active users.

> The phenomenon is roughly analogous to the fortunes of the contemporary film industry, which also spends a very high proportion of its development budgets on "tent-pole" blockbusters. 2010's blockbuster video game was arguably Activision's "Call of Duty: Black Ops", which booked $650m in sales in only five days. (SECOR Consulting Inc, 2011, p. 17)

Due to the high level of technological difficulty and blockbuster sized budgets, Triple-A games tend to only be made by the largest game companies with the most resources. Thus, the game industry is primarily focused on producing content concentrated on a small number of franchises, made at a very high cost and supported by equally high marketing budgets.

3.4.2. The Canadian Games Industry

The political economy of the gaming industry in Canada is an important consideration for academics and policymakers, particularly as more and more Canadians become gamers and the industry continues to grow in cultural prominence and economic impact. Already our federal cultural agencies are beginning to acknowledge the importance of gaming by linking it with other media platforms such as television and film and opening new funding envelopes for game developers[1]. The industry in Canada is credited with providing high quality and high paying jobs, driving creativity and technology essential for future economic growth and even for the revitalization of urban neighbourhoods by attracting young workers to low-rent areas (SECOR Consulting Inc, 2011, p. 7).

There is good reason for the recent attention paid to the industry by policy makers: Canada is a major player in the global video game industry. The industry contributes an estimated $2 billion in revenue to the national economy and employs approximately 16,000 workers and supports approximately 350 companies, making Canada the third largest player on the global video game stage (SECOR Consulting Inc, 2011). The industry in Canada is also expected to experience double-digit growth in the coming years vastly outpacing the Canadian economy overall. The Canadian film

[1] One example is the Canadian Media Fund which now allows game developers to apply for funding from their experimental funding stream. The CMF also requires television producers to include an interactive element, a website or a game, to their overall production strategy.

industry, by comparison, shrunk by 11% in 2011, and the television sector increased by less than 2% (Canadian Media Producers Association, 2011). Next to the film and television sectors, the Canadian games industry employs far fewer workers, and supports a fraction of the number of companies. Despite this, the games industry produces about the same amount of economic volume as the Canadian television industry.

The Canadian industry and workforce is geographically concentrated in Montreal, Toronto and Vancouver. Several large Triple-A publishers have large studios in those cities, spurring the creation of clusters of smaller independent developers around them. While opportunities abound for independent game developers in Canada, many small developers exist in very precarious circumstances in a highly competitive industry. More than 71% of companies in the industry fall into the micro or small company[1] category, but provide less than 16% of the employment. Large companies make up the smallest proportion of the industry in terms of numbers but employ 60% of the workforce (SECOR Consulting Inc, 2011, p. 8). It is not clear whether the statistics accurately capture independent developer sector. Many independent developers work on their own, have no company structure, no funding, and simply develop games from home.

> The majority of game developers in Canada are financially insecure, relatively unknown micro-enterprises. Many are unpublished game-makers, working in makeshift offices to create prototypes that are financed by personal savings, supplementary employment, bank loans, or, in rare cases, venture capitalists. (Dyer-Witherford & Sharman, 2005, p. 191)

Canadians are also avid gamers. An estimated 59% of Canadians play games (Entertainment Software Association of Canada, 2011) but the vast majority of the games they play are non-Canadian in origin. Unlike the film and television sectors, there is no such thing as Canadian content in games, and the industry is not yet regulated as an industry that provides unique Canadian culture. Regulating the Canadian portion of the industry might prove challenging, as Canadian revenues make up a tiny proportion of total sales even for Canadian developers and industry executives typically regard Canada as a subset of the U.S. Market (Dyer-Witherford & Sharman, 2005, p. 194). The

[1] A micro-business is a company with less than 5 employees. A small company has between 6 – 50, while a large company has over 150. (SECOR Consulting Inc, 2011, p.8)

content made by Canadian game developers are exported globally, and most of the games that Canadians play are imports. The majority of the mid-sized and major studios in Canada are foreign-owned. Global companies like Electronic Arts ("EA"), Activision and Ubisoft are the largest employers in Canada and are among the largest game companies in the world. It is estimated that well over half of the revenue from the Canadian industry comes from international companies. Part of their global strategy is to buy up promising independent studios and roll them into their global enterprises. EA notably did this when it acquired the Canadian global success story BioWare in 2008. Bioware is responsible for some of the world's most successful franchise games such as Star Wars, Mass Effect and Dragon Age.

The Canadian industry has been plagued by instability as company failure and studio closures are a common occurrence. In 2005 Nick Dyer-Witherford & Zena Sharman published a study that included ten large and mid-sized Canadian game corporations. By 2012 only four of those companies were still open and under Canadian ownership, and another four had been purchased by international game companies. Despite this, much of the information and official reports on the games sector is unflappably positive and the industry cultivates a youthful and cool image. "For sheer glamour there are few industries that can match it" (SECOR Consulting Inc, 2011, p. 7). In general, jobs in the industry are "knowledge-intensive, challenging, team-oriented, and fast-paced, and are held disproportionately by younger workers" (SECOR Consulting Inc, 2011, p. 6).

The games industry globally and in Canada is staggeringly successful but it is important to remember that it has grown in to a global industry in about thirty years, with the majority of the growth occurring in the past decade. The rapid expansion of the industry has challenged the industry to adjust to meteoric growth without established workforces, routines and standards (Deuze, Bowen Martin, & Allen, 2007, p. 336). The outcome is an industry that is professionalizing but still struggles with professionalism; work practices in games are less formalized than in other media sectors (Kerr, 2011, p. 226). The lack of standardized practices, employee turnover, burnout, youth-oriented corporate cultures, and a host of other issues (some of which will be discussed below) may be seen as the growing pains of an industry moving from cottage to corporate at breakneck speed (Deuze, 2007, p. 221). It is in the workforce that many of these

growing pains manifest themselves, and it is to the make up of the games workforce that I now turn.

3.4.3. The Digital Games Workforce

The global nature of production has spurred the development of a very mobile and global workforce and the individual game worker likely experiences much of the same structure and organization of the industry no matter what country they live in. (Deuze, 2007, p. 209). Digital games work shares many elements of the new forms of immaterial and affective labour that is shared by other cultural industries: youthful age profile, flexible working hours, erasure of boundaries between work and play, up-skilling, and mobility (Kerr, 2011, p. 225). Team size can vary widely in game production. Triple-A games may have production teams of hundreds of workers, whereas a mobile game could be made by one person working from home. As technology improves game become more complex. This has meant that team size on the largest games is increasing at a rapid pace. Games that used to be made with a team of thirty may now be produced by teams which number in the hundreds, creating challenges for managers and workers to cope with new working realities. Larger teams also mean increased job compartmentalization and specialization: one programmer (or a team) may do nothing other than color water textures, while another will only focus on programming the physics of explosions, for example. Workers in large teams typically only touch a small part of the game. In this situation the opportunities for creative autonomy are eroded.

The ‘core’ jobs in the industry are the ones that directly relate to the game content itself and include: programmers, designers, artists, animators, testers and producers. Designers are responsible for the basic game concept, designing levels and how the game works. Artists and animators work on the look of the game. Programmers are responsible for the underlying mechanics of the game. According to the Game Developer Magazine’s annual salary survey, programmers are the highest paid core position in gaming with an average annual salary of $93,263 (Game Developer Magazine, 2012). Quality assurance professionals are the lowest paid workers in the industry, reflecting the trend that this position is often the first entry point for many workers into the industry who don’t have other specific skills like programming. The International Game Developers Association [IGDA] demographic survey of the industry

found that the industry is male (88.5%), white (83.3%), heterosexual (92%), and young (avg age: 31) (International Game Developers Association, 2005, p. 9).

Digital games work, like film and television work, tends to be organized around individual projects where workers are laid off in between projects. However, the games industry workforce may, on average, be less precarious than other cultural industries. It has a much higher rate of full time employment and large Triple-A publishers and developers employ the majority of workers. While the industry has a history of corporate instability, there are signs that employment may be stabilizing for workers. In 2011 the industry was significantly more stable than in previous years as layoffs fell to a low of 13% (Game Developer Magazine, 2012). According to the most recent GDM survey, game workers also seem to have good access to benefits like retirement, medical and dental plans with the vast majority of workers reporting they receive benefits. So while the film and television workforce shares some of the laundry list of complaints that games workers do, many of them are also different, and I will explore these in more detail in Chapter 5.

3.4.4. Women in the Games Workforce

Women are a significant minority in the digital games industry, but finding out exactly *how much* of a minority, and where they are working is significant challenge. One of the most glaring deficiencies in Canadian media statistics is the paucity of information available on the digital media and gaming industry - a shocking fact considering Canada's status as the third largest games industry globally. Little to nothing is known about the digital media sector in Canada. The problem partially stems from the use of the North American Industry Classification System (NAICS) by Statistics Canada. While it is possible to isolate the employment of women in the 'communications sector', (which hovers at around 40%) none of the available data captures the digital media workforce (Nordicity, 2012).

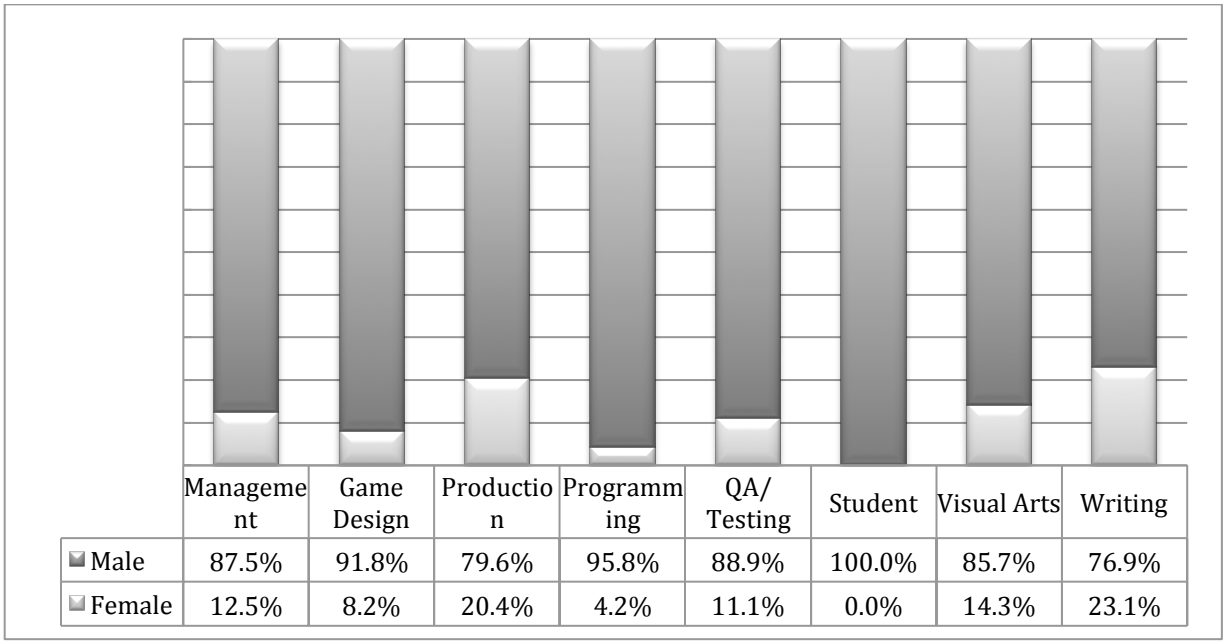
We are left then to rely on international data and smaller studies to glean a sense of how women are participating in this sector. Some studies of digital media claim that there are positive signs for the increasing participation of women in digital media. The recent study '49 Pixels' (2011) put the average age of the digital media worker in

Canada at 28 years old, and within the 22-34 age bracket, 63% were estimated to be women, with women making up 51% of the digital media workforce overall (Pixel to Product, 2011). However, they admit that the industry is still dominated by white men, and that in particular men dominate the workforce over the age of 30. The study authors hypothesized that this may indicate that more women have entered the industry after graduation, resulting in a young 'bubble' of women coming up through the workforce, or alternately that women may be leaving the industry before they reach the age of 30. This study is unclear about what occupations women hold, staying silent on questions of gender segregation.

Internationally data is easier to find, and could point us towards how things might be in the Canadian industry. In general we know that the representation of women in the U.S. and U.K. industries is very low compared to other creative industries (Kerr, 2011, p. 226). In the UK women make up approximately 6% of the sector's 7000 workers (Prescott & Bogg, 2011, p. 209; Skillset, 2012). The International Game Developers Association (IGDA) is the best source of information on the North American games workforce. Their 2005 workforce survey of 6500 game workers (which included 745 Canadian workers) showed that the industry is highly gendered with women making up only 11.5% of respondents (International Game Developers Association, 2005).

The IGDA makes the raw survey data available to researchers on their website. I wanted to see if the survey data would tell us anything interesting about the Canadian workforce. To do this I isolated the 745 Canadian responses and analyzed them based on occupation and gender. (See Fig 1.0) Only 80 (10.7%) of the Canadian respondents were female. The average participation of women in all occupations is relatively high, at 18%, hinting that perhaps Canadian women are having an easier time accessing game jobs or retaining employment.

Figure 1.0: Gender Ratio by Occupation in Games: Canada



	Management	Game Design	Production	Programming	QA/ Testing	Student	Visual Arts	Writing
Male	87.5%	91.8%	79.6%	95.8%	88.9%	100.0%	85.7%	76.9%
Female	12.5%	8.2%	20.4%	4.2%	11.1%	0.0%	14.3%	23.1%

One of the largest employment issues in game work however is occupational segregation. In the IGDA study and others men dominate core content and management positions (International Game Developers Association, 2005; Prescott & Bogg, 2011, p. 210). The Canadian survey results confirm that the Canadian workforce mirrors the occupational segregation found in other countries. Women are significantly under-represented over-all, but are nearly absent in core content-determining positions like programming (4.2%), game design (8.2%), and arts (14.3%).

Most worrisome of all is that of the Canadian students who responded to the survey (74, or 10% of the respondents identified as students), none of them were women. Companies are increasingly hiring new graduates to fill open positions and game design and computer science programs represent the most significant pipeline to employment in the industry. If there are so few female students it casts significant doubt on the hypothesis that we can anticipate more women entering the field upon graduation. The full international IGDA survey contained 859 student responses, of which 81(9.4%) were female. Research on the current gender ratio of students in Canada is critical. With so few women in the pipeline, the industry will be hard-pressed to increase its gender diversity.

More recent studies appear to indicate that the participation of women in the games industry may be in decline. In the annual salary survey done by Game Developer Magazine (2012), the proportion of women responding to the survey fell to 2.9% in 2012, down from 4% in 2010. Based on their estimates, women make up only 3% of programmers, 10% of designers, 13% of artists/animators and 16% of producers. These are very similar numbers to what was found in the IGDA survey of 2005, and also reflected in the data we have isolated for the Canadian respondents.

The lack of women in developmental roles (those that relate directly to the product) is worrisome because it means that women have very little voice in the content, interaction styles, character representation and reward systems in games. This becomes an increasingly critical point as women have grown exponentially as game consumers. Current estimates put the proportion of female gamers at close to 45% (Entertainment Software Association of Canada, 2011). This is a significant win for women as it has long been argued that getting women to play games is an important step towards getting them to choose careers in technology. The industry is even beginning to take notice and games that appeal to women are becoming ever more popular.

3.4.5. The Importance of Gender in the Digital Games Industry

Even though the rise of the female gamer will have an impact on industry work practices and content, let's not hoist the 'mission accomplished' banner just yet. Gender is still particularly critical in video games on multiple levels. The games industry's gender issues go far beyond women as consumers and players. While all media industries are gendered in some way, the digital games industry is more heavily gendered and segregated than other cultural fields. As we saw in the industry statistics above, women are grossly under-represented in the games industry. The masculine nature of the games industry is pervasive and dominates the culture, content, and technology at every level (Dyer-Witherford & de Peuter, 2006, p. 606; Laurel, 2008, p. 23);

> Despite women's massive consumption of new media, however, the reality of women working in the ICT industries is less changed than might have been expected (Gill 2002; Perrons 2003; Whitehouse 2006). For all the hyperbole about the network society, it has not led to women's full integration into its design. The Internet does not automatically transform every user into an active producer, and every worker into a creative subject. The potential for

> empowerment offered by ICTs will largely be realized by those groups with technical knowledge who understand the workings of the machine. Acquisition of this know-how will become ever more critical, and gender imbalance in technical expertise ever more telling. (Wajcman, 2007, p. 295)

The hyper masculine culture of the industry defines women as external to the industry and marginalizes their experiences as workers and players. Even for women who are 'man' enough to take on the industry, many companies make it clear that their ideal employee is a young man[1]. The gendering of the industry also extends into many of the disciplines that provide training and education for the industry, for example, computer science where female enrolment has been declining in North America since the 1980's (Dyer-Witherford & de Peuter, 2006, p. 606), leading some researchers to conclude that "we have to face the fact that twenty-five years of interventions have not worked (Cohoon & Aspray, 2008, p. ix).

None of this has gone unnoticed of course. Industry organizations like the International Game Developers Association have taken a serious look at gender in their various reports and surveys as a response to the overwhelming gender discrepancy in the workforce. The annual Game Developer Salary survey measures respondents by gender and racial background as well as ability. The IGDA has a Women Developers Special Interest Group (SIG). Major industry conferences have sessions on quality of life issues, and book female developers as keynotes and panelists. 2012 marked the first year that the prominent Game Developers Conference featured an all female cast for its keynote speakers.

While there are signs that the industry is taking gender diversity seriously, too many things remain the same. It is in this context that I have undertaken the task of exploring the experiences of women working in an industry that is masculinized on every level. It is only through listening to the voices of women as consumers and as creative workers will we be able to press for diversity and equity in an industry that increases its cultural reach and economic scope year by year. The next section is dedicated to looking specifically at various work practices in the games industry and the experiences of female game workers.

[1] A recent example is am entertaining recruiting video found at www.kixeye.com

Section 2: Qualitative Study: The Experiences of Female Game Workers

4. Methodology

The primary goal of this research is to develop an in depth understanding of the experiences of female game workers and to understand the factors that will impact career retention. To find answers, I have conducted qualitative in-depth interviews with female game workers and asked about their experiences as they relate to their work environments, career opportunities, and their interpretations of questions of gender (eg: sexism, doing gender, etc). Interviews provide the best way to expand on other studies of female game workers where data was generated through the quantitative analysis of game-worker surveys, such as the work of Julie Prescott and Jan Bogg (2010; 2011) and the IGDA (2005). This approach mirrors that of Mia Consalvo's (2008) study of female game workers. She conducted in-depth interviews with 10 women working in the industry and married that information with her personal experiences at game conferences and with email conversation from the IGDA's Women in Game Development Special Interest Group. This group generates a very active email list, which I also subscribed to as a way to supplement my understandings of the experiences of women in the industry.

Interviews were chosen over a case study approach because of the highly variable nature of the type and culture of game companies, and because a case study would not provide the breadth of experiences I was hoping to capture. A case study approach would be limited by the statistical lack of women in the industry, currently estimated at around 10%. Even companies with "high" levels of female employees are likely to only have a handful even on a large team. Companies that have ratios of women over the industry average also tend to fall into the social and casual games category or be focused on making content for the female market. Thus a case study would have provided me with either a) too few women to speak with or b) women who are working in non-typical or specialized environments for the industry.

4.1. Methodological Approach: Theory

This research is influenced by the paradigms of constructivism, grounded theory and more generally, feminist approaches to research. In particular, constructivist grounded theory provides several benefits that suit this study and my own professional position as a member of the larger group being studied. Grounded Theory is a qualitative method pioneered by Barney Glaser and Anselm Strauss and described in their 1967 book "The Discovery of Grounded Theory." In the years that have followed, the method has developed into various paradigms. Recently a constructivist methodology of Grounded Theory has emerged which is ontologically different from the Glaser & Strauss classic version. Classic grounded theory is founded on critical realism and is ontologically positivist. By contrast, constructivist grounded theory ("CGT") is ontologically relativist, epistemologically subjectivist and methodologically hermeneutical (Mills, Bonner, Francis, & Karen, 2006, p. 8).

The method calls for analysis that is grounded in the perspective of the actual participants through an active, non-neutral researcher (Charmaz, 2008). The advantage of this theory is that my professional experience as a female media creator and gender activist becomes a reflexive and recognized part of the analysis by making it an element of the methodology. The paradigm also calls for researchers to have a stake in the phenomena they choose to research and for researchers to be aware of their own perspectives. There is no question that the games industry and female content creators are areas of concern to me. On the most basic level, I have been a passionate 'gamer' for a decade (and a woman for considerably longer). On a professional level, the games industry represents an area of opportunity and challenge as my industry - traditional film and TV media - is converging rapidly with games through trends such as the gamification[1] of content and the cross-platform potentials for creative IP in today's media landscape. For the past two years I have also been working in the area of gender advocacy in media and have been working with both female game workers and women

[1] Gamification refers to the trend of adding game-thinking and game-like elements to non-game media in order to engage users. For instance, adding a small game to a website, or adding badges to mobile apps (e.g.: Four Square) or exchanging points or gifts for customer interactions. The TV show LOST had an entire mystery game online that existed in partnership with the show. Viewers could interact with various dummy websites looking for clues to unlock additional content.

in film and television sectors to create training programs and conduct sector research. It would be fair then to characterize me as having a professional 'stake' in this research, which can be a double edged sword. The goal with CGT is not to reach an objective truth about a social phenomenon, but to understand the position of the subjects. The method provides a way for me to use my industry knowledge to my advantage in my research by allowing for a subjective and co-creationist position and voice in the analysis and writing.

To bring my perspective openly into the research (as opposed to hiding it, or treating it as irrelevant), I began each interview by informing subjects about my professional experience and my position in relation to the research questions. At the end of each interview, subjects were asked to provide feedback on whether they felt that my position impacted the questions or potential outcome of the study. (E.g.: did they feel I had an agenda, and how did they feel about that?) This provided subjects with an opportunity to agree or disagree with any perceived position that I was taking, as well as serve as a tool for me to check my perspectives against those of the subjects.

4.2. Approach & Initial Analysis

Building the Sample

CGT calls for the use of theoretical sampling: building an emergent sample based on concepts as opposed to demographic factors. The demographic criteria of 'female' was impossible to avoid in this case, but other factors were considered in building the sample for this study. Potential subjects were approached based on their employment status and occupational category and only women who worked directly on game content and in core positions were approached. Thus all of the women (including one MtF trans-woman) approached for interviews are currently working in the global games industry in content production positions. Women were not selected based on any other specific demographic factors, (e.g.: location, age, etc.). Women from non-production areas (eg: Finance, HR, Marketing) were excluded from the sample because I wanted to explore the experiences of creative workers directly working on game content. In addition, only the largest of companies are likely to have departments of

finance, HR and the like, whereas indie studios tend to be much smaller and workers are often asked to wear multiple hats and almost everyone has a hand in content production.

Snowball sampling was used to find interview subjects. Women were selected for interviews based on recommendations from other female game workers and through my own professional connections. Some women were approached based on their reputation or online presence - for instance in blogs, online forums or the IGDA Women in Games list-serve. However, the main method of selecting women to interview was through the professional networks of women previously interviewed. It became apparent early on that the networks of female game workers were not limited by geography or international borders, so it was necessary to interview women from a variety of geographic locations. Speaking to women in multiple locations has provided the study with a broader range of women who work in different companies, sectors, and positions.

Forty-five women were approached for interviews and 25 (55%) responded indicating that they were interested in participating. Due to scheduling conflicts and time constraints a total of 15 interviews were completed. (See Table 1) Interviews took place over a period of four weeks and women were approached in three waves in accordance with theoretical sampling methods; As one set of interviews were complete, another set of invitations would go out with a more targeted focus based on the themes emerging from the initial interviews. For example, independent game developers stressed themes relating to the difference in work cultures between their companies and large publishers. Thus I made more concerted efforts to reach out to women working at large publishers, or who had career histories that included those work environments.

The sample was capped at fifteen to meet the time constraints of the study and also because of the general guidelines of CGT with regards to data saturation. Theoretical saturation is the continuation of sampling and data collection until no new conceptual insights are generated. In qualitative studies, there is a point of diminishing returns. More data does not lead to more information because one occurrence of a piece of data, or a code, is all that is required to include it in the analysis. In my judgment, I had reached a near saturation point at 15 interviews.

Table 1: Study Participants

Int. #	Age	Current / Most Recent Job	Marital Status	Family	Education	Yrs in Games
1	32	Co-Founder: Indie Studio	Unmarried	No Children	BA:Computer Science	11
2	35	COO: Indie Studio	Unmarried	No children	College:Childhood Education	13
3	30	Game Designer	Unmarried	No children	PhD: Game Design	6
4	46	CEO: Indie Studio	Married	Children	BA:Political Science, BSW&MBA	7
5	35	Co Founder: Indie Studio (Art)	Divorced	No Children	3D Animation	12
6	29	Creative Director	Unmarried	No Children	BA: Computer Science	6
7	42	Designer: Indie	Married	No Children	MA: Communications	13
8	25	Developer, Co-Founder: Indie	Single	No Children	BA: Psychology	7
9	35	Producer	Unmarried	No Children	BA: Applied Science	9
10	29	Research Assistant	Single	No Children	PhD: Games	4
11	29	Environment Artist	Married	No Children	Illustration & 3D Modelling	2
12	34	CEO: Indie Studio	Married	No Children	BA: Business Admin	13
13	33	Co-founder: Indie Studio	Married	No Children	MFA: Interactive Media	6
14	37	Tech Producer	Married	Children	Electrical / ComputerEngineering	14
15	33	Production Assistant	Divorced	No Children	Electrical Engineering	3

Three of the women were interviewed in person and the rest were interviewed via online communication (Skype). Of the twelve women interviewed over the internet, five were interviewed using the Instant Messenger (IM) feature of Skype which produced a text document of the questions and responses. Audio interviews (in person and through online voice communication) were audio taped and transcribed by me. Identifying information such as proper names, the names of past and current employers, city of residence and the names and details of specific game projects have been excluded to provide anonymity to participants.

Interviews were conducted based on a directed conversation style and all lasted between one and two hours. Using a directed conversation approach allowed for concepts to naturally emerge by allowing subjects some freedom to take conversations in whatever direction they felt motivated. Questions were designed as open ended, and encouraged 'story-telling' from the interview participant. Kathy Charmaz (Charmaz, 2008; Charmaz, 1994) recommends that researchers using CGT structure their interview questions categories such as informational, reflective, feeling and ending. Accordingly, my interviews always began with short informational questions and then moved into reflective storytelling (e.g.: tell me about your first job in games?), then feelings (e.g.: How do you feel about your workplace?). While I entered each interview with a pre-set list of questions, it was continually refined through the study process and in each interview. In general each subject was asked about the following thematic areas:

1. career history and motivations for working in games;
2. work-life balance;
3. workplace and studio culture;
4. gender and discrimination;
5. feelings about game content and female representation in games;
6. their personal views on the statistical lack of women in the industry;
7. education, training and approaches to technology.

Other topics would be added to the interview if the subject brought them up, and each interview would be weighted towards various themes depending on the perspectives and attitudes of the subject. For example, a woman with strong experiences of workplace sexism would be asked more questions about those situations than a woman with no experiences of workplace sexism. Consistent with a more inductive (grounded-theory) approach to coding, the initial coding of the interviews began almost immediately and emerged entirely from the interviews themselves, as opposed to using a pre-determined code framework and trying to fit the data to it. Once all of the interviews were complete, the process of coding involved several passes where codes were refined, added, collapsed and edited.

Initial Analysis

Job titles of women in the sample ranged from CEO's to designers, producers and artists. One subject (#10) was heavily involved in the community but turned out to be only indirectly involved in game production and so has been excluded from the

analysis. The women in the sample ranged in age from 25 to 46, and spanned a range of experience levels. The average years of experience working in the games industry for this sample was 8.7 years, with the lowest being 2 years and the industry veterans topping out at 14 years. The sample represented a full range of relationship arrangements with a majority of the women being married or common-law. Only 2 (14%) of the women in the sample had children. To my knowledge, all of the women were heterosexual (discerned through language they used such as 'boyfriend', husband', etc). Information on race was not collected.

Another area of demographic interest for this sample is the split of sectors in which women were currently employed. A majority (11) of the women in the sample were currently employed in the independent sector, whereas three were employed by large global developers or publishers. In this study, I define the independent sector to include micro to medium sized enterprises that can have anywhere from 1 to a few hundred employees. These companies are focused entirely on developing content and are reliant on either low-cost online self-publishing or on contracts from the large publishers to distribute their content. Mainstream Triple-A publishers tend to employ thousands of workers in multiple locations and countries and their businesses include both the development and mass distribution (publishing) of content that they make in house as well as from independent developers. In this way, they very much mirror the independent producer vs. Broadcaster/studio model that we find in traditional media such as TV and Hollywood infrastructures.

Of the women who responded positively to a request for an interview, but who were unable to schedule a time, the majority worked for large mainstream publishers. Connecting with those women proved to be more difficult as they reported they would get home very late at night and most felt as though they lacked the flexibility to connect while they were at the office. The women who worked for independent developers more often reported greater flexibility, often saying they could talk 'any day, anytime'. Women who worked at the large publishers also reported that they had to obtain their employers permission prior to setting up the interview, which may have become a barrier for participation for many of them.

That the sample is weighted towards the independent sector was at first worrisome. However, as I discovered through the interviews, at least five of the women currently employed in the independent sector had multiple years of experience working for mainstream publishers and were able to speak to those experiences. This allowed me to explore questions relating to the difference between sectors and what factors are at play when women choose to work on either the publishing or indie side of the industry.

5. The Experiences of Female Game Workers

The culture of the games industry affords female game workers with a multiplicity of advantages and disadvantages. In this section I will review the experiences reported by female game workers in relation to the most commonly debated workplace issues reported in the literature on creative work. In this I am particularly influenced by the work of Rosalind Gill (2011) in laying out the ten "remarkably consistent" features of new media work, including gaming work (p. 252). Specifically I will cover 'DIY learning', work-life balance, long hours, exclusionary networking, advancement barriers, and the role of creativity & passion. As the digital games industry is a hybrid technology/culture sector, work practices from cultural, mass media and STEM industries combine to create unique pressures that are not always present in other creative fields. These include the masculine culture of the industry, unique forms of sexism and discrimination, the challenge of 'fitting in' with the team-based work environment, and combatting persistent gendered technological stereotypes. In the sections that follow I will show how these work practices combine to both privilege and exploit a very particular sub-set of the workforce - the ideal worker - while being hostile and exclusionary to everyone else.

Following the lead of Hesmondhalgh & Baker (2011), I am broadly inspired by the question as to whether game work, as it is currently experienced, is good work or bad work for the women who do it. To do this, I approach each section by framing the work practice and how it is gendered in the games industry. I consider key questions such as; how do female game workers experience the work practice; what interpretations are used to frame their experiences, and; what are the practical consequences or resulting behaviours?

The chapter begins with an examination of the culture of the games industry because it is necessary to frame the discussions that follow. Undertaking an examination of workplace cultures moves the discussion beyond participation rates by gender and helps us understand a larger picture. The transmission of knowledge and practices is

how communities of practice operate, but by using Carrie Paechter's theory of *gendered* communities of practice, we can examine how gender operates within organizational and professional cultures. Organizational culture theory also suggests that culture within organizations transmits and influences work practices, behaviours and values (Mierzejewska, 2011, p. 18). I pull from both organizational culture theory and gendered communities of practice to suggest that organizational cultures, with enough scope and taken together, can become industry wide cultures. Organizational cultures are the product of national cultures, shared history and ethos, and the operating environment. According to organizational culture theory, companies within the same sector are expected to share elements of culture with each other, but not with other sectors. This means that we would find many of the same cultural elements shared among game studios, but not among game studios and banks, for instance. In the cultural industries, however, a series of other factors contribute to the proliferation of a unique organizational culture throughout the industry. To begin with, the workforce is highly mobile and employment is often project based. As team leads and game designers move from project to project, their work styles and practices move with them. Networking and reputation are key strategies for creative workers, creating a robust series of interconnections between workers and companies. Industry wide events such as expos, conferences, and markets are critical events that are attended by a very high proportion of workers and many receive a great deal of publicity. Game studios cultivate reputations and brand themselves as cool and fun places to work, often trying to outdo each other to attract the best workers. Lastly, the games industry has a symbiotic relationship with audiences who often actively participate in content creation and modification, moving game industry culture beyond the workplace. These factors take game culture far beyond the walls of individual organizations, and in so doing, make the larger industry culture an important factor in the work experiences of female game workers.

While this chapter begins with a broad view of gaming culture, in reality, every work practice considered in this chapter is a part of the over all organizational and industry culture. Even though the industry is still relatively new, many work practices are already entrenched and normalized as inevitable consequences of worker preferences, technology and the market. This will make changing them a massive task because attempts at change can be seen as attacks on the very soul of the industry.

5.1. Game Industry Culture and the Impact on Work Experiences

5.1.1. Defining Game Industry Culture

Game industry culture is neither homogenous nor fixed. Work practices are applied across companies in variable ways. Every game company does not have a pool table, and not all game studios are male dominated. However, a broad conceptualizing of the culture of the industry is useful because many of the work practices found in the industry are widespread, as are their sources and impacts. Moreover, a culture, if it is strong enough, can take on a power of its own regardless of local variations because it can be understood as the 'norm' or an ideal against which organizations and workers either strive for or resist. Industry cultures are important because they impact the attraction and retention of workers as well as their career experiences and job performance.

Like other types of media work, the games industry has a positive image as a cool and fun sort of work. Game workers in general report that their jobs are satisfying, challenging and fun. Even though most development studios have become part of big multi-national companies and global production processes, many on the work floor cultivate a distinct anti-corporate culture and 'work as play' ethos. Creating a corporate culture that appeals to workers is actually something of a priority among game companies.

> To maintain that creative flow - and employee loyalty - corporate culture has become something of a maniacal focus of games companies…trendy office design, a professed laid back ethos, slick work parties, and 'openness' are all aspects emphasized in gaming's corporate culture. (Dyer-Witherford & Sharman, 2005, p. 202)

The Electronic Arts campus in Vancouver, for example, is an impressive facility that features a soccer field, basketball courts, a gym, massage room, pool tables, day care, and high end catering for their employees. These trendy worker-friendly environments are a boon for employees but they soon find that the pool tables and casual atmosphere come at a cost.

> …developers, initially delighted by their 'work as play' jobs, often found that the very factors that first appear so attractive – individual autonomy, flexibility, a 'cool' corporate context or even a distinctly anti-corporate work culture – can be also seen as a smokescreen to hide the exploitation of the enthusiasm of young game workers and game fans. Such exploitation is also made possible by the unlikelihood of young urban professionals to be married and/or have child-rearing responsibilities – which considering the gendered nature of gamework seems to contribute to its masculine culture. (Deuze, Bowen Martin, & Allen, 2007, p. 347)

Arguably, the creation of casual worker-friendly environments is one method by which the impression of workplace autonomy[1] is produced in the games industry. Being anti-corporate by having pool tables, flexible hours, and casual dress codes is just another way of saying 'be yourself and do what you want'.

Industry cultures are socially and historically formulated, but they are also gendered. The games industry is often described as masculine. This is largely due to its origins in the military-industrial complex and hacker computer culture, which combined to create a heady mix of computer geeks and macho-men who built an industry based on their fantasies and play styles. A gendered organization is one in which "advantages and disadvantages, exploitation and control, action and emotion, meaning and identity are patterned through and in terms of a distinction between male and female, masculinity and femininity" (Acker, 1990, p. 146).

This does not mean that that all men win when organizations are masculine. It means that masculinity confers self-respect and superiority for men at both the top and bottom of the organizational hierarchy (Acker, 1990, p. 145). Organizations do not start off as gender neutral and then become gendered by adding elements to them. Gendering occurs through interwoven processes of organization including the division of labour, language and symbols, processes and interactions, identity formation and social structures (Acker, 1990, p. 146).

The games industry is heavily male-slanted, competitive and "anything but open, friendly or sensitive to workforce diversity" (Deuze, Bowen Martin, & Allen, 2007, p. 346). Relaxed and male-dominated 'laddish' cultures can lead to work practices that operate

[1] Workplace autonomy is identified by Hesmondhalgh & Baker as one of the key components, along with creative autonomy, that creates 'good work' in creative fields. (Hesmondhalgh & Baker, 2011, p. 39)

to exclude women (Gill, 2002, p. 82). The casual atmosphere established by pool tables, basketball hoops, and keg parties at work is based on male past-times; a culture that easily segues into offensive locker-room talk, male-dominated clubhouse practices, and even sexual harassment (Neff, Wissinger, & Zukin, 2005, p. 321; Fron, Fullerton, Ford Morie, & Pearce, 2007, p. 3).

> As a masculine dungeon, the game studio is a place of creative camaraderie, technological intensity, and cerebral whimsy, but it is also often obsessively hard driving, punishingly disassociated from rhythms of domesticity, sleep, and nourishment. In yet another feedback loop, however, the insane hours of work extracted from this male-dominated cultural activity and workplace in turn become a barrier to the participation of women, who will often carry the burden of a 'second shift'. (Dyer-Witherford & de Peuter, 2006, p. 607)

The culture of computing is also a part of the game industry and it overlaps with masculine culture, as evidenced by the language of computing which contains themes of aggression, hierarchy and dominance. "The shouting and swearing in arcades, war and sports games, focus on speed, images of men on software packaging, and utilitarian computer labs were all characteristics of the computer culture that fit masculine stereotypes" (Cohoon & Aspray, 2008, p. 149).

Games industry culture is also tightly inter-related to the culture of its consumers - the community of (historically) predominantly male, ardent gamers from which the industry pulls much of its workforce. That the workforce is comprised of passionate (male) gamers contributes to the work-as-play ethos of the industry. Game play is gendered as an almost entirely masculine activity. This pervades studio cultures, particularly if work teams are allowed to operate as boys-only clubs which "may not be open to having a female team member who would 'spoil their fun'" (Ray, 2004, p. 150). It is not enough then to say simply that game industry culture is oriented towards male play and work styles. The culture is a very specific ethos that is built on being attractive to, and exploitative of a specific type of (typically male) worker who is not just a skilled computer programmer or engineer or designer - but who is also young, assertive, creative, passionate, a loyal team player, and plays games himself.

5.1.2. The Experiences of Female Game Workers

In my study, I wanted to know how female game workers experienced industry culture. I asked women to describe their workplace cultures in both specific terms (i.e.; where they are working now) and in broad terms to comment on the industry culture generally. They all reported enjoying their jobs and loving their careers. They were also all aware of their minority status in the industry, something that was often extremely obvious in some studios.

> So this particular studio, they're a major game company and produced a major MMO[1] and they have hired a ton of guys and I don't think I saw any women except for the woman at the front desk and maybe one who is cleaning, a caretaker. And another one who brought us posters to take away so she must have been in an administrative position. Everyone we talked to, everyone they brought to talk to us, everyone we saw when we toured around were guys and they all seemed nice but I'm not sure if I could work in an environment like that where it's all guys. (Interview #3)

In this particular example the message is that women occupy a lower status because they are under-represented and because they are working in lower status positions. Any potential employee would want to avoid working in an environment where she would be a minority and feel unwelcome as a peer.

Several women defined industry and organizational culture as being one of the core problems impacting both female and male workers. The culture of the industry appears to work more against type than gender. Some felt that gender obscured what was actually a much larger culture problem in the industry. They felt that the 'bro-grammer' ethos worked to privilege a specific type of masculinity: one that prizes aggressive and hyper-masculinized behaviours.

> Actually, gender obscures what is actually a cultural problem. The sensitive guys and the quiet ones kind of get shoved aside too, it's not just women. It's the bro culture – brogrammers and all that. (Interview #8)

> Most game studios operate within a certain cultural bias that are almost impossible to penetrate if you aren't of that same mindset. (Interview #13)

[1] An MMO (massively multiple online game) is a game that is hosted on online servers and played simultaneously by millions of players. E.G.: World of Warcraft, Halo, or Lord of the Rings.

> I think the subject of gender clouds this more fundamental issue of workplace environments. I had men on my team that also suffered in this environment. They were seen as lazy, not as passionate, didn't care as much about the project, because they didn't like heated confrontations and/or had slower methods of processing information. In essence, I think it's anyone with a non-Alpha personality that suffers, regardless of gender or race. (Interview #13)

Working with the communities of practice model, membership as a games industry worker may be predicated on behaving in aggressive ways that have more in common with game-play practices than creative work practices. If a worker does not fit in with the culture of behaviour and practices of the dominant work-group, then they risk being ostracized regardless of their gender. However, women in society in general may be less comfortable with a 'might-as-right' work ethos because it is less a part of the community of practice for most women. In other words, women will be less likely to have been acculturated with knowing how to enact such behaviours. The aggressive 'bro-grammer' culture appears to be experienced by some women as hostile, competitive, cut-throat, and highly stressful. Critically for creative workers, the environment appears to have the potential to negatively impact creativity.

> I've been surprised how many people I've encountered, and some I've worked with, support what I perceive to be a hostile environment. Coming from music and theatre, my experience was always that creative environments should be built to be supportive ones that nurture the development and growth of the people within them. And maybe this is because those fields have more of the types of personalities I think of as being traditionally creative. But in games, there's a strong contingent of people that believe that the best ideas and the best work come from environments of heated conflict, high stress, and "might is right" problem solving. It really challenged me on some fundamental beliefs I had about creative people and how they work. (Interview #13)

It is unsurprising that creative work in this environment tends towards high-stress cultures and work practices. As Richard Florida (2002) points out "if a firm is to survive, it must always top what it did yesterday. The employees must be constantly coming up with new ideas…It's brutally stressful (p. 132)." In the games industry in particular we may have a very good example of at least the ethos behind the "creative and caring sweatshop" (Florida, 2002, p. 132).

Several women offered that the explanation for the rise of 'bro' culture is that the workforce is very young and that the workplace culture is both a result of a young workforce that has a lot of energy to give to work they are passionate about, and

employers who seek to take advantage of workers who are prepared to give everything to game creation.

> I would say an emphasis is put on youthful behaviour. Most of the people that work there are going to be in their mid 20's maybe a few nowadays have made it to their 30's…It was never coming culturally from the top - I think that the assumption that you would work a lot and have a dinner brought for you…working until 11 at night or whatever the long stretches of time to get things done. That even applied when I was working at companies where there were a lot more women or we were making something for kids it wasn't only the hardcore games that this was true for. So [there is] a culture that places an emphasis on and really utilizing the youthful energy and the enthusiasm of the staff and because you don't have to worry about work life balance if they don't have an outside life, marriage or kids or whatever are not really a concern. That's why it's been so hard for the industry to grow up and mature and follow a different model. (Interview #7)

The youthfulness and maturity of the industry was a common theme among the women interviewed. This may indicate that for some women, the youthful behaviours encouraged by the industry, are not seen as cool and fun, but as immature and uncomfortable. An interesting facet of the latter story is the experience that the culture and work practices of long hours survived the addition of women to the workforce, and even through to casual games which are often assumed to contain less of the 'hardcore' work practices of the traditional mainstream industry. While more gender diversity should be pursued, the statistical presence of women alone is insufficient to shift the well-entrenched and normalized culture of the industry.

5.1.3. Competing Cultures: Independents vs. Triple A Studios

One unexpected element that arose from the interviews was the cultural divide between the Triple A and independent developer segments of the industry. The culture of the independent community appears to retain major elements of the anti-corporate hacker and bohemian ethics such as openness, sharing, an emphasis on art and creativity, and strong community. Women working in the independent sector were particularly positive in their assessments:

> The indie developer culture is very very supportive, and it's especially great because technically we're all competitors, we're all trying to get people to buy these indie games but you can sit down with these people and they want to talk about your game idea and they'll sit and they'll listen and they'll get excited…it's

> a wonderful place and I haven't met a nicer group of people with the exception of just a couple of freaks...We all kinda have this shared knowledge because we're all so geeky and grew up wanting to do this and so I think there's really a shared spirit there. (Interview #8)

> Indie culture seems to be pretty community based...We love to share information so we like to do tutorials and we talk about everything, every part of every game that we've ever made because we don't want them to make the same mistake we did. If we can help at all that'd be great and we love what they're doing there's a huge community. (Interview #1)

Independent developers sometimes expressed disdain or distrust of Triple A publishers and mainstream studio culture. Reasons for this seemed to be tied to either past negative work experiences or the challenges that arise from the enormous power wielded by the large game publishers over independent developers.

> I don't think I would ever go work for a big Triple A company because their culture is generally as far as I can tell is really toxic, and it's toxic to men and it's toxic to women. …indie folks - publishers especially we don't like because we see them as an unnecessary middle man who's trying to get a cut of what we're making. A lot of talks at the independent games summit are about are how to work with publishers to make sure you're not getting screwed. There's a couple of those every single year, it's such a problem. (Interview #8)

> [Indies] share a lot of information and we share even things like contracts…I guess we feel like sometimes big companies have so much power over us because we can't hire a lawyer so strength in numbers helps us to erode some of those really unethical contracts and make it a little bit more fair. I think that helps build the community feeling and we're in this together and we need to help each other and otherwise we'll just be stopped dead by these big companies. (Interview #1)

Some women also felt that the independent sector was more open to female game workers because of its community-style culture. More research should be done to explore the particular cultural differences between these sectors, in particular to explore the notion that the independent sector is a more available career pathway for female game workers.

5.1.4. Signs of a Maturing Industry

Encouragingly, some negative elements of game industry culture may be shifting. Several women had experiences that fall outside of the hyper-masculine, youth oriented game studio culture. In some cases positive experiences occurred in situations where

the workforce was older (relatively) and the workplace had policies that support work-life balance.

> We are very family oriented. Kids come and go. We take time off for our families. We try to have life balance, but we also work hard to get things done. We don't waste time. (Interview #4)

> I would say I've experienced a mix of cultures. Some places are very traditional businesses (with a bit of flexibility and fun due to the nature of our product), some were not as mature, and where I work now and with the clients I work with they all seem to be great places that strive for efficiency and productivity while allowing freedom, flexibility, and a proper work-life balance and a comfortable, safe workplace. (Interview #12)

In one case a new Triple A studio was trying to deliberately develop work practices that differ from the norm and use the experiences of seasoned workers to develop a healthier corporate culture.

> In this particular studio I'd say the culture is really healthy, simply because of how we've approached it from the ground up since the very beginning. We wanted to start the studio with a culture of respect knowing that a lot of people were changing their lives and relocating in some cases thousands of miles to try this studio…we wanted to have a culture of like we all know we've gone through nightmare projects in the past, let's do it better. Lets learn from each other…there's a huge pressure to do that right and not wake up …10 years down the road and be like oh we've just created some bad factory basically, there's so many stories in the industry of poor working conditions and people burning out and stuff like that so we really wanted to do this the right way as much as possible and because of that we've brought in people with the same ideas so…most people came in saying ok I'm coming in knowing that I'm helping to build a studio. (#9)

This experience indicates that for some workers, at some companies, work practices may be improving. One studio trying to create a different working culture is encouraging, but it remains to be seen whether such initiatives can have a deeper impact on game culture and other organizations. It is also an unknown as to whether such changes will be enough to help attract more women to the industry, or retain those who are there.

5.1.5. Fitting In: Being the Right Kind of Worker

A theme that arose out of the interviews was the cultural encouragement of specific aggressive behaviours and a particular type and personality of worker. In game workplaces passionate play is a vital part of work; the hours are long, and the work is challenging, highly team-oriented and collaborative. In this environment the pressure to fit in is intense. According to Judy Wacjman (2004) women are reluctant to enter technological fields because the activity is stereotyped in culture as appropriate for men, with a very specific consequence for the women who do choose to enter against the norm.

> It is not simply a question of acquiring skills, because these skills are embedded in a culture of masculinity that is largely coterminous with the culture of technology. Both at school and in the workplace this culture is incompatible with femininity. Therefore, to enter this world, to learn its language, women have first to forsake their femininity. (Wajcman, 2004, p. 15)

Judy Wacjman predicts that women in male-dominated technical fields will abandon 'their femininity' in order to fit in. Julie Prescott & Jan Bogg (2011) studied the attitudes of female game workers and found that women in management positions outside of the core developmental functions had a higher feminine role identity than women in core functions. Thus women who advance along more 'feminine' career paths, such as marketing or human resources may feel less pressure to adopt masculine traits than those in developmental (and more male dominated) positions. Conversely, core positions which are highly technological pressure women to identify as less feminine to fit in.

I asked the women in my sample about their daily experiences of working in male-dominated environments. They were asked about their personal work styles and to talk about instances where they felt that their behaviour had changed as a result of their work environments. Their responses support Wacjman's theory. I found several instances where female game workers adjusted elements of their gender performance in order to fit in at work. This section is less about specific work practices, and more about how women adjust their personal behaviours in order to fit in with the game industry culture. They do this through adjusting communication styles, managing their appearance, and adjusting their personalities.

Talking the talk:

Women reported that they make conscious and subtle adjustments to their language. For example, by emulating the mode of expression used by male colleagues.

> The group is kinda jokey they would take what I say as a joke, every day you would hear 'that's what she said'…man, I say it too!…the point is that everything is a joke, anything that you say it's 'that's what she said' and so if I call them out on anything then I'm just making a joke, being sarcastic…and sometimes that would mean me saying 'that's what she said' right. Trying to be one of the guys [and] just try to emulate the way that they express themselves right? (Interview #3)

For this woman, the casual 'jokey' environment was both a positive and a negative. It was a fun aspect of work, but it worked against her when she needed to complain. In particular, the popular joke and internet meme 'That's what she said' is used by gamers as a punch line in game play or casual scenarios to create sexual innuendos out of regular speech. (E.g.: one gamer might say after a game battle: "Wow, that was hard!", and inevitably another gamer will respond with: "that's what she said.") In other situations, however, it can be used against women to trivialize their contributions. The key point here is that this particular female game worker felt that she needed to adopt the male style of speech in order to get along more productively with her co-workers, to be 'in' on the joke. Altogether the atmosphere is one where male speech follows 'frat house rules', and anything that threatens this permissive environment is quickly disarmed.

Another women felt that women have specific communicative styles that are ill-suited to the culture of a game studio. They believed that women should learn to be more aggressive and adopt specifically masculine styles of communication.

> There are definitely things that you kind of have to be careful with as a woman…the way females talk is a lot less precise than men in general…in English, women will tend to use more pronouns women will tend to say 'some' versus. 'three'. There's lots of communicative differences and those communicative differences are really important in the games industry...You have train yourself to like speak like a man. Is that bad? I did it. If I look back at things that I would've done better or differently or whatever, every time it was: oh okay I was maybe not being aggressive…as a woman I will normally let someone finish their thought when they're speaking. Men will talk right over you. You walk into a meeting especially in the games industry and people and the conversation is interweaved, and if you are not ready to jump in or walk all over someone's

> speech, you're not going to speak period. I'm describing little communication things right…cumulatively over the course of the days weeks and months you know it's a big problem if you aren't capable of like putting aside the way that you've been socialized and saying no I'm going to interrupt people, I'm going to be very precise. I'm going to push my opinion because it's mine, and if you don't do those things you're in trouble, you're not going anywhere. And therefore if you're a woman and you're just cool with being a woman, you're not going anywhere. (Interview #6)

There are two issues at work in this woman's story. The first is that she appears to have adopted a gender essentialized version of speech that equates the feminine with no chance of success, and an idealized masculine style with the 'right' way to be a game worker. On the face of it this woman is presenting some sound advice. Many women are socialized to use less aggressive speech styles. Precise speech is very likely a winning strategy for any worker from doctors to firefighters, and pilots to computer engineers. Likewise, confidence is an essential skill for any job in any sector. The strategy of having one's ideas heard in a collaborative and creative environment is valid, but there is a deep discursive problem here. The discursive issue is that these communicative strategies are essentialized and gendered. This woman interprets successful communication to mean talking like a man. The woman who is ok with being a woman is doomed. In this view, something as simple as interrupting someone is designated as unfeminine - and therefore - an advantageous personality trait. Of course, it should be noted here that what this women is emulating is a stereotypical and essentialized version of male communicative styles. There is nothing inherently female or male about the ability to say 'three' versus 'some' in speech and men as well as women can have non-aggressive communication styles. It is likely that men who are less aggressive simply go unnoticed, whereas the one woman on the team who won't speak up defines female speech acts for her entire gender because a diversity of female styles is absent.

The second issue with this account is that this woman chose, or felt pressure, to change her own communicative style to fit in. She has interpreted her past failings through an individualistic discourse where she perceives that her mistake was that she was not aggressive enough (a trait she associates as masculine). This tells us that game environments can be organized to confer advantage to workers who adopt the 'might-is-right' approach, even at the level of speech.

Dressing the Part:

As well as challenging stereotypes with speech, several women brought up the role of how their physical appearance can be a tool for fitting in to games culture. At its best, the right appearance can help a woman fit in, and at worst, make her stand out and gain unwanted attention. In the games industry, being feminine or attractive appears to be experienced by women as an unspoken barrier and something to be avoided.

> I'm aware that I'm a woman if say…I show up for a job interview, I'm not gonna dress too pretty. I'm not going to put on too much makeup. I'll be presentable and professional but I probably wouldn't wear a skirt. I wouldn't make anything that made me look overly female especially in a technical field. (Interview #9)

> I think too if you're an obviously nerdy looking girl you probably are more easily accepted but if you spent time on your appearance or if you're interested in things that aren't solely games I feel like they don't take you very seriously in terms of game development either. I certainly I like fashion that's one of the things that I really love and find interesting and but yeah I think that because that means I take more care in how I look I appear more just like a girlfriend not like a nerdy game developer girl so I don't think that helps me. (Interview #1)

> As far as getting a job, the only tangible barrier I've experienced or heard of is being essentially too attractive to be taken seriously. (Interview #13)

The message here is that being too feminine at work can be a disadvantage and a barrier. The point of avoiding being 'girly' is to follow the majority male example of dressing casually and following the aesthetic of the counter-culture, bohemian, youth oriented dress code. There is also an unspoken message in these comments; being attractive and feminine is not just a disadvantage, it is a *distraction*. Being feminine means to be seen sexually by the men in the office. This is another example of an industry wide culture that defines every behaviour against the majority male norm and women can avoid the disadvantage by reducing their femininity. To belong in the game industry, there is pressure on every worker to fit the culturally approved mold, and that mold is broadly understood to be an idealized version of a young, confident, technically savvy, and heterosexual male. Admittedly, we should not get too excited about women's discomfort over office fashions. However, de-emphasizing feminine qualities in appearance is just one part of broader de-gendering identity practices that are going on for female game workers.

As with the broader culture shift, there are some signs that the pressure to de-gender for women is lifting. As a few women are rising to the top of game studios and tech companies, there appears to be a growing acceptance of their identity as powerful and attractive women. Jade Raymond, a young mother of two who leads the Toronto Ubisoft studio is on several magazine lists for the sexiest women in tech, and the women in games that I interviewed frequently mentioned that she had done well despite being so pretty. As pondered in the New York Times this summer, perhaps a new trend is emerging?

> Silicon Valley has long been known for semiconductors and social networks, not stilettos and socialites. But in a place where the most highly prized style is to appear to ignore style altogether and the hottest accessory is the newest phone, a growing group of women is bucking convention not only by being women in a male-dominated industry, but also by unabashedly embracing fashion. (Miller, 2012)

It remains to be seen whether the embracing of fashion by a few female technology power-players makes a large difference on the culture in the games sector. This shift was not brought up by any of the women in my interviews, but this may be more of a class issue than one of gender stereotypes. Chanel is not inviting rank and file female programmers to fashion week - just wealthy and successful entrepreneurs and CEO's. It may also be more complex for women in gaming (as opposed to general tech companies) because of the cultural representation of women in video games as hyper-sexualized.

The Industry's Personality Disorder

Research indicates that in STEM fields, women engage in less feminine behaviours, and also work to define their identity in opposition to other women. The de-gendering process for women who enter game industry work may begin far earlier than their entry to the industry:

> Women who conform to gender stereotypes will be less likely to enter, persist, and progress in computing than will those who individuate from women as a group…The male stereotype of computing will lead women to underestimate their computing abilities and decrease the chances they will aspire to computing occupations. Those women who do engage in computing enter the field because they consider themselves to be different from women in general. (Cohoon & Aspray, 2008, p. 149)

Women in my sample confirmed this point of view. Interviewees were asked to describe their personalities and asked if they felt different from other women in other sectors. Several of them self-described as 'tomboys', 'nerds', or as apathetic about stereotypical female interests.

> I started working at a lumber yard when I was 12 and I continued working there till I was 21 so I'm not a strongly gendered person. (Interview #6)

> When I was younger it was much easier for me to get along with men vs women. I didn't understand other women that much. I found them to be catty and really competitive and stuff so it was easier to hang out with the guys and talk about Star Trek or something. I'd say as I've grown older, especially since I've been in my 30's I've become more stereotypically female so now I care more about the clothes that I'm wearing…before I didn't care about having nice purse or anything but now I do…maybe we're all just late bloomers in the game industry, female nerds. (Interview #9)

With respect to personality, we are faced with a chicken-and-egg question. Is the game industry attractive to women who already define themselves in less stereotypically feminine ways, or is the industry culture reinforcing these gendered identities because they confer an advantage in the workplace? Are women exercising a choice to fit in with the community, or have they just found a community that they fit in with, or both? The quotes above seem to indicate that these women felt they were different from the stereotypical woman from an early age, indicating that perhaps they simply had found a career that was a good personality fit for them. Women who are uncomfortable with neutralizing their feminine behaviours may well find it harder to 'fit in' with the industry culture and not only lose out on the advantage, but also gain the distinct disadvantage of a culture working to weed out the behaviours they find most uncomfortable.

Again we see signs that this situation is improving and some women appeared to feel that their companies were far less homogenous or masculinized. But the games industry clearly still has a large problem of a dominant industry culture that disadvantages anyone who operates outside of a very narrowly defined set of idealized, gendered, and agist behaviours. One woman who was a senior manager in the industry put this down to a preference for alpha personalities:

> I don't think employers purposely try to hire women at a lower salary or give them less of a raise simply because they're women. I find that the people who tend to not be as well compensated for the same job are the people who tend to be more

> meek. A-type personalities - they come right out and say what they want and they push for it and they take a lot more risks and it's a risk/reward thing for the type A personalities. So the people that are a little bit more conservative, demure, or have confidence issues, those are the ones that aren't going to get promoted as quickly or they're not going to get the raises that they want because they're not demanding them. So I find that in general men tend to be more of those type A personalities than women. But there are a lot of men that I've seen particularly programmers who are very shy don't have the social skills, don't have a lot of charisma, those ones get the minimal promotion, minimal salary adjustments each year. (Interview #9)

Despite the occasional moment of recognition that this culture confers disadvantage on both genders, women are on an uneven playing field with their male colleagues.

> I find that the women that tend to have the hardest times in the game industry are the ones that are constantly feeling that they're being singled out because they're women. And so for example I'm thinking of this one woman who tends to speak…tends to be very negative about how women are treated in the game industry and stuff like that…and to be honest I just think because of her personality type and…because of her stand offish nature and the way that she kind of like attacks you when she speaks its like kind of what people are reacting to as opposed to her being female. I think men can get away with that kind of attitude more than women…if a man were behaving like that you'd think he's an asshole but whatever, he's an asshole whereas if a woman behaves like that she's a bitch. (Interview #9)

This is a perfect example of how women can face a lose-lose proposition in male-dominated fields like the digital games industry. By some accounts a woman should fit in by communicating like a man, but if she does, she risks being tuned out and labeled as too aggressive. The message is that women should aim for a perfect alternate universe where women are gender neutral; they act enough like men to not be a distraction, yet avoid the mistake of behaving *exactly* like men. Some women referred to aspects of their personalities that they felt were problematic when asked about what challenges they faced in the industry. It was particularly disturbing to hear successful and dynamic women defining their personalities as problematic, (e.g.: as introverted, non-aggressive) as if to self-reflexively acknowledge that they do not measure up to the idealized game worker. This may be a direct result of the industry culture (or indeed, our entire society) that glorifies the Alpha personality:

> I'm a pretty quiet person. I speak up when I need to and I do things like talks about something that I believe in but generally I'm reasonably quiet. I like to

> listen. I like to learn about people and I guess that's one of the problems that I have is it's probably easy to forget that things came from me because that's so rare. (Interview #1)

> I'm 5'4" and I'm soft spoken and I'm a small person. I'm just really not very intimidating as a human being. And I think that's a big part of it. And also I do have that thing where you will go out of your way to be nice to people and I'll go out of my way to make sure things are working and stuff. And like therefore I get put on a lot. how do you get something done – give it to a busy person…So like I think I feel like yes, those traits are associated with women typically and I do hold those traits. (Interview #6)

Here is where the personality rubber hits the work practices road: along with passion and skills, the right personality is regularly cited as an absolutely critical 'must-have' for prospective game workers. Personality fit is a cousin to reputation based hiring practices.

> The putting together of a team does not necessarily involve choosing the best people for the project at hand…project and team-based media production…tends to be done within a cultural context of what it means to the people involved, more so than according to rational, scientific or objective, or strictly economical principles. (Deuze, 2007, p. 66)

On this front, women held the contradictory views that their workplaces needed more diversity, but also that game worker personalities have to be the right 'fit'. Workers are expected to be the correct personality for the specific studio and for the industry.

> There's so much team work. You have to be able to come in with a compatible personality or at least a complementary personality so if you come in and you're just I don't like listening to anyone I don't want to talk to anyone I just want to do my work, you could be super highly skilled but if you're not a team player we can't hire you. Likewise if you have a huge ego or also if you're just like super nervous and always think that you're screwing up if you can't get out of that you're just not going to be a team player so it's tough. because it would be great if it was equal rights and you're just like evaluated based on skills but I mean I guess it's hard to say equal rights if you're also being based on your personality, but I mean personality is a big part of it. You're a person in a team and it's a very human organization. But I'd say like on the flip side I don't think people should be evaluated based on how they look if they're tall or short or…physical traits that don't have any impact on their ability to contribute or to develop relationships with others. (Interview #9)

> We are so very much looking for the best people for every position and the right personality fit and the guys are always thrilled to have more women. There is another major hire that we have coming up right now and it is actually a content position and we have a man and woman each in the running right now. So we'll

> see how that works out but it's definitely based on individual and not on gender. (Interview #2)

The message is clear: we want more women in the industry, but fit comes first. Moreover, it is the job of women to fit into the existing team/company culture, and not the job of teams to adapt to new or diverse workstyles. The women who will do well are the ones that can fit in with the *existing* culture. Put bluntly, the industry will never change if it simply keeps reproducing itself. Change and diversity require being comfortable with difference, an absent value in today's game industry.

5.2. Work/Life Balance: Passion and Long Hours

The work as play ethos is a large element of game industry culture. Fitting in as a game developer often requires workers to exhibit and possess passion for the medium and a willingness to dedicate themselves to the needs of the project at hand. Passion is said to be an essential component of creativity and innovation in the new economy (Himanen, 2004, p. 425), and a consistent feature of new media work (Gill, 2011, p. 252). It is implied in the discourse of creative work that creative labour offers workers the opportunity to be passionately engaged in their work. Passion however has two sides: game work offers workers a portal for individual passions and self-realization but it also *requires* passion. For the game worker, passion is not optional.

As with many types of creative labour, game workers have a reputation for loving their work. Female game workers often report that it is their passion for the industry that keeps them working under the harsh conditions that can often be present in game work (Consalvo, 2008, p. 184). In my interviews I wanted to know what role passion played in women's approach to work practices like long hours and crunch times. I asked women about the games that they enjoyed playing as children and adults, and why they choose games as a career. All of the women I interviewed were game players as well as game-creators. However, they did not all begin with a passion for games, nor did they all intentionally set out to create a career in the game industry. Several of the women in my sample had started out in very different careers such as film, medicine, engineering and even psychology. Many women appeared to fall into the industry by accident or through referrals. Others never realized the job was an option for them.

> There's still a lot of people when you ask them how they got into the industry they are like you know what, I didn't even realize that this was a career option. And so you know their cousin or their friend or like someone they happen to run across made them aware that this was an option for them so I think because of that it's even harder for women because they probably don't have as many...peers that are as into games as boys do. (Interview #9)

> I was lucky enough to know a few people including a family member who was in the field and that gave me a little bit of insight into the environment. But I wish that I had known growing up that this was a job because I would have actually gone to school for something that made sense for it right away. (Interview #2)

> My boyfriend at the time was working at Bioware and he got me the interview for the tester position. I can't say it was a life-long ambition or anything. (Interview #6)

While these responses have implications for recruitment strategies, they also hint at something interesting about the place of passion for women and game careers. While all of the women described themselves as fans of games in general, their work in the industry was rarely the direct result of passion driven intention. Not all game makers are fanatics, (International Game Developers Association, 2004) and this may apply more so for women.

Some women reported that prior experience with games was not a requirement when they were hired, and they only become game players after their careers started. This could be an indication that certain jobs have lower expectations for prior experience with game play. We know that occupations in the game industry are segregated and gendered. Do we find lower expectations for passion among jobs that are more open to female participation?

> …people now it's more expected that they've built up a body of knowledge by playing all these games before coming in to the industry but… probably because I'm a lady and also because I was an animator, I'm not expected to really know the stuff as much - like the art department is not nearly as stringent as regards like rigorous thinking in the game experience is not nearly as required. So I feel like I may have escaped that...it was more Wild West when I first got in. Nowadays you're definitely expected to have more knowledge but I basically picked up that knowledge on the way and I learned to like games and got used to them and learned to understand them better as I went. Now it's important if you're going to be in the industry to play games because you have to understand your medium, you have to if you're working in movie you better watch them otherwise you're going to be a fool. (Interview #5)

To this particular woman, lower expectations of gaming knowledge were at least partially gendered. She felt that as an artist and as a woman, she was not expected to have as much experience with games as other positions. The stereotype that women are less frequent and passionate gamers than men is a strong one, and it can be a barrier for women wishing to enter and advance in the industry.

> That game play is de facto training for game work generates an obvious circularity in work force composition. While some men we interviewed expressed a desire for greater gender balance, they noted a serious obstacle in the fact that women played less than men. (Dyer-Witherford & de Peuter, 2006, p. 606)

The stereotype sets up women as less frequent players, and therefore as less passionate about the medium. This is bad news for women because it is increasingly important for job applicants to play games and understand the medium (Consalvo, 2008, p. 184). If female job applicants face a bias that says that they are likely to be less passionate (and therefore knowledgeable) players - it follows that they will be judged to be less qualified employees than their male peers, no matter how many computer science degrees they possess.

Compounding the problem is that passion is a fuzzy concept and a challenge to judge objectively, similar to concepts of 'creative', 'talented', or 'personality fit'. A prospective game designer can say she is passionate about games, but how does she actually *show* it? Passion is a subjective quality that reifies differently for different people. For some it may be shown in how they dress, in their ability to 'talk the talk', or speak with authority about certain games. For others we may see passion reified in an impressive game collection, a mod[1] they made for their favourite game, or in a sophisticated gaming PC. Even if a woman does have a passion for games, she may be at a disadvantage against men applying for the same job. If a woman's subjective display of passion goes unrecognized by recruiters, it supports the stereotype that women are less "into" games. For instance, women have had an historical disadvantage when it comes to the modding community. "If the industry believes that girls aren't interested in programming, then modding tools will not appear in girl-focused games, preventing girls who play Nancy Drew from getting interested in programming" (Kafai,

[1] "Mods"- short for 'modifications', are small programs designed to enhance or change an existing game. Those who make mods are called "modders" and the practice is called "modding".

Heeter, Denner, & Sun, 2008, p. xv). The modding community is a popular entry point for the games industry, yet many games that appeal specifically to women are not published on platforms that allow for modding capabilities, thus limiting the likelihood that women will enter the industry from these communities where passionate free labour is the primary form of resume building.

The communities of practice model helps us conceptualize here. If passion is an essential quality required for full membership into the game-worker community, (programming, for example) then the practice of it must be encoded in certain behaviours (modding, playing certain games, et cetera) that the community recognizes. Those behaviours may also be gendered, as in the example of mods. This may also help us explain why we see more women in occupations like art but not programming or game design. If passion is becoming an increasingly important job requirement in the digital games industry, then this may be another critical disadvantage for women whether they begin as fans of games or not.

While women do not necessarily bring a life-long passion for games to their work, passion was a top factor in keeping them in the industry. None of the interviewees said that their jobs were boring, unfulfilling, or routine and each woman said that they loved working in the industry - even if they do not always love their organizations or colleagues. Recurring positive elements included creative freedom, belonging to a shared community, opportunities for creative collaboration, multi-disciplinarity, and the pride of making a product that people enjoy.

> One of the things that I really love about the industry is the multidisciplinary nature of it. So on a typical game project you have programmers, you have writers, you have designers, you have artists of all kinds, but you also have the business types, you have the marketers…That to me is what's really special about the game industry. (Interview #9)

> What I like most about the industry is that we're a constantly diversifying group of people who at their core enjoy what they do, are generally friendly to each other, and have a lot of core common interests. Having someone else be able to understand your 'Princess Bride' reference helps. (Interview #12)

These positive elements of creative work appeared to help women sustain their careers, fighting the tide of financial risk and uncertainty, instances of sexism, harassment and other barriers they faced.

> I think the only way we can do it is we love making games. Like if we thought about the risk we probably we would just go and get some kind of safe job and try to make games if we still could evenings and weekends, but I don't know it's just that we have to make it work because we love them and we want to play these games and this is all we want to do so. (Interview #1)

> I'm so in love with the process of game making that…those times when you say, 'come on, can we put a few more clothes on her?' - but it's only half serious because I know that I respect the people that I work with and I felt really lucky to be surrounded by some really incredible creatives and it's never been weird. (Interview #2)

Loving one's work is unequivocally good. However, the games industry is particularly infamous for epically demanding work hours, 24/7 availability, never-ending crunch times, and an expectation of dedication to and passion for the work. The culture of long hours and crunch time is perhaps the largest challenge to women in the gaming industry (Consalvo, 2008, p. 182).

5.2.1. Long Hours

"I work so much, I can't even have a dog!" (Personal communication, Development Director, 2011)

In the game industry, long hours are such a prevalent practice that they have a special name for it: 'crunch'. Crunch refers to the period of time immediately before a game is due to be finished and shipped to stores. It is a high-stress period where working hours are extended in to evenings, double and overnight shifts and weekends. Crunch times can last anywhere from a few weeks to a few months, and in some studios, long hours become such a common occurrence that they are in permanent crunch mode. Crunch mode is so ingrained in the culture of the game industry that game workers report feeling lucky if they only have to work a 50 hour week (Consalvo, 2008, p. 182). In my interviews I wanted to know how crunch impacted women's experiences and opportunities in game work. For some, long hours were a source of pleasure and fulfillment.

> In my first seven years in the industry I did the typical working crazy hours. Projects were probably not managed as well as they are today because it's still a young industry not as mature as other industries…but at the time it was also a

> pleasure to put so much time and effort it was, it's never been just a job it's kind of a passion and it's been motivating and enjoyable. (Interview #14)

Most of the women I interviewed confirmed that long hours were still a widespread practice and that in most cases this was definitely a negative work experience.

> There's this idea that it's ok if they ask you to work insane hours for the sake of getting something done. I'm sure you've heard of crunch and that's still very much a problem in this industry that nobody's tackling. Some people, I have good friends who work at these companies and who are totally ok with that. I saw on a friends facebook that they've all got mohawks, 'crunch-hawks' because they're all in solidarity and they're working 80 hour weeks for the next little while. That's not a culture, I don't want any part of it. (Interview #8)

The price workers are paying for long hours is the passion that drove them to the industry in the first place. My interviews supported the finding of Mia Consalvo (2008) that "passion is used to help maintain work practices that may ultimately kill the passion" (p. 186). The loss of passion appears to become more true as women spend more time in the industry, and also as they get older.

> You pour so much of yourself into this stuff with all this crunch and things and these people become your family and then it's just gone, it's transient and gone and then you've got no actual life left because you've just spent 2 years working 70 hour weeks. When I was 25 I thought that would maybe worth it but I don't think it is actually. (Interview #6)

> I kind of went through it myself and I saw what the result of it was and I saw others around me...put in those kind of crazy hours for extended periods of time, and over years they got burnt out and got bitter or frustrated and lost their spark. The magic was gone of making games and having fun doing it was gone - it became just a job. (Interview #14)

Long hours are more than just a consequence of poorly managed production practices. Through repeated practice long hours become discursively constructed as normal. Crunch is a bona fide right of passage that is an integral part of the culture of the industry. The willingness to participate in this work practice is now a necessary ingredient for project managers and employees (International Game Developers Association, 2004). In male-dominated workplaces, working long hours becomes a kind of competitive presenteesim where the number of hours a person works is how one shows commitment to the job (Prescott & Bogg, 2011, p. 11).

> If you're the person who's willing to work 90 hours a week and everybody else is doing 80 then you're the hard core one. There's really this mentality of butts in seats, that's how you prove your worth. (Interview #8)

> It goes right back to that hostile, might-is-right culture. If you are passionate about what you do, you will dedicate every waking minute to it. And if you're not dedicating every waking minute to it, then you don't care as much. So, crunching isn't really the problem, so much as this culture of peer pressure and subtle encouragement. (Interview #13)

This rite of passage appears to be supported through expectations of managers and the application of peer pressure. In this way companies are able to exploit the passion of their workers.

> The way [management] would do that is by saying, ok we're not going to tell you what time you can leave guys but we know which one of you leaves first. So they'd all end up working this crazy crunch mode and this still happens, this is true in a lot of places. (Interview #8)

Being unwilling to make the expected sacrifices can have consequences. From the communities of practice perspective, working long hours is one of the behaviours that earns a game developer membership in the community as well as respect of their peers. Peer pressure works because the practice of long hours is constructed as a part of being a team player, closely tied with other cultural notions of collaboration, team work/play, and camaraderie.

> Like…you have to prove yourself in some way and for some reason that seems to involve pulling the crazy weekend of working for 72 hours. …You have to do it for 5 years. it's like going in to the army….you all start off as privates. Are you going to be the guy who's like 'nah I'm not gonna friggen go shoot things, people, I'm going to stay in my bunker'…if you're that guy no one is going to respect you. You gotta come up together. (Interview #6)

> Nothing is mandatory I guess, but I wouldn't keep my job for long if I didn't crunch at all. Not like I would get fired or anything. I just wouldn't get promoted…The expectation is that people should crunch…It's an unspoken rule. (Interview #15)

The long hours culture is a problem for both genders in the workplace, but may impact women disproportionately. The impact of long hours cultures in media is often painted as hitting women particularly hard because of the tendency for women to have more of the responsibility for child or elder care duties (Gill, 2002; Consalvo, 2008, p. 183). This sets up an 'either/or' scenario for women where they feel they have to choose between being good at their jobs, or being good mothers (or being mothers at all). While

I don't doubt that this may be true for many women, it is not a universal experience based on my sample. None of the women I interviewed felt that the long hours required by their jobs were specifically getting in the way of having a family. The two women in my sample with children reported that they were balancing family and career in what they felt was a successful way with the full support of their organizations. Some of the women without children worked in offices where men and women both took maternity leave, helping the women feel like having their own families was a reasonable option for them down the line. Several women also reported that having children was never an option for them regardless of their career choices.

Some research appears to show that women in technology fields like gaming are delaying having children (Prescott & Bogg, 2011; Cohoon & Aspray, 2008) thus avoiding the whole work/home conflict until their careers are more established. There was some evidence of this sentiment in my sample:

> If you do lean in early and you do put those hours and that time in before you get to [having a family] then when you get there...you have established yourself a bit so you're not proving you can do the job as you're already doing it. I know women who've done it -successfully had kids…it means a schedule adjustment so they might be getting up earlier in the day and start the day earlier and they might not work the evening overtime but when you're good at your job that the ability just to stay isn't the deciding factor anymore especially at a certain point when you're not starting out. (Interview #2)

The deciding factor for women who plan on having a family is getting past the point in their careers where the ability to stay is no longer a factor in their career success. This means that crunch culture may disproportionately affect workers who are lower in the hierarchy, new to the industry, and younger. Getting out of this loop may mean rising to a certain level in the hierarchy, or having an established reputation. Some women reported being able to work more reasonable hours once they had risen to management levels in their organizations. If crunch-culture is discouraging women in game work from starting families, then there may be organizational and time components that are worthy of more study.

It is indicated in my interviews that the pressure to put off families is being applied to both men and women in the industry. This is a consequence of the crunch culture that requires everyone to be a team member and sacrifice equally. Several women in my

sample could point to how they had observed a backlash against men who had tried to adjust their working styles to family responsibilities.

> So like you have these two groups of people, you have the game developers -the main guys and then the guys with families and who will never work overtime at all and always go home and they are very separate and distinct cultures, and very leery of each other. And of course everyone looks down on the guys with families, even though they are like oh yeah family that's amazing. But of course, still internally they're like 'you can't stay an hour?'…So if you come in [to the industry] and you have a family already, it's not going to happen for you. (Interview #6)

The industry still appears to have a major problem with supporting the work-life balance of workers and is set up to intake workers who are young, single, and childless and intending to remain so. Companies who realize that young and passionate workers will dedicate long hours to a project are exploiting the passion of creative game workers. This culture of long hours is not simply normalized as a work practice, but is culturally set up in the industry as a way for workers to prove their merit, and for work teams to bond in the workplace. This has direct consequences for workers who wish to have families, or indeed - any life outside of the game studio. The work-as-play culture of game work and the convention of crunch time make game work an all-consuming endeavor.

5.3. Networking and Sociability

Another commonly discussed feature of creative work is the role of networking, sociability and informal hiring networks (Gill, 2011; Bielby & Bielby, 1996; Christopherson, 2008; Hesmondhalgh & Baker, 2011). Strong informal professional networks enable project-based creative workers to reduce employment risk and contribute to career advancement. Even though freelance work is less common in the games industry than in many other cultural sectors, networking is a vital path for emerging developers to break into game work and for more established workers to manage career opportunities. Much of the networking in the industry is done through trade shows and game conferences and partaking in the network events on offer.

Informal networks have a tendency to disadvantage women because they can tend towards 'clubby' cultures where women are often excluded or have a harder time fitting in, particularly where the social activities centre around typically male pursuits or cliquish networking practices with high barriers of entry (McRobbie, 2002; Gill, 2002; Deuze, 2007; Kumra & Vinnicombe, 2010). Informal networks may operate like closed social cliques and "foster and reinforce labor segmentation among men and women, and among ethnic groups, restricting access to job opportunities and careers" (Christopherson, 2008, p. 75), and "are precisely the conditions under which gender stereotypes reinforce structural barriers to women's career advancement" (Bielby & Bielby, 1996, p. 267).

In the games industry there is a heavy reliance on informal hiring practices. Typical advice given to workers attempting to break in to the industry is to hang out at industry social events and get to know people (Personal communications, October, 2012).

> I've worked in several industries and although it's true everywhere to an extent 'it's who you know, not what you know' I've found that to be more prevalent in games. We're a large and yet "small" industry where word gets around and people know each other, talk a lot, are friendly, etc. So it can help to know people and have contacts when trying to get in or make advancements in your career. (Interview #12)

The critical aspect of informal hiring is not a lack of formalization, but a reliance on more amorphous factors such as likeability, passion, and talent, all of which fall beyond one's technical knowledge or training. In the male-dominated world of game work, networking can be problematic for women when it is centred around masculine activities.

For all game workers, attending professional conferences appears to be one of the primary venues for networking. All of the women in my sample reported that they regularly attended industry conferences and that they found them generally very useful and productive. They appear to be particularly helpful for independent workers who need them to connect with peers. However, for women in the games industry, conferences are another space where they have to contend with the masculine culture of the industry. Several women brought up the practice of booth babes (scantily clad women used sell games at booths) at major industry conferences. This is a practice that has had its share

of controversy. In 2006 the industry market conference E3 pledged to stop the practice of 'booth-babes'. However, this didn't last and the practice came back with a vengeance because "game companies clearly saw their male customer base as the more important one" (Kafai, Heeter, Denner, & Sun, 2008, p. xiii).

> I actively usually avoid the conferences or areas in the conferences where 'booth babes' are present so I'm not being visually assaulted with what is going on. (Interview #12)

> I haven't worked on any games with sexist content but when I go to GDC I feel that all the time, when you cross the street between the 2 major buildings and there are women in bikinis handing our flyers in the island in the middle and like why? It's too bad. (Interview #3)

Booth babes are a practice clearly aimed at pleasing men, but it is alienating for many women who are already fighting for professional credibility in the industry. It is impossible to estimate the impact of these marketing practices on women's networking ability and opportunity at these events. A woman's networking opportunities are limited if she self-selects out of the main conference areas where a significant portion of networking takes place. The exclusion of women through marketing is a theme that I discuss in more detail in Chapter 7.

For women in the independent sector networking fulfills two equal yet opposite functions. It helps establish relationships that may lead to a future job, but also introduces them to people they can hire to work with them on current and future projects. Studies of the media workforce show us that one of the strategies of managing project-based careers is to work in semi-permanent work groups (SPWG) (Deuze, 2007, p. 175). SPWG's are small groups of workers, usually assembled by a team lead (a producer, director, cinematographer, etc), and collectively move from one project to the next. These SPWG's are very common in film and television where workers may shift from project to project every few weeks or months. However, we also see them form in game work, although to a lesser extent. Several of the women in my sample reported getting their current jobs through having a good relationship with their lead on a past project, who in turn then asked them to work with them again.

> I don't think I've gotten a job yet without knowing someone. Every single one of my hires have been because I've known someone…Prove yourself to be good at your job so that people respect you and then have lunch…like warfare right. Your

> most solid friends are the guys that you spent 6 months in the trenches with. For sure that mentality is present in the game industry…Oh we just went through hell together basically making this thing -that builds some really amazingly strong relationships and …especially in the indie scene it's super important because you need to find people who will work for a percentage or like the promise of money rather than actual money and you're not going to get some guy off the street, well yes, you will but that guy is going to be awful. (Interview #6)

Several women also expressed the notion that to them the relationships they have built through networking go far beyond simple professional connections. The phrase 'who you know' hides the important element that, for women, these connections are often more akin to friendships than business relationships.

> Definitely having a like minded group of friends really helps. A lot of us live alone and we use skype to keep in touch and that kind of stuff. Yeah, it doesn't really feel like networking it feels like friendship…If I were to put the word out and say hey I'm looking for a job all of my friends would email people they know, that's how I ended up getting interviews before. (Interview #8)

While networking is important in games, most of the women in my sample said that socializing with their current set of peers was more important. This is likely related to the prevalence of full-time and longer term contracts that are popular in the games industry. It also makes sense in the context of the intense pressure to fit in with a team of colleagues as discussed in the section above. Many of the women that I spoke with viewed professional networking as a peripheral activity because they were already working full time on a game. Game production cycles today can last several years, which can help reduce the pressure on the rank and file game workers to be developing connections for the next project. Therefore the relationships that they have with co-workers they see every day take centre stage.

In the games industry, socializing is a large part of 'fitting in' to the culture of the workplace and being a team member. Several women had workplace experiences where the culture revolved around drinking, or male colleagues bonded over games, pornography or strip clubs.

> there is a lot of socializing and drinking and I can see where that could, because of the drinking aspect, lead to...people being grabby or whatever are all in these situations. but yeah I just don't know if that's any more of a factor in the games industry then of bars. (Interview #7)

> I guess now thinking about that like there's tons of indie studios in Toronto and the IGDA events are like really hopping. It's all drinking. It's all let's all go get drunk. (Interview #6)

> We went out for sure every Friday pretty much everywhere I've ever worked. There is a a really big drinking culture. I had a friend actually, she went for an interview…literally she turns up and they're sitting in the conference room and there's like a bottle of whisky on the table…It was like Mad Men style. Which I've never gotten it that bad but I had a bottle of vodka on my desk for years everyone is always drinking super heavily in the games industry. It's a little a little weird actually. (Interview #6)

The conventional wisdom is that in male-dominated industries women will have a harder time if the socializing is centred around traditionally male pursuits. Some women did have the experience of feeling excluded from networking, but this experience appeared to be more rare than I anticipated. Many women told me that they enjoyed this atmosphere. Women who reported feeling pressure to change their dress or communication styles, felt no pressure to partake in socializing activities like drinking or going out after work. It is likely that for many women this form of socializing is genuinely enjoyable and a good way for them to build rapport with their team. For some women however, the choice to refrain from certain kinds of socializing and bonding with team members can lead to being ostracized by fellow co-workers.

> The heads of the company seems to wants everyone in the company to be drinking buddy's and I was like 22 …I didn't really understand that. I didn't know them…so I just went home at the end of the day and was like 'ok see you guys later.' Apparently that wasn't ok. I was supposed to be pals with them all the time…There weren't that many women at the company…[and] they were all like well let's see if you can be one of the guys. I was like 'no', and they were like 'ok I guess you get downsized first chance we get', because that is what happened…they stopped paying attention to me. I didn't get contact from people very much they would just leave me alone to work. I had this weird dark corner where my desk was …[there was] no further effort to integrate me after that into the company. (Interview #5)

> So I was very much segregated physically and emotionally and professionally so the culture of that was very unwelcoming for me. For some of the other folks who worked in our team it was great. I think the big part of that was they enjoy the same games actually so they end up playing together and that definitely creates a culture where they become comrades. I don't enjoy the games that they play so much…and I just feel like I have work to do my work…So they bonded over that. (Interview #3)

From the women in my sample I conclude that socializing with co-workers, commonly through playing games, or drinking is a vital part of the culture of camaraderie and work as play ethos in the industry. Refusing to engage in these community practices, in some workplaces, can result in ostracizing behaviours. Most of the women in my sample did not appear to find the social aspects of work to be particularly gendered and enjoyed the casual atmosphere and benefited from forming deep relationships with coworkers. This practice seems to be more associated with youth culture than with a macho one. The two women in my sample who had children did not participate in after-hours socializing because of their children, but both women were already in senior management positions, where they are unlikely to be impacted by self-selecting out of this practice.

5.4. DIY Learning and Challenging Technological Stereotypes

Gaming technology is highly gendered. Computers are toys for boys, and as a result girls don't appear to be as interested in technology careers. This thesis is preoccupied primarily with the experiences of women who have navigated past the games-are-for-boys stereotype and found work in the interactive software industry, but these women are still impacted by the gendered stereotypes of the technology they work with.

Technology is the bedrock of games industry work and one of the key drivers of media convergence and change in the industry. Modern game consoles and PC's are multi-media centres capable of handling almost any kind of mediated interaction from music, social media, games, television, films, and more. This puts intense pressure on the industry to continually produce new content that takes advantage of the best technology can offer. The work of game developers must be seen in the context of continual change, constant learning, and pressure to be both creatively and technologically innovative (Deuze, Bowen Martin, & Allen, 2007, p. 338). The technological feedback loop of obsolescence-renewal moves rapidly, which means that technologies and the skills required to work with them are continually being up/outdated.

The constant pressure in this technology-driven upgrade culture informs the professional identity of game workers (Deuze, Bowen Martin, & Allen, 2007, p. 339), and places technological prowess at the centre of professional identity and status. Technology workers (i.e.: programmers, coders, engineers) often get paid more than other occupations and there is often more prestige for workers who are 'closer to the machine' (Deuze, 2007, p. 216). Programmers are currently the highest paid discipline in the industry outside of managers (Game Developer Magazine, 2012). Professional developers consider it part of their professional identity to work on underlying software - even middleware, either to update or improve on it (Deuze, 2007, p. 217). Technological skill is also one of the dominant paths into the industry for budding developers.

With technology at the very heart of the game industry, work practices and worker identities, it is no surprise that the pressure to keep up with technological developments is intense. Work practices are also highly individualized, making training the responsibility of the individual worker, rather than the organization. Keeping up, and DIY learning are key features of new media work. Reskilling is often done on top of already intense work hours and for workers it can lead to fear of being left behind (Gill, 2011, p. 252). Several of the women in my sample felt that this pressure to keep up was the most significant challenge in their careers.

> I'd say the challenge is that the industry changes so fast so if you're out for a year or two and you come back especially if you're on the technical side it's very hard to keep up. So you feel that you're obsolete very quickly and then when you're only as good as your last shipped project and that's sort of across the board for anyone...So it's like it's a challenge because of the industry changing so fast all the time. (Interview #9)

> As a designer I think the biggest challenge for me has mainly been learning the toolsets, the skillsets that I needed and learning not only learning them but getting good at them. … just the hurdle of learning a new software tool. (Interview #7)

It is perhaps this pressure of keeping up with constant change and the fear of falling behind - as opposed to the demand for long hours - that is putting more pressure on women to delay having children. In an industry with so much pressure to keep up, even a short leave can be career ending.

The average game worker is highly educated, but once they are in their careers, the favoured method of keeping up is to be self-taught and to learn from friends or other informal and professional sources. For women game workers in the independent sector in particular, the community appears to play a key role in helping workers stay informed.

> I'm trying to get better at programming…I have a really supportive group of friends that will sit down with me and teach me stuff. Sometimes it's hard to even ask for help because I'm really aware of the stereotype that women aren't good at that stuff. I have to be ready to learn and it's easier to ignore it sometimes. (Interview # 8)

> I think it's pretty helpful to find a forum or resource like Twitter of like-minded people and follow them, even if it's only absently. Sometimes something will get mentioned that you had no idea was coming, and then you can dive in and see if it's a tool you can use. Also some pockets of online communities are really good about creating tutorials or answering questions in a way that's genuinely helpful. It helps when so many developers are on twitter, you can just ping them and ask how they did a thing, too. (Interview #11)

For female game workers technology can represent another kind of challenge. As we have seen, technology is highly gendered, and computers and gaming technology in particular are heavily masculinized. Since the industry is heavily associated with technology, the occupations that are 'closer to the machine' are more heavily gendered. The labour division in the industry is highly gendered, "with women most likely to work in human resources (47%), and to some extent writing (30%) and marketing and public relations (25%)" (Deuze, Bowen Martin, & Allen, 2007, p. 346). The women in this study reported the common experience of being assumed to occupy non-technical positions, or even not belonging in the industry at all when meeting peers.

> When I go to the game conference every year sometimes it's assumed I'm the girlfriend of someone else who is the real game developer and I'm just hanging around, when every year I get paid to go there…you're not there because you make games, you're there because your boyfriend's there. (Interview #3)

For one women who co-owned a small studio with her husband, this meant that she felt that she had to downplay her personal relationship as it would delegitimize her contributions because the assumption is that men do the technical work of games.

> People continually tell me that they have no idea I was a programmer, they thought I was a manager or an artist or whatever else women can do in this industry. So yeah I don't talk about [my husband] because I feel like people already assume that he does the most of the game development work and I feel

> like being half of a husband and wife team is not…I don't think people would understand that I do a whole lot more than they give me credit for… even though I'm talking about the physics algorithm in [our game] people remember that as being from [him]…that sort of stuff happens all the time…you get used to it I guess but it doesn't stop feeling completely unfair and awful. (Interview #1)

The 'girlfriend stereotype' can be seen in the context of a larger trend to retraditionalize work and allocate women's cultural work to the administrative, caring and support occupations rather than cutting-edge roles. Citing research by Adkins (1999), Banks and Milestone (2011) claim that the same discrediting of women's position and work matches what is seen in other fields where husband and wife teams are common.

> Wives are assumed to constitute part of the husband's labour input. In this way wives are not only assumed to work for the husband, but through the moral imperative of family and marriage relations can actually be called upon to devote labour time above and beyond the call of duty by working longer hours, 'mucking in' and helping out as and when required. This results in a situation where, as Adkins puts it, wives are not workers, 'rather they are working as wives' (Adkins, 1999, p. 130). The appropriation of family labour in this context serves men well, for it is they, rather than their wives, who are the self-regulating, autonomous and reflexivized workers, while women must rely on their husbands for status and security. (p. 79)

Technological stereotypes work as barriers for women in the industry, but technology also provides a way for many women to fight back. Many of them use technology and technical knowledge as way for them to establish their professional credibility. Technical speech appears to be an especially useful tactic for women to counter the stereotype that women cannot be technology workers.

> Because I have a technical background I use that as my shield so whenever I'm in a position where I know people don't know who I am…I use my technical knowledge to kind of like preemptively let them know: hey I know what I'm talking about..I don't know if I do that because I'm a woman but I know that I need to establish that I'm here not because I'm a pretty face or I'm a woman but because I have a legitimate reason to be here and I don't know if men have the same pressure to sort of prove their worth from the get go. (Interview #9)

> I pride myself on being able to 'talk the talk' correctly with people because often you'll meet someone at a con or out in the world and if they're going to talk to you about video games they don't expect much out of you because you're a female. I pride myself on being - I can bring the street cred, because I've been in the industry for fucking ever. I can handle this…So it's nice to have that ability just to kind of harm some stereotypes firstly and also just to remind people that they shouldn't go around making assumptions. (Interview #5)

The use of technological information to signal expertise confirms that technology in the games industry has the ability to confer significant creditability and professional status to those who possess it. Technology can be a tool used to segregate women into specific occupations, or keep them out of the industry altogether, but for women in the industry it can also provide the credentials needed to combat negative gender biases.

5.5. Perceptions of Career Barriers and Opportunity

The media industry has a reputation for being a meritocratic sector that stresses "talent, networking skills and knowledge-intensive competencies, rather than traditional benchmarks such as seniority or experience, as markers for success" (Deuze, 2007, p. 105). The games industry also has a reputation for being male dominated. Organizations and industries can themselves be gendered and organized in ways that create an unequal distribution of opportunity for workers. Given this, we might expect women in the games industry to experience career barriers and a lack of opportunity. A barrier is something that prevents forward or upward movement and makes career progress difficult. We have already seen that there are several potential barriers for women in this industry: gender segregation, institutionalized sexism, a higher value placed on masculine attributes, limited networking opportunities, long hours, and limited flexibility.

How women perceive available opportunities is a critical question as it relates to the ability of the industry to retain female talent. Women who feel that there are barriers to their advancement are less likely to stay in their careers or in particular companies. Research so far indicates that women in game work perceive the gender balance in their workplaces as horrible and that the old boys network is a significant career barrier (Prescott & Bogg, 2011, p. 10; Dyer-Witherford & Sharman, 2005, p. 203). Prescott & Bogg (2011) found that the attitudes held by women in the game industry differed depending on both the horizontal and vertical segregation of women in their study. For example, game industry lecturers believed more strongly than coders that the glass ceiling exists (p. 214). As well, managers were less likely to perceive career barriers than women working at more junior grades. They found that women in their study held conflicting opinions: 72% agreed that a glass ceiling exists for women's advancement,

yet they disagreed (72%) that any covert or hidden barriers exist for women's advancement (Prescott & Bogg, 2011, p. 20).

The studies by Prescott & Bogg indicate that perceptions of women in game work with respect to barriers and opportunities needs more research. Rosalind Gill studied female new media workers in Europe and found that women had trouble seeing systemic barriers and challenging the idea of a meritocracy at work. Instead, they blamed themselves and subscribed to individualizing discourses, which has the effect of framing discriminatory experiences as personal failures or random events (Gill, 2002 p. 85). In my interviews I wanted to know if female game workers would perceive barriers to advancement, or would they feel the industry is a meritocracy?

5.5.1. Boy's Clubs and Glass Ceilings

I asked the women in my study to talk about their long term career goals, and whether they felt that there was a glass ceiling for women or an 'old boys club' in the games industry. The glass ceiling is a term often used to refer to the vertical segregation of women since it is women who tend to experience this form of segregation the most. The old boys club is traditionally viewed as a collection of networked and established men who work together to support each other's career path by keeping support within the network and excluding others. For some of the women in my sample, the notion of an old boys club seemed nonsensical. In an industry where men dominate at every level, asking if men dominate at the top is a meaningless question.

> Well first people would actually have to stay and get old and still be in games...of course there's a natural progression of those who stayed to get into positions of leadership and power and keep those contacts with each other because you've been working together and you can trust the other person and know what they're like over the years and you have more experience…the implication of saying that there's an old boy network or boys club is just implying one of two things, that they keep all the younger people down, or they keep out people that don't somehow don't belong to a club or group that they are a part of… it's hard to say… It's not a complete meritocracy, nothing is but certainly there's a lot more…this is one reason maybe I really like game development as a field that there are concrete skills that you can have and that people you can point to and say I am good at this. (Interview #7)

In this woman's story she rejects the traditional notion of an established and centralized network of men because it contradicts the youth oriented and meritocratic culture of the industry. She also recognizes that the industry is not completely meritocratic. While she acknowledges that meritocratic principles are unevenly - yet predictably - applied, she also normalizes it by seeing the building of exclusionary networks as something that just naturally progresses over time. In the end she turns to individualizing discourses by referring to job skills as a way of proving ability. Another woman rejected the concept of the old boy's club, while at the same time agreeing that men dominate the senior levels of the industry.

> I think because the industry's grown so much there isn't really a central clique of guys…there's no Speilbergs, no central group of people that have like tight knit 'you can't get in' sort of thing. We've just exploded in this industry we keep growing and growing and growing, so I wouldn't say that there's [a boys club]. I'd say that there's definitely…a bunch of men at the top who have been there for a while where it's hard to break into that level of management or the higher creative in the company, but I think it's just because they've worked with each other for 10 years and know each other super well and you know they hang out they play golf so I don't know if it's an old boys club or just an old club, it's just the people who have been there forever and they play their politics well. (Interview #9)

Here again the network of men is normalized as just a group of men who hang out. In this scenario perhaps women would have a difficult time seeing themselves at the top of the industry. As the industry grows and competition increases, networks become more important. "These networks foster and reinforce labor segmentation among men and women, and among ethnic groups, restricting access to job opportunities and careers" (Christopherson, 2008, p. 75). Perhaps one reason why women in the industry reject the concept of a 'boy's club' is because the notion is simply too old fashioned for game workers to feel it applies to their youth oriented industry. The terms may be too closely associated with traditional corporate culture.

> …when I hear glass ceiling instantly to mind pops the 80's, and I don't know quite if that's fair because you know it's still I'm sure a totally real thing. I think of a woman in a business suit trying to get a CEO job. It's just weird how I can't even associate that word with the games industry…Glass ceiling to me also implies a very large company so that to me implies a very old-school, maybe that's why it's also 80's, it's like oh you're at this giant farm that's going to make this big thing and you want to be at the top of the heap of that giant monster. (Interview #7)

> There are some studios where it feels very male-dominated and it does feel a little bit like an old boys club but it is really dependent on the individual environment. I think as a whole we're definitely changing and it's really a young club with lots of boys and some girls. We're a young club. (Interview #2)

When asked about a glass ceiling or barriers to advancement, some women felt that the lack of women in the industry meant that it was too difficult to tell if barriers existed.

> there just aren't enough women that are even close enough to even be having a problem with the glass ceiling. They're not even at the glass mezzanine…Yeah, we can't even say there's a glass ceiling yet but it's not for great reasons, it's not oh we're so open at the top. It's the like we don't have enough women. (Interview #7)

That a glass ceiling is difficult to see because of a lack of women implies that the games industry has a more fundamental problem with gender diversity. Every woman in my sample agreed that the industry has a problem attracting women and that addressing this basic issue should come before worrying about advancement.

> I don't think [there is a glass ceiling], I think we're just still not a high enough percentage of the workforce to really break through it in a very visible way…We need to be able to reach out to high school and junior high/middle school and eventually elementary school girls and let them know that STEM jobs, programming, is an option for them and something they can do and others do it. Then we need to make sure that the education environments for those areas are welcoming to women and then make sure we're also making welcoming environments for them in the workforce. (Interview #12)

Several women agreed that gender diversity was a key issue in the industry but did not feel that their careers had been negatively impacted. It was frequently mentioned by women that opportunities and barriers are company, as opposed to industry, issues. This may indicate that they have faith that the structure of the industry is open to innovation and that opportunities do exist for independent artists to access audiences and make a living. There was a strong theme among women that the industry is open to creative and technical innovation, entrepreneurship, and anyone can succeed regardless of gender.

> I think there's really more opportunity to do your own thing than there ever has been…If you're able to publish a successful iPod app or whatever that can be a way to make a living, working with a small team on a small project. You can make up your own success which is kinda what I think I've done. Make up your own thing, and start doing it. Make up a job and start doing it. (Interview # 8)

The belief that opportunity exists for anyone and that an individual can just 'make up a job and do it' goes beyond belief in a meritocratic discourse; it is deeply individualistic. It also speaks to women's agency in a male-dominated and highly competitive industry.

The women in this sample overall did not express the perception that there were significant barriers to their career advancement. Some women felt that their careers were in fact helped by their gender and several have had very positive experiences and have advanced quickly in their companies. Some women felt that their own personal life choices once mixed with the precarity of the industry made future opportunities very difficult to perceive. Most women highlighted the need to address the overall gender diversity of the industry before worrying about women at the top. We know of course that role-models can have an impact on career aspirations and so having more women in visible positions in the games industry would likely have a positive impact on young women choosing it as a career. I find that the women in this sample do show the same tendencies that Rosalind Gill found in her study of new media workers, namely that individualistic discourses dominate over systemic ones. Closed male networks appear to be normalized in the industry and not seen as barriers to women's advancement. Lastly, the discourses used by gender advocates may need to update 'old-fashioned' notions of glass ceilings and boys clubs in order to find resonance in the culture of the games industry.

5.6. Sexism in Game Work

Many gender barriers have broken down and the games industry is showing signs of maturity. However, some of the widespread cultural problems faced by female game workers are simply old wolves in sheep's clothing. Rosalind Gill (2002) claims that in media there is a 'new normal' where new and subtle forms of sexism have arisen. These new forms of sexism are having negative consequences for women behind the scenes that play out in poor representation. Any woman who dares to challenge this notion is quickly labeled as the iconic uptight feminist. This makes instances of sexism not only hard to identify, but even harder to speak openly about.

There may have never been a time when it was easy for women to speak openly about sexism, but today women appear to have less of a discourse on which to base a discussion. Gill (2002; 2007) identifies a 'post-feminist problem' which is the notion that "all of the battles have been won, that feminism is in the past and no longer needed" (Gill, 2007, p. 252). The modern discourse, bolstered by individualistic ideas and based in a discourse of markets and economics, works to marginalize discussions of gender inequality, leaving only an individualistic paradigm from which to understand one's circumstances. "When individualistic understandings dominate over sociological ones in this way disappointing (and even discriminatory) experiences are understood as personal failures or as random events" (Gill, 2002, p. 85). If post-feminism were an issue at play for female game workers we would expect to see women rely on individualistic interpretations of sexism and reject feminism and its discourses. In this section I will look at women's experiences of sexism and discrimination in game work, and also their attitudes about gender and feminism.

To be fair, while I will illustrate that sexism may be common and a critical issue in the games industry, I don't think it can be said to be the norm. Several women had no discriminatory experiences to speak of. Rather than second-guess their experiences as uninformed, it is more respectful of the variety of women's voices and experiences to take them at face value. For example:

> When I joined [the studio], I was the first female programmer and I didn't realize it initially. But after a month or two that the other few females in that big area I was sitting in were not programmers. They were in a different craft but it never really had any impact on my work. It never was an obstacle, the atmosphere - I was welcome in the same way that any other male programmer would have been who was new to arrive. (Interview # 14)

On the other hand, many women had at least witnessed discriminatory behaviour and many agreed that it was fair to call the industry sexist, even while they may have escaped such experiences personally. But several women expressed an even more fundamental problem. As one woman's experiences illustrate, it is far from clear as to what experiences should be counted as discriminatory:

> I have definitely witnessed troglodyte-ish behaviour from specific individuals and of course heard plenty of stories about it, especially back maybe 10 years ago...But I've never had anyone direct specifically hateful behaviour toward me

> on the sole basis of gender before in the industry...I've mostly had like come on's or maybe just nerds being incredibly uncomfortable around me which I don't know, is that sexism if they can't even quite look at you? (Interview #7)

There is perhaps something humorous in considering the philosophical dilemma 'If a nerd comes on to you, can it be taken seriously?', yet I think it warrants a moment of close attention. What this woman's question does is reframe sexual approaches and unwanted behaviour as a type of nerdy awkwardness or mis-socialization. Another example:

> [There is] unwanted flirtation and…there's like no good rule for how to back out of that. It's cost me friendships that I really enjoyed...a lot of the guys in the games industry are not socially aware and they see me and they think I can deliver them from all of their nerdy misery…it's really like I'm being put on a pedestal, that's the interaction I mostly get, it's like oh hello lady fair, hello dear…Oh I think you're very beautiful and you should keep doing what you're doing and, I don't know, there's some guys out there who are pretty awkward that I have to see at conferences and stuff and it's just like…let it go. (Interview #8)

> Most of the problems I get that seem insulting is that they're too afraid to talk to me, it's not harassment, they don't want to have a conversation because they're so awkward. (Interview #8)

These women are framing the behaviour of some male peers by relying on the well-known stereotype of the awkward (and pitied) young man, desperate for female attention. Sexual advances, misogyny, and insulting behaviours are reframed as creepy and awkward, but hardly serious. It is beyond the scope of this paper to examine nerd culture and sexism in any great detail, but I question whether the stereotype of geeky-males is used to mask what would be labeled as blatant sexism and harassment in any other professional context.

Now I turn to those experiences that women did label as sexist. Some women admitted having discriminatory experiences, but explained them away as being both so common that they are inevitable, and yet so rare as to be a-typical.

> Sure, I mean everyone's had an experience. It's impossible to make it this long without something happening. I think that is probably true in any field but especially when you've got an imbalance something's going to happen at some point…I'm someone who doesn't have a hard time speaking out so I'm very comfortable telling someone that they are offensive...I don't think any of those experiences are typical. They're very rare the majority…something that I really want to make sure that people understand is that this is a really positive

> environment for the most part, a typical experience is a great one. I think the a-typical experience is the moment where you feel sexism or something happens, it's not the norm. (Interview #3)

According to this woman, sexist and discriminatory experiences happen to every woman, but not all the time. Discriminatory experiences here are framed as an inevitable outcome of an industry with a gender imbalance, but the solution posed is an individualistic one; one must personally speak out and be the type of woman who can tell men when they have crossed the line. Notwithstanding that women should stand up for themselves, this comment is interesting for what is missing. There is no mention of the responsibility for sexist behaviour on the perpetrators, the institutions that employ them or the industry to raise awareness or set up environments where women are supported in framing the behaviour as unacceptable. I think this supports Gill's notion that individualistic discourses put women (and other workers and institutions) at a disadvantage in dealing with problems like sexism. Borrowing again from Paechter's (2003) gendered communities of practice theory, what we may have on our hands is an industry where (some) companies support male communities of practice where sexism is an acceptable community behaviour.

5.6.1. Stereotype Threat/ened: The Risks and Rewards of Gender Identity and Advocacy

One of the most common experiences women mentioned was that they felt like they were dismissed as game developers and not given appropriate credit for their skills. Women mentioned several stereotypes that were often used against them. Some feared being written off as girlfriends, others fought outdated gender stereotypes, while others were frustrated by treatment they experienced as delegitimizing. Below is just a short sample of the many comments women made in this context:

> …often you know you'll meet someone at a con or out in the world and if they're going to talk to you about video games they don't expect much out of you because you're a female. (Interview #5)

> It's the feeling of being constantly under estimated by, I shouldn't say constantly…but there's the occasional time where somebody who can't believe I do this, [they are] really condescending about it and for some reason that really, really bothers me. (Interview #8)

> I walked in [to the new office] and I was like…why am I the first one that people see when they walk in to our space?…and this guy said to me, well as you should because you're the only woman we have so you're the secretary. (Interview #3)

> If ...[we] go to lunch with the guys in the studio, and we bump into other game devs (which we always do ...) they always shoot the breeze with the guys, even if they have just met them, then ask us, and what kind of work do you do? They assume we are HR or Marketing. They never believe we are the studio head and the lead iO/S coder. They usually think we are joking. It gets old. (Interview #4)

Studies have shown that stereotypes are more than annoying biases. There is evidence that stereotypes can have negative impacts simply because we are aware of them.

> Men and women, regardless of their age, background, or competence with technology, know that the general public believes that men and boys are more interested in, and are more competent at, the use of computers...In the case of the gender stereotype for computers, belief in the stereotype can have some dramatic consequences. There is good reason to believe that gender-based stereotypes can have the power of the self-fulfilling prophecy, creating further evidence for the stereotype. (Cooper 2006, p. 328)

The psychological phenomenon of 'stereotype threat' is well documented in affecting the math and science performance of girls. The fear of reproducing the stereotype creates a fall in performance. This fall may also occur simply by association with the group that is the subject of the negative stereotype.

> Research on stereotype threat has shown that the mere knowledge of a negative stereotype applying to a person's group can cause that person to perform poorly at a particular task (Steele & Aronson 1995; Steele 1997; Spencer et al. 1999). Thus, the impact of stereotype threat is far-reaching. It occurs when people feel identified with a group, when they feel that their performance will be diagnostic and when there exists a negative stereotype about how likely it is that group members will do well at a particular task…We reasoned that to the extent that the students in our sample thought of themselves primarily as girls, then they would suffer the consequences of stereotype threat when learning a skill on the computer. (Cooper, 2006, p 328)

Exposure to negative stereotypes appears to have resulted in some women feeling like they need to do more to prove themselves as bona fide game developers. We have already seen that some women use technical knowledge to combat stereotypes. Some women sought to increase their visibility to garner credibility.

> I have a twitter account and I'm trying to engage with people more so I make more of an impact…maybe it will work. I do more talks basically more public speaking and…we go to GDC every year so yeah I do a lot of talking there…people do know who I am but there are a lot of other things that kind of influence their perception of who I am and so I'm just trying to make it more clear any way I can. (Interview #1)

This led to the question of whether female game workers felt pressure to strongly identify as female game workers. I asked women about their involvement in "Women in Games" groups and gender advocacy, as well as their opinions about being role models. Many agreed that they felt some responsibility to publicly stand out as role models in order to challenge the negative stereotype.

> I think I everyone in the industry has a responsibility to show people what we do and to open it up. But as a woman in the industry, for sure, if there's a young girl in school who wants to talk to me about my experience or wants to know what it's like I would love to share that. I would love to open it up for one more person. One more young girl to become a programmer or an artist or a producer, come on it's great. (Interview # 2)

> I do think that anyone (man or woman) has the responsibility to speak up when people are being unfairly treated or harassed as long as it's safe to do so. I speak out for women in my industry because I feel it's not only good for the women in, or trying to get in, the industry but also for the long-term success of this industry as a whole. (Interview #12)

For one woman it was a mantle that was very uncomfortable, specifically because she worried that identifying as a 'woman in games' would actually reinforce negative stereotypes.

> There's a lot of women in games initiatives or women in tech…come and meet other women in games or represent women in games, my initial reaction is oh I hate these things. Why do we have to be called out as different? Why can't we just be people in games? So I actually feel on a certain level it reinforces certain stereotypes. (Interview #9)

Despite being hyper-aware of gender, women talked about their desire for gender diversity on the one hand, and an entirely gender neutral environment on the other. Nearly all of the women expressed some level of frustration that gender was a major issue in their industry. This woman's comment sums up the majority sentiment expressed in this context:

> [I want to] work really hard and try to make quality stuff because if people see me making quality stuff one day I won't be a female game developer I'll just be a game developer. It won't even be an issue, it won't be worth talking about. (Interview #8)

5.6.2. Beyond Sexism: Harassment in the Game Workplace

Most disturbing of all was that it was common for women in the sample to be able to recount experiences that move beyond simple sexism and into the realm of harassment. Shari Graner Ray (2004) defines sexual harassment as "hostile or unwelcome behaviour in the workplace, based on sex. Hostile means unwelcome behaviour that is pervasive and persistent" (p. 158). A few of the women in my sample reported work experiences that they classified as harassing:

> I have been at places where I have had inappropriate comments or physical touches and women were demeaned or condescended to and not given the proper credit and chances that the men were…I have had one person tell me "nice butt" as they were walking behind me. I had another person come and kiss me on the top of my head. That same person also went and kissed a female coworker on the mouth because 'it was her birthday'. I had a colleague at an industry event look down and go 'nice breasts'. I have had coworkers who have told sexually obscene jokes or pass around (or put up on their walls) pornographic images. At one company they even had a company mailing list where the men passed their favourite porn around…I definitely felt uncomfortable and shied away from working with some of the coworkers who made particularly lewd comments or physically touched me in ways that were not appropriate. (Interviewee #12)

> There are companies that are out there where women are constantly barraged with pornographic or sexually harassing visuals, coworkers tell obscene, sexist, or sexually harassing jokes, and some are even inappropriately behaviours…including propositions for sexual favours or outright inappropriate touching or lewd/sexual/obscene comments…[it's accepted] and some say it's actively encouraged. (Interviewee #12)

One women felt that she lacked the power to rectify harassment or discriminatory behaviours because the problem was not taken seriously by managers. Her story supports the previous woman's feeling that these behaviours are accepted in the industry and perhaps even encouraged.

> Yeah, well there's been problems, I know enough people that, like there's the stories of the company where the senior programmer who is just really talented but he says all these things about women but it's ok because he works really

> hard and he's the only one who knows how the system works so we can't get rid of him you know. That's the kind of thing that you'll get if you try to complain about this stuff, 'well it's complicated blah blah blah and you know yeah why don't we move you to a different dept because of him', and then you become the 'one who speaks out'. I've heard the same story so many different ways, 'oh we can't do anything about this because of 'X', just try to get used to it.' And that's not unique to games, I was a waitress and I had the same kind of thing, same stories. (Interview #8)

In this comment we can see evidence the inability for women to speak openly about discrimination without fear of being adversely affected. What's worse, is that these experiences reminded this particular woman of being a waitress. Without any disrespect to waitresses, it is particularly disheartening and disturbing to realize that for some women the experience of working in the highly creative, highly technical, and advanced field of digital games may be no better than waitressing. Harassment is a serious issue and my interviews have only uncovered hints that these behaviours may be widespread for women in the games industry. More targeted research is needed to examine how widespread this problem may be. For female game workers, harassment also extends beyond the workplace. Women mentioned the impact of audience harassment, a topic that I will deal with in section 7.

5.7. The Gender Advantage

Another interesting theme to arise out of my interviews with respect to opportunity was that women often viewed their gender as having advantages. In particular, women appeared to feel that being in the minority helped them stand out and gain attention in a competitive industry.

> Where I maybe have some disadvantages with relationships because I'm a woman I think I have a lot of advantages because I'm a woman as well because you're kind of rare. People are always happy to be working with you because guys get tired of just working with a whole bunch of guys as well. Especially if you're good at what you do they're really happy to work with you. (Interview #9)

> It's easy to be popular when you're female. There's a lot of upsides too. People remember me, I don't just get lost in the crowd. Everyone I meet remembers my name. I don't know like there's a lot of upsides. And I think the feminist perspective paints too much of a doom and gloom picture. (Interview # 8)

> Over all [being a woman] is an advantage. Probably because there is this perception that there are no women in the games industry and therefore I'm sort of a curiosity, so at the very least I have people's attention when I come in. Just by showing up, I mean it's like I've got that under dog thing going for me off the bat. If you were to ask me do I want other women in the industry? Not really because then I don't have it. They can come in if they really want to but I'm not going to force the issue. (Interview #6)

Women report that being female in this male-dominated industry can open doors and that many men are extremely welcoming. Some companies appear to bemoan the lack of women and now actively seek out capable women to diversify their workforces, although for some it may be little more than just wanting to look good by hiring "some girls" (Dyer-Witherford & Sharman, 2005, p. 203). The trend of 'affirmative action' was mentioned by a few of the women interviewed:

> I feel as if they need more women. I don't know whether they want more women. They certainly say that they want more women. I think there is some sort of affirmative action in some aspect going on and I know that some lady applicants have been given some preferential treatment, like we've finally be able to get a lady applicant for Christ sake. (Interview #5)

As rarities, women have something of an upper hand in combatting the systemic barriers working against them. Negative publicity and work by industry groups pointing out the horrible gender imbalance in the industry has created a climate where women are desired commodities by some studios who wish to improve their workforce gender diversity. However, the added visibility that being a female confers can also backfire as the expectations for the few women working in the industry are elevated.

> In a way though the stakes are a little bit higher because you will be perceived as representing your gender so it's that way with any other minority in the field you know, yeah, you have a natural attention advantage but at what price? if you do something that for anybody else would be a normal screw up…it's taken as a flaw of whatever minority aspect you may be. If you have more than one then you're shaming your own culture and your race and your gender all at the same time. (Interview #7)

Female game workers appear to be in the middle of an industry that sends mixed signals. On the one hand women face sexism, biases, negative stereotypes and in some cases harassment, while on the other hand they are sought after and easily stand out in an industry where networking and reputation can heavily influence success. What is unknown is whether studios are sincere or educated in their approaches to diversify their

workforce to include more women. Large cultural changes are necessary in order to retain women in the workforce and to encourage more women to enter the pipeline. Changes are also required on the leading edge of content development, because even the games themselves create the image of the industry as sexist and unwelcoming to women.

6. Game Content and the Alienation of Female Workers

Labour and content studies often occupy separate academic camps, and few studies of cultural labour take any significant look at the creative products of creative labour. *Creative Labour* by David Hesmondhalgh & Sarah Baker (2011), however, is a welcome exception. They dedicate an entire chapter to the consideration of creative products in the context of work, following it up with a discussion of audiences. I will do the same here with this chapter and the next and expand on their discussion with a specific lens on the game industry and gender.

In considering content, Hesmondhalgh & Baker (2011) raise an important ethical question: do creative workers care about the content they produce (p. 181)? While creative workers express deep attachment and passion for their work, they often take the position that the end product is incidental. What could be behind this contradiction? Hesmondhalgh & Baker hypothesize that we could be seeing something akin to Marx's concept of alienation in contemporary creative labour and that 'low-quality' texts are partially to blame. Creative work is often assumed to escape the problem of alienation because we assume that artists are deeply connected to their work. As we will see, however, alienation can be a significant problem in creative work.

The concept of alienation was first suggested by Marx and Durkheim. Alienation is the concept that work under capitalism lacks meaning or purpose for workers. The product of man's labour is external and alien to man - it is not a part of his nature:

> The worker, therefore feels at ease only outside work, and during work he is outside of himself. He is at home when he is not working and when he is working he is not at home….its alien character is obvious from the fact that as soon as no physical or other pressure exists, labor is avoided like the plague. (Marx, 1844:1967, p. 292)

In 1964 sociologist Robert Blauner expanded the concept of work alienation to include the characteristics of powerlessness, isolation, meaninglessness and self-estrangement (Hesmondhalgh & Baker, 2011, p. 28). This means that work with a high amount of these characteristics is more alienating to the worker than work that has little. Good creative work, as defined by David Hesmondhalgh & Sarah Baker (2011) is therefore unalienating, in that it provides the opposite: autonomy, sociality, social and cultural value and self-realization (p. 30).

It has been my personal experience as a television producer that the nature of the content being created has a direct and significant impact on the experience of and attitudes towards creative work. For example, it is a different experience to work on a reality TV show than it is to work on a documentary about social justice. One's personal perceptions about the social worth or degree of quality associated with a production affect the attitude towards the work being done. Some of the productions that I have made have required me to sometimes lie to subjects, or manipulate real-life situations for the benefit of the production. I have also experienced productions where myself and others have worked harder, longer, for less money, or otherwise given more of ourselves to programs that we felt personally held more ethical, personal or social value - and gave less when the opposite was true.

Hesmondhalgh & Baker discuss this relationship and begin with the assumption that creative workers prefer to work on 'high-quality' rather than 'low-quality' products, and products that contribute to, rather than take away from, the social good (2011, p. 181). Good quality work, however, involves more than just producing 'good' texts. Pride and pleasure in 'good quality' creative work can be found in craft elements and technical achievements (e.g.: filming a technically challenging scene, solving a particularly troubling coding problem), unusual access (e.g.: as in a documentary) or through personal satisfaction (e.g.: achieving a personal milestone, working on something one deems 'meaningful'). It can also be found in innovation or having an impact on society, or in receiving recognition for the work from the audience (e.g.: good ratings) or peers (e.g.: awards). The perception of quality in creative work is tied to perceptions of meaning and purpose to workers - that the work has the potential for valuable sets of uses (Hesmondhalgh & Baker, 2011, p. 188). Being involved in work that contains these elements of quality work gives meaning and purpose to the lives of creative workers.

If good quality work can provide meaning and self-realization to creative workers, then bad texts can create feelings of meaninglessness and negative identity associations. Poor quality products can include: rushed work, being overly-formulaic or overly-commercialized. When this happens workers experience a sense of disconnection from the product and the work feels like 'drudgery' (Hesmondhalgh & Baker, 2011, p. 190). Workers are motivated to avoid working on texts that they perceive as bad and working on them produces "deep frustration and disappointment, as a result of careless, meaningless ideas, and the distortion or perceived hijacking of good ones" (p. 199). Good and bad texts also highlight the tensions for creative workers (and the creative industry) between creativity and commerce. Hesmondhalgh & Baker conclude that bad work and bad texts can produce alienation in the Marxist sense for creative workers. Building on their conclusion I will consider how in digital games, representations of gender in texts can produce alienation in female game workers.

I begin with the assumption that workers in games are affected by the same general notions of 'good quality' and 'bad quality' work as outlined by Hesmondhalgh and Baker (2011) and reviewed above. However, the games industry has a well-earned reputation for hyper-masculinized content and for hyper-sexualized portrayals of female characters. I wanted to know whether this was a factor in determining 'good' vs 'bad' work for women in games, and whether the representations in games (i.e.: perceptions of sexism) would produce alienation for female game workers. In my interviews I asked women to recount their experiences of creating game content, and if they perceived that any of the games they had made contained sexist material. They were also asked to share their personal opinions of mainstream game content, the representations of female characters, as well as their own game playing and creative preferences. Their answers illustrated that alienation from the process of making content is possible, maybe even common, but that it is it unevenly produced among female game workers. Some women reported elements of alienation based on texts, while others did not. These interviews indicate that if the industry is serious about attracting and retaining female workers, then the content of games and the representations of women in those games has to be considered as part of the overall fabric of the workplace.

I propose that game texts have the potential to produce alienation for female game workers on three levels, which I break down into micro, meso, and meta levels of

game work. Perceptions of poor quality or sexist texts can alienate women from the games they produce (micro). Problems with sexist content can also infiltrate the immediate work environment and produce feelings of alienation towards employers and colleagues (meso). Finally, with enough alienation from the content and workplace, the entire industry can work to alienate female game workers, causing them to pull away from games as a career (meta).

6.1. Alienation from the Text

It is a well worn nugget of common-sense in the game industry that one of the keys to getting more women to select a career in games is to attract them as players by making games that reflect women's playstyles. The women in my interviews echoed the assumption that women will choose to be game-makers once they are enticed to become game-players. On the face of it, this is a reasonable assumption since it appears to have worked exceptionally well for heterosexual white men. The familiar narrative of game creation begins with an impassioned player who grows up to become an impassioned game-creator who makes games that he himself wants to play. Like men, women want to work on games that they would enjoy playing (Ray, 2004, p. 149). This story is also backed by research that indicates that games can be a 'hook' for young boys who later become interested in STEM educations a key avenue into gaming careers, but do not pull in girls in the same way (Barker & Aspray, 2006, p. 28; Goode, Estrella, & Margolis, 2008, p. 93).

The games industry is in a catch-22: more women are needed to design and create games that will appeal to women, but first those women have to be attracted to the industry by first becoming game-players.

> In our conversations with female game-design students and game designers we also identified the chicken-and-egg problem that more girls and women would be interested in games if more games existed that girls and women liked to play and if work environments could be found that were more supportive of their values and work styles. (Fullerton, Fron, Pearce, & Morie, 2008, p. 163)

The primary issue is that the majority of game content is made without a female audience in mind. Despite these female game workers all being passionate game-lovers, they still often felt excluded from the intended audience of the games they were making.

> I think that's what the difference is, not only do a lot of games not appeal to women but they actively alienate them. (Interview #8)

> They don't consider me as part of their audience or want my money. I accept that. A friend of mine said I don't open up a playboy expecting to see anything for myself, and that's kind of the attitude. Luckily there are some companies [name omitted] they actually care about how their female characters are represented…they don't treat women like they're some freak alien species. (Interview #8)

> I used to be very disturbed by that because I was always not in the audience of the…I shouldn't say always - sometimes I find myself not in the audience of the game that I was being asked to make and it's not very gratifying…I think that for people like me, because I'm a designer…it's hard to have design as a purely intellectual exercise and not give one single shit about what you're actually doing. I would usually find ways to make sure I at least cared somewhat about the aspect of the design I was working on and try to avoid the others but it's not always possible because if you're working at a big company you don't entirely get to determine what you're going to do and I think it makes for much better design obviously, because if you care you understand it better. (Interview #7)

When asked to express opinions about mainstream game content, female game makers expressed frustration regarding the sexualization of women in games or female characters being limited or overly stereotyped.

> There's significant problems with the portrayal of female characters…there is a lot entrenched bullshit which seems to be present in all AAA game structure...the idea that to be good things have to be incredibly middle of the road in mainstream and have bikini ladies in them that kind of thing is just awful and is just a layer. It's everywhere. (Interview #5)

> So the thing that actually normally bothers me is explicit, explicit sexism or whatever… I want to have all the options regardless of my gender, that's what I want and so that is where I kind of get angry. I don't get why the female wouldn't be able to do this just because she's a woman or whatever. (Interview #6)

Some women responded to this situation with frustration, and some by 'not giving one single shit' about their work. However, not all women reported having issues with the representations of female characters, but this was usually because the games they worked on either contained no female characters whatsoever, or the characters were secondary in the narrative of the game.

> …some characters are handled much better than others, but the number of really well done women characters in games are fairly few and far between, and the ones that are there are often referenced from older games, or are non-playable sidekick characters - not the player's avatar. (Interview #11)

All of the women I interviewed placed a strong emphasis on the lack of diversity in game content, meaning that they wanted to see more games being made that would appeal to them as gamers. Several also made the connection that an increase in women developers would result in more games that would appeal to the female gamer:

> Because I believe in the power and the possibility of the medium in general and would love to see more diversity in the content and that's my aesthetic goal. So I think I may be presuming but I think if there were more women making games that I would have more interesting games to play. (Interview #7)

> I don't think it's a priority to include a female cast in the game so they don't. …I've never felt like it is personal. I get along with my coworkers, and I've never felt discriminated against. Knowing these are good people with families gives me context that they care about women and know they exist. On the other hand, I think if there were more women developers, having more women represented in the game would be a higher priority to them. (Interview #15)

Underlying the assumption that more women developers would increase the appeal of games to women, is that these games cannot or will not be made by the men currently dominating the industry. Notwithstanding that we may be letting male designers off the hook, for some women, it was the specific lack of appealing content that motivated their choice to enter the industry, or in some cases, to create games of their own as independent developers.

> …my daughter didn't get the quality of games to play growing up that my boys did, and that bugged me. (Interview #4)

> [My career] grew out of a childhood love of games and it became a hobby because around 2005 I just realized that nobody was making the sort of games that I wanted to play, it's just like games kinda became this monolithic thing where…you're into video games, you're into shooters and…none of that had any sort of aesthetic appeal to me and…everything that came out was just the same and it didn't have any interest for me at all and so…I just figured that…if I'm disappointed by the selection out there as far as video games then probably other people are too and I can reach them as an audience. (Interview #8)

So while many women may feel alienated from the games industry by the games themselves, those in the industry often used this as inspiration to change the industry and create content that they would like. These excerpts indicate that female game-

workers are feeling disconnected, under-served, or downright enraged by much of mainstream game content. Women are alienated from game content that contains problematic representations that they view as lacking diversity, represents women in offensive or unappealing ways, or ignores them altogether. The question of how women game-workers respond to this level of dissatisfaction with game content is addressed below.

6.2. Alienation from the Workplace

The nature of content contributes to the overall reputation and culture of a game studio and may impact a woman's decision about the desirability of that studio as a workplace. One female game artist illustrated how sexism in game content can present itself in the workplace and in the production process:

> …it was in the details, not the main character designs, thankfully. Having a clothing option tagged as a "slutty skirt", and what have you. All racy Halloween costumes for the women, not so sexy for the men, that kind of thing. I think I mentioned it'd work better as just a mini skirt, or a risque skirt, if they wanted to label it something akin to that, minor changes that just made me feel better. If there's something that bothered me or my coworker, we worked with nice enough people that they'd just make the change. (Interview #11)

Alienation from game texts can also become a barrier for some women in the workplace, particularly when it comes to the critical elements of fitting in and workplace sociality. Liking games is sometimes not enough for the female game worker: it is important that she also like the same games as her colleagues. For one woman, not enjoying the same games as her male peers resulted in being ostracized at work, which contributed to a very negative work experience.

> So I was very much segregated physically and emotionally and professionally, so the culture of that was very unwelcoming for me…I think the big part of that was they enjoy the same games actually so they end up playing together and that definitely creates a culture where they become comrades. I don't enjoy the games that they play…They made this clock on paper where the hand that goes to 5, and instead of 5 it says Starcraft, so when it hits 5 it's Starcraft o'clock…So they bonded over that…If they're really pushing me to play Starcraft then ok I'll cave and I'll play a bit. Even if I really don't want to...I don't enjoy the game. (Interview #3)

Some women made a direct link between the nature of the content being made at a studio and their desire to work for the company. The nature of the content made by a studio may be seen as a direct reflection of the internal culture and reputation of the company, and women may assume that a company who portrays females in demeaning ways will also treat female employees this way (Ray, 2004, p. 150).

> I don't want to work at that company because I get that they're making an attempt to characterize [that game] as satirical and tongue in cheek about all of the misogyny but I don't buy it. I've read a lot of the history of the people behind the game and it doesn't ring true. (Interview #1)

> Their portfolios are full of great stuff when they are in school - really innovative games for girls, like one where you were a competitive figure skater and had to choreograph and costume your team, then perform. That same student then went to EA and spent five years designing weapons. These girls are trying to escape by applying with us. (Interview #4)

While sometimes women mentioned that they could enact small changes when questions of content arose, many women also seemed to believe that there was little they could do to change game content and adopted an attitude of resignation.

> …many of the concept artists and character modellers…are guys, and there's a desire to create what's awesome. It's also the way things have always been done, too, so you're fighting against the tide in some cases if you want to go crazy with new character concepts. (Interview #11)

> I think they're designing it for themselves. I think everyone is trying to design for themselves in so far as every person working on those games are male, that's what it ends up being right? (Interview #6)

Women may self-select out of certain companies or specific workplaces based on content preferences and the desire for satisfying work. Yet there are indications that women are opting to create a completely different style of game altogether, leaving the mainstream sector to make casual games.

6.3. Alienation from the Sector

Casual games are a significant portion of the digital games industry. According to the ESA, casual games are one of the industries 'super-genres', along with such categories as action or sports games. In 2011, casual games were the third largest

selling super-genre of computer game with 20.6% of the U.S. market. 42% of online games and 47% of mobile games are casual puzzle, board, trivia or card games (Entertainment Software Association, 2012). It is women in fact who often get the credit for the rise of the casual games sector. (ELSPA, 2004) Popular titles like Bejewelled, Farmville or Angry Birds are said to be popular with women because they are low commitment and easy to learn. Casual and social game studios such as Popcap Games and Zynga regularly report revenue in the hundreds of millions or billions of dollars annually. Zynga claims to have 72 million daily active customers, and in July 2011, Electronic Arts, the world's third largest game developer and publisher, announced it was acquiring PopCap for $650 million. To put this number in perspective, the Canadian Media Fund, which supports all Canadian television and digital media content only works with $375 million annually.

Casual and social games are often presented as an avenue for more women to enter the industry because women are the primary audience for such games.

> There are some companies (and sectors of the industry) where being a female in the workplace is not only respected but welcome. Especially with social games expanding the casual games market and females often being the target audience of those games and so now developers want females working on the games. (Interview #12)

> As a woman, I want to work on games that portray females in a realistic and positive light, and I also want to work on games that I would like to play…I like casual games and I'd like see them taken in different directions. (Interview #15)

One women I interviewed commented that the evidence for the higher numbers of women in casual games was that there were only ever washroom lines ups at casual game conferences. Anecdotally, there does seem to be more women working in casual games. Of the women I spoke with who work or have worked on casual game teams, they reported much higher ratios of women on the development teams, ranging from 50% to 65%.

Whether the casual games industry is doing a better job at attracting women as workers or whether women are selecting that sector to avoid working on 'bad' texts, is unknown. In traditional media women are often theorized as occupying ghettoized segments of the market such as working on women's entertainment. This form of labour

segmentation may be going on in the games industry because casual games are sometimes seen as occupying a lower status in the industry (Fron, Fullerton, Ford Morie, & Pearce, 2007, p. 3). This is brought on by a type of elitism among gamers who feel that 'real' games are those that require massive time investments and skills to play. In the literature there are indications that these games may occupy a lower status in the industry precisely because they are played by women.

> In the international edition of a German magazine Der Spiegel (24 aug 2006), game designer Heather Kelly is quoted on the difficulties faced by women in the industry: "Many so-called girls games have a bad reputation - and rightly so […] Most producers are male and difficult to motivate. They can't really be bothered to develop a game for their niece or daughter. And when they do, the game is usually full of dumb cliches. (Deuze 2007, p. 345)

This may be a version of the 'empty-field phenomenon' which claims an inverse relationship between the amount of prestige a field has and the number of women who will occupy it (Tuchman & Fortin, 1980, p. 309). So when an occupation loses (or has less) social value, men may leave the field to women and minorities, and conversely, when a field increases in prestige, men will populate it and push women and minorities out. Feminist researchers and female game activists also worry that games oriented specifically to women will lead to a ghettoization of these games and that they will only reinforce gender stereotypes (Kafai, Heeter, Denner, & Sun, 2008). It is possible that as women become more associated with casual games, essentialist notions of female preferences or abilities in play will become reinforced, supporting stereotypes that hardcore games are for men, and therefore their design can safely exclude women.

Sometimes, even when hardcore game designers try to include more women in to their game, it's done with the assumption that women are less skilled at their type of game and need a 'leg up'. For example, in August 2012 the game designers of 'Borderlands 2' created a 'girlfriend mode' designed to help male gamers get less skilled gamers interested in the game (Sheffield, 2012). The notion that women like different kinds of games from men was supported by some of the women I interviewed.

> I feel like in some cases women are more likely to say all of this pressure is stressing me out, all the pressure of doing all this stuff is stressing out, therefore I want to play something that has only a few mechanics I can learn quickly and just fucking do it...whereas men I think seem to be more likely to be like to not be

> stressed out by twitchy things and conflict things and getting killed over and over again. (Interview #5)

Some women agreed that women like different games but also rejected games based on stereotypical female interests. This is unsurprising considering many female gamers tend to identify less with stereotypical female interests.

> Games are about playing our fantasies. So far, most games have been made about playing male fantasy - swords and castles and race cars and war. What is female fantasy? So few games have really cracked that. Sims is closest. There are a million other things to discover about what girls want to play - but I don't think the current batch of shopping and fashion games are it. (Interview #4)

The digital divide between male and female game play preferences is often explained as boys preferring competition and girls preferring cooperation (Cooper, 2006 p. 323; Jenson & de Castell, 2008, p. 16). But as Jenson & de Castell (2008) caution, the very notions of 'competition' and 'cooperation' so often invoked in explanations of what males and females like in their game play, are themselves gendered and contestable:

> It's commonplace that many female athletes, for example, are highly competitive, so why would we not expect girls who play computer games to be "competitive"? It's time we expended some intellectual effort de-coding competition, before going blithely on to invoke the term as a marker of gendered play preferences. (p. 17)

More research on the casual games sector is needed but if women are more attracted to a sector because they are alienated by its opposite, then we may win the statistical battle to get more women working in the industry, but lose the war on equality if the sector is allowed to occupy a lower status position in the games hierarchy.

One woman in my sample was so alienated by the quality of the games that she was actively considering leaving the games industry.

> I got into this industry because I wanted to be with people…make people happy and stuff I like seeing people's faces when I'm doing something that makes their lives better. It's not clear to me that videogames do that at all. They're so bad still. They're so terrible. I don't know if I see the point anymore of like pouring my life into this. I have a lot of life I want to pour it into something that makes a difference. (Interview #6)

Like their male colleagues, women care passionately about the texts they produce. When making sexist and low quality game content, however, the passion of female game workers is compromised and in some cases their work experience can become isolating and feel meaningless. This is exactly the type of work alienation described by Robert Blauner and David Hesmondhalgh & Sarah Baker (2011). Games themselves contribute to studio reputations and can work to drive away potential female applicants who could bring diversity and value to game studios. For some women, the alienation that they feel towards mainstream male-oriented games serves as a motivation for them to work in the industry and try to create more gender-diverse games. If the industry is to get serious about diversity, it cannot to rely on the small proportion of women to change things. The industry as a whole must stop producing sexist and content that is potentially alienating to half of the population.

One of the surprises that arose out of my interviews was the awareness of another textual level of content in the games industry, namely: marketing. The women that I interviewed described frustration that the way games were marketed was often *more* alienating than the games themselves. Women also mentioned sometimes problematic relationships with the audiences of their games. This helps bring a final level into focus: the audience for games – gamers – are intricately involved in the creation of games and the culture of the games industry. Yet the conception of who gamers are is partially constructed by the game industry itself. In the next chapter I will explore how the audience for games is constructed through game marketing and the impacts this has on female game makers. I will also briefly examine the resulting relationship between female game makers and game players.

7. Audiences and Markets of Exclusion

One popular perspective on women in technology goes something like this: if we get more women working in technology, then hardware and software will automatically be more inclusive to other women. This view obscures the reality that technologies and institutions are already embedded with gender norms that inhibit their uses. Putting more women in front of a computer (an artifact already embedded with masculine gender norms) is insufficient to change what she is able to do with it. Cooper (2006) suggests "everyone who writes software, regardless of gender, communicates in a way that matches their assumption of who the recipient is" (p. 5). In this way, end users (audiences, consumers, markets) are part of the creation of artifacts. One of the key issues with computer software is that the default assumption appears to be that the end user is male. Results of some studies have shown that programmes written for boys are indistinguishable from those made for generic students. It is only when programmers of both genders are asked to specifically consider girls or women as end users, do we begin to see significant differences in design (Cooper, 2006, p. 325).

The creative industries create products that are, at their core, acts of communication. Their products are intended as emotional or affective experiences to be consumed by audiences. Yet most contemporary creative workers have few opportunities for direct interaction with their audiences. Even so, audiences are central to the creative process and can affect the quality of workers' experiences of production (Hesmondhalgh & Baker, 2011, p. 202). Through technology and the internet, gamers have unprecedented access to become co-creators of the games they play, blurring the lines between labour and play in the game industry.

> ...as the consumer in the game industry is often also a producer, one's professional identity as a gameworker includes a negotiation with an audience that is anything but passive or invisible. (Deuze, Bowen Martin, & Allen, 2007, p. 349)

Gamers can interact with and create game content in a variety of ways. Online forums allow players to contribute story and design ideas directly to game developers, who have been known to incorporate those ideas into the game (Kerr, 2011, p. 233). Players also create 'mods' - modifying software programs that change features in the game itself, thus providing free labour and ideas to the game designers, who often incorporate their ideas into future versions of the game. Mod's often act as early portfolio pieces for gamers looking to enter the gaming industry. This practice of hiring from within the player-base "perpetuates a recursive process in the construction of both game work and game markets as players become developers and then target players of similar interest" (Deuze, Bowen Martin, & Allen, 2007, p. 348). Game developers and publishers also connect with the audience in more discreet ways, through the collection of player data and the creation of virtual feedback loops where audience interactions with the games are constantly fed to game developers who continually adjust the game based on player data. Audiences are also interacting with each other in interesting ways that are extending the game experience far beyond the game as published.Through independent fan websites, spontaneous communities, online guilds, unions, youtube channels, web series, fan conferences et cetera, gamers are deeply involved in the games that they choose to play.

As active, massive, and increasingly diverse as the gaming audience may be, its image is far narrower. Popular conceptions still conceive of gamers as young, white, heterosexual men, yet the ESA reports that more women over the age of 30 play games than men under the age of 18 (ESA, 2012). Despite the rising market share of female gamers, the core market is still positioned as a 'hardcore gamer.' This term is used to reference a very specific kind of gamer demographic.

> This gamer has become 'ground zero' from the perspective of game design and marketing, and is taken by the industry as the 'de facto' target demographic for its goods. It is characterized by an adolescent male sensibility that transcends physical age and embraces highly stylized graphical violence, male fantasies of power and domination, hyper-sexualized, objectified depictions of women, and rampant racial stereotyping and discrimination. [This] 'third gender'…points to the fact that the game industry has constructed an entirely new fictional variation of Simone de Beauvoir's subjective male, one which may have as little to do with the majority of men as it does with women. (Fron, Fullerton, Ford Morie, & Pearce, 2007, p. 7)

Here we find part of the answer to why even the women who create games don't consider themselves as part of the traditional gaming audience. The issue here is that game creation and audiences exist in a feedback loop that has negative consequences for women as both players and creators of games.

> The notion of the "gamer" which has defined the rhetoric of game marketing and fandom, has created a sub-culture which is exclusionary and alienating to many people who play games, but who do not want to be associated with the characteristics and game play styles commonly associated with "hardcore gamers." This stereotype may actually prevent some people from playing games entirely. Anecdotally, we have found that female students, even those who spend over 20 hours per week playing videogames, are reluctant to term themselves "gamers" precisely because of these connotations. In addition, the market rationale of the gamer demographic has given the game industry free reign to exercise a wide variety of gender and racially discriminatory practices and stereotyping, in both the workplace and in the content they create, that would be unacceptable in any other field. (Fron, Fullerton, Ford Morie, & Pearce, 2007, p. 2)

I did not set out to investigate female game workers relationships with the gaming consumer, but it was a topic that arose in several interviews. Women mentioned their problems with the audience in terms of marketing, harassment, and the challenge of meeting player expectations - many of which drive some of the male-dominated practices we see in the industry. Marketing departments feed gamers images that construct them in a specific and gendered (and racialized, and age-ist) way, which in turn creates and supports a culture among the audience that permits certain behaviours that are exclusionary to women and girls. It is more serious, however, than simply saying that women don't feel like they fit in to the concept of the faming audience. Women are in fact experiencing, and have fears of, real and scary audience harassment. I will address these two areas: Marketing and harassment in the sections below.

7.1. 'BOYS ONLY!': Markets of Exclusion

Issues with the ways games are marketed to audiences emerged as a major theme in my interviews with female game-workers. The prevailing attitude is that marketers, often working in different departments and at cross-purposes from designers, construct game audiences to be young, male and heterosexual and needlessly exclude women gamers. Comments revealed a deep distrust in marketing, and discomfort that

resonates beyond the workplace and affects professional trade shows, online interactions with audiences, and professional credibility for women. The use of 'booth babes' (scantily dressed women used in trade shows to advertise games) has been a specific controversy for many years in the gaming industry. The purpose of booth-babes at pro-gaming events is to tell the gamer guy that he is not a nerd - he is a desirable heterosexual male, and that the gaming space and activity is one protected from homosexual desire (Taylor, Jenson, & de Castell, 2012). The games industry in many ways is increasingly modeling itself after the pro-sports world complete with women in bikinis and cheerleaders at gaming events.

To find out how female game makers experienced these environments, I asked women about marketing practices like 'booth-babes' and how this practice impacted their experience of attending professional events.

> It does bother me, but maybe not in the way it bothers most people. I actively usually avoid the conferences or areas in the conferences where 'booth babes' are present so I'm not being visually assaulted with what is going on. However, I think what bothers me about it (besides just the potential denigration of women) is twofold. First, it says to me that that company still feels that its target audience is a young, straight, horny male and that all other types of gamers or developers aren't important. Second, it tells me that the company doesn't really think the product can stand on its own. It's a shame that the marketing people for those products feel that the best way, or the only way, to sell that specific product is to use sex as a lure or promise. (Interview #12)

> It's really weird, it gives me the worst vibe and I think men are starting to feel that way too. If you've got booth babes on the side of the stage and on stage is a woman who works for the company speaking about their products, the whole thing just looks incorrect. Looks ugly. I don't think that they're changing things I don't really care but yeah, it's kind of a spectacle. Yeah [it bothers me], but will I complain about it? Probably not…a lot of people are pretty burnt out on the whole macho shooter thing anyways so…it's a non issue for me because I didn't go into the main showcase area. (Interview #8)

> When E3 was a smaller conference and [booth babes] sort of went away but it came back with a vengeance and you know it's a little cheesy but it's…I've been to environments like a car show and that was considerably more uncomfortable for me because that's wet T-shirt contests and a whole lot of crazy objectification. So while I find booth babes a little cheesy sometimes they don't necessarily bother me. It can feel a little strange at times and there are moments when guys aren't necessarily expecting to talk to women who are developers or part of the industry so there can be a weird feeling sometimes. (Interview #2)

> You can't possibly go to an industry event like E3 or Tokyo Games Show, and see it as inclusive to women. I've walked into a convention centre more than once to be greeted by a giant poster in a marketing campaign for a new AAA title that features a topless, large-breasted, small-waisted woman. That communicates immediately that I am not really wanted. At least, they don't care about my opinion. (Interview #13)

These excerpts revealed a few common themes. All of the women I interviewed experienced 'booth-babes' and sexualized marketing as a negative feature of their work. Those who claimed to not mind these marketing tactics did so through the strategy of simply avoiding that area of the conference (i.e.: the main showcase hall). While this may be helpful in avoiding discomfort, we need to keep in mind that these women are feeling uncomfortable being in the primary marketing and networking space at the major industry conferences, *where they are working*. Being seen, networking and promoting oneself and one's games is a key part of working in the industry and it's hard to estimate the missed opportunities for women when they feel alienated from the main event spaces. Some women rationalized the use of booth babes by comparing the practice to more extreme examples in other industries (i.e.: not as bad as a car show). Interestingly, the one woman who claimed the environment was little more than 'cheesy' was the one who also made the astute connection between the marketing of women as sexualized objects for consumption, and the challenge that can set up for women who are at these events as professionals. Bielby and Bielby (1996) proposed that in television and film, the problematic portrayals of women on-screen would translate into the devaluation of women behind the scenes. If we accept this as a premise for television, then the same may be said to be true for games.

Why is this practice happening in the first place? There is an obvious sexual link between the construction of the gamer as a young, heterosexual male and the use of bikini-clad women in marketing campaigns. In the movie business, the young male is still the prime movie-goer, yet bikini-clad women are absent from film trade shows and professional conferences. Some women placed the blame for the objectification of women in marketing with the consumer, claiming that if consumers didn't expect it, marketers wouldn't create that style of campaign. The problem of course is that this conception of the consumer bears little relation to reality as we have seen and it completely obscures the industry's role in creating the consumer in their own image. The answer lies in the industry itself, which still struggles to see women as peers on the level

of either players or creators. With women serving no significant role anywhere along the value chain, it is unsurprising that they are prominent at the level of marketing. Several women placed the blame squarely at the feet of marketing departments who they believed would take an otherwise accessible game and increase the sexualization of female characters far beyond the level in the game itself.

> In general it's a problem with marketing, e.g. you'll see scantily clad women in camouflage bikinis holding guns to promote a first-person, military shooter when once you get to the game you won't probably even see any female NPCs or characters in the game at all. They are doing it purely to attract the attention of specific audiences and not relying on the awesomeness of their game...I do believe that's changing, but I believe there are some games that are directed primarily towards that demographic or the marketing is directed primarily towards that demographic even if the game could have a much wider audience. (Interview #12)

> [In] most of [the games] females were not the main character and in the one where there was a female main character, she for my standards of fantasy life was…I loved working on her and working on that concept in general and then of course the marketing was handled with a much more sexualized approach. (Interview #7)

The interesting point in the comments above is how marketing is creating walls around segments of the gaming consumer that don't need to be there. Creating marketing that is narrowly focused on a specific demographic excludes others (namely, women) from feeling that they may also enjoy the game. If marketing is, at least in part, to blame for creating the audience for games, then it is also creating the culture and expectations of that audience. That culture is, in some instances, having extremely negative consequences for female gamers and game workers.

7.2. Audience Harassment

The issue of audience harassment arose organically through the interviews. At the time of the interviews, a major story was circulating through the ranks of female gamers that brought this issue forward. Briefly, a California woman named Anita Sarkeesian raised money for a Youtube series of short videos exploring female tropes in video games. Her Kickstarter campaign was successful in raising the money she needed to make the project, but also attracted the ire of gamers who accused Sarkeesian of a

variety of ‘wrongs’, sent her death threats, and published her home address on Twitter. One Canadian male gamer created an online video game where players could beat up an image of Anita which would get successively battered and bruised the more you hit her. The story was eventually picked up by mainstream news outlets decrying online bullying.

The backlash against Ms. Sarkeesian raised the collective hackles of female game-workers across the U.S. and Canada and nearly every interviewee brought it up as a topic of conversation. The key point about the Anita Sarkeesian story is that it is an example of a common experience many women face when communicating with the gaming audience. Several women that I spoke with were glad that the topic was finally ‘out there’ and hoped that something would finally be done to curb it. The impacts on the women that I spoke with varied, with some feeling the need to pull back even further into the shadows so as to escape the same kind of attention.

> [You] learn that you need to stay away from comment sections when you create something. There's this feeling that you'd like to interact with fans of your work, but at the same time, some people can say some things that just kill your desire to work on a thing. ...There's this weird entitlement and anger that sometimes seems to ooze out of comment sections on some blogs or forums. I'm not sure where it comes from, but I do my best to avoid those places. That said, there are places with much more subtle forms of unlikable comments. 'If you don't like the games out there, go make your own with your little friends' sort of things. People that aren't as angry, but aren't really helping, either…I know where not to visit and when not to smack the beehive, and when I do engage with people on things like women in the games industry (which is pretty rare), I try to approach it real chill like. (Interview #11)

> [The online comments…] It’s because I’m a woman totally. Every thing is like, any time a picture ends up on some blog of me I get really nervous because people are like oh she’s fat or she’s chubby, or all that shit and I don’t like seeing that. It’s really bad in this industry because of the audience having a real sense of entitlement…there’s no force on them saying maybe you shouldn’t say things like that. There’s nobody calling them out on that….I knew from the start that I can be the target of harassment just for having an opinion that people don’t like and so I tend to keep my opinions to myself, I’m a lot more guarded and that is a conscious decision I don’t want that shit, I don’t want my address getting out there and like my boyfriend is really sweet and understands that this is a real fear for me and he thinks that it’s unlikely because I’m not out talking about feminism, but I could be. Sometimes I want to, but I don’t. (Interview #8)

Most disturbing in these comments is that the very audience they create games for is silencing some women. The sense of alienation and exclusion is clear. Women are pulling back from their audiences, which for some, destroys their connection to their work and career. In particular, women seemed to make the association that they need to be especially careful when talking about ‘women’s issues, feminism, or women in the games industry. Audience harassment and the resulting alienation is a particularly damaging and insidious problem that must be addressed through concerted industry efforts that must begin by acknowledging their own roles in creating the audience through the marketing of a culture that devalues women’s contributions.

8. Conclusion

8.1. The Experiences of Female Game Workers

Work in the games industry can be visualized as a continuum: beginning with early childhood, stereotypes and gender norms dictate the appropriate uses of technology and software like games. These in turn influence education choices and career interests. In careers, we are influenced again by gender norms and acceptable community practices and behaviours, which are in turn influenced by and constructed by society, history and culture. In creative work, the texts produced, along with the audience, influence the experience of work and feedback in to content creation and the creation of audiences through marketing. Workers, audiences, texts, and studio and industry cultures are all inter-connected and mutually influencing actors. Each element along this continuum is gendered and contributes to the gender imbalance and sexism that women game makers experience.

The experiences of the women in this study confirm that the culture of the games industry is highly masculine and discriminates against any worker, of any gender, who cannot fit in to the preferred 'might is right' personality. This mindset plays to the idealized young alpha male. This culture is widespread in the industry, but not homogenous. In creating work environments that are casual and exciting for workers, employers have created masculine organizations focused on attracting a very specific kind of worker - one that matches their conception of the audience as well as the ideal game maker. Cultural norms in the industry create expected patterns of action that affect speech, appearance and other behaviours. Personality fit and passion is a key hiring factor for modern studios, which places women at a disadvantage. The result is a highly gendered industry with entrenched stereotypes and biases that are keeping many women from full participation in the industry.

Female game workers often upheld dominant industry discourses such as 'personality fit', while at the same time being strong advocates for more diversity in the workforce. This creates an environment where change on this front is less likely because only women who can fit in to the dominant community of practice will either be hired in to the industry or be able to retain their positions over the long term.

Female game workers do not always come to the industry by first becoming gamers, however, most develop a love for the work. The passion of game workers is exploited but it is essential to the work for workers and for employers. Far from being a gender neutralizing force, passion can operate as yet another way for the established norms and stereotypes to be reinforced. The stereotype that women are just not as good or interested in video games is still widespread and works against women who wish to enter the industry. This may be why some positions such as art, writing and marketing have seen more success in hiring women than the core technical positions like game design and programming. These positions tend to require more knowledge of the medium, a higher degree of technical expertise, and a greater expectation for workers in these positions to display a deep passion for games.

Women in the industry are often in the position of having to justify their presence and to fight for the right to be a part of the club. Game content itself can contribute to negative experiences of game work for female game workers and can alienate them from their creative passion, work teams, and even from the industry as a whole. But even when developers try to create balanced content, female sexuality is often ramped up through marketing campaigns that aim to attract young male gamers at the expense of other audiences. Using women to sell games is prevalent enough that it alienates female workers at professional conferences and expos and contributes further to them feeling like they are not welcome in the industry.

Technology

Technology is a key factor in considering games work as a cultural field. As with other forms of new media, keeping up and "DIY Learning" is widely practiced and expected. Workers primarily rely on their own networks and resources to keep up with technological change. This contributes to an environment that is rapidly changing and the feeling is that falling behind can be a career killer. For women this is doubly

problematic when they reach a stage in their lives where they want to consider having a family. As a response, women may be putting off having families unit they reach positions where they are less penalized for working crunch times or taking some time off.

For female game workers technology is a double-edged sword. Far from being gender neutral, technology is gendered, with computers and video games being especially masculine in North American culture. This means that female game workers are often up against the stereotype that they are less capable at computer related jobs (programming, etc.). This is also a factor in the gender segregation we see in the industry. However, many female game workers use technology and their knowledge of technology to establish credibility in the face of the stereotype. This lends support to initiatives that provide women with more technical skills and builds confidence in women and girls with computers and technology.

Feminist Discourses

In this thesis I have also been preoccupied with the question as to whether traditional feminist notions such as 'glass ceilings' resonate with the games culture, and what role feminist discourses might play in women's understanding of their experiences. Rosalind Gill (2002) puts forward the concept that women in media are subject to individualistic discourses that leave little room for systemic understandings of their personal experiences. She concludes that part of the problem is that post-feminist discourses have robbed women of a framework that could help them understand their experiences as more than personal failings. For the women in this study, Rosalind Gill's conclusions are only partially supported. The women in my study, as expected, held highly individualistic viewpoints about their industry: one could 'just create a job and do it'. My findings, however, partially contradict Gill's conclusion that women are left with little other than personal failings as an explanation for negative experiences.

One of the consequences of relying on an individualistic discourse is that it can rob women of a way to openly address discrimination – a problem Gill (2002, 2010) calls 'unspeakability'. Some women expressed difficulty openly talking about sexism in the industry. Behaviours that would be seen as sexist in other industries are masked by the stereotype of the awkward or creepy geek. The pressure to be a part of the team (E.g.: one of the boys) and socialize positively with teammates is intense in the games

industry. Some appeared to feel that speaking out would result in negative repercussions and felt it was better to simply stay quiet. In the worst cases, women also experienced harassment from colleagues and from the gaming audience themselves. This can result in driving women in to the shadows when they might otherwise speak out to either air serious grievances or simply self-promote.

The pressures of post-feminism did not prevent the majority of women in my sample from identifying as feminists. Nine of the women interviewed agreed they were feminists, while four openly rejected the term as negative, upsetting or simply outdated[1]. The women who identified with the term qualified it by stipulating that their interests covered all genders, and not just the interests of women. The women often expressed the view that the ultimate goal was for a gender *neutral* industry where gender simply became irrelevant as a factor. Most of the women acknowledged that they did not wish for recognition based on their gender, but rather for doing good work. For this reason, identifying with a gender-focused framework was a dissatisfactory approach for some women.

While the women wished for a workplace where gender was irrelevant, they agreed that in reality their industry has a gender issue. They were, however, divided on whether gender inequity played a role in how their own careers would progress and what opportunities would be available to them. Most women subscribed to the meritocratic discourse that they could be the authors of their own success, specifically because they believed that they could control the quality of their work. However, many of the women were able to identify systemic problems such as wide-spread 'might-is-right' cultures, sexism, biases and gendered stereotypes that make their work experiences problematic. For example, a female game designer might believe that nothing is stopping her from designing and creating a great game but recognizes that entrenched stereotypes will make it harder for her to raise funding from sexist venture capitalists, or that she may have to put up with uncomfortable situations at work, or that the prevalence of the practice of crunch time and the exploitation of young workers may prevent her from

[1] The women who rejected the label 'feminist' most often said they preferred the term 'humanist' because it allowed them to focus more on general issues of equality rather than gender specific problems. They expressed strong desires for a discourse that was gender neutral and an industry where being a woman was irrelevant.

working at larger companies if she has a family. The point here is that I did not find that female game makers lack a discourse that helps them frame systemic problems - I found the opposite. Most had a well developed understanding of a variety of problems that stand in their way of getting, doing, and enjoying their jobs as game workers.

The women I interviewed could identify gendered systemic issues, but they did not relate to traditional feminist concepts of boys clubs and glass ceilings. The structure and youth orientation of the industry is not an easy fit with these old images. Without a more fitting discourse, female game workers often defaulted to a normalized view of exclusionary networks, particularly with respect to senior level networks. This appears to result in the majority of the discourse centering around early pipeline solutions such as getting more women into training and education programs or interested in technology and games as children, rather than on the promotion and retention of current female game workers.

The lack of a feminist discourse led at least two women to normalize the gender divisions they saw around them, with some women questioning whether biological differences actually made men better at working long hours, or women more suited to administrative positions.

> Sometimes I wonder if it's just natural. I mean you look at other professions like nursing and teaching and my sons at school he had a male teacher this year but it's the only male teacher in the junior school so there are different professions where things shift in the opposite direction. Maybe it's just kind of natural. (Interview #14)

The question remains as to what a more appropriate discursive framework might be? Metaphors like glass ceilings, boys clubs, leaky pipelines, masculine dungeons and others all seem to fall short when thinking of the games industry because the gender inequity is both ubiquitous and in flux. The industry has been constructed as a young boy's club built to privilege the play and pleasures of an idealized version of men. This club has been built by the men who make the games, but it was supported and encouraged by managers who saw the opportunity to exploit this new work style and the passion workers had for their favourite things. From the perspective of women, the industry is a glass house, complete with a glass ceiling (a lack of women at senior levels), glass walls (horizontal gender segregation where women are left out of core

occupations), and a glass front door (where women find it harder to break in to the industry, or fail to become interested in it in the first place).

Key Advantages

Despite the immense barriers that women face in this industry, I earlier claimed that the smart money was on the women and their ability to help change the gaming industry. This is because as a group, I found these women to be ambitious, motivated, and far from apathetic about their industry. Women in games have more going for them than a can-do attitude. I have identified five factors that I believe, perhaps along with others that I have missed, should give us confidence that gender diversity in the games industry is a real possibility. Women in games benefit from:

1.) **High Visibility**: The gender dis-equity in the industry is so plainly obvious that calls for diversity are difficult to refute and are gaining traction in many companies, in the industry media, and among large conferences. Women also benefit from being rare and highly desirable commodities in the current labour market.

2.) **Favourable market demographics**: Women of all ages are among the fastest growing demographics of game players, and game companies are rapidly realizing it. There is also a sense of a growing apathy among traditional gamers who are tired of the 'same-old' games. These facts, along with some recent high-profile successes by female game makers[1] is making talented women and new types of game designs more desirable for recruiting developers who wish to diversify their market.

3.) **Favourable distribution models:** Digital distribution is hugely popular among consumers and easily accessible for independent developers, making it possible for independent artists to completely side-step traditional publishers. Unlike in TV or film where a broadcaster or large theatrical distributor is still essential, independent game developers are able to create popular games in their living rooms and make a living by posting them online.[2]

[1] For example: Journey by Kellee Santiago and Jenova Chen, Portal (1 & 2) by Kim Swift.

[2] Indie sales figures are nearly impossible to find as none of the distribution platforms releases them publically. However, notable success stories include: BRAID (2008) is one of the highest selling indies games to date with an estimated gross in the millions. 'Super Meat Boy' (2010) was made by 2 men, and has sold well over $1 million copies. The 2011 documentary "Indie Game" claims that Braid and Super Meat Boy have grossed several million dollars in income for their creators. Indie game 'Journey' (female created) shattered sales records on the Sony PlayStation Network.

4.) **Passionate agency & advocacy:** While passion has many roles in game work, I claim that for women it is a driving force behind a good deal of gender advocacy. Many of the women I interviewed are involved in advocacy and networking groups[1], teaching and speaking on the side, blogging about their experiences, and mentoring. This speaks well of women's confidence, passion and agency in a male-dominated and highly competitive industry. In my sample of 14 women, only 1 was actively considering leaving the industry (although she had recently accepted a new job at a gaming company). The majority were very involved in the gaming community and at least 5 of them had recently organized advocacy or training initiatives aimed at attracting more women to the industry or improving networking opportunities for women.

5.) **Industry maturity:** The games industry is still relatively new and has few entrenched work practices. It is also just beginning to grow a stable workforce that is entering middle age, and many workers no longer support the exploitative work practices of their youth. As experienced workers have families, some companies are developing work practices that make game work more inviting and sustainable for all genders.

The challenges facing the diversification of the industry are daunting, yet as evidence of positive change, the women I interviewed were witnessing significant improvements in just the past few years alone. Whether it was long lines in the women's washrooms at conferences (where none had existed before), high profile promotions of women, or the new conversations happening in studios around work life balance and the reduction of crunch times, women had hard examples that they could point to justify their optimism about their industry.

Directions for future research

The independent sector is an area that I would like to highlight as potentially fruitful for future research on women's participation in the game industry. The majority of the women in this study worked in the independent sector, with several of them preferring it over working for large AAA publishers. The independent sector appears to have a strong culture and a robust sense of community that closely resembles the hacker ethic of software communities. The increased risk of being independent (E.g.: no steady income, carrying the entire burden of a failed product, etc.) is mitigated in part by

[1] For example, groups like: Wired Women, Women in Games, Girl Geeks meet ups, and the IGDA Women's Special Interest Groups.

the open sharing of techniques, passion for creative and technical innovation, and mutual support through close-knit communities and relationships. Indie culture also seems to go hand in hand with a widespread disdain for mainstream content and a distrust of publishers who hold a great deal of power in contracting with independent developers. While independent developers remain un-unionized, they appear to act collectively behind-the scenes by sharing legal advice, hosting conferences and providing training and support on how to work with more powerful publishers. Several women in this study felt that the independent sector provided them with more opportunity for creative autonomy, more support and sociability, greater flexibility, and was more welcoming to female developers. This may be an area where female developers could benefit significantly from formalized support as some mentioned that they still struggled to overcome existing biases held by venture capitalists who felt that female developers were less qualified, making it more challenging for them to raise enough money to develop products for the market. More research is required to know whether this sector is more welcoming to female developers and to support its development.

Ongoing research on women and the digital games industry is critical to support the industry as it grows and matures. Scholars have an opportunity to hold the industry accountable at a time when it is still developing best practices. As the industry experiences double digit growth annually, they often look to training institutions and universities to recruit graduates for the workforce. Institutions can contribute by ensuring that female students are aware of the industry, and that research on workforce diversity and work practices is shared with game companies looking to recruit. Perhaps opportunities exist for researchers and companies to work together on developing best practices and cutting edge technology that is made by – and available to – a diverse student body. The industry is changing at breakneck speed, and produces cultural products that are consumed by a majority of the population and of all ages. Yet as communication scholars we still know too little about it. Only by working directly with the industry can academia hope to keep up with the heady pace of change.

There are very few studies that put the experiences of female game workers centre stage. Research on the industry must include qualitative analyses that move beyond the simple counting of women. Insights, such as those provided by the women in this study, provide us with a deeper understanding of the experience of work. With those

understandings, policy makers, studio owners, HR executives and industry advocates can design companies, policies and workplaces that better serve the business of game creation by encouraging real diversity, employee retention, innovation, reaching new markets and better products. For scholars of the industry and cultural labour, studies like this provide a baseline of experience against which changing labour conditions and experiences can be measured.

The gendered nature of the various actors in the continuum of game creation and game play constructs the culture in which it is decided what is available for play, and who should play. Games are now a significant cultural force and the culture of games places women in sexualized, stereotypical and objectified positions that in turn reinforce those subject positions in society and in the workforce. Yet, the industry already has the tools it needs to change and grow. Both women and men who work in the industry are motivated and eager for the opportunity to improve work practices. The insights contained in this research can hopefully contribute to opening up new avenues of cultural studies research.

I began with the question of whether work in the digital games industry was ‘good work’ for female game workers. For female game workers, game work is, on the whole, good work, but it is not without significant issues. In many respects game work can provide all workers with high pay, high levels of sociality, self-realization, security, creative interest and autonomy. For women, finding the right environment where the elements of good work exist can often be elusive and is more challenging for them to obtain than for many of their male peers. Female game workers are getting mixed signals from an industry that appears to desire gender diversity but is resistant to change sexist and discriminatory work practices that alienate women.

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