Preface: Pink, Purple, Casual, or Mainstream Games: Moving Beyond the Gender Divide

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Ten years have passed since the publication of *From Barbie to Mortal Kombat,* a groundbreaking volume edited by Justine Cassell and Henry Jenkins. The title of that book refers to two cultural icons that illustrated the key issues surrounding gender and digital games in the 1990s.[1] Mortal Kombat served as a vivid example of the violent video games believed to be preferred by boys, while Barbie was associated with the princess image that is stereotypically feminine. The themes discussed in the Cassell and Jenkins book include how most games featured narrow gender stereotypes, how few games on the commercial market were of interest to girls and women, how female players wanted different gaming experiences, and how women were not a visible part of game production. In addition, gaming was seen as part of a broader pathway into technology, and girls were missing out. However, in 1996, when *Barbie Fashion Designer* became the most successful game of the year, it proved that there was a viable market for girls.

Today, women and girls are playing digital games in increasing numbers. Foundation and industry reports (ESA 2006; Pew/Internet 2005) have documented considerable growth in the female gamer segment in the past ten years. According to the Entertainment Software Association, 38 percent of game players are female, although the percent of females rises to 42 percent for online games. In particular, females are believed to be the dominant presence in casual games. A study by Macrovision Corporation of their own casual game site found that 71 percent of their game players were female, and the most popular games were puzzle games, followed by card games.[2] Females are an equal or dominant presence in some massively multiplayer online (MMO) games (Krotoski 2005), though still a minority in most. This increase in numbers has led to the assumption that gender equity has been achieved. If more

girls and women are playing, then what is left to discuss? On some levels, it appears as though discussions about gender and games could be put to rest.

The most visible proponent of this position has been Gee (2003), who cast aside gender as an issue that is only of relevance to academics.[3] He suggests that feminist researchers or those interested in gender would be well served to pay more attention to the cultural aspects of gaming. His take on the gender issue is that there is "no doubt that videogames, like most other popular cultural forms, overstress young, buxom, and beautiful women in their content. Furthermore, with several major exceptions, these women are often not the main characters in the games. However, as more girls and women play these games, this will change" (p. 11).

The chapters in this volume provide evidence that it is still critical to consider gender in order to understand and improve on the design, production, and play of games. The authors continue the discussion started with *From Barbie to Mortal Kombat,* and revisit gender and games with new perspectives on who plays, how, where, why, what, and with whom, and what role gender has in these distinctions. We have brought together essays and interviews from some of the original contributors, but also included new media theorists, game designers, educators, psychologists, and industry professionals. The authors in this book show that addressing the role of gender in gaming requires far more than simply increasing the number of female players. Although the presence of women and girls in a range of game worlds is encouraging, most games continue to replicate and perpetuate the gender stereotypes and inequities found in our society. A brief excursion into the game industry illustrates why.

Some Things Haven't Changed: The Gaming Industry

In its pursuit of greater profits, the gaming industry has made some gestures to limit the aspects of a gaming culture that turn off so many potential female gamers. In January 2006, the organizers of the Electronic Entertainment Expo (E3) proclaimed the dismissal of the "booth babes"—those young, nubile, scantily clad women who frequently promoted the hot new games. The Entertainment Software Association (ESA), the producers behind E3, a gathering for a 7.3-billion-dollar-a-year industry, signaled that things were about to change when it announced that exhibitors attending that year's meeting would be slapped with a hefty fine if they promoted their products using women in

bikinis, or anything else that favored showing skin over substance. This press release generated considerable buzz and goodwill in the media. Some women began to wonder whether their presence was finally being taken seriously. However, a visit to the expo a few months later proved otherwise: there were still plenty of booth babes around.[4] It is unclear how serious the organizers were about imposing their fines beyond paying lip service to a growing female gamer population. But the game companies clearly saw their male customer base as the more important one.

Game design and production is another area in which women's participation is still not taken seriously. The Game Developers Conference (GDC) is the flagship meeting for this industry group. For many years at this conference there has been a popular event called the Game Design Challenge, known for being zany and provocative. Three award-winning male game designers are invited to compete. They are given two months to develop a design, and ten minutes to present their ideas to the audience. In the past, the game design task has involved ideas that will force contestants to break the mold of typical game genres, such as Emily Dickinson poems and world peace. Not coincidentally, the challenges often focus on topics that are usually associated with women. The task for the Game Design Challenge for GDC 2007 was to design a game that could be played with fabric, thread, and a needle. At the end of the panel, one female audience member asked the question "Considering that sewing has been the domain of females for hundreds of years, I'm curious as to why you didn't invite any women to participate in this panel?" The panel organizer responded that this was not an issue in setting up the challenge. The debate continued online, and there were conflicting views on the importance and appropriateness of including a woman in the competition.[5] For the first time ever, in 2008, the GDC Game Design Challenge included a female designer (Brenda Brathwaite, interviewed in chapter 23).

In bringing this book to print, the editors have been challenged to explain why there is still a need to talk about gender and gaming. Our reasons include women's experiences like the ones just described, statistics from the male-dominated business of game development, as well as a desire to help keep the dialogue in both industry and academia from resorting to simplistic female-versus-male comparisons when talking about play style and interest. To talk about games and gaming communities requires a consciousness about who plays and who designs, as well as a clear description of who does not and

why. In the following parts we situate the issue of girls' and women's interest and participation—or the lack thereof—in the context of broader historical, technological, and theoretical developments. We recognize that any discussion of girls' and women's participation in game play cannot take place without considering the girl game movement, what preceded it, and its implications for the kinds of gaming worlds that are available today.

The Girl Game Movement: Then and Now

Gaming in the 1990s was centered on Nintendo and Sega consoles at home and in arcades, with girls and women greatly outnumbered. Study after study reaffirmed that girls and women were not interested in technology, and by extension, in games. There were many reasons listed, which included the pervasive presence of violence found in many games, the need for spatial abilities to perform well in these games, the depiction of females as sexual objects, and the lack of general experience with technology. Many argued that game production was biased because most game designers were men who designed for players like themselves. One of the reasons that the lack of girls' and women's participation in gaming is considered problematic beyond its entertainment scope is that gaming is considered a gateway into computer science and information technology careers (AAUW 2000; Margolis and Fisher 2002).

In recognition of this untapped market, the industry responded in the mid-1990s with games developed specifically for white, North American girls. These were primarily games that could be played on a home computer or a game console. The success of some of these girl-specific games proved that there was in fact a market for them. However, many of the smaller companies met the same fate as other technology start-ups during the general downturn of the technology industry a few years later, and were either bought out by large corporations or simply disappeared. But the industry learned an important lesson: interest in computers and games is not limited by gender, and commercially successful games can be designed for girls.

The girl game movement of the 1990s featured very different conceptions of how to design games for girls. Some of this has been laid out in the introductory chapter to *From Barbie to Mortal Kombat* by Cassell and Jenkins (1998), and by de Castell and Bryson (1998), who describe the different ways

that industry approached gender differences and applications to game design. But here we take a look at which of these approaches has had a lasting impact on the types of games that are still popular.

The most visible part of the girl games movement included so-called pink games for girls with traditional values of femininity. Games in this genre were predicated on strongly gender-typed toy preferences, and spurred research on female and male differences in interests, activities, preferences, and uses of games and toys (e.g., Brunner this volume; Joiner 1998; Klawe et al. 2002). For example, *Barbie Fashion Designer,* the most successful title of the series, allowed girls to design their own clothes, print them out on fabriclike paper, and then dress their actual Barbie for play—all activities that played on girls' apparent interest in their appearance and clothing. A later analysis explained how the Barbie software leveraged with great success girls' existing play patterns (Greenfield and Subramahayan 1998). There is still a market for highly feminine girl games today. For example, games around the successful franchises My Little Pony and Powerpuff Girls are very popular.

A second direction within the girl game movement provided a counterpoint to the original pink games, but still aimed to build on girls' expressed interests. Games in this genre might be called "purple" games in a tribute to Brenda Laurel's flagship company, Purple Moon, founded in 1995. These games featured activities that built on girls' real-life interests in sharing secrets and building friendships. At about the same time, the company Her Interactive started a series of *Nancy Drew* games, building on the vast popularity of the book series. Many similar companies were created by women aiming to make a difference by tapping into the girl game market and promoting game characters and play options that were not widely available. In one of the games developed in the *Friendship* series by Purple Moon, players can assume the role of a girl named Rockett who is new in school and trying to negotiate her way through a series of social challenges with classmates in order to gain friends.

Purple games dominate the market for girls today and have expanded their reach into an adult audience; for example, *Nancy Drew* games have been joined by *Animal Crossing* and *Diner Dash.* These games target a primarily female demographic, with less emphasis on ultra-feminine aspects of young girlhood than pink games have, and with increased focus on real-life issues of interest to girls and women.

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Both pink and purple games, which used girls rather than boys as a starting point for their designs, created considerable concern among feminist researchers (Cassell 2002). It was feared that their promotion of traditional values about what it means to be a girl, their limited choices of identification with femininity, and their creation of separate, girls-only spaces would lead to a ghettoization of girls (Seiter 1993). Clearly, limiting the available games to only those girls say they want will prevent them from learning new skills and being exposed to new ideas. For example, Hayes (this volume) expresses disappointment that Nancy Drew does not include tools for modding (modifying the game). If the industry believes 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. In addition, as Pelletier (this volume) points out, what girls and boys say they like about games may be a strategy for asserting their gender identity (rather than as a result of being either male or female).

But one of the most problematic aspects for many was the essentialization of girls and boys—the assumption that all girls share the same likes and dislikes and the same for boys. Focusing only on what is different about girls and boys ignores what they do have in common. Lazzaro (this volume) eloquently lambasts this approach. Focusing on male-female differences also ignores the substantial differences that exist within gender. A recent meta-analysis pointed out that most of the observed differences between men and women in psychological studies are rather small, with the exception of motor performances and views on aggression (Hyde 2005). Many researchers now focus on contextual factors and their impact on situating gender. For instance, a follow-up study of Kafai (1998) revealed that most of the gender differences in children's video game designs disappeared once the design context for the games changed.

Today, in 2007, there has been a noticeable shift from pink or purple games to a more complex approach to gender as situated, constructed, and flexible. These views are apparent in both the games that are available, and the research that is being done on gaming. For example, recent research builds on the concept of gender as a socially constructed identity (de Castell and Bryson 1998). Theorists like Butler (1990) have introduced the notion of "gender play," meaning that both girls and boys, and men and women, experiment with gendered expressions. Butler conceptualizes gender from a human femi-

nist perspective as "an attribute of a person, who is characterized essentially as a pregendered substance, or 'core,' called the person . . . " (p. 14). Much of the research has focused on where and how society places constraints on gender performances and thus impacts a gendered-identity formation.

The recent surge in user-driven gaming environments has brought these theoretical perspectives into practice. The Internet (Turkle 1995) and, more recently, massively multiplayer online communities (MMOs) allow players to choose avatars of any sex, permitting experimentation with gender identity. Yee (2007) estimates that half the female avatars in World of Warcraft are played by men. Both Lin and Yee (this volume) report that women and men who play female avatars are subjected to constant attempts to discover the player's "real" sex. Along with game worlds that permit exploration of alternate gender identities, some games challenge existing gender stereotypes and provide room for exploration. One example is the game Sissyfight 2000, developed by Zimmerman (2003) to illustrate how one can challenge norms about social interactions by asking players to engage in cruelty as they role-play being a young girl at the playground. Lara Croft is the most notorious, if not the first, game to cast a female as the very violent main character who dismantles her enemies without losing her overexaggerated feminine physique. This game has had wide appeal for both men and women. Lazzaro (this volume) points out the limitations of making games for niche markets based on demographics. Doing so limits market size and does not maximize fun. She argues that there are greater similarities in what female and male players find fun about games than there are differences.

Another recent development is that girl games are no longer games that are only played by girls; it also includes games made by girls. Although Kafai (1995) pioneered this approach in the early 1990s, the availability of game development software that did not require extensive programming has led to additional girl-made games (Denner and Campe this volume; Pelletier this volume; Kafai 2006). One striking feature of these new approaches is their focus on modding features (Seif El-Nasr and Smith 2006), which allows players to customize aspects of game avatars, levels, and activities. In the early 1990s such modding features were not part of commercial game packages; only hackers were able to change games. As production values increase, commercial games are increasingly expensive to create. Companies have recognized the benefit of leveraging players' energy and involvement with the game by releasing tools for

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user-generated content such as modding, construction and commerce of objects, and tools for recording movies of game scenes (machinima). The recent successes of player-generated content such as Second Life by Linden Lab and Whyville by Numedeon seem to suggest that players, girls and boys alike, are drawn to these participatory features. Hayes (this volume) observes that use of these participatory features provides a gateway to technological expertise, and that far more male than female players create game content in these ways.

This history of the girl game movement shows how conceptions of gender differences have changed over time and can create very distinct outcomes for game mechanics, character design, and context setting. It is our contention that the dialogue about gaming is limited when gender is seen as a fixed entity and focused just on avatar design. We contend that these are not the only possible ways to address gender differences in game design and research. As the chapters in this book illustrate, there is a much broader landscape of gaming and gamers to consider.

Beyond Barbie and Mortal Kombat: New Opportunities and Challenges

With this edition, we intend to move the discussion about gender and games beyond the debate of Barbie versus Mortal Kombat and look at how gender intersects with the broader contexts of gaming and game production available today. While the number of girls and women players has significantly increased, it remains unclear how extensive gender differences are in what players want, whether girls and women are finding gaming experiences that appeal to them, and whether balanced gender roles are being represented. The fact that girls and women now play games in increasing numbers is not an indication that the conversation about gender should end. Instead, more information is needed on which games they play, why, and with whom they play them, and whether they take advantage of in-game opportunities to generate, not just consume, game experiences. We need more information on how girls and women are entering gaming and why they are not. And we need to take note of the ways in which gender is both performed and constrained. This information, instead of equal play time, has become the new standard for equitable participation in this technological gateway. The chapters in this book present perspectives from research, design, education, and industry and situate

the opportunities and challenges of talking about gender and games in three contexts: gaming, game industry and design, and serious games.

Gaming

Initially, games were stand-alone, almost exclusively single-player experiences at home or in the arcade. Gradually games migrated to the Internet where a new genre called massively multiplayer online (MMOs or MMORPGs) role-playing games opened new venues for gamer participation, and new console games also allow for multiplayer games. Perhaps the most important development was a shift in game production to allow players to edit their avatars and become more involved in the active creation of their game worlds and play experiences—all aspects that are impacted by players' perceptions and enactments of gender.[6] As one example, *The Sims* demonstrated a multiplayer online game play that appealed to a general gaming community, including girls and women who joined in large numbers to populate their domestic worlds with characters and guide them through life. Another currently popular online game community is *World of Warcraft,* with more than six million paying members, approximately 16 percent of them women (Yee 2007).

The emergence of gaming communities has opened new avenues for research on girls and women as players, and some of the findings are described in this volume. For example, T. L. Taylor describes how women negotiate their entry into professional gaming communities, and the interview with Morgan Romine provides an account of her experience as a professional woman gamer. Holin Lin examines more closely how locations such as dormitories, Internet cafés, and homes in Taiwan facilitate or hinder women's participation in gaming, whereas Mizuko Ito looks at how the media mixes in Japan create crossover potential between boy and girl games. Nick Yee reports his survey of more than thirty thousand gamers about their purposes and partners for gaming. Communities like Whyville attract a large number of teen girls and boys to play games, interact with friends, and test out identities, as investigated by Yasmin Kafai.

Much of the early research in the girl game movement focused on teens and their interest in games, while today there is a significant population of women gamers. We hope that future studies will outline possible trajectories of how people move from being girl to woman gamers. The interviews with industry professionals included in this volume point to a range of different

pathways into gaming, none alike. Older women (who grew up before the advent of digital games) are the primary players of casual games, which include puzzles and solitaire. T. L. Taylor observes that puzzles and stories are genres deeply rooted in conventions outside the digital realm. Recent research challenges a popular belief that the appeal of casual games to women is that they can be played in short periods of time, between other off-line tasks. According to Macrovision's study of their own game site, two-thirds of the people said their casual game sessions last for at least an hour, and another third said their sessions last more than two hours. It may be that this form of game appeals to women because it is possible to play in short chunks of time. However, a majority of players end up playing for long periods. Several chapters in this volume discuss gateways to gaming—situations or invitations to play that initially draw players into a game or game genre. Once there, players may expand their gaming and play-style repertoire.

In the same vein, we also need to study gaming customs in different cultures without essentializing nationalities. The chapters by Holin Lin, Mizuko Ito, and T. L. Taylor present careful ethnographic studies that illustrate ways in which gender is performed in various local contexts. The takeaway message is that we need to move from the juxtaposition of girls versus boys and focus our attention on whether males and females really do play differently and have different interests. As Butler (1990) makes clear, "if one 'is' a woman, that is not all one is" (p. 4). Gaming activities are not neutral or isolated acts, but involve a person's becoming and acting in the world as part of the construction of a complex identity.

Game Design and Industry

As we illustrate earlier in this preface, conversations about gender and gaming must be situated within the context of the gaming industry. The industry continues to be dominated by men, and overall has been resistant to acknowledging the importance of gender. This resistance is particularly clear when one examines the working conditions in which games are designed and produced. In her chapter, Mia Consalvo describes how women in the industry struggle to combine their passion for games with the realities of the production process. According to a recent survey, women make up only 10 percent of all employed programmers and designers in game companies. The sweatshoplike atmosphere when moving a game into production in some companies has im-

plications for who persists in those environments. Similarly, in her interview, Brenda Brathwaite talks about the need to balance work and family life. In response to these challenges, Tracy Fullerton, Janine Fron, and Celia Pearce describe strategies for not only creating a more diverse workforce but also for making games that are less stratified by gender. In many previous discussions, the lack of women in the industry, especially among game designers, has been held responsible for the stereotypical representations of women. It was said that game designers created games for players like them. With a more differentiated gamer population, there is a need for different perspectives in the design of games. Game design is about player choice and the design of these choices is impacted by conscious and unconscious designer values, as Mary Flanagan and Helen Nissenbaum argue. They suggest Value-AddedDesign, a design approach that helps discover, integrate, and validate the values designers intend to bring to the games they create.

Serious Games

Within the serious games movement, which includes games for learning, health, and social change, a major focus is on educational and training games. Serious games appropriate the medium of games, used initially to entertain, as a way to educate, persuade, or change behavior. For example, Kristin Hughes created a mixed-reality mystery game to increase girls' technological self-efficacy and to interest girls in science. Flanagan's *RAPUNSEL* teaches programming through a game where players can program their characters' dance moves. As digital games have moved from the margins to the mainstream of entertainment media, there has been a renewed interest in using games to teach in schools, informal learning settings, and the home. Gee (2003) argued that digital games present a naturally suited learning environment because they involve a wide range of important skills, from problem solving and teamwork to comprehension of the nature of narrative and rules and states underpinning game worlds. Some teachers use commercial games such as *Civilization* in their classroom, adding pre- and postgame instruction to facilitate learning. Simulation games already have a long-standing history of successful classroom use and learning, with and without computers.

Little attention, if any, has been paid to gender issues in the context of serious games.[7] In their chapter, Carrie Heeter and Brian Winn look at gender as it intersects with educational games in a classroom context. They anticipate

that the setting, combined with the gaming medium, will activate players' cultural expectations for the performance of gender. They conclude that designing for diverse play styles and selecting reward mechanics that further learning can make educational games better for all players.

One of the reasons why the connection between game playing and learning has received much more attention by researchers of gender than by other researchers is because many have identified playing games as one possible pathway into technology. Elisabeth Hayes examines in her chapter to what extent game play is associated with other technology experience and expertise. History has shown that simply getting more girls into games (and computers) does not increase women's participation in college engineering and computer science professions. In fact, the numbers have been stagnant for the past ten years. The approach of making games for learning has often been seen as a way to get girls more interested in computers and technology. The approach suggested by several authors in this edition promotes a promising alternative—making games for learning (Kafai 1995, 2006). Rather than just playing commercial games, giving players the skills and tools to design and program their own games and stories allows them to learn about academic content and to develop skills in a new way. For example, Caitlin Kelleher describes her work on Storytelling Alice, a 3D programming environment optimized for storytelling, and demonstrates how it is possible to design tools that get girls into programming by leveraging their interest in creating characters and stories. And Jill Denner and Shannon Campe describe the games created by girls in an after-school program designed to increase their fluency and confidence with information technology.

The ideas and findings presented in this edition are intended to broaden and enrich the discussion about digital games and design possibilities. Serious games, casual games, and pink and purple games are thought of as "not real games" by many in the industry. These "edge" forms of gaming violate mainstream expectations of what a game is supposed to be. They are also one of the frontiers for new approaches to girl games; they involve a larger proportion of women, including many authors of this volume. Our hope is to see not only the continued evolution of games but also the evolution of social spaces in which games are created and discussed, so that they no longer oppress or objectify girls and women. These aspects have gained heightened relevance now that the discussion about the value and importance of digital games has

been moved into the forefront in educational circles. The concern about the lack of diversity in game designs and participation is not shared only by gender researchers. Now that the production of games demand multimillion-dollar production budgets, many feel the need for smaller independent productions that allow for a wider variety of game genres, mechanics, and play. We, like others, want more games that provide motivating, challenging, and enriching contexts for play—and we want these games to be created by and available to a range of players. In the spirit of the Olympic games, which started a hundred years ago as an exclusive male domain but now include women in all but two sports, we say *"Let the games begin!"*

Notes

1. We will refer throughout this introduction to different types of games as digital games. We are aware of the distinctions between video and computer games, which in the nineties were based on platform differences (console versus personal computer) and often targeted younger versus older players. As games have moved to the Internet, these differences have become less important. There is also debate on whether software such as Barbie Fashion Designer is actually a game in the traditional sense, but, again, with the arrival of new genres such as alternative reality games and casual games, definitions of what makes a game are in constant flux.

2. This report was published as a news release on the Macrovision Web site and can be retrieved at http://www.macrovision.com/company/news/releases/newsdetail.jsp?id=Wed% 20Jun%2028%2014:30:07%20PDT%202006.

3. Gee (2007) is aware of the criticism he has received for this statement about gender and games, which he wrote in an introduction for *Gaming Lives in the Twenty-First Century* edited by C. L. Selfe and G. E. Hawisher (pp. ix–xiii), New York: Palgrave Macmillan.

4. The ESA published the exhibit guidelines in their E3 handbook; a discussion in the news about the E3 booth babes can be found at news.com.com/2100-1043_3-6071057.html. Yasmin Kafai also wrote an op-ed piece that was published in Gamasutra's Soapbox on June 9, 2006, and can be retrieved at www.gamasutra.com/features/20060609/kafai_01.shtml. In chapter 1, Henry Jenkins and Justine Cassell quote a response by one of the Gamasutra readers to the Soapbox op-ed piece.

5. For the full description of the event and responses from the community, please check out "An Excellent Panel with a Serious Flaw" and accompanying comments on lucida .typepad.com.

6. While we present these features as new game designs, it is also possible that game companies implemented these changes for the simple economic reason that player participation

in content generation prolongs the playability of their games and thus gives game studios more time to produce the next version.

7. Research in the 1980s documented gender differences in interest (Malone 1981) for certain game features and spatial reasoning involved in game playing (Loftus and Loftus 1983). Research in the 1990s looked at preferences, computer use, and problem solving (Joiner 1998; Joiner et al. 1998; Klawe et al. 2000).

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