# DEGENDERING GAMES: TOWARDS A GENDER-INCLUSIVE FRAMEWORK FOR GAMES

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**ABSTRACT**

Despite the dramatic growth of gender and games research, many challenges remain in designing a more gender-inclusive game. This article addresses the problem of differences in gender preferences in gameplay, conflict resolution, response to stimulation, rewards, genre, content, environment and design features. These unresolved issues have created gaps in designing a more gender-inclusive game. This paper argues a more gender-inclusive game is achievable by incorporating gender-inclusive components during the design process. The proposed framework defines gender-inclusivity in three key components: (1) *genre*, which indicates the type of game, (2) *gameplay*, which describes the game behaviour and (3) *content*, which describes the game content. Some applications of the framework are outlined.

**KEYWORDS**

Gender-inclusive, gender-inclusivity, games design, gender-neutral, games framework

## 1. INTRODUCTION

In spite of efforts to accommodate female gamers such as games by HerInteractive, Girl Games, Girltech and Purple Moon a majority of commercial games are still being designed, developed, and marketed with the male player in mind. Kafai et al. (2008) reported three large scale educational games projects i.e. Click! Urban Adventure, Storytelling Alice and RAPUNSEL, funded by the US National Science Foundation (NSF), that specifically focus on girls preferences. However, by focusing on the female players these games may have excluded the male players in the process. Some designers and scholars have suggested theories and models for games design (Crawford 2003; Rollings & Adams 2003; Salen and Zimmerman 2004) but these models rarely take into account gender preferences during designing.

This paper is organized into four sections: 1) a review of some previous work in gender and games, 2) discussion of gender issues as one of game design problem, 3) proposed solution for gender-inclusivity in games and, 4) reflection and conclusions from this research.

## 2. RELATED WORK IN GENDER AND GAMES

Most previous research in gender and games only focuses on finding out how each gender plays and what their preferences are in games. Lewis (1998) shows boys prefers direct or overt competition while girls prefer a more secretive or covert way. In addition to that, boys feel the need to 'beat' the game and win, while girls take their time going through the game exploring the story and establishing emotional attachment (Gorriz and Medina 2000; Lewis 1998; Miller et al. 1996). These findings also inform on how each gender manages conflict both in and out of a game; where the male generally resolves "a problem by direct confrontation with a decisive win-or-lose result" and females usually "choose negotiation, diplomacy and compromise" (Ray 2004, p.43).

Males are more likely to take risks and experiment while females tend to seek understanding before trying (Turkle 1986). This might put some female gamers off a game as many games employ 'trial and error'

mechanics. Even though both genders do respond to visual stimuli, their reaction is different. Males tend to show a physiological reaction but females need an emotional or tactile stimulus to elicit the same response (Ray 2004). In addition to that, a "rich texture phenomenon" which include audio and expressive graphics are also preferred by girls (Miller et al. 1996).

In many games, achieving or beating a score is the most common mechanism to proceed through a game. Miller et al. (1996) discovered that girls view winning as not as important as the 'experience' of playing the game. Hoeft et al. (2008) provide an interesting insight towards gender differences in motivational and reward systems. They reported these differences may be caused by biological responses during gameplay and may explain why males are more inclined to games.

Roberts et al. (1999), Bonanno & Kommers (2005) and Pratchett (2005) reported similar findings in female gamers' preference for music/dance, puzzles/ board/quiz and classic games while male players prefer action-adventure, racing, sports and first person shooters genres. An interesting find is the preference for simulations and MMOGs (Massively Multi-player Online Game) genres in both genders (Pratchett 2005). Subrahmanyam and Greenfield (1998) describe the most appealing features of *Barbie Fashion Designer* are non-violence; nurturing and helping others; role-play that reflect real-world; self-paced play and an intuitive interface. Their findings also suggest that games having female protagonist characters are not enough to appeal to girls. Recent studies show that the number of female protagonists in games is increasing (Jansz & Martis 2007), but some females characters are still being viewed as weak and hypersexualized, while males appear as aggressive and tough (Ogletree & Drake 2007; Miller & Summers 2007).

Jenkins (1998) and Bryce & Rutter (2005) suggest that the current gaming environment is an extension of society's view of gender roles and activities, and call for the invention of new game spaces in a gender-neutral environment. Miller et al. (1996) found girls prefer a collaborative and open play space as opposed to competitive play. Ray (2004) and Miller et al.(1996) reported similar results in the way failure is addressed in games. Boys prefer more violence and 'death' as a prominent feature of punishment, alternatively girls exhibit passive feedback with an opportunity for improvement. They like the game to continue even if a mistake was made rather than dying and starting over.

Kafai (1998) discovered that boys tend to design games themes that allow them to 'get something' through a pursuit or adventure exploration. By contrast, girls create games that involve 'doing something' without finding objects. The game is the activity itself. Flanagan (2005) indicates an unresolved problem concerning the small number of women working in the industry despite an increase of female characters in games. She contends the problem persists from defining and generalizing female players according to real world social constructs and suggested careful game design that affords "multiplicity of play styles and providing diverse thematic content" (p.2).


## 3.  THE NEED FOR GENDER-INCLUSIVITY IN GAMES

Relevant work in gender and games do reveal a number of distinct differences between a female and male player in terms of gameplay styles, genre choice, preferences in game content, play environment and design preferences. The implication of these differences creates vulnerabilities and gaps in game design. It exists between female and male players, and it is a product of gender. In the long run, it may seem that this gap will narrow of its own accord. However, gender effects in games do still exist. The reasons that their style and preferences differ may involve a combination of reasons such as stereotyping, a *gendered* game with content that favours specific gender, and biological differences in cognition and communication.

This understanding of a player's diversity in terms of design preferences can be used to inform the design of a more gender-inclusive game. Even though there are several games design models that can be used to design games, however, the means to ensure gender-inclusivity is taken into account is missing. In addition to that, these game design models have not been proven in effectiveness and only rely on the designers that proposed them.

Current games are developed for either one extreme end on the gender scale i.e. *gender-specific*. If a game is designed for female players, it comes in "girly-pink" packages with a wedding theme, which may put off male players e.g. *Dream Day Wedding* and *Flower*. On the other extreme, large-scale and successful games are still being designed with the male player in mind and may not appeal to many female players e.g. *God of Wars* and *Grand Theft Auto* series.

The results of previous research were relevant and yet somewhat inconclusive. Most focused on identifying gender preferences and did not sufficiently include the application of gender-inclusivity. Another deficiency of the previous research is that it analyses or summarizes the situation and does not provide guidance about how to design games with some level of gender-inclusivity.

## 4. THE PROPOSED GENDER-INCLUSIVITY FRAMEWORK (GIF)

This paper proposes a *Gender-Inclusivity Framework (GIF)* based on the synthesized results of these research studies to address this gap in game design. It aims to help understand the makeup of gender-inclusivity in games, measure the level of gender-inclusiveness in games, and guide the gender-inclusive game design process.

The first component is **genre** which describes the types of games and can be categorized into twelve (12) broad genres including action, simulation, educational, children, strategy, racing, RPG, adventure, shooting, sports and classic/board and puzzles/quizzes games.

Next is **gameplay** which describes the game behaviour and how a player experiences the game. It has eight (8) sub-components consisting of non-violent action, game support, forgiving gameplay, non-violent challenge, feedback system, variety of activities, personalization and collaboration. The last component is **content** which describes the aesthetics elements of a game consisting of four (4) sub-components of character/avatar portrayal, graphics, sound/music and storyline. These components and its sub-components define and express the complex concept of gender-inclusivity in games, which in turn is expected to predict the actual degree of gender-inclusiveness in games.

The *GIF* can be used as a reference point by providing a common structure and terminology for discussing issues of gender-inclusivity i.e. literature, methods and results. In addition to that, it serves as a boundary of what constitutes gender-inclusivity in games and subsequently acts as a filtering tool for what is relevant and not relevant to gender-inclusivity in games. Working within a common framework such as *GIF* can facilitate communication and collaboration among users, designers and developers involved in development of games.

Another possible application is it can be used as a design model for designing a more gender-inclusive game. It helps separate the design process into two phases, which represent different levels of abstraction, and breaks down the phases into a number of steps. It enables users to deconstruct the overall gender-inclusivity design tasks into smaller, conceptually distinct and manageable tasks.

Finally, the *GIF* can be used to develop a measuring instrument that allows users to evaluate the level of gender-inclusiveness in games. Questions can be constructed based on the framework focusing on a specific aspect of gender-inclusivity. It can help in identifying specific gender-inclusive elements and their sub-components.

## 5. CONCLUSION

The potential for more gender-inclusive games has been discussed based on an analysis of gender issues in games and how these key findings were they may be turned into practical applications of gender-inclusivity in games. We have proposed a framework that can be used to analyze, define, evaluate and guide the design of a more gender-inclusive game. On-going research is being planned for experiments to validate the framework through expert reviews, game evaluations and game design projects. We believe the results may extend to other domains in technology enhanced teaching and learning applications to commercial games design.

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