

# Why Girls Play Digital Games: an Empirical Study into the Relations between Gender, Motivations and Genre

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## ABSTRACT

In recent years, several studies have explored the motivations for playing different game genres such as MMO (Yee, 2006a, 2006b) and FPS (Jansz & Tanis, 2007). Others have taken steps towards creating an integrated framework for use across genres (Sherry, Lucas, Greenberg, & Lachlan, 2006). Despite the strong gender bias of the game industry, however, none of these studies have tackled the issue of gender differences in motivations. This paper aims to fill this gap by exploring the relation between genres and gamer motivations. For this we draw upon a sample of 983 gamers recruited on online forums to fill out an online survey. On average, the respondents were 23.94 years old ( $SD = 6.43$ ) and 37% were female.

By means of a principal component analysis (PCA) on 23 Likert items, we distinguish between five motivation components: immersion, social contact, challenge, competition and control. Analysis reveals that women have consistently lower motivation scores than men, with a Cohen's  $d$  ranging from  $-.40$  for competition to  $-.99$  for social contact. This indicates that women are generally less strongly motivated to play digital games. The picture becomes more complex, however, when we look at playing frequency and differences between game genres.

Again using linear PCA, frequency measures of playing 22 different game genres are reduced to five general components: casual games (e.g. puzzle games, board games), heavy action games (e.g. shooters, role-playing games), light action games (e.g. platform games, party games), management games (e.g. strategy games, simulation games) and sports games (e.g. football and racing games). Except for light action, gender effects are found for all game genre components. This shows that female gamers play casual games more often ( $d = .66$ ), while male gamers spend more time on heavy action, sports and management games ( $d$  ranging from  $-.42$  to  $-1.18$ ).

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Next, gaming frequency components are regressed on gender, age, gender\*age, game motivation and game motivation\*gender. Casual gaming is explained by gender (positive effect), challenge and immersion with immersion being a stronger predictor for females. For heavy action gaming: gender (positive effect for males), challenge, social contact and immersion are positive predictors. Again, interaction effects are found as women share stronger effects for these motivations. Concerning light action gaming, a positive prediction is found for females, social contact, and immersion. Once more, immersion yields a stronger effect for females. Management games' frequency is, apart from gender (positive effect for males), positively predicted by social contact and competition. Furthermore, challenge and immersion interact with gender, marking a strong effect of these motivations for females. Finally, no effect of gender is found on the frequency of playing sports games whereas all five motivations yield significant predictions. Except for competition, these predictions are all positive. Again, an interaction of gender with immersion is found, indicating a stronger effect for females.

These results indicate that gender as well as motivations can be used to predict genre preferences. Remarkable, however, is that the interactions between gender and motivations consistently show stronger effects for females. This indicates that women who game more frequently are, in comparison, more strongly motivated than their male counterparts. A possible explanation for this phenomenon can be found in the existing stereotype that digital games are 'boys' toys'. Consequently, we hypothesize that females are confronted with a higher threshold to engage in video gaming. In other words, their motivation for playing digital games needs to be stronger than their belief that gaming is for men, hence the relatively higher motivational scores for high-frequency female gamers. Next, we look into inter- and intra-gender differences in attitudes towards gaming which confirm this. There are consistent differences between low-frequency gamers, who game less than once a week, and high-frequency gamers, who game at least once a week. Low-frequency gamers generally have a more negative attitude towards gaming than high-frequency gamers. When including gender, however, we notice that these differences are consistently larger for women than for men. This suggests that low-frequency female gamers tend to support the current stereotype of gaming being for males whereas high-frequency female gamers resist this belief strongly. Thus high-frequency female gamers have a relatively more outspoken positive attitude towards gaming than males which corroborates our hypothesis that female gamers face a higher threshold to becoming a gamer than men which in turn explains the stronger interaction effect of gender on the motivational dimensions.

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