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Rapid Communication

Appeal of Playing Online First Person Shooter Games

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ABSTRACT

First Person Shooter Games (FPSG) such as *Counter Strike* are often the subject of public concern. Surprisingly, there is no published research available about playing these games. We conducted an exploratory Internet survey (*n* 5 751) in order to gather information about who the players of online first person shooters are, and why they spend time on playing this particular kind of video game. The results of our survey on the one hand confirmed the stereotype of the gamer as it is often presented in popular media: the players of online FPS were indeed almost exclusively young men (mean age about 18 years) who spend a lot of their leisure time on gaming (about 2.6 h per day). We also found that the most committed gamers, that is, the ones who were members of a (semi)professional clan, scored highest on motives with respect to competition, and challenge in comparison with members of amateur clans and online gamers who had not joined a clan. On the other hand, our results cast doubt on the accuracy of the stereotype. This study showed clearly that online FPSG are not played in isolation. More than 80% of our respondents were member of a clan. Also, the regression analysis showed that the social interaction motive was the strongest predictor of the time actually spend on gaming.

INTRODUCTION

PLAYING ONLINE GAMES on the Internet is an increasingly popular kind of mediated entertainment, but it has not yet led to a body of scientific research. Griffiths et al. observed in 2004 that "there is little research even on the most basic aspects of online gaming"[1] Earlier studies primarily focused on role playing games (RPG) with a graphical user interface and several thousands of users playing simultaneously online. [1–7] A second type of online games, the First Person Shooter Games (FPSG) has to our knowledge not been covered in published research. This is surprising, because FPSG such as *Doom* and *Counter Strike* are often the subject of public controversy as a result of the graphic violence they feature.[8,9] This paper concentrates on the appeal of FPSG, rather than on the effects of playing these games. Like Griffiths and his team did in 2004 with respect to online role playing games, we aim to provide a set of 'benchmark' data with respect to playing FPSG.[1] Therefore, our study is largely exploratory.

METHODS

Deciding to spend time on online gaming rather than on, for example, television viewing, a hobby, school, or work is a form of motivated action. In media research, the selection of particular media and media content has been conceptualized by uses

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and gratifications theory.[10,11] It emphasizes the active role of the media user arguing that selecting and using media is a determined, goal directed activity that is largely determined by the individual's motives.[11,12] With respect to gaming, previous research established that gamers were incited to play by a variety of motives. For example, by competition, and challenge, but also by social interaction, fantasy, and interest in the game.[13–15]

We conducted an online survey ($n = 751$) among online players of FPSG in order to study their (demographic) background, their actual game use, and the reasons why they engaged themselves with online gaming.

We approached potential participants by means of an Internet-questionnaire about online gaming.[16] Our advertisement on two popular Dutch websites for online FPSG contained a hyperlink to a questionnaire on a secure server. The questionnaire consisted of three parts. First, a set of questions about demographics, game behavior, and clan membership. The second part was a set of Likert type scaled statements meant to tap motives based on previous uses and gratifications studies about playing games.[13–17] The items were subjected to an exploratory principal component analysis (PCA; varimax rotation) that resulted in seven components explaining 59.2% of the variance. Six scales that were constructed on the basis of these components had satisfactory reliability (Cronbach's alpha): competition (0.74) (for instance: "to beat other players"); interest (0.84) ("to learn new things"); enjoyment (0.56) ("to enjoy myself"); fantasy (0.76) ("as if I am someone else"); social interaction (0.77) ("to feel connected"); and excitement (0.67) ("it excites my emotions"). The two-item challenge scale failed ($r = 0.25$). We decided to remove one item and include the challenge motive as a single item ("to master the game").

Statistical analysis

Data were compared by correlational analysis.

RESULTS

The survey was started by 840 individuals of whom 751 completed the questionnaire. Our respondents were almost exclusively male ($n = 745$; 99% of the sample), and young (mean age = 18.09, SD = 3.92). The youngest gamers were 12 ($n = 3$), the oldest one was 50 years of age. The range of educational levels was rather wide. The largest group (37.5%) was trained at the middle level, 21.0% attended or was attending professional training at a basic level, and 34.5% received education at the highest level. About half of our participants held a (part-time) job. ICT and technical fields were well represented (20%), and so were the commercial services (21%). Our participants spend a lot of time on gaming: about 2.6 h each day (M = 156.56 min, SD = 58.32). On a weekly basis, this amounted to almost 16 h (M = 956.09, SD = 444.90).

The next step in our analysis was an exploration of the relations between player characteristics and motives for playing online games. Correlational analysis revealed that age is negatively related to interest ($r = -0.08$, $p < 0.05$) and fantasy ($r = -0.09$, $p < 0.01$), and so is education (interest $r = -0.11$, $p < 0.01$; fantasy $r = -0.12$, $p < 0.01$). This indicates that the older or higher educated the players are, the less likely they play because they are interested in new information about games, or play because it allows them to fantasize about their actions in the game. The position in the clan, that is, how good the gamer is, was positively related to competition ($r = 0.20$, $p < 0.01$) as well as challenge ($r = 0.08$, $p < 0.05$).

In order to analyze whether different types of online gamers differed in their motives for playing FPSG, we divided our respondents in three groups: the first group consisted of gamers who played online FPSG but not in a "formalized" clan ($n = 130$, 17.3%). The second group ($n = 265$, 35.3%) indicated they were part of a clan, but strictly on an amateur level. The last group indicated they were part of a (semi)professional clan ($n = 356$, 47.4%). This large number is probably due to the connotation of "professional." These clan members probably consider their gaming as a serious enterprise. In addition, many tournaments have financial rewards for the winners. When gamers earn money by gaming they may very well consider themselves "(semi)professionals."

As can be seen in Table 1, type of clan membership had a significant effect on the motives competition, $F(2, 748) = 6.55$, $p < 0.005$, enjoyment, $F(2, 748) = 3.10$, $p < 0.05$, social interaction, $F(2, 748) = 7.70$, $p < 0.005$, excitement, $F(2, 748) = 7.93$, $p < 0.005$ and challenge, $F(2, 748) = 7.11$, $p < 0.005$. LSD post-hoc tests showed that members of (semi)professional clans scored significantly higher ($p < 0.005$) on competition, challenge and enjoyment compared to amateur clan members and non-members. For the social interaction motive, LSD post-hoc tests showed that the amateur clan members scored significantly higher ($p < 0.001$) than the non-clan gamers, whereas the scores of the amateurs and (semi)professionals did not differ significantly. For the excitement motive, LSD post-hoc tests showed that amateur clan members scored significantly higher ($p < 0.001$) than both the non-clan gamers

TABLE 1. MEANS OF MOTIVATIONS FOR GAMING AMONG THREE GROUPS OF PLAYERS

	Means (SD)			
Variables	*Non clan member*	*Amateur*	*(Semi-)professional*	*F*
Competition (*SD*)	4.80[a] (*1.41*)	4.89[a] (*1.28*)	5.20[b] (*1.26*)	6.55**
Interest (*SD*)	3.86[a] (*1.70*)	4.05[a] (*1.66*)	4.02[a] (*1.83*)	0.50
Enjoyment (*SD*)	6.34[a] (*0.72*)	6.48[ab] (*0.70*)	6.53[b] (*0.77*)	3.10*
Fantasy (*SD*)	2.83[a] (*1.70*)	3.14[a] (*1.67*)	2.94[a] (*1.69*)	1.80
Social interaction (*SD*)	3.60[a] (*1.45*)	4.30[b] (*1.52*)	4.19[b] (*1.75*)	7.70**
Excitement (*SD*)	2.92[a] (*1.53*)	3.66[b] (*1.67*)	3.29[a] (*1.85*)	7.93**
Challenge (*SD*)	5.23[a] (*1.72*)	5.39[a] (*1.75*)	5.79[b] (*1.49*)	7.11**

*$p < 0.05$, **$p < 0.005$.

Means with different superscripts differ from each other at a significance level of $p < 0.05$.

and members of (semi)professional clans. The scores of the three groups on the interest and fantasy motives hardly differed, and did not reach a level of statistical significance.

Finally, we conducted a regression analysis with time spend gaming as a dependent variable. The motives for playing online games were entered as predictors and accounted for 8% of the variance in time spent gaming, $F(7, 706) = 9.15$, $p < 0.001$. The social motive is the strongest predictor ($\beta = 0.16$. $p < 0.005$), followed by the interest ($\beta = 0.11$. $p < 0.005$), enjoyment ($\beta = 0.11$. $p < 0.005$), and competition motive ($\beta = 0.07$. $p < 0.005$). Fantasy, excitement, and challenge did not predict the time investment.

DISCUSSION

This exploratory Internet survey on the one hand confirmed the stereotype of the gamer as it is often presented in popular media: the players of online FPSG were indeed almost exclusively young men (mean age about 18 years) who game a lot (about 2.6 h per day). We also found that the most committed gamers, that is, the ones who were members of a (semi)professional clan, scored highest on motives with respect to competition, and challenge in comparison with members of amateur clans and online gamers who had not joined a clan. On the other hand, our results cast doubt on the accuracy of the stereotype that the typical player of FPSG is a loner who tries to escape from social interaction by playing videogames. This study showed clearly that online FPSG are not played in isolation. More than 80% of our respondents were member of a clan. Also, the regression analysis showed that the social interaction motive was the strongest predictor of the time actually spend on gaming. The importance of the social aspects of gaming was further underlined by comparing different types of gamers. Members of an amateur or (semi)professional clan scored significantly higher on social interaction than non-clan members. The amateurs expressed a stronger motivation for social interaction than the (semi)professionals. This may be somewhat surprising, but it is probably due to the fact that amateur clans are still "under construction." A group of friends starts playing as a clan, but it takes some time before they have gained a position. Semiprofessionals, by contrast, are rather well established. A (semi)professional clan provides its members with a functional social network for gaming. The special position of amateur clans in comparison with semiprofessionals is underlined also by the differences in score on the excitement motive. The higher score of the amateurs probably indicated that these gamers are still very stressed about their efforts.

The results of our research partly confirmed the results of studies among gamers who played other types of games. The importance of social motives was also found in research among LAN gamers, and players of online RPGs.[1,4,15,18] But, two differences are noteworthy. First, the online RPG players spend 23–25 h per week on their game, which is far more time than the 16 h invested by our respondents. Second, with an average age of 18 years, our respondents were far younger than reported in two studies on RPG players (28 years[1] and 24 years[4]).

The limitations of this exploratory survey are obvious: our data are correlational and cross-sectional. As we do not know of other published research about FPSG, we consider this kind of research as a necessary step to gather insight in the gamers' characteristics and motivations. The sample we used was self-selected and representativeness may therefore be an issue. This study did not

directly address the public worries about playing video games. Our results confirm that many players of FPSG are indeed "heavy" gamers. They spend a lot of time on gaming, are competitive, seek challenges, are excited, and entertain themselves in doing so. Spending a full morning, or an afternoon, or an evening each day on gaming may be detrimental to other activities. Our data do not allow any conclusion about this possible negative effect. The only thing we know for sure is that the social aspects of gaming motivated many of our respondents. It is worthwhile to study in more detail the social consequences of playing online FPSG. It may very well be the case that this group of dedicated gamers actively creates new social networks around their gaming activities.[19] Future research must reveal the characteristics of this (online and offline) gaming culture.

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