

Escapist Motives for On-line Gaming and Strengthening of Weak Ties

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Abstract. Due to advances of technology including faster and ubiquitously accessible Internet connection, on-line gaming have grown tremendously in the last couple of years. The aim of this paper is to investigate whether escapist motives for playing games are linked to strengthening of weak ties through on-line gaming. The research investigates Facebook and other on-line games separately. A surprising result is that while most of the investigated escapist motives are positively correlated with strengthening of weak ties, the mundane breaking motive is negatively correlated with strengthening of weak ties.

Keywords: Facebook, On-Line Gaming, Escapism, Weak Ties.

1 Introduction

Escapism is one of the most important factors explaining why people play computer games (Sudzina, Razmerita, 2012a). The concept of escapism assumes two comparable contexts for our normal daily life and its associated mundane activities such as: work, studies and activities that escape it such as reading a book, watching movies or playing games (Warmelink, Harteveld, Mayer, 2009).

Escapist motives are the strongest factors leading to on-line game addiction (Xu, Turel, Yuan, 2012). Okazaki, Skapa and Grande (2008) found escapist motives to have a significant and positive impact on perceived fun in mobile games. Therefore, we believe that it is worth to focus on escapist motives in on-line gaming. Among other psychological motives for playing online games are the flow and the humanistic needs theory (Wan and Chiou, 2006). Furthermore, as Wang and Wang (2008) stated, “prosocial behavior within an online game community has seldom been explored”.

Social interaction can take place in various forms including virtual social networks, virtual worlds and on-line gaming. Online games including Facebook games, such as Farmville and Mafia Wars, are diffusing at a fast pace and are adopted by many types of users and communities. Furthermore these forms of virtual social interaction may lead to Internet addiction and to associated negative consequences such as failing school, family and relationship problems (Brian and Wiemer-Hastings, 2005). Online games including multiplayer online role playing games such as “Everquest” and “Ul-

tima Online” are categorized as “heroinware” by many of its users. The paper investigates students’ usage and behavioral habits of Facebook and Facebook games. We compare Facebook games with other online games. In particular, the aim of this paper is to understand how escapist motives (which authors argue to be one of the most important drivers of on-line game adoption, perhaps addiction and use) impact strengthening of weak ties through on-line gaming. There is obviously a gap in literature as a topic search in the Web of Science database with the query

escapis AND gam* AND “weak tie”*

did not bring any results.

The paper is structured as follows: The second section describes the research methodology and data. The third section presents the data analysis and a discussion of results. The fourth section discusses conclusions and directions for future research.

2 Data and Methodology

Data for this paper were collected using a questionnaire. A pilot study was conducted in December 2010 and it involved 18 respondents. The pilot questionnaire did not include the place of origin question. Following the pilot study, as there were no problems with question formulation observed, we carried out the survey in February 2011 (98 respondents) and in March 2012 (19 respondents). The total number of respondents is 117, of which 57 are students from School of Business and Social Sciences, Aarhus University and 60 respondents from Copenhagen Business School.

Descriptive characteristics included age (Table 1), gender (Table 2), place of origin (Table 3), number of their Facebook connections (friends in Facebook terminology, in Table 4), the amount of time respondents are on Facebook and the amount of time they keep the Facebook site open (Table 5), their current gaming status (i.e. whether they still play, stopped playing, or never played, Table 6), and the amount of time the respondents play games (Table 7). These characteristics are exploratory, not based on any previous theory, and they should be understood as such.

There was one student, who did not have a Facebook account; the non-response is classified as non-applicable in Tables 4-7.

The number of Facebook connections, the amount of time respondents spend on Facebook, the amount of time they keep the Facebook site open, and the amount of time they play(ed) games are coded from 1 to 11, 5, 5, and 5 respectively.

The distribution of respondents’ age is provided in Table 1.

Table 1. Distribution of age

Age	Count
19	3
20	13
21	11
22	11
23	25
24	11
25	9
26	5
27	6
28	6
29+	17
Total	117

The distribution of respondents' gender is provided in Table 2.

Table 2. Distribution of gender

Gender	Count
Male	44
Female	72
No answer	1
Total	117

The place of origin of respondents was originally divided into Zealand, Jutland, Fyn, rest of Denmark, rest of Scandinavia, rest of Europe, and outside Europe. The distribution of respondents' place of origin is provided in Table 3, where the first four categories were merged into one - Denmark.

Table 3. Distribution of place of origin

Place of origin	Count
Denmark	42
Rest of Scandinavia	10
Rest of Europe	40
Outside Europe	25
Total	117

The distribution of respondents' number of connection (i.e. of friends in the Facebook terminology) is provided in Table 4.

Table 4. Distribution of number of Facebook connections

Number of connections	Count
Up to 100	5
101-200	19
201-300	17
301-400	30
401-500	17
501-600	10
601-700	3
701-800	4
801-900	5
901-1000	1
More than 1000	5
Not applicable	1
Total	117

Table 5 contains answers to the question “How much time do you spend on Facebook (including watching posted videos on YouTube or playing Facebook games) on a regular workday?” (abbreviated as active time on Facebook) and answers to the question “How much time do you keep the Facebook site open – i.e. including time both when you look at the content and when you do something else and do not even see the Facebook content?” (abbreviated as overall time on Facebook).

Table 5. The amount of active and overall time spent on Facebook on a regular workday

Time	Active use	Overall use
Less than 30 minutes	24	24
30 minutes - 1 hour	49	20
1 - 3 hours	32	38
3 - 8 hours	10	23
More than 8 hours	1	11
Not applicable	1	1
Total	117	117

Table 6 contains answers to the question “Do you play Facebook games?” (labeled as Facebook games in the table) and answers to the question “Do you play any other on-line games (apart from Facebook)?” (labeled as Other on-line games in the table). Respondents, who still play or have stopped playing, were asked to respond to additional questions, such as about importance of escapist motives for playing games and the amount of time they spend or spent playing games on a regular workday.

Table 6. Current gaming status

Answer	Facebook games	Other on-line games
Yes, I do	11	20
I did but I do not anymore	32	24
I never did	73	73
Not applicable	1	0
Total	117	117

Table 7 presents answers to the question “How much time do you usually spend playing Facebook games on a regular workday?” (labeled as Facebook games in the table) and answers to the question “How much time do you usually spend playing on-line games on a regular workday?” (labeled as Other on-line games in the table). Some of the respondents, who stopped playing, decided not to provide the amount of time they used to spend playing games on a regular workday. According to (Wan and Chiou, 2006) among the Internet users, adolescents and adolescent students are more likely to become addicted. According to our study university, based on the results presented in Table 6 and 7, students do not seem to be at risk of Facebook games addiction or other online game addiction.

Table 7. The amount of time spent playing games on a regular workday

Time	Facebook games	Other on-line games
Less than 30 minutes	32	26
30 minutes - 1 hour	7	7
1 - 3 hours	1	8
3 - 8 hours	0	1
More than 8 hours	1	0
No answer	3	2
Not applicable	73	73
Total	117	117

Motives for playing Facebook and other on-line games were investigated using the following framework based on (Warmelink, Harteveld, Mayer, 2009):

- They helped me to „take a break“ from daily activities
- They helped me to vent pain, stress, or frustration
- They helped me to feel good
- They allowed me to experience an alternative reality

Respondents were asked to rate these statements on a 7-point Likert scale where 1 meant strongly disagree and 7 meant strongly agree. There was no word anchoring for the remaining values. Average evaluations are in Table 8.

Table 8. Motives for playing games

Motive for playing games	Facebook games	Other on-line games
Mundane breaking	4.45	4.95
Stress relieving	2.76	3.41
Pleasure seeking	2.54	3.44
Imagination conjuring	2.37	2.86

Although the average motive evaluations for Facebook and other on-line games differ slightly, they rank almost in the same order. The most important motive is mundane breaking, the second and the third are stress relieving and pleasure seeking. The least important is imagination conjuring; this is consistent with the findings in (Warmelink, Hartevelde, Mayer, 2009). Escapist motives for on-line gaming were in a greater detail analyzed in (Sudzina, Razmerita, 2012a).

According to Granovetter (1973) the strength of a tie combines the amount of time, emotional intensity, the intimacy and the reciprocal services which characterize the tie. Multiple authors agree that any operationalization of this construct is extremely difficult and problematic, due to cultural, personal, and perceptual differences (Kilduff and Tsai, 2003). A significant number of the empirical studies on the relation between collaborative behavior and social networks use a simple frequency count of either interactions or common patents when estimating the social nature of a relation (Ahuja, 2000; Granovetter, 1973; Hansen, 1999; Mizruchi et al., 2006; Rindfleisch and Moorman, 2001). However, Marsden and Campbell (1984) question this reliance on one measure and show that the frequency of an interaction cannot be equated with the depth of the interaction.

Therefore, strengthening of weak ties in our research was measured using Gibbons' (2004) framework, which consists of friendship and advice; we added help as an indication of an even higher level of strengthened ties. In our opinion, it has a better interpreting value than frequency of interaction used in (Granovetter, 1973) and the terms are more appropriate to describe ties than friend, relative, and neighbor used in e.g. (Lin, Ensel, Vaughn, 1981).

Specifically, we asked the following three questions:

- Have you noticed that by playing on-line games somebody, who was not your *friend* (only an acquaintance) before, became a *friend*? If so, how many?
- Have you noticed that by playing on-line games somebody, whom you would not ask for an *advice* before, became closer to you so that you would ask him/her for *advice* now? If so, how many?
- Have you noticed that by playing online games somebody, whom you would not ask for *help* before, became closer to you so that you would ask him/her for *help* now? If so, how many?

The possible answers were zero (coded as 1), one (coded as 2), two-three (coded as 3), and four and more (coded as 4). Average evaluations are in Table 9.

Table 9. Strengthening of weak ties

Community of	Facebook games	Other on-line games
Friendship	1.24	1.48
Advice	1.21	1.25
Help	1.17	1.23

As it could be expected, strengthening of weak ties was a bit higher on the lower level (community of friendship) than on the higher level (community of help), although the difference between different levels was only marginal.

We collected some additional data, e.g. on type of people they are connected to (clusters of connection types are described in (Sudzina, 2012)) and on reasons why they stopped playing on-line games and this has been analyzed in a greater detail in (Sudzina, Razmerita, 2012b).

Pearson's correlation coefficient will be used to analyze relations between variables in Tables 10 and 11.

3 Results and Discussion

In spite of positive correlation between escapist motives both in the case of Facebook games (top left corner of Table 10) and of other on-line games (top left corner of Table 11), and in spite of reasonably acceptable internal consistency both in the case of Facebook games (Cronbach alpha = 0.6699) and of other on-line games (Cronbach alpha = 0.6926), escapist motives differ in their relation to strengthening of weak ties.

Mundane breaking is negatively correlated to strengthening of weak ties, while the remaining three motives are positively correlated to strengthening of weak ties.

Table 10. Correlation matrix for Facebook games

	Mun- dane breaking	Stress reliev- ing	Plea- sure seeking	Imagina- tion conjuring	Communit y of friendship	Communit y of advice	Communit y of help
Mundane breaking	1.0000	0.1806	0.2867	0.1169	-0.2098	-0.2562	-0.2534
Stress Relieving	0.1806	1.0000	0.5715	0.3758	0.2862	0.1811	0.1085
Pleasure seeking	0.2867	0.5715	1.0000	0.5826	0.1322	0.1292	0.0952
Imagination conjuring	0.1169	0.3758	0.5826	1.0000	0.2697	0.2519	0.2132
Community of friendship	-0.2098	0.2862	0.1322	0.2697	1.0000	0.9287	0.8288
Community of advice	-0.2562	0.1811	0.1292	0.2519	0.9287	1.0000	0.9543
Community of help	-0.2534	0.1085	0.0952	0.2132	0.8288	0.9543	1.0000

A working hypothesis could be that the motives differ because stress relieving, pleasure seeking, and imagination conjuring are related to unhappiness/having a problem, while mundane breaking does not directly imply any problem.

Table 11. Correlation matrix for other on-line games

	Mun- dane breaking	Stress reliev- ing	Plea- sure seeking	Imagina- tion conjuring	Communit y of friendship	Communit y of advice	Communit y of help
Mundane breaking	1.0000	0.3889	0.3912	0.1822	-0.0915	-0.0553	-0.0649
Stress Relieving	0.3889	1.0000	0.6267	0.1864	0.2435	0.2416	0.2877
Pleasure seeking	0.3912	0.6267	1.0000	0.4312	0.1998	0.1696	0.2543
Imagination conjuring	0.1822	0.1864	0.4312	1.0000	0.3583	0.3917	0.4266
Community of friendship	-0.0915	0.2435	0.1998	0.3583	1.0000	0.7030	0.7015
Community of advice	-0.0553	0.2416	0.1696	0.3917	0.7030	1.0000	0.9161
Community of help	-0.0649	0.2877	0.2543	0.4266	0.7015	0.9161	1.0000

Omitting mundane breaking from the escapist construct in our sample increases Cronbach alpha from 0.6699 to 0.7411 for Facebook games and decreases Cronbach alpha from 0.6926 to 0.6674 for other on-line games.

With regards to strengthening of weak ties, as it is obvious from the bottom right corner of Tables 10 and 11, internal consistency is good both in the case of Facebook games (Cronbach alpha = 0.9616) and of other on-line games (Cronbach alpha = 0.8736).

Although data were collected in Denmark, the results may be generalizable (at least to some extent) due to the fact that over three fifths of respondents came from abroad.

4 Conclusion

The primary scope of this paper was to investigate how escapist motives for on-line gaming are linked to strengthening of weak ties. The main finding is that although all escapist motives are positively correlated to each other (Cronbach alpha is approximately 0.7), the mundane breaking motive is negatively correlated to strengthening of weak ties, while the remaining three investigated motives (stress relieving, pleasure seeking, and imagination conjuring) are positively correlated to strengthening of weak ties. This is an important difference especially because, according to our study, mundane breaking is found to be most important reason (of the four investigated escapist motives) for on-line gaming. The most important motive for playing on-line games

according to (Warmelink, Harteveld, Mayer, 2009), is pleasure-seeking. Furthermore according to our study university, based on the results presented in Table 6 and 7, students don't seem to be at risk of Facebook games addiction or other online game addiction.

The implication of the finding is that if somebody would like to model the impact of escapist motives on strengthening of weak ties in the context of on-line gaming using a structural equations model or a partial least squares regression, it is suggestible that the escapist construct consists only of stress relieving, pleasure seeking, and imagination conjuring (possibly containing one or two more statements than in this study in order to increase the internal consistency), and that there is a separate construct for mundane breaking (defining statements for such a construct is outside the scope of this paper).

Another finding is that the internal consistency of the three questions regarding strengthening of weak ties is good enough (Cronbach alpha is higher than 0.8) and, therefore, it can be used as a construct in a structural equations model or a partial least squares regression.

Future research should investigate why mundane breaking differs from other escapist motives for on-line gaming in the impact on strengthening of weak ties.

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