

In the Face (book) of the Daily Routine

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ABSTRACT

This paper investigates the uses of the popular social networking site Facebook, and the perceptions of the users which derive from their Facebook experience. In the exploratory stage, 70 users generated phrases to describe the manner they used Facebook. Interestingly, some users do not only describe the uses, but also mention how they perceive these uses. These phrases were coded into 14 items and then clustered into 4 factors. The second stage of the study, which was addressed to 131 Facebook users, the factor analysis that was conducted, verified the validity of the four factors: Social Connection, Social Network Surfing, Wasting Time, Using Applications. Finally, the results were analyzed in order to interpret each factor's impact and to enable a comparison with previous research regarding the same subject. These showed how users continue to primarily regard Facebook as a means of socializing with other users, but also the extent to which Facebook has become a part of their daily routine, something that is indicated by the impact of the "Wasting Time" factor. Further research can be conducted by addressing a greater number of users, selected with a less random manner and possibly with a different (cultural, economical etc.) background.

Categories and Subject Descriptors

H.5.3 Group and Organization Interfaces; H.1.2 User/Machine Systems.

General Terms

Human Factors

Keywords

Social networks, online interactions, uses and perceptions.

1. INTRODUCTION

When Facebook was launched back in February 2004, few people would have predicted the magnitude of its success in the following years. Indeed, by 2010 the numbers that prove its worldwide echo are staggering: 400 million users spend over 500 billion minutes per month and share more than 25 billion pieces of content in the same time space [6]. These numbers, do not only

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reveal the degree of Facebook's rapid growth, but an active and vibrant community as well. This later detail is a key to Facebook's dominance over several other social platforms, which initially may have had a similar growth rate, only to be left with a lot of inactive users afterwards, effectively meaning their inadequacy as social platforms.

In the face of a success story such as Facebook's, an observer could be wondering how do Facebook's features manage to attract so many people globally and in addition to that, keep them active by regularly coming back, spending a considerable amount of their time. From the users' point of view, what would their motivations be, so as to use Facebook and what would their behavior be while using it? Additionally, is the user's behavior and attitude towards Facebook affected [10], due to the constant alterations the platform is subjected and if yes, in what way?

Previous work from Lampe and colleagues [7] identified a number of reasons (e.g social surfing, social browsing) regarding the use of Facebook. While these were later essentially confirmed by Joinson [3], who took the study for the motivations for the use of Facebook one step ahead, there are three elements that need to be considered in the present day. The first one comes from the fact that, a great number [6] of applications were -comparatively recently- fused to Facebook's functionality, as a result of the release of the Facebook developers' API in May 2007. Examining these applications more carefully, it could easily be noticed that many of them are being used by tens of millions of Facebook users [4], possibly affecting the way they use the platform to a certain extent. The second element, refers to previous research by Lampe and colleagues [7] who collected "opinions and beliefs but not actual behaviors", something that could mean that the users' reports of how they use Facebook may "differ from their actual behavior on the site", hence, making a study adjusted, so as to provide information regarding the user's actual behavior and the manner Facebook is perceived by its users nowadays, quite interesting. One last interesting element that should be taken into account is the fact that, while it has been noted that Facebook has become an integral part of its users' everyday life [10], the extent of this has not been measured in a quantitative manner.

In the present study, the two-stage approach adopted by Joinson, [3] will also be implemented. In the first exploratory stage, the users are asked to provide descriptions of the way they use Facebook and how they behave while using it. The terms that are derived from this first stage, are subjected to factor analysis in the second stage of the study.

2. STUDY 1: EXPLORATORY STAGE

2.1 Sampling

Participants were 70 Facebook users who responded to a request to complete a short online study. The sample comprised of 32 males and 38 females (Mean age = 25.6 years) table 1. Despite the fact that the sample was not chosen in accordance with strict statistical criteria, but rather in a more random manner, those demographics are really close to the actual Facebook users' demographics [5]. A number of different methods were adopted for attracting respondents; questionnaires were distributed in various places (universities, public areas), e-mails were sent to different mailing lists. Additionally, the survey was posted in two different social networks (Facebook and Twitter) and was linked on an academic website. The survey was open during the first two weeks of April 2010. The main prerequisite, for an individual to answer the questionnaire, was that, he or she, had to be a Facebook user.

2.2 Measures

The questionnaire was split in three parts. The first part included questions concerning the demographics of the sample (e.g age, gender). The second part included questions regarding some measures of the use of Facebook (e.g time spent on site each week, number of friends linked on site, history of use). The third part included questions adopted from [3, 9] using free-text entry:

For what reason do you use Facebook today?

What is the first thing that comes to your mind when you think about what you enjoy most when using Facebook?

What other words describe what you feel about Facebook?

What uses of Facebook are most important to you?

Table 1. Study 1 demographics

	(N=70)
Gender	
Male	N=32 46%
Female	N=38 54%
Number of friends	Mean=213.29 Sd=148.9
Age	Mean=25.57 Sd=3.48
Time spent on each week (hours)	Mean=8.24 Sd=6.63
History of use (years)	Mean=1.89 Sd=0.82

2.3 Results

Two evaluators, one psychologist and one social networking expert, clustered the descriptive items and phrases derived from Facebook users in response to the first question. The evaluators cooperated in order to develop the clusters, based on the closeness

between the responses. The author then discussed the themes with the evaluators, and clustered them accordingly.

The first factor was labeled "Social Connection", having a clear focus on keeping in touch and reconnecting with lost contacts. The second factor is termed "Social Network Surfing", so as to signify the ability of users to view information about users that are either connected to them indirectly (e.g friends of their friends), or even total strangers. The third factor was named "Wasting Time". This factor contains items such as "Spending time" and "Just for fun", that could be indicative of a radical change in the way a number of users view Facebook, not just as another social network, but maybe not surprisingly, as a part of their daily routine. The final factor contains items related to applications within Facebook – with games and quizzes being some of the most popular. In spite of the observed rapid growth in the use of these Facebook applications in the recent years, the related factor ranked third based on the number of mentions.

The factors and the items identified are outlined in Table 2.

Table 2. Frequency of mentions (Question 1)

Factors and Items (<i>sample user generated items</i>)	Number of Mentions*
Social Connection To communicate with people who are away To communicate with people who I haven't seen for a long time Reconnect with people who I have lost contact To see what my old friends do	38
Social surfing To see the profiles of people who I do not know To see the profiles of friends of my friends I see pictures of people who do not know	6
Wasting time To spend my time To kill my time Just for fun From habit	18
Using Applications I use different fb applications Play games I see what applications my friends are using and I try them out	13

*2 responders gave 2 answers

In accordance with previous research [3, 9], the factor “Social Networking” was the most rated factor in the present research as well. However, one interesting new element that came to surface, was the impact of the “Wasting Time” factor, which came second, only behind “Social Networking”. The factors “Social Surfing” and “Using Applications” were also recognized in that first exploratory stage of the research.

3. STUDY 2: MEASURING OF USES AND PERCEPTIONS

3.1 Sampling

Participants were 131 Facebook users recruited using the same methods outlined in Study 1. Participants were 59 males (45%) and 72 (55%) females (mean age = 25.47 years (*SD* = 4.9, range 17-42 years old). The majority of the sample were undergraduate students (*n* = 73, 55.73%), and *n*=46, 35.11% had a university educational level. The study was open during the final week in April, and throughout May.

3.2 Measures

The questionnaire was split in two parts. The first part included questions regarding the demographics of the sample (e.g. age, gender, educational level). The second part included questions regarding the four principal factors extracted in study 1. To be more specific, participants were asked to rate, using a 7-point Likert scale, the 14 uses and perceptions derived from Study 1 using the metric, “To which degree do you use each of the following Facebook features?”. The scale was anchored at 1 (none) and 7 (very much).

3.3 Results and Findings

In the process of clustering during study 1, four factors were recognized. The most important uses of Facebook tended to relate to “Social Connecting” and “Wasting Time”. As it has already been mentioned, while Social Connection’s impact has been previously reported [3, 8], this is not the case with the “Wasting Time” factor. Observing Facebook’s growth [2, 3, 6], it could be argued that the usage factors and their impact have changed several times to date. In order to investigate the nature of the various uses and gratifications of Facebook in more depth, exploratory factor analysis was conducted.

Table 3. Item’s characteristics (Factor 1)

Factor 1: Social Connection (Cronbach’s Alpha = .779)	Mean	SD	Loading
Communicate with people who are away	4.86	1.62	.825
Communicate with people who I have a long time to see	4.92	1.49	.840
Reconnect with people who I have lost contact	4.41	1.69	.704
Finding out what my old friends do	4.39	1.66	.741

Reconnecting with people and maintaining contact with individuals from one’s social environment through communication, are the uses that are outlined by the items of the

first factor (see table 3). With regards to the items concerning maintaining contact, these are focused on people with who the communication is somewhat problematic, because of the distance or the fact that they are not often met. The items concerning reconnecting with people are quite straightforward, from the aspect that Facebook’s features enables someone to trace people from his own past.

Table 4. Item’s characteristics (Factor 2)

Factor 2: Social Network Surfing (Cronbach’s Alpha = .813)	Mean	SD	Loading
Looking at the profiles of people you don’t know	2.72	1.74	.883
Looking at the profiles of friends of my friends	3.25	1.84	.852
Viewing photos of people you don’t know	2.88	1.79	.826

The second factor contains items that describe Facebook’s features that enable its users to browse information about people that are not directly connected to them (see table 4), but on the contrary, they are either total strangers, or people that are somehow related with the individual’s contacts.

Table 5. Item’s characteristics (Factor 3)

Factor 3: Wasting Time (Cronbach’s Alpha = .836)	Mean	SD	Loading
To spend my time	4.42	1.7	.902
To kill my time	4.07	1.79	.909
Just for fun	3.78	1.68	.719
From habit	3.53	1.82	.743

Factor three is quite interesting, with regards to the way Facebook’s users seem to have alternated their motivations for using it and their behavior while using it. The items contained in this factor reveal, the extent to which Facebook has become a part of their everyday life, especially when it comes to the items that refer to the ways it attracts users to spend their free time (see table 5). A differentiation between the two predominant items (spending and killing time) can be noticed. This comes from the fact that the various users have a different view of what Facebook has to offer and evaluate the way they spend their time on it accordingly.

Table 6. Item’s characteristics (Factor 4)

Factor 4: Using Applications (Cronbach’s Alpha = .797)	Mean	SD	Loading
Using various fb applications	3.24	1.76	.850
Playing games	3.47	2.21	.853
Trying apps because you see your friends have used them	2.74	1.7	.841

This last factor contains items that are concerned with the applications that Facebook has to offer (see table 6). Taking into account that the various Facebook’s applications form up one

factor that differentiates it substantially from other social platforms, one item focuses on Facebook's games, due to the fact that these applications' impact and popularity is more than noticeable. The way the popularity of Facebook's applications has made them an integral component of the platform, is shown by the fact that, trying applications because someone's friend is using them, is quite common nowadays.

The pattern of loadings and internal reliability (Cronbach alpha scores) [1] suggests that the four factors should be considered suitable for use in further discussion and analysis, on the assumption that they are interpretable.

4. DISCUSSION AND FURTHER WORK

This paper presents a study regarding the most widely used social network, Facebook, by exploring its most popular and attractive uses and features. The study's main characteristic is that, there is an attempt to investigate the way the platform is used, from the user's point of view. The desired final goal, is to clarify the users' perception, regarding the factors that provide the motivation for engaging with this particular platform. While past research studying the uses and features of this particular social network, including the degree it manages to attract the average user, has already been conducted, constant alterations and modifications concerning the social network's functionality can be observed, throughout the years of the social network's existence.

The present study clearly confirms, that functions and features that comprise the "Social Connection" factor, remain the predominant reason that enables Facebook to attract new users and successfully preserve current users at an active state. The "Social Browsing" factor, previously identified by Lampe and colleagues [7, 8], is also identified in the present study, being closely related to the "Social Surfing" factor. Additionally, the factor "Using Apps" which is identified, is also closely related to Joinson's [3] "Content" factor, although the later has a wider context.

Last but not least, the most interesting result of this research is the impact of the factor called "Wasting Time". This factor reveals to a greater degree, the user's perception regarding the use of Facebook, and to a much lesser degree (if not existent), the potential uses of the platform. This factor would probably have never come up, if it weren't for a number of questions in the first stage of the study, that were structured so as to emphasize on users' emotions, inner thoughts and feelings concerning Facebook, on top of the more conventional questions. As a result, the items comprising the "Wasting Time" factor were formed and on top of this, they were highly rated comparatively to the other factors, verifying the soundness of the first stage's results.

The fact that the "Wasting Time" factor has had such an impact in the present study, could be interpreted as a result of Facebook's early success, that, combined with its continuous tendency to evolve, managed to preserve such a large number of active users for such a long time. As a consequence, Facebook is eventually perceived as a part of the users' daily routine, in a manner that the way they view and use this particular social network, may be greatly affected.

As it has already been stated, it is evident that Facebook is currently being used by a large number of users. This could be a result of its features, that enabled the platform to substantially

differentiate itself from its competitors. This, in turn, rendered Facebook a very successful and attractive platform for someone to use and to spend time on.

The present study, which was conducted in a manner similar to previous research, an effort was made in order to trace some of these alterations regarding the platform's features and functionalities and to imprint their impact on the user. While some fluctuation can indeed be observed in factors like "Social Surfing", it was the impact of the "Wasting Time" factor that led to the most interesting conclusion. This refers to the fact that a possibly large number of users view Facebook, not only as a set of tools and applications that enable them to engage with the activities that a social network is supposed to support, but as an integral part of their everyday routine, an element that is indicative of a relation between a successful social network and a satisfied user.

Further work can be conducted by engaging a larger number of Facebook users to participate, so that increased validity can be achieved. In addition, the results of conducting a research, with users who have a different background in a variety of ways (cultural, economical etc), would be most interesting. It is also evident that future "snap shots" regarding the motivations and perceptions concerning the use of Facebook, would contribute in outlining how these evolve over time.

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6. REFERENCES

- [1] Cronbach, L.J. (1951) Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334.
- [2] Ellison, N., Lampe, C. and Steinfield, C., Spatially Bounded Online Social Networks and Social Capital: The Role of Facebook. in *International Communication Association*, (Dresden, 2006).
- [3] Joinson, A.N. Looking at, looking up or keeping up with people?: Motives and use of facebook. *Proceeding of the twenty-sixth annual SIGCHI conference on Human factors in computing systems*, ACM (2008), 1027-1036.
- [4] Facebook Games Statistics. <http://www.insidesocialgames.com/2010/05/03/top-25-facebook-games-for-may-2010/>
- [5] Facebook Demographics. <http://www.istrategylabs.com/2010/01/facebook-demographics-and-statistics-report-2010-145-growth-in-1-year/>
- [6] Facebook Statistics. <http://www.facebook.com/press/info.php?statistics>
- [7] Lampe, C., Ellison, N. and Steinfield, C. A Face(book) in the Crowd: Social Searching vs. Social Browsing. *Proceedings*

of ACM Special Interest Group on Computer-Supported Cooperative Work, ACM Press (2006), 167– 170.

- [8] Lampe, C.A., Ellison, N., and Steinfield, C. A familiar face(book): profile elements as signals in an online social network. *Proceedings of the SIGCHI conference on Human factors in computing systems*, ACM (2007), 435-444.
- [9] Stafford, T.F., Stafford, M.R., & Schkade, L.L. Determining uses and gratifications for the internet. *Decision Sciences*, 35, (2004), 259–288.
- [10] Stutzman, F., An Evaluation of Identity-Sharing Behavior in Social Network Communities. *In iDMAa and IMS Code Conference*, (Oxford, OH, 2005).