
Online Social Networks On-The-Go: An Exploration of Facebook on the Mobile Phone

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Abstract

University students are tech-savvy and heavy users of both mobile phones and online social networks. Facebook is particularly popular and research has addressed many different questions regarding use of this specific online social network. In this Horizon paper we look into how university students use online social networks from mobile devices, a topic that has yet to receive significant attention. Through a series of semi-structured interviews we specifically looked into uses and motivations for using Facebook through mobile devices. We found the main watchword to be 'convenience' and present three aspects that contribute to this motivation.

Keywords

Facebook, mobile phones, mobile online social networks, students

ACM Classification Keywords

H.4.1: Information Systems Applications: groupware.

General Terms

Human Factors

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Introduction

University students are heavy users of communication technologies. A recent survey of US undergraduate students found that 98% own a computer and concludes that undergraduate students are heavy users of particularly mobile phones and online social networks [21], a combination that provides new possibilities for communication. Students communicate through a wide variety of media and do not necessarily consider online interaction 'low quality' or 'light' communication but in many cases consider it almost as important as face-to-face interaction [3]. A recent study concludes that use of the Internet is highly integrated into the lives of college students and that the Internet is mainly used for entertainment [12]. The authors suggest that especially online social networks merge social interaction with entertainment, thereby blurring the difference between the two.

A particularly popular feature among students is text messaging (SMS) [2]. It is an extremely popular and well-used communication method between social ties [18] and is commonly used for micro-coordination among small groups [17]. Smart phones also provide other features such as Internet access [7] and often have built-in cameras and mobile camcorders. Such features allow users to take pictures and record videos while out and about and share with social ties [15].

Online social networks, particular Facebook, have recently received much attention from researchers. Several different aspects of Facebook have already been studied, such as general practices and use of Facebook [13, 14], motivations for using Facebook [11], and privacy management [4].

An area that still remains unexplored is how online social networks, such as Facebook, are accessed and used from different platforms and the practices around this. In this paper we explore university students' use of online social networks from mobile phones. We do this by looking into how and why users connect to Facebook from their mobile phones, and which functionalities they use. University students are particularly interesting in this respect, not only because Facebook was originally developed solely for students, but also because of their nomadic lifestyle [1], heavy mobile phone use [2], and the fact that communication technologies are already a well-established part of their daily routine [12]. We emphasize in our analysis how and why college students connect to Facebook from mobile devices, which functions are used, and how mobile access differs from connecting to Facebook from a computer.

Background

The use of online social networks among teens and young adults has exploded during the last few years. A recent survey estimates that in the US 72% of the 18-29 are using online social networks [16]. Online social networks are used to keep in touch with both strong and weak ties [6]. Facebook, the biggest online social network, with an estimated 500 million users around the globe [9], has particularly attracted many users and consequently media attention. Here users construct a profile consisting of personal information, pictures, and status updates etc. This profile serves as an individual hub from which members connect and interact with others. In terms of research Facebook has been described as a tool that both can retain contact between distinct ties [13] and be used for arranging offline socialization between social ties within the same

area [1]. Facebook seems to be about the social ties more than anything else, instead of, for example user generated content. One study found the following motivations to be the main reasons for the participants to use Facebook: "Keeping in touch', 'Passive contact, social surveillance', 'Re-acquiring lost contacts', and 'Communication'" [11]. As these themes indicate, Facebook is both about explicit social interaction as well as staying updated and aware of social ties by browsing their profile and read their updates.

From originally being mainly designed for desk and laptop computers, the major online social networks have been made available in versions designed for mobile phones. Furthermore, Facebook and other online social networks are utilizing the possibilities offered by mobile phones such as location information [23]. For mobile users Facebook offers applications to all major mobile phone types and access through a mobile web-browser. Very basic interaction can also occur through the use of text messages. According to Facebook, more than 150 million active users are in a given month connecting to the online social network from a mobile device [9].

It is estimated that in the US 93% of young adults age 18-29 own a mobile phone [16]. The mobile phone offers the ability to perform different tasks from more locations [7] and allow people to communicate from virtually any place. Communication and coordination is made flexible particularly for small groups [17]. A study of students from a US university showed mobile phone activity from 20 different US states during the study [2]. A study of mobile web usage showed that the Web is used in rather short sessions and most of stationary web user activities also occur on mobile phones. The

Web was, for example, used during so called "micro breaks" which is the moments just before or after or between activities, for example waiting in line [7, 18]. Accessing the Web from a mobile phone can be done without interrupting other activities and is suitable for lightweight assignments [7]. Text messaging is widely used and a very popular feature available on all mobile phones. Text messages are not purely used for communication between people but also with electronic services varying from online banking and electronic tickets [19] to online social networks. Finally, mobile phones are not only used for communication and web browsing but also for taking pictures and as mobile camcorders [15].

A study of European adolescents found that SMS was an important social interaction tool used almost exclusively with especially friends and partners. Communication through SMS was seen as having a high intimacy rate, where more complex functions such as MMS, Bluetooth and the cameras were rarely used [22]. Among a group of young European adults it was found that SMS was the most used mobile phone communication feature. SMS was mainly used for social coordination and to communicate about mundane activities with primarily local contacts [18].

Method

For this study we completed 22 semi-structured interviews of a mix of undergraduate and graduate students — 10 males and 12 females — at a large midwestern university. The interviews took place during the spring of 2010. By using semi-structured interviews we obtained comparable data, while still allowing a dynamic conversation with open-ended questions. The interviews were focused on the students' usage of

Facebook, both from computers and mobile phones. We browsed the participants' Facebook profiles during the interviews. This was done to get more specific data about what kind of status updates the participants were posting. It also allowed the participants to show us specific pictures, status updates etc. that they found interesting and relevant to the discussion. The interviews, together with browsed profiles, were recorded and later transcribed.

Participants

Participants' ages ranged between 19 and 25 (Mean age: 20.6, SD: 1.5). 20 were undergraduate students and 2 were graduate students. 21 were Americans and one was a student from outside the US. The students studied a variety of different fields with a majority (11) in Informatics and Computer Science. The participants were recruited through different means, including flyers handed out at campus, by word of mouth, through a mailing list and through Facebook. Participation was conditioned by students using Facebook on a regular basis, defined as several times per week. All participants received compensation for participation.

All participants had a mobile phone. They all connected to Facebook both from a computer and a mobile phone. Several different brands of mobile phones were used but the two dominating phone types were different versions of iPhones (8) and BlackBerry's (5). Most participants (14) started using Facebook during 2006 and 2007. Out of the 22 participants 16 participants started accessing from a mobile device during 2009 and 2010. A couple of participants also reported that they sometimes connected to Facebook from an iPod Touch. Two of the mobile users interacted with Facebook only through text messaging.

On average the participants had 646 friends (SD: 377). The one with the fewest friends had 110 and the one with the most had 1729. All participants, even the one with 1729 friends, expressed that their friends were almost exclusively people they had met in person. Only very few Facebook friends were contacts they had met online. This is accordance with previously studies of Facebook friends [11, 13, 14]. However, our participants also explained that a large proportion of these Facebook "friends" were acquaintances and weak ties, as also found by a recent study [1]. The participant with 1729 friends, for example, was a DJ and met a lot of people through different events, but knew them mainly superficially. Overall Facebook was only sporadically used for school-related activities and only one participant used Facebook for explicitly work-related activities.

Findings

When asked how the participants perceived Facebook we received 22 similar answers that can be summed up with the following two comments: a 21-year-old male explained: "... *it is a way people talk and communicate these days...*" and a 19-year-old female said: "*It's a way to communicate with friends and people I haven't seen in a long time.*"

Our findings in this study clearly indicate that Facebook use is centered around the social ties and personal interactions as opposed to for example applications, games, groups, functionality also available through Facebook. Similarly, another Facebook study found that people mainly use Facebook for explicit social interactions and passively staying aware of their social ties [11]. A study of user loyalty to online communities found that the social connections are an essential factor

and the main reason for users to leave was because of dissatisfaction with the user base or the interaction among the members [5]. Our participants showed a strong interest and loyalty to Facebook because of their networks. This was also reflected through why the participants signed up for Facebook in the first place: All participants reported that they had been referred through word of mouth. When asked why she had signed up for Facebook, another 19-year-old female participant had the following remark: *"Peer pressure. All my friends were using it. It was a good way to keep in touch with people that I had met."*

Facebook Friends

Facebook was found to be an online social network primarily built up through friend referrals. This seems plausible considering that Facebook was developed specifically as an online network for offline friends (classmates and fellow students). A former study investigating students' use of Facebook clearly showed that the users have met a large majority of their social ties in person. Only a small portion were people they only have interacted with online [14]; as a 21-year-old female said: *"I don't add people I don't know."*

However, Facebook friends are a mix of different types of social ties. Our participants' social ties typically consisted of both family members, close friends, co-workers as well as peripheral friends and acquaintances. This corresponds well to an earlier study which concluded that 'friends' is a "fluid definition" of Facebook contacts [1]. In return this supports the notion of Facebook being a general connecting tool. A 20-year-old female pointed out that *"[i]t broadens the spectrum of people you can hangout with. Obviously I don't know all [my Facebook friends] 100%."*

Similarly to earlier research, we found that Facebook was used as a tool to get to know other contacts by browsing their profile etc. [11]. The 20-year-old female above further remarked: *"But if I meet somebody in my class and we have a conversation and 'Ohh just add me on Facebook' and then we start talking on Facebook. It is less awkward than being like: 'Would you like to hang out?' and have a one-on-one conversation and then from then you can, ohh we do get along well or this is just gonna be like helping each other in class. And then from there: 'Ohh let me get your number we can hang out'. So it helps you meet a lot of people and make it less awkward. Make it look more casual and less like you are trying to meet other people."*

When asked why she would typically connect to Facebook a 19-year-old female answered: *"Basically when I am bored."* In fact 14 of our participants explicitly mentioned boredom, as a reason to connect to Facebook. The remaining participants directly or indirectly indicated that they would use Facebook as a time filler. Overall we found that a broad motivation to connect to Facebook was 'entertainment'. This matches findings describing that users get several forms of gratification from using Facebook [11].

Convenience

One recurring theme was that the participants described online social networking through a mobile phone as 'convenient'. The 'convenience factor' was expressed in different ways.

EASE OF CONNECTION

The first side of convenience is the ease with which students can connect on Facebook through mobile devices. A 21-year-old male noted the following about

why he would often connect to Facebook from his mobile phone: *"it is so easy that it is irresistible."* An example of more practical convenience was given by a 19 year old female that explained how she typically would connect to Facebook from her mobile phone: *"...when I get up in the morning instead of getting out of bed I just get on [Facebook] on my phone."* Similar behavior has been reported by another study of mobile phone usage [7]. A 19-year-old male pointed out: *"You can't go everywhere with your laptop, but you can go everywhere with your phone".'*

STAYING UPDATED AND AWARE

A second part of convenience was how the mobile phone was seen as a notification tool. A 19-year-old male explained: *"I basically use [Facebook] on my phone just to like when someone writes on my wall I can see it right then when someone needs to contact me through an inbox I can see it right then or if I want to send a picture from my phone to Facebook or status updates".*

Perceiving the mobile as a notification tool was very dominant among the participants. They felt an increased awareness of their online social network ties because they could stay updated at any time. A 21-year-old female told us that: *"I just usually go to the newsfeed the most and just kind of scroll through it and see [...] just kind of check it out."*

The urge to always be on and stay updated at all times was quite clear. A majority of the users (15) claimed they had Facebook running in a background tab when working on their desk or laptop computer. When asked about how many times on a daily basis they would connect to Facebook from their mobile phone this

answer from a 19-year-old male reflected the general trend: *"A lot..."* It was difficult for the participants to provide an estimate because it would depend on current situation and context. The participant further explained about when would connect to his phone: *"Anytime I am near my phone, just to see what is going on. I feel it connects me to the world."* This increased awareness not only occurred because of the notifications but also because users could easily look at the newsfeed. Naaman et al. refer to this concept as the "awareness stream" [20]. A 19 year-old male explained: *"Even though I just read everything I just naturally looked through [the newsfeed] again."*

SIMPLICITY OF SOCIAL INTERACTION TOOLS

Another convenience factor is simplicity. The participants expressed that they only used the communication aspects of Facebook. They mainly used status updates and pictures; the profile itself was not considered too important. The same was true for groups and pages. What participants wanted was simple and relevant social interaction tools. A 19-year-old male explained: *"I used to like edit my profile and like join groups and stuff like that but now I don't feel the need, I just use it like a way to keep track of pictures and like status and just stuff like that."*

CONNECTIVITY AND CONTEXT

Finally, the convenience factor can also be related to connectivity and context. Here we consider context as an outcome of activity [8], so the context is an outcome of the participants' social interactions on Facebook. What seem to be convenient is that all the social contacts gathered in the participants' Facebook network now are available for interaction through a mobile phone without the need for explicit adding to

the actual mobile device. With Facebook being the absolute dominating online social network, this again increases the ubiquity of the friend connections.

Conclusion

When analyzing the motivations to connect to Facebook from a mobile phone we found one major reason being convenience. However, convenience is a broad term and our analysis uncovered different aspects of convenience: Ease of connection to others, the mobile phone as a notification tool, the simplicity of the functionality used, and context and connectivity.

Students are heavy users of many types of information technology and particularly mobile phones are highly integrated part of their lives. As mobile access to online social networks become more and more common and the online social network services are maturing on mobile devices, we believe online social networks will

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only become more integrated into students' daily routine. This in turn seems to affect how students communicate and make friends.

Facebook is about social interaction and connections. Simplicity in one's social interaction tool seems to be what the users mainly are looking for. It will be interesting to follow how the newly introduced Facebook Messages [10] will change the practices of online social networks from the mobile phone. We predict that online social networks will continue to be a critical communication and social interaction tool available on the phone along with SMS, video, and voice etc.

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