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Facebook use in Bhutan: A Comparative Study

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ABSTRACT

Technology is adopted and used in novel ways in different contexts. We present results from a survey concerning the use of the Facebook social network in the Kingdom of Bhutan and compare the results with similar surveys conducted in the United States. The results uncover differences and similarities between the ways the technology is used in the two very different contexts. The comparison shows that Facebook users in Bhutan are more likely than their American counterparts, to browse the profiles of and add social network members that they have not met previously.

Keywords: Design, Human Factors.

Index Terms: H.5.m. [Information interfaces and presentation (e.g., HCI)]: Miscellaneous.

1   INTRODUCTION

Many theories exist on why certain technologies become popular so fast and "go viral". These dynamics become even more complex, and interesting, when differences between cultures in which the same technology is used affect the human-technology interaction as well. An examination of the novel ways technology is appropriated when designed within one culture and used in another can provide valuable insights into the dynamics of human-technology interaction. In this work, we examine some of the dynamics of the use of social networks, and specifically Facebook, in the novel context of Bhutanese society.

Facebook is currently the most popular website on the Internet [1] and has more than one billion users. Since its inception in 2004, it has been the subject of many studies examining the reasons behind its success [7, 8]. Among the factors at work, a need for a tool to facilitate the development and maintenance of social capital, especially in the face of globalization and increased mobility has been recognized [5]. Additional recognized factors have been the creation of personas, the easy sharing of information including recommendation of content, and creative expression [2, 6, 8].

Bhutan is an Asian Himalayan kingdom geographically located between India and China. It is unique in that as a society it has been careful to adopt new technologies: both television and the Internet arrived in Bhutan only in 1999 and Thimphu is the only capital in the world without a traffic light.

Bhutan is unique in its approach to technology: on the one hand, the Bhutanese society is wary of mindless adaption of new trends and, on the other, quick to adopt technology that proves to be useful. The survey presented was conducted on a college campus and despite the restrictions, more than 98% of the students who participated in the survey have Facebook membership and are active on the site.

Since opening its borders to the world in the 1950s, Bhutan has gone through several major transformations. There are many people who travel abroad to work and study and many young people move from small towns and villages to the growing capital of Thimphu. Previous research has shown that social networks help maintain contact with family and friends in the place of origin, as well as, facilitating the creation of new relationships in new environments such as a college campus [4]. Our hypothesis is that the differences between the use of Facebook in Bhutan and the United States reflect some of the characteristics of the context in which they are used.

2   A TALE OF TWO SURVAYS

Comparing technologies within different contexts, and at different times, is a daunting task. Changes especially in human-technology interaction, are very rapid and many technologies, adapt and change radically over time. Despite these concerns, we believed a good starting point was to conduct a survey similar to previous surveys conducted with a similar population (i.e., college students) in the United States. Thus, we based our survey on two studies conducted previously by Ellison, Steinfield and Lampe [4, 5]. Note that this work does not aim to emulate those studies in Bhutan; rather, we compare part of the reported results in those studies with information gathered in Bhutan to open a discussion about the differences and similarities between Facebook use in the two very different contexts.

In addition to general demographic questions such as age, gender and years in the program of study, we used the *Facebook Intensity* (FBI) scale [5], the "actual friends" variable and the connection strategies scale [4].

The students who participated in the survey, a total of 58 participants, were all pursuing a Bachelor of Computer Applications, which is a three-year program at the *Royal Thimphu College* (RTC), a popular private college located close to Bhutan's capital, Thimphu. All the students in this program participated in the survey. 20% of the students were in their first year, 43% in their second year and 27% in their third year. 75% were male and 25% female. The average age was 22.4 years. Despite the campus being far from the capital Thimphu (about 15 kilometers), or perhaps because of it, only 55.1% of the students live on campus.

Facebook use rates among the students are high. 98.2% of the students have a Facebook account and 94.8% use a laptop to access the Internet. The average time of Internet use per day was

reported as 4.4 hours. The reported Facebook use per week was 3.2 hours. There was a large variance ($SD = 3.7$ and $SD = 3.9$, respectively) for both of these values.

3 RESULTS

The results are presented in relation to previous data reported in two studies [4, 5]. The *Facebook Intensity Scale* (FBI) was 3.29 ($SD = 0.23$) which is significantly ($t_{506} = 7.16$, ns) higher than the value reported by Ellison et al., which was 3.06 ($SD = 0.23$) [5].

The number of reported Facebook friends was very high. 44.8% reported having more than 400 friends and the average number of total Facebook friends was 445.8 ($SD = 257.6$). Of these on average 35% were identified as *actual* friends. This number is higher than the 25% reported by Ellison et al. [4]. Further, of the total friends 15.6% were RTC students, 44.6% were from another town and 22.6% were from their hometown.

The *online to offline* measure, at 3.42 ($SD = 0.96$), was not significantly higher ($t_{509} = 1.9$, p>0.5) than previous results, which were 3.64 ($SD = 0.79$) [5]. However, the *offline to online* measure, at 3.19 ($SD = 0.06$), was significantly higher than previous results ($t_{506} = 9.01$, ns), which were 1.97 ($SD = 1.03$) [5].
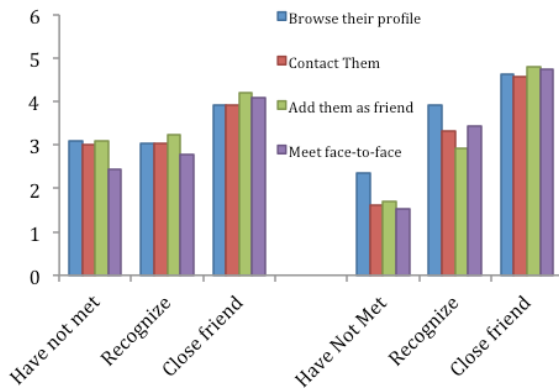

Figure 1. Comparing the results of connecting strategy from [4] (shown on the right) and this study (shown on the left).

The results of the connection strategy scale are shown in Figure 1 alongside their counterparts from the work of Ellison et al. [4].

There is a clear difference between the offline to online measure and other elements of the connection strategy. In particular, the results show that in Bhutan, Facebook users add other users that they do not necessarily know offline more frequently and are more likely to browse the profiles of and add people they have not met previously. Incidentally, this result confirms the first author's subjective experience while travelling in Bhutan, whereby he received many friend requests from people he had not met offline before. This was in contrast to his experience in North America, where he had socially met most of the people who had sent requests, before.

Another related result is the higher number of friends reported. While this could be due to the social network's maturation, it might also be an outcome of the difference in connection strategy.

4 DISCUSSION

Many difficulties arise when comparing the use of technology in such different contexts. First, there are differences in the population: while the American studies involved college students, they were chosen randomly and across disciplines. In our case, we only had access to students within a specific program. Second, social networks are dynamic themselves and comparing their use over time is very difficult [3]. For example, Facebook has shifted from a profile-centered system to a news-centered one and this affects user behavior on it. Finally, we faced challenges in the use of language and concepts when applying the survey in a new culture and had to discard some results, as some answers to the questions clearly did not correspond to our intended information.

These preliminary results show that there are clear differences between Facebook use in Bhutan and the US. Future surveys and interviews can explore this area further.

5 ACKNOWLEDGMENTS

REFERENCES

[1] Alexa. 2013. http://www.alexa.com/topsites

[2] Brandtzæg, P. B., Lüders, M., & Skjetne, J. H. 2010. Too many Facebook "friends"? Content sharing and sociability versus the need for privacy in social network sites. Intl. Journal of Human–Computer Interaction, 26(11-12), 1006-1030.

[3] Ellison, N. and Boyd, D. M. 2013. Sociality through Social Network Sites. In The Oxford Handbook of Internet Studies (Ed. William H. Dutton), Oxford University Press, 151-172.

[4] Ellison, N. B., Steinfield, C., and Lampe, C. 2011. Connection strategies: Social capital implications of Facebook-enabled communication practices. *New Media & Society 13*, 6, 873-892.

[5] Ellison, N. B., Steinfield, C., and Lampe, C. 2007. The benefits of Facebook "friends:" Social capital and college students' use of online social network sites. Journal of Computer-Mediated Communication 12, 4, 1143-1168.

[6] Hamidi, F., and Baljko, M. 2012. Using social networks for multicultural creative collaboration. In *Proc. ICIC 2012*, ACM Press, 39-46.

[7] Forman, G. 2003. An extensive empirical study of feature selection metrics for text classification. *J. Mach. Learn. Res.* 3 (Mar. 2003), 1289-1305.

[8] Lacy, S. 2009. The Stories of Facebook, YouTube and MySpace: the people, the hype and the deals behind the giants of Web 2.0. Crimson Publishing.

[9] Quercia, D., Lambiotte, R., Stillwell, D., Kosinski, M., and Crowcroft, J. 2012. The personality of popular facebook users. In Proc. of CSCW'12, 955-964.