Small Community Size of Private SNS for Bonding Relationship: Development of a Research Framework

Hyeonjung Ahn, Sangwon Lee

Small Community Size of Private SNS for Bonding Relationship: Development of a Research Framework

Hyeonjung Ahn, Sangwon Lee *

Sungkyunkwan University, Interaction Science, Seoul, Republic of Korea

ahnhj77@gmail.com, upcircle@skku.edu

Abstract. Since SNS has become an important tool for social relationship and information sharing, numerous studies regarding SNS have been conducted in various domains of social science. Among many kinds of SNSs, we have focused on private SNS, which is especially appropriate for communicating with close acquaintances to bond relationship. Firstly, we investigate the difference of communication patterns between public SNS and private SNS to review and clarify key features of private SNS. To address the issues on ideal community size of private SNS, the present study examines some private SNSs limiting the number of friends. With these kinds of SNSs, we secondly clarify whether this function will be useful in managing the users' relationships for 'strong ties' with emotional closeness. As a preliminary study on private SNS, we suggest research framework based on other studies about research methods to analyze SNS usage patterns. Through online questionnaire survey, we expect to attain the results of the research questions regarding private SNS.

Keywords. Private SNS, Public SNS, community size, bonding relationship, bridging relationship

1 Introduction

Nowadays, social network services (SNS) have become a major social media with much impact on individual's daily life. Numerous people are using SNS for various purposes, including social relationships and information sharing with others through computer-mediated communication. Facebook is one of the most popular SNS, with 1.3 billion users across the world. However, some problems including privacy risks, information overload, and uncountable online friends arose in using some types of SNSs [1]. In this paper, we call those SNSs, which are beneficial for bridging relationship and with no restrictions to be a friend online, to public SNS (e.g., Facebook, Twitter). Steinfield et al. (2008) regard the social networking in Facebook as diverse collection of "weak ties" [2] which are good for sharing new information [3]. In contrast, private SNS is designed to communicate with only the close friends such as family and close friends for bonding relationship. 'Path', 'Band', and 'Kakao Group' are the most representative examples of private SNS. 'Band' is the most popular private SNS launched by NAVER, a popular search portal company in Republic of Ko-

* Corresponding author. Address: Department of Interaction Science, Sungkyunkwan University, Myeongnyun 3-ga, Jongno-gu, Seoul, Republic of Korea *E-mail address:* upcircle@skku.edu

rea, and has over 12 million domestic users [4]. 'Band' also planned to extend its service to the United States in 2014 because they noticed foreign users' needs of privacy on SNS arising from aforementioned problems. Similarly, Kakao Group's number of users has increased by over 4 million in six months with its linkage with Kakao Talk [4]. These figures imply that the SNS user's other needs that are hard to be satisfied by using public SNS.

In a few studies, researchers have raised a question about the community size for effective offline relationships and online relationships. Dunbar insisted that 150 people is the most desirable number of community size for individual's effective relationship with others, and 150 is well known for Dunbar's number [5]. Later, some other researchers suggested that Dunbar's number is only valid in offline relationships, and that it is possible to maintain a relationship with 200 to 300 people in social networks. This is dubbed a new magic number [6]. In the current study, we firstly aim to find out the difference of communication patterns between public SNS and private SNS to clarify key features of private SNS. We will mainly refer to the studies about SNS usage patterns on Facebook to compare them with that of private SNS. Additionally, we examine whether the intimacy between friends on private SNS is influenced by the constraints on community size of private SNS such as Path and Daybe. Therefore, we attempt to answer to the following research questions:

- RQ1. What is the difference of communication patterns between public SNS and private SNS?
- RQ2. Do constraints on community size of private SNS have an impact on the more emotionally close relationship?

As a preliminary study on private SNS, we focused on the key trait of the community size on the SNS. Through our suggestion of research framework, we expect to obtain the results of these research questions.

2 Background

2.1 Social Network Service

SNS is one of the most effective communication methods that allow the user to create his/her own profile online, and to share any information with other users in social networking sites [7]. Each of the social networking sites including 'Cyworld', 'Facebook', and 'Twitter' has its own targets and concept. The effect of these SNSs became much bigger with the emergence of smart phones in 2007 making our lives more accessible to the Internet anytime and anywhere. A large number of researchers have raised questions regarding how the SNS could be utilized to maintain individual social relationships.

Social capital theory is very essential in understanding and studying social networking to build and promote one's relationship in real or virtual environments. The social capital is the resources derived from social relationship [8] and it classifies the type of relationship into two types; bridging and bonding social relationship [9, 10].

Bridging social relationships is considered as a collection of "weak ties" [2] that do not show intimacy among people. On the contrary, bonding social capital is regarded as a collection of ‘‘strong ties” [2] and close social relationship among close friends or family. However, most of SNSs are still beneficial in maintaining weak ties rather than strong ties [11]. These SNS users can use their relatively big sized relationship to share any information that their friends and themselves do not have.

In the present paper, we have apparently divided types of SNS into public SNS and private SNS. Facebook and Twitter are public SNS, which are effective tools for bridging social capital online. On the contrast, Band and Path are private SNS, for they are mainly used to bond one's social capital online. Most of these private SNSs are designed to communicate with family, close friends, and even neighbors, according to their own concept of the services. Among these diverse private SNSs, we have mainly focus on the private SNSs which give constraint to the community size such as Path and Daybe to investigate RQ 2.

2.2 Community size for effective relationship

Some researchers in the field of social science have studied about community size for effective relationship in real and virtual environments. Dunbar's number is one of the most popular theories demonstrating that a maximum of 150 people is the most appropriate number of group size to effectively maintain personal relationships with others [5]. Several social network services were designed based on this theory for bonding social capital. 'Path' and 'Daybe' have similar function of limiting the maximum number of friends up to 150 and 50, respectively. Path limits the size of social network up to 150 friends to promote relationship based on the Dunbar's number theory [5]. Even though 'Daybe' discontinued its service in the latter half of 2014, it limited the maximum number of friends to 50 people. If the number of members exceeds 50, the member who has communicated and interact the least with the user is eliminated automatically in order. This is a very simple function but differentiation strategy which is different from other private SNS in that it can grant the users some cognition to strengthen existing weak ties with members.

Other researchers insisted that Dunbar's number can be applied to social capital in real environments and suggested a new magic number ranging from 200 to 300, demonstrating individual sustainable social networking size online [6]. However, this result is valid in bridging relationships rather than bonding them online. In the current study, we focused on the purpose of forming solid relationship not bridging social capital on private SNS.

3 Development of a Research Framework

We target SNS users who are currently using Facebook and more than one private SNS together among the following private SNSs; Band, Kakao story, Kakao Group, and Path. As a research method, we suggested online questionnaire to be distributed to over 200 participants to collect the following data; demographic data, communica-

tion patterns of private SNS, and the degree of intimacy before and after using private SNS. We plan to design the questionnaire about private SNS usage by including the following contents with the reference of 'Facebook intensity scale' developed for measuring user's Facebook usage patterns [12] and 'Bonding Social Capital Scale' validated by Williams (2006) [13].

- Average private SNS usage time per day and per week
- The number of friends and groups on private SNS and public SNS, respectively
- Private SNS users' satisfaction regarding the aspects of bonding relationships
- The degree of intimacy before and after using private SNS
- The effectiveness of 'limiting the number of friends' function such as Path and Daybe
- Personal opinions regarding the ideal community size on private SNS for "strong ties"

For example, the following items are filled out based on 'Bonding Social Capital Scale' [13] to obtain data about 'the degree of intimacy before and after using private SNS' with the Likert scale ranging from 1(strongly disagree) to 5(strongly agree).

- There are several people on private SNS that I can trust to solve my problems.
- If I need an emergency loan of $100, I know someone on private SNS that I could turn to.
- There is someone on private SNS I could turn to receive advice about making very important decisions.
- The people I interact with on private SNS would be good jog references for me.
- I do not know people on private SNS well enough to get them to do anything important.
- I feel I am part of the private SNS community.

Prior to the online survey, we will conduct a pilot test to revise the contents in the questionnaire. After analyzing the collected data through SPSS, we expect to obtain results about different communication patterns between public SNS and private SNS and higher sense of closeness between friends after using private SNS.

4 Discussion & Conclusion

In the present study, we focus on private SNSs, which are designed to promote relationship online, unlike from the public SNS. We firstly compared public SNS and private SNS with regard to communication and usage patterns in order to clarify the different effect of communication between them. Among many kinds of private SNSs, we examine the private SNSs having the function of limiting the maximum number of friends. With this kind of SNSs, we raised a question about whether the function is beneficial for users in increasing their 'strong ties' in social networks. With this question by extension, we intend to find out desirable community size on private SNS in our future study.

Through this study, we expect to contribute private SNS service providers to innovate and improve their services for relationship promotion online. It will result in taking their relationship with others to next level most effectively with higher satisfaction levels. The results can be also utilized in social network services to develop easier way to expand and form solid social network.

Acknowledgements

This research was supported by the Ministry of Education, South Korea, under the Brain Korea 21 Plus Project (No. 10Z20130000013) and Basic Science Research Program (No. NRF-2014R 1A 1A2054531).

References

1. Dwyer, C., Hiltz, S., Passerini, K.: Trust and privacy concern within social networking sites: A comparison of Facebook and MySpace. AMCIS 2007 Proceedings. 339 (2007)
2. Granovetter, M. S.: The strength of weak ties. American journal of sociology, vol. 78, pp. 1360-1380 (1973)
3. Steinfield, C., Ellison, N. B., Lampe, C.: Social capital, self-esteem, and use of online social network sites: A longitudinal analysis. Journal of Applied Developmental Psychology, 29, 434-445 (2008)
4. http://www.digieco.co.kr/KTFront/dataroom/dataroom_weekly_view.action?board_seq=9185&board_id=weekly#
5. Hill, R. A., Dunbar, R. I.: Social network size in humans. Human nature, 14, 53-72 (2003)
6. Zhao, J., Wu, J., Liu, G., Tao, D., Xu, K., Liu, C.: Being rational or aggressive? A revisit to Dunbar's number in online social networks. Neurocomputing (2014)
7. Ellison, N. B., Boyd, D.: Social network sites: Definition, history, and scholarship. Journal of Computer-Mediated Communication, 13, 210-230 (2007)
8. Portes, A.: Social capital: Its origins and applications in modern sociology. LESSER, Eric L. Knowledge and Social Capital. Boston: Butterworth-Heinemann, 43-67 (2000)
9. Putnam, R. D.: Bowling alone: The collapse and revival of American community. Simon and Schuster (2001)
10. Woolcock, M., Narayan, D.: Social capital: Implications for development theory, research, and policy. The world bank research observer, 15, 225-249 (2000)
11. Donath, J., Boyd, D.: Public displays of connection. bt technology Journal, 22, 71-82 (2004)
12. Ellison, N. B., Steinfield, C., Lampe, C.: The benefits of Facebook "friends:" Social capital and college students' use of online social network sites. Journal of Computer-Mediated Communication, 12, 1143-1168 (2007)
13. Williams, D.: On and off the'Net: Scales for social capital in an online era. Journal of Computer-Mediated Communication, 11, 593-628 (2006)