WECHAT USE TO FORM THE SOCIAL CAPITAL FROM THE PERSPECTIVE OF TECHNOLOGY ACCEPTANCE

Haihui Guo[1] and Yunlong Duan[2]

[1,2]Chinese Graduate School, Panyapiwat Institute of Management

Abstract

Functional features of SNS attract user's intention to use SNS. WeChat is the top SNS widely adopted by users in Chinese culture context. The objective of this paper is to examine how social capital of WeChat users are formed as the outcome of daily use of WeChat from the technology's perspective. A new approach to interpret the continuance use intention as strategies of self-presentation and social support were introduced and investigated. The outcomes confirmed the continuance uses of WeChat have positive influence on the formation of individual's social capital. It's recommended that enterprise management needs to take a serious step into the initiate of WeChat kind of SNS Apps to promote customers.

Keywords: Self-presentation, WeChat, Social Capital Formation, Technology Readiness

Corresponding Author

E-mail: 171053221@qq.com

Introduction

Humans are social creatures and need to socialize and be connected. When internet rapidly provides connections between parts of the world, social networking sites (SNSs) with a wide variety of communication features are adopted by users. Few constraints are on the way to the growth of online connections. SNS allows users to create profiles, bio-data, and hobbies and so on of the account holder on the site which ultimately provide platform to users to present him/her online. In addition, they provide flexible and personalized modes of sociability, offering individuals to sustain strong and weak ties through the full-spectrum of online strategies (Ellison, Heino & Gibbs, 2006). The expressions of online sociability, or self-presentation, permit users to pursue social actions by differing levels of involvement, moves, and multi-task (Hargittai & Hsieh, 2010). Facebook is the most popular SNS in USA, while WeChat is attracting more than 900 million active users monthly worldwide (CAICT, 2017). Most of WeChat users are from China. Chinese have a tradition to pay attention to care relationships. WeChat provide full-spectrum of features for Chinese and the international users to initiate and maintain social relationships. Users can publish messages to large audiences using status updates, write posts, repost, comment and view, like, chat, send messages the user wishes to keep private, and so on.

To distinguish among different kinds of WeChat features usage, a mass media framework, called the uses and gratifications approach, enables the study on how users select media and content to fit to their individual needs. Katz, Blumler & Gurevich (1974) put forward the theory of uses and gratifications. Recent studies indicate researchers have applied this instrument to internet field to identify a wide range of motives driving the use of various online sites and services, including SNSs such as Myspace and Facebook (Papacharissi & Mendlson, 2010). Given the wide variety of functional features available to users to behave on these sites, users motives for employ the various features are likely to differ.

The Technology Acceptance Model (TAM) has been used to explain the acceptance, adoption and use of information technologies (Davis, 1989; Legris, Ingham & Collerette, 2003; Serenko, Bontis & Detlor, 2007). Researchers introduce new variables to the construct of determinants of the TAM model to understand the specific features of certain information technology, then many revised model evolved from TAM (Lin, Shih & Sher, 2007; Chen, Chen & Chen, 2009; Lee, 2009). Although SNSs experienced about more than ten years of growth acceptance of users globally, as for WeChat for 7 years in China, the popularity and huge growth of WeChat users shape a technology phenomenon, which attract business academy to understand the acceptance, identify the factors, and measure the correlations and relationships among these determinants as well. Revised TAM models can be employed to help for analysis. Studies concentrate on the social and psychological impact of social media to

partially explain the relationship between technology acceptance on the perspective of SNS users and the formation of social capital, especially take Myspace, Facebook and Twitter as examples (Steinfield, Ellison & Lampe, 2008; Jin, 2013). The Chinese users share common concerns while bearing wide range of characteristics, so does WeChat comparison with its international counterparts.

Thus this study was intended to analyze the relations between specific feature adoption behavior and the intended outcomes of WeChat uses in an empirical way. In particular, using a revised TAM model, the study explored mechanism of user's self-presentation behavior impact on personal online social capital considering the daily usage of WeChat under the condition of Chinese culture.

Literature Review

Starting the service in 2011 as an APP with Android and iOS versions running on mobile phones, WeChat successfully attracts the eyeballs of general Chinese. Chan (2015) puts it as the one App ruling the life of common Chinese people. WeChat serves not just a messaging App; it is actually more of a personal portal, a platform, and even a mobile operating system to communicate with any other end of the world. More works study on international SNSs such as Facebook, Myspace, and Twitter phenomenon, while few on WeChat. Most of the users of WeChat are from China with rapid growth of international users. WeChat shares features of Facebook or Twitter kink, and is endowed with unique properties fit to the needs of people's daily work and life, offering great support to presentation and communication.

Social Network Sites Use for Gratification

Since uses and gratification (U&G) theory was introduced by Katz, Blumler & Gurevich (1974), it is widely used in academia to provide the theoretical framework to analyze how mass media fulfilling the needs of individual users with different motives and purposes. The research framework was well applied to study on the users' attitudes toward technologies, covering for using the VCR (Levy, 1987), watching cable TV (Becker, Dunwoody & Rafaell, 1983), surfing the internet (Papacharissi & Rubin, 2000), reality TV (Papacharissi & Mendelson, 2010), etc. Katz, Blumler & Gurevich (1974) pointed out the recursive relation between expectations of user and practices inherent in U&G approaches, which inspect the "social and psychological origins of needs, which generate expectations of the mass media or other sources, which lead to differential patterns of media exposure, resulting in need gratifications and other consequences". They indicate that U&G schemes have two distinct approaches: how needs are gratified by media exposure and how gratifications reconstruct needs.

Social network sites attract humans' attentions as it is both kind of media and technology. SNSs are networked social interfaces, which help disseminate information through social circles or ties. Individual can present his/her impression on the SNSs, and be exposed to impressions of other individuals online. Lots of research explores

the various aspects of Facebook usage, the international counterpart of WeChat. Research into SNSs have established an evidence that SNSs more often provide opportunity to articulate relationships from offline to online and maintain existing connections online (Lampe, Ellison & Steinfield, 2006; Boyd & Ellison, 2007; Papacarissi & Mendelson, 2010; Abro & Zhenfang, 2013). Some studies showed that Facebook features help enable the connections and the connections that are built reflect similar closeness of ties between offline and online ties (Lampe, Ellison & Steinfield, 2007; Gilbert & Karahalios, 2009). However, the use of SNS varies among users (Burke, Kraut & Marlow, 2011). Some individuals use the site actively leading to less loneliness, while some passively, much loneliness (Burke, Kraut & Marlow, 2011).

Researches on SNSs advance interdisciplinary interest and evidence of evolving social behaviors online. Strategies including self-presentation or self-disclosure and impression management are employed as a starting point to conceptualize the use behaviors on SNSs (Boyd & Heer, 2006). Lampe et al. (2010) took U&G as to what motives did impact on contents production in SNSs, in which they explained that users have differing motives to engage in different types of contribution. Cheung, Chiu & Lee (2011) investigated the driving forces for students to engage on SNSs, and took it as an intentional social action for most of the student samples. Hirst et al. (2009) concluded their motivational study and found that users of SNSs use these sites for social benefits like information sharing/ seeking and job searching, some of the users' motivation was to meet new people and find new friends. Hence, U&G can be applied as a useful approach to understand the WeChat users. Taken together briefly, the literature indicates that Facebook can support a wide range of social activities. Given the heterogeneous nature of Facebook and WeChat, and the diversity of users of these sites, it can be presumed that users employ WeChat for different motives and each reason counts.

Measure of WeChat Use

Motives determine the intention of users of SNS by gratifying certain needs they wish to cherish. Papacharissi & Mendelson (2010) and Smock et al. (2011) adopted uses U&G approach to identify the motive categories and features categories, and examined the relationship between these two categories factors. Motives category include 8 dimensions: relaxing entertainment, cool and new trends, escapism, companionship, habitual pass-time, professional advancement, social interaction, and expressive information sharing. The features category include 6 types: status updates, comments, wall posts, private messages, chat, and groups. Short messages of status updates by users are visible to other users via the APP concept, friend circle.

WeChat goes online since 2011, and attracts more than 900 million active users monthly worldwide (CAICT, 2017). Scholars begin to pay attention to the academic research on topics of WeChat. Subject to literature limitation, this paper extends the SNSs research and applies to WeChat starting by specifically exploring

users' motivations pertinent to specific features of WeChat, rather than use of the site as a whole. Typically self-reported metrics such as estimation of time on the SNS (Joinson, 2008), number of friends (Tong et al., 2008), and intensity scale are used as the measurement indicators in the researches. All user-generated content on WeChat can be commented on, liked, quoted, and grouped circles, unless the owner of the content has used a privacy setting to restrict comments. Here as for the features category, 6 types are widely used by individuals including: status updates, comments, quotes, redpocket, chat, and groups.

Social Capital Theory and Social Network Site Use

Social capital broadly refers to resources accrued through interactions and relationship among people (Coleman, 1988; Putnam, 2000; Lin, 2001), with focus on social interactions differing from economic capital and human capital. Bourdieu & Wacquant (1992) put it as "the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintances and recognition". As internet is becoming inseparable part of life of many users which enables him/her with varied instruments to connect with existing relationships and provides opportunity to initiate a new relationship or tie in social networking sites (Boase & Wellman, 2006; Ryberg & Larsen, 2008). Brandtzaeg & Heim (2009) studied on the motives triggers people into using SNSs, finding 11 important reasons and several sub-reasons as motives among which "to get in contact with new" (31%) was the main motivational reason to use SNSs, while "to maintaining offline contacts" (21%) and "to get general socializations" (14%) were the second and the third respectively on the list. Ko & Kuo (2009) found self-discourse enhances social capital and social capital served as a conduit between self-disclosure and subjective well-being in building intimate relationships among bloggers.

SNS use was taken as a factor to predict social capital creation and maintenance (Subrahmanyam & Greenfield, 2008; Steinfield, Ellison & Lampe, 2008). Intensive use of SNS influenced social capital particular bonding social capital which signifies the strong ties such as family and close friends (Ellison, Heino & Gibbs, 2006; Vitak, Ellison & Steinfield, 2011; Abro & Zhenfang, 2013). Studies proved the social capital on SNS by observing Facebook intensity and the social capital variables like life satisfaction, trust and participation (Valenzuela, Park & Kee, 2009).

Social capital on SNSs has been studies from cross culture perspective to reflect the differences among varied uses of distinct culture background. Cultural settings can be interpreter for the social capital building (Choi et al., 2011). It's indicated that individualistic society like USA were more prone towards bridging social capital while collectivistic culture like Koreans were found perpetuating bonding social capital (Kim, Sohn & Choi, 2011). Nonetheless, current literature of the field regarding social capital and SNSs use lacks the factors of motive,

more so it has been conducted in western context and on the top SNSs like Facebook, Myspace and Twitter. WeChat embraces the same amount of active users as Facebook does, while WeChat users are from Asian context. Some distinct characters between the uses are predicted to have different findings. Therefore, it is reasonable to identify the social capital categories when interpret the relationship between the use of WeChat and the formation of online social capital.

Tam on Study of Use of SNS Sites

Davis (1989) introduced two constructs, perceived usefulness and perceived ease of use, to the Theory of Reasoned Action to get the Technology Acceptance Model. Perceived usefulness measures the extent to which a user believes that using a particular technology system leads to enhance his or her performance. Perceived ease of use measure the extent to which a user believes that using the technology system is free of effort. Since then, TAM is widely applied to empirically explain offline behaviors with acceptance use of technology systems, and online behaviors as well.

Later on many construct were introduced to TAM to explain technology of different categories (Lin, Shih & Sher, 2007). As the advancement of technology evolve, online information systems is becoming pervasive computing system matching the daily life of people, such as social network sites (SNSs), Facebook and WeChat. The technology system is giving the sense of optimism and innovativeness to its users with more ubiquitous support and convenience.

Conceptual Model and Hypothesis

When new technology advanced and applied by enterprises, huge amount of capital and effort investment to the technology to build competitive advantage. TAM mode was widely employed to observe the adoption of technology by users. Only the technology is ready to go and accepted by users, can the enterprise make the most of the investment for the technology. The deployment of information technology is to enable the users for better efficiency and effectiveness to run the business operations. However, SNSs are becoming a public information infrastructure, and are platforms for all individuals who can share the usage. As a popular SNS product in China, WeChat provides a variety of functional features for individuals to connect his/her peers, or share or publish information, process the daily information works, and build his/her own e-identity.

This paper is about to identify the relationship of use of WeChat and social capital formation of the users in the context of Chinese culture. So, the TAM mode can be revised to fit to the research framework of this study. Continuance use intention of WeChat can be divided into two categories: self-presentation and social support. Then, TAM's measurement variables can be revised to fit the technology features of WeChat. Herewith, the WeChat users' perception of usefulness and ease of use served as mediated variables. Social capital formation is the intended outcome of WeChat continuing use intention.

Lin, Shih & Sher (2007) introduce the technology readiness index to measure an individual's attitude against use of new technology from two categories: positive technology readiness and negative technology readiness. In regards of the number of users of WeChat, it is the only one dominant SNS player in China. Hence, from the perspective of technology, negative technology variables like discomfort and insecurity can be overlooked, and so does the attitude toward using the technology. Therefore, the paper proposes the hypothesis:

H1: Positive technology readiness of WeChat has a positive influence on WeChat users' acceptance of WeChat with regards of perception of usefulness and ease of use.

To make the most of effort input to continue the use of WeChat, the behavior intentions of WeChat users may derive from strategies of self-presentations and social support to other users. WeChat users are happy to join WeChat and spend time on it to get the sense of connected, which strengthens bonds with people of interest and colleagues as well. As the nature of SNS sites, WeChat provide users with the accumulation of building of social capital. Hence, the paper develops the hypotheses:

H2: WeChat user's perception of acceptance has a positive influence on his/her continuance use behaviors of self-presentation or social support.

H3: WeChat users' continuance behavior on WeChat has a positive influence on the formation of his/her social capital.

As described above, users of WeChat can perform continuance strategic behaviors of self-presentation and social support in order to maintain existing relationships, or initiate new connections. The other user in the system can identify the user with whom he/she have relationship with. The technology readiness of WeChat is positive enough to attract huge amount of users on the WeChat (Chan, 2015). The perceived usefulness (PU) and perceived ease of use (PEOU) are the normal factors as the indicators of acceptance of technology. Here introduced the conceptual model of the paper depicted in Figure 1.

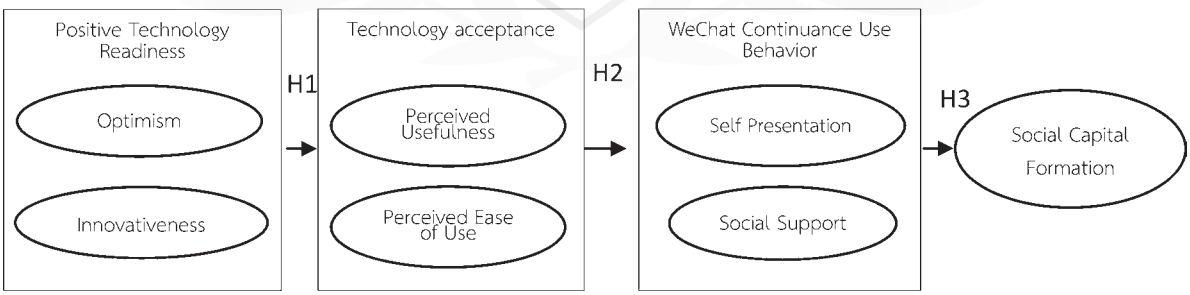

Figure 1 The conceptual model

Research Methodology

Sample

The paper is aimed at the active user's continuance use behavior of WeChat online, and the outcome of the formation of the social capital. The active user of WeChat for the sample is better to access the account for at least 3 times a week. Guo, Shim & Otondo (2010) found 73% of SNS users in China are between 13 and 34 years old. As the WeChat attract most of the SNS user in China, this paper targets the sample aged from 18 to 40. 9 classes of undergraduate and postgraduate students within our university were surveyed about their perception, acceptance and use behavior of WeChat. A total of 316 questionnaires were collected, among which 283 met the principles for further analysis.

Measures

The measure of positive technology readiness attitude of an individual is based on two aspects: optimism and innovativeness (Lin, Shih & Sher, 2007). 4 items for optimism and 3 items for innovativeness were adapted from relevant research in terms of factor loadings (Lai & Li, 2005; Lin, Shih & Sher, 2007; Hsu & Lin, 2008).

The paper agrees with the unified view proposed by Venkatesh, Morris & Davis (2003) and generates 6 items to measure the individual's acceptance of WeChat from two categories: perceived usefulness and perceived ease of use. As for WeChat continuance use behaviors of self-presentation category, the paper employees 4 items as a set of measurement based on the research of Park & Chung (2011). 3 items adapted from the work of Dunkel & Brooks (2009) to measure the social support behavior of WeChat users. 9 items were adapted to measure the formation of social capital of WeChat users from 3 aspects: trust, reciprocity, and social participation (Steinfield, Ellison & Lampe, 2008; Pfeil, Arjan & Zaphiris, 2009).

All list items were measured by a 5-point Likert scale ranging from "strongly disagree = 1" to "strongly agree = 5". The constructs and items are listed in appendix table.

Results

Reliability and Validity Check

This paper performs the Covariance Structure Analysis using SPSS 21.0 and AMOS 21.0. Internal consistency of the constructs is assessed, which showed in Table 1. The detail information in lists such as Cronbach's alpha and AVE of Table 1 shows that constructs satisfy the requirement for the analysis. Further steps can be exercised to carry out.

Table 1 Internal consistency of the constructs

Constructs	Items	Cronbach's alpha	Composite reliability	Average variance extracted
OPTM	4	0.89	0.91	0.71
INNV	3	0.81	0.92	0.68
PEOU	3	0.86	0.88	0.60
PUSF	3	0.87	0.85	0.65
SFPR	4	0.81	0.86	0.68
SSPT	3	0.78	0.82	0.57
FOSC	9	0.83	0.87	0.65

Compare the average variance extracted from two constructs with the square of the correlation between them, the paper get the result data populated to Table 2. According to the suggestion of Fornell & Larcker (1981), the average variance extracted of construct should be greater than the squared correlations between any two constructs. The outcome supports the discriminant validity.

Table 2 Discriminant validity

	OPTM	INNV	PEOU	PUSF	SFPR	SSPT	FOSC
OPTM	**0.71**						
INNV	0.21	**0.68**					
PEOU	0.18	0.11	**0.60**				
PUSF	0.16	0.18	0.14	**0.65**			
SFPR	0.02	0.05	0.34	0.08	**0.68**		
SSPT	0.22	0.08	0.45	0.04	0.18	**0.57**	
FOSC	0.28	0.13	0.53	0.06	0.28	0.44	**0.65**

Note: Diagonal elements are average variance extracted. Off-diagonal elements are squared correlations between constructs.

Casual Model Analysis

Structural equation model was employed to verify the mediator role of technology acceptance and WeChat continuance use behavior along the path. According to Alwin & Hauser (1975), the paper performs required procedures for building a structural equation model, and checks its goodness of fit. The structural equation

model with standard coefficients for paths are depicted in Figure 2. The data result was populated into Table 3. As the data indicate, the SEM satisfied at the p<0.05 and p<0.01 levels. All hypothesis tests are accepted.

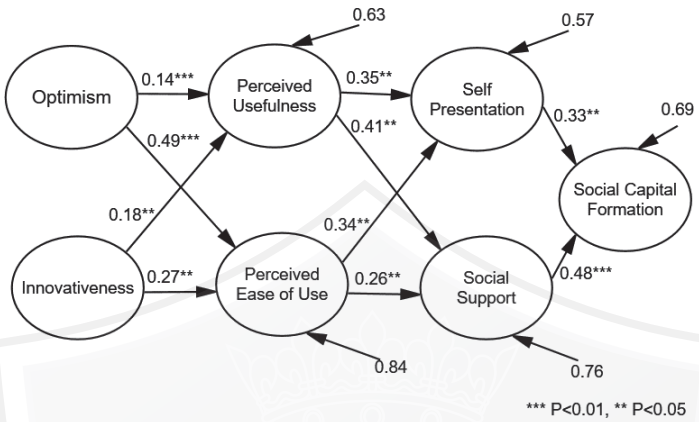

Figure 2 The structural equation model diagram with coefficients

Table 3 Hypothesis test and goodness of fit of the structural equation

Hypothesis path	Std. coefficient	Std. error	T	Hypothesis tests
OPTM → PEOU	0.49***	0.09	4.23	Accepted
INNV → PEOU	0.27**	1.2	2.27	Accepted
OPTM → PUSF	0.14***	0.08	3.78	Accepted
INNV → PUSF	0.18**	1.7	2.18	Accepted
PEOU → SFPR	0.34**	1.5	2.52	Accepted
PUSF → SFPR	0.35**	1.8	2.19	Accepted
PEOU → SSPT	0.26**	1.8	2.33	Accepted
PUSF → SSPT	0.41**	1.4	2.71	Accepted
SFPR → FOSC	0.33**	1.1	2.07	Accepted
SSPT → FOSC	0.48***	0.09	4.47	Accepted

Goodness of fit indicators

DF	χ^2	χ^2/DF	p	GFI	AGFI	RMR	NFI	RMSEA	CFI
111	136.33	1.23	0.05	0.87	0.82	0.04	0.88	0.04	0.97

***p<0.01 (marginally significant)

**p<0.05 (marginally significant)

Conclusion

Discussion

This paper is to examine the WeChat users' perception, intentions and behavior, contribute to the study of WeChat literature. The results from the study on WeChat share the same findings as on Facebook. This paper results confirm the path effects showing that users' awareness of positive technology readiness (both the factor of optimism and innovativeness) has a positive influence on the users' perception of WeChat adoption. Although WeChat and Facebook belongs to SNS, they have distinct features, and their users have different culture background. Chinese use of social media grow faster than the rest of the world. Many WeChat users have the habit to access their account daily and maintain their posts, profiles, moves of their circles, etc. Most of WeChat users employ behavior strategy to head to be a high-profiled e-identity.

The continuance use of WeChat typically are of self-presentation strategy or social support. This paper confirms the positive influence of users' perception of WeChat have on the users' continuance use of WeChat. By taking strategy of present a high-profiled e-identity online, or making moves to enhance social connections and offer support to his/her peers online, WeChat user can accumulate his/her social capital. Then, an important micro-business mode other than general C2C e-commerce emerged. High-profiled WeChat user who have a higher level of social capital can invest his/her social capital to start business.

Chinese individual with higher attitude of positive technology readiness can easily recognize the functional features of WeChat, and use the mobile app to support their daily life, making life easier, happier, and for fun. Redpacket is new form of features attract majority of WeChat users to participate. From the start it is very traditional Chinese move to show the luck given by between individuals. Now the feature is accepted by other SNS apps. With a daily use of WeChat, the user accumulates his/her social capital. When tipping point is triggered, the user can be a WeChat business man. This paper provide answers to the occurrence of this phenomenon in China. And the business logic is partially explained.

Practical Implication for Management

The first and foremost implications for individuals is to take behavior strategies to manage his/her WeChat account. WeChat use can form one kind of capital, called social capital. Users with motives of taking self-presentation strategy or social support strategy can enhance the accumulation of the social capital.

Similarly, the implication of individual's use of WeChat applied for enterprise managers. WeChat is becoming more and more open. New great features attract users' attention, some of which is aimed for business applications. Formulating enterprise marketing strategy should take WeChat kind of SNS into consideration, and should increase opportunities for customers to interact, which promotes the development of deeper relationships between customers and the organization.

Positive technology readiness is key component of WeChat kind of SNS service, and play a key role in customer adoption and use of such media. The service provider need to take it into consideration to improve the ready-to-go.

Limitations

As most of the study goes, this paper suffers from several limitations. First, because the sample of this paper is from university campus, perception of features of WeChat for work is not examined. And university undergraduates have the better understanding of technology readiness. Some favor may rise. Second, the behavior strategy of use SNS is presented but there is no sound theory to discuss the two (self-presentation and social support) complete the set. Ground theory can be applied to build the complete construct if permitted.

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Appendix

Constructs and items
Positive technology readiness
Optimism (OPTM)
• Technological functional features of SNS gives me more control over my daily life
• I use most of the technological functional features of SNS available
• Technological functional features of SNS make me more efficient in my occupation
• Learning about new features of SNS can be rewarding
Innovativeness (INNV)
• I keep up with the newly released functional features of SNS in my areas of interest
• I enjoy being aware of the newly released high-tech gadgets and new issues as well
• I find it's less difficult for me in making technology work and new function of SNS for me than other

Constructs and items
Technology acceptance
Perceived ease of use (PEOU)
• Tools of WeChat are easy to use
• How to use WeChat is clear
• It is easy to explain how to use WeChat services
Perceived usefulness (PUSF)
• I can acquire information I need through many WeChat services
• I can use the information acquired from WeChat with good results
• I can acquire useful and interesting information from WeChat
WeChat continuance use behavior
Self-presentation (SFPR)
• I am honesty to my express on WeChat
• I spend as much time as possible and post as much as possible on WeChat
• I have a clear mind when I make a post on WeChat
• I seldom express my negative feeling on WeChat
Social support (SSPT)
• I would response when I see a question and ask-for-help from a contact of mine
• I would care and response when I deem my contact is not of good mood based on his/her negative post
• I would repost if I cannot solve the ask-for-help
Formation of social capital (FOSC)
• I think people who I meet through WeChat are believable
• I think that people who I meet through WeChat can be trusted
• I think that people who I meet through WeChat are not unfair or egotistical
• I feel strong solidarity with people I meet using WeChat
• I feel fellowship with people I meet using WeChat
• I feel a sense of comradeship for reciprocity with people I meet using WeChat
• I have a strong tendency to participate in on-campus organizational bodies
• I have a strong tendency to take a lead role in certain functional areas of management level of my class if permitted
• I have a strong tendency to participate in social organizations or political parties after I graduate

References

Abro, M. R. & Zhenfang, L. (2013). Influence of self-presentation on bridging social capital in SNSs: a moderating effect of self-presentation. *Research on Humanities and social sciences, 3*(19), 74-81.

Alwin, D. F. & Hauser, R. M. (1975). The Decomposition of Effect in Path Analysis. *American Sociological Review*, *40*(1), 37-47.

Becker, L., Dunwoody, S. & Rafaell, S. (1983). Cable's impact on use of other news media. *Journal of Broadcasting*, *27*(2), 127-142.

Boase, J. & Wellman, B. (2006). *Personal relationships: on and off the internet*. Cambridge: Cambridge university press.

Bourdieu, P. & Wacquant, L. (1992). *An Invitation to Reflexive Sociology*. Chicago: University of Chicago press.

Boyd, D. & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, *13*(1), 201-230.

Boyd, D. & Heer, J. (2006). Profiles as conversation: Networked identity performance on Friendster. *Proceedings of 39th Hawaii International Conference on System Sciences*. IEEE Press, Los Alamitos, California.

Brandtzaeg, P. B. & Heim, J. (2009). Why people use social networking sites. *Online Communities and Social Computing*. Springer, Berlin Heidelberg.

Burke, M., Kraut, R. & Marlow, C. (2011). Social capital on Facebook: Differentiating uses and users. *Proceedings of the 2011 annual conference on human factors in computing systems*. ACM Press, New York.

CAICT. (China Academy of Information and Technology). (2017). *WeChat's economic and social impacts in 2016*. Retrieved April 23, 2017, from http://www.caict.ac.cn/kxyj/qwfb/ztbg/201704/P020170420469064461417.pdf

Chan, C. (2015). *When one app rules them all: The case of WeChat and mobile in China.* Retrieved February 2, 2017, from https://www.linkedin.com/pulse/when-one-app-rules-them-all-case-wechat-mobile-china-connie-chan

Chen, S. C., Chen, H. H. & Chen, M. F. (2009). Determinants of satisfaction and continuance intention towards self-service technologies. *Industrial Management & Data Systems, 109*(9), 1248-1263.

Cheung, C. M., Chiu, P. Y. & Lee, M. K. (2011). Online social networks: why do students use Facebook? *Computers in Human Behavior*, *27*(4), 1337-1343.

Choi, S. M., Kim, Y., Sung, Y. & Sohn, D. (2011). Bridging or bonding? Across-culture study of social relationships in social networking sites. *Information, Communication & Society*, *14*(1), 107-129.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American journal of sociology*, *94*, 95-120.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13*(2), 319-340.

Dunkel, S. C. & Brooks, K. (2009). The nature of social support. In H. T. Reis & S. Sprecher (Eds.). *Encyclopedia of Human Relationships*. (pp. 1565-1570). Thousand Oaks, CA: Sage Publications.

Ellison, N., Heino, R. & Gibbs J. (2006). Managing impressions online: self-presentation processes in the online dating environment. *Journal of Computer-Mediated Communication*, *11*(2), 415-441.

Fornell, C. & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39-50.

Gilbert, E. & Karahalios, K. (2009). Predicting tie strength with social media. *Proceedings of the 27th international conference on human factors in computing systems*. ACM Press, New York.

Guo, C., Shim, J. P. & Otondo, R. (2010). Social network services in China: An integrated model of centrality, trust, and technology acceptance. *Journal of Global Information Technology Management*, *13*(2), 76-99.

Hargittai, E. & Hsieh, Y. L. (2010). From dabblers to omnivores: a typology of social network site usage. In *A Networked Self*. Edited by Z. Papacharissi. London: Routledge.

Hirst, A., Bednall, D., Ashwin, M. & Icoz, O. (2009). The use and abuse of online social network sites by Gen Y in the EU: can marketing make a difference? *Proceedings of the 5th international conference on business, management and economics*. Yasar University.

Hsu, C. L. & Lin, C. C. (2008). Acceptance of blog usage: the roles of technology acceptance, social influence and knowledge sharing motivation. *Information & Management*, *45*(1), 65-74.

Jin, C. (2013). The perspective of a revised TRAM on social capital building: The case of Facebook usage. *Information & Management, 50*(4), 162-168.

Joinson, A. N. (2008). Looking at, looking up or keeping up with people? Motives and use of Facebook. *Proceedings of the twenty-sixth annual SIGCHI conference on human factors in computing systems*. ACM Press, New York.

Katz, E., Blumler, G. & Gurevich, M. (1974). Utilization of mass communication by the individual. *The Uses of Mass Communication: Current Perspectives on Gratifications Research*. Sage, California.

Kim, Y., Sohn, D. & Choi, S. M. (2011). Cultural difference in motivations for using social network sites: a comparative study of American and Korean college students. *Computer in Human Behavior*, *27*(1), 365-372.

Ko, H. C. & Kuo, F. Y. (2009). Can blogging enhance subjective well-being through self-disclosure? *Cyber Psychology & Behavior*, *12*(1), 75-79.

Lai, V. S. & Li, H. (2005). Technology acceptance model for internet banking: an invariance analysis. *Information & Management*, *42*(2), 373-386.

Lampe, C. Wash, R., Velasquez, A. & Ozkaya, E. Y. (2010). Motivations to participate in online communities. *Proceedings of Human Factors in Computing Systems*, Atlanta, USA, 1927-1936

Lampe, C., Ellison, N. & Steinfield, C. (2006). A Facebook in the crowd: Social searching vs. social browsing. *Proceedings of the 2006 20th anniversary conference on computer supported cooperative work*, ACM Press, New York, USA, 167-170.

Lampe, C., Ellison, N. & Steinfield, C. (2007). A familiar face(book): profile elements as signals in an online social network. *Proceedings of Human Factors in Computing Systems*, California, USA, 435-444.

Lee, M. C. (2009). Factors influencing the adoption of internet banking: An integration of TAM and TPB with perceived risk and perceived benefit. *Electronic Commerce Research and Applications*, *8*(3), 130-141.

Legris, P., Ingham, J. & Collerette, P. (2003). Why do people use information technology? A critical review of the technology acceptance model. *Information & Management*, *40*(3), 191-204.

Levy, M. R. (1987). VCR use and the concept of audience activity. *Communication Quarterly*, *35*(3), 267-275.

Lin, C. H., Shih, H. Y. & Sher, P. J. (2007). Integrating technology readiness into technology acceptance: The TRAM model. *Psychology and Marketing*, *24*(7), 641-657.

Lin, N. (2001). *Social capital: a theory of social structure and action*. Cambridge: Cambridge University Press.

Papacharissi, Z. & Mendelson, A. (2010). Toward a new(er) sociability: Uses, gratifications and social capital on Facebook. *Media Perspectives for the 21st Century*. Routledge, New York.

Papacharissi, Z. & Rubin, A. M. (2000). Predictors of internet use. *Journal of Broadcasting & Electronic Media*, *44*(2), 175-196.

Park, S. & Chung, N. (2011). Mediating roles of self-presentation desire in online game community commitment and trust behavior of Massive Multiplayer Online Role-Playing Games. *Computers in Human Behavior, 27*(6), 2372-2379.

Pfeil, U., Arjan, R. & Zaphiris, P. (2009). Age differences in online social networking - a study of user profiles and the social capital divide among teenagers and older users in MySpace. *Computers in Human Behavior*, *25*(2), 643-654.

Putnam, R. D. (2000). *Bowling alone*. New York: Simon & Schuster.

Ryberg, T. & Larsen, M. C. (2008). Networked identities: understanding relationships between strong and weak ties in networked environments. *Journal of Computer Assisted Learning*, *24*(2), 103-115.

Serenko, A., Bontis, N. & Detlor, B. (2007). End-user adoption of animated interface agents in everyday work applications. *Behavior & Information Technology*, *26*(2), 119-132.

Smock, A. D., Ellison, N. B., Lampe, C. & Wohn, D. Y. (2011). Facebook as a toolkit: a use and gratification approach to unbundling feature use. *Computer in Human Behavior*, *27*(6), 2322-2329.

Steinfield, C., Ellison, N. B. & Lampe, C. (2008). Online social network use, self-esteem, and social capital: a longitudinal analysis. *Journal of Applied Developmental Psychology*, *29*(6), 434-445.

Subrahmanyam, K. & Greenfield, P. (2008). Communicating online: adolescent relationships and the media. *Online Communication and Adolescent Relationships, the Future of Children*, *18*(1), 119-146.

Tong, S. T., Heide, B. V. D., Langwell, L. & Walther, J. B. (2008). Too much of a good thing? The relationship between number of friends and interpersonal impressions on Facebook. *Journal of Computer-Mediated Communication*, *13*(3), 531-549.

Valenzuela, S., Park, N. S. & Kee, K. F. (2009). Is there social capital in a social network site? Facebook use and college students' life satisfaction, trust, and participation. *Journal of Computer-Mediated Communication*, *14*(4), 875-901.

Venkatesh, V., Morris, M. G. & Davis, F. D. (2003). User acceptance of information technology: toward a unified view. *MIS Quarterly*, *27*(3), 425-578.

Vitak, J., Ellison, N. B. & Steinfield, C. (2011). The ties that bond: reexaming the relationship between Facebook use and bonding social capital. *Proceedings of 44th IEEE Havaii International conference*, 1-10.

Name and Surname: Haihui Guo
Highest Education: Ph.D. Candidate, Panyapiwat Institute of Management
University or Agency: Panyapiwat Institute of Management
Field of Expertise: Innovative Business & Management
Address: 85/1 Moo 2, Chaengwattana Rd., Bang Talad, Pakkred, Nonthaburi 11120

Name and Surname: Yunlong Duan
Highest Education: Postdoctoral of General Management, Nanjing University, China
University or Agency: Panyapiwat Institute of Management
Field of Expertise: Innovation Management
Address: 85/1 Moo 2, Chaengwattana Rd., Bang Talad, Pakkred, Nonthaburi 11120