

Understanding Social Network Sites (SNSs) Preferences: Personality, Motivation, and Happiness Matters

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Abstract. Chinese Social Network Sites (SNSs), such as Qzone, Renren, Weibo, have attracted millions of users, many of whom have integrated SNSs surfing into daily practices. In this research, we aimed to understand people's preferences for particular SNSs and some specific features of SNS, and explore the impacts of personality and motivations on SNSs usage. In Study 1, we compared the personalities, motivations and SNSs behaviors of Chinese major SNSs users. Study 2 focused on the relationship between motivation and happiness on SNSs. Finally, we drew a script on the way and reason for choosing a particular SNS and favoring specific features of each SNS.

Keywords: Social Network Site (SNS), Personality, Motivation, Subjective Well-being (SWB).

1 Introduction

Internet has introduced major changes in our social lives [1], and it is a leading social arena where people can meet and interact with others. Social network sites (SNSs) are defined as web-based services that allow individuals to construct a public or semi-public profile, sharing text, images, and photos, and to share connections with a certain list of other users on the Internet [2]. Since the first introduction, SNSs, such as MySpace, Facebook, Cyworld (in Korea), Bebo (in Britain) and Renren (in China) have attracted millions of users, many of whom have integrated SNSs surfing into daily practices.

1.1 SNSs Users' Motivations

In general, individuals flock to social network sites for maintaining relationships [2] but users' motivations might vary from site to site, and usually individual show obvious preference to particular SNS. Specifically, for Westerners, sites like MySpace and Facebook attract users with social motivations, while sites like LinkedIn are used by individuals looking forward to establishing professional or business contacts [3]. However, there are few researches on SNSs preferences and how they come into being.

Researchers discovered that both internal (enjoyment) and external (usefulness) factors affect users' to continue using SNSs [4]. As an information technology, an SNS user cares about whether the SNS allows him (or her) to effectively build and maintain relationships among the mechanisms that allow strangers to become acquainted and keep in touch, and that provides for the individual to form profiles and enable people to reach out toward one another [5, 6]. As a pleasure-oriented information system, SNS users keep using with stronger motivation if they have more intense perceived enjoyment from it [7, 8].

According to recent research, enjoyment is the most influential factor affecting continued intention to use SNS for both men and women [4]. In the SNSs, both the rich and the poor would get richer [9]. That is to say, those have better social skills and more friends and those with social deficits and less friends may both satisfy their social needs [10]. By the further investigating users' motivations, satisfaction towards life and SNSs behaviors, we can get to know the role Internet serves in our real life.

1.2 Personality and SNSs Usage

In SNSs, people extend real life and communicate with their real personality [11], and profiles can be seen as a form of digital body where individuals write themselves into being[2]. Thus, social network sites provide rich sources of naturalistic behavioral data, and it's a good chance to explore people's personality in the cyber virtual world. Of the cast array of human personality traits, the majority can be subsumed within five broad domains ---- extraversion-introversion, antagonism-agreeableness, conscientiousness, neuroticism, and openness to experience, which has been known as the Big Five [12].

Collectively, the five dimensions predict most of the outcomes that truly matter in life [14]. Several of the Big Five personality factors are believed to be associated with the way individuals interact with each other and maintain their social relationships. Due to its relevance to social behavior, the Big Five factors have recently been employed to investigate the use of certain forms of online social media, such as social networking sites [15-18] and blogs [19]. Researchers have found that, compared to nonusers, SNSs users are more likely to be extraverted and narcissistic, less likely to be conscientious, shy, or socially lonely, but they also have stronger feelings of family loneliness [18]. However, few researches have explored the personality variance among different kinds of SNSs.

1.3 Aims of Current Study

In this research, we aimed to understand people's preferences for particular SNSs and particular SNS features, and explore the impacts of personality and motivations on SNSs usage. In Study 1, we compared the personalities, motivations and SNSs behaviors of users on different Chinese major SNSs. Study2 focused on the relationship between motivation and happiness on SNSs. Finally, we would draw a script on how and why people choose to use a particular SNS or a particular SNS feature. The expected findings would likely help SNS product designers to locate

target market, and improve interacting designs and user experience. This is the first try to identify SNSs users with personality, motivation and life satisfaction.

2 Study 1: Personality, Motivations and SNSs Usage

In Study 1, we explored the different SNSs users' personality, motivations and their SNSs usage.

2.1 Participants

328 volunteers took part in Study 1, 198 of them are females, and the majority of them were students. Their age ranked from 17 to 45, and the average age was 22.73 ($SD = 3.36$).

2.2 Methods

First of all, we conducted a pilot survey to identify the most popular SNSs in China. A list of SNSs both domestic and abroad were given, and participants were asked to choose the SNSs they had accounts and profiles. Thus, we got the top 3 Chinese SNSs: Qzone, Renren, and Sina Weibo.

In the formal study, Participants completed a package of questionnaires including the SNS behavior questionnaire, the motivations to use SNSs, and the Big Five Personality Inventory.

SNS Behaviors. We revised a Facebook Questionnaire [16] into 3 versions(Renren, Qzone , and Weibo) to measure participants SNSs behaviors, such as participant's frequency in updating their profiles, the degree they caring about visitors' comments and other necessary information. Participants were required to point one SNS they were using most frequently, recall their regular activities in this website, and complete only one questionnaire of the most frequently used SNS. Each item of the SNS questionnaire is on 4-point scale (1 = not at all, 4= very much).

Motivations. Participants were asked the reasons for visiting SNSs by multiple choices from a list of 11 items, namely, "I visit social network sites to keep in touch with my old friends", "I visit social network sites to relax", "I visit social network sites to get information", "I visit social network sites because I think it might be helpful for my work", "I visit social network sites to kill time", "I visit social network sites to communicate my hobbies", "I visit social network sites to record my life", "I visit social network sites to meet new friends", "I visit social network sites to keep in touch with my family", "I visit social network sites to show off and display myself", "I visit social network sites to get a sense of belonging". Besides multiple choices, an open-end question was added in the end.

Personality. Participants were asked to complete personality scale the 50-item Big Five Personality Inventory. The scale consisted of the following five personality

factors: agreeableness (e.g., “I can understand the feelings of others”), neuroticism (e.g., “I’m moody”), extraversion (e.g., “I am talkative”), conscientiousness (e.g., “I work meticulously”), and openness to experience (e.g., “I am imaginative”). 10 items for each factor and each item was evaluated on a 6-point Likert scale, ranging from “strongly disagree” to “strongly agree”. The internal consistency coefficient was good for both the whole Big Five scales ($\alpha = 0.86$) and each of the subscales: agreeableness ($\alpha = 0.74$), neuroticism ($\alpha = 0.86$), extraversion ($\alpha = 0.86$), conscientiousness ($\alpha = 0.79$), and openness to experience ($\alpha = 0.83$).

2.3 Results and Discussion

Popularity. When asking participants to name their favorite SNS, 40.18% users preferred Qzone, 36.50% said Renren, and 19.33% chose Weibo. As results showed, significantly, 1) Qzone users shared the longest SNS usage experience ($M_{\text{SNS-age}} = 5.05$), Renren the second ($M_{\text{SNS-age}} = 4.62$), and Weibo the shortest ($M_{\text{SNS-age}} = 2.86$), just in the same order that they were introduced to ordinary people; 2) Qzone had the youngest user group ($M_{\text{age}} = 22.2$), and Weibo users were more mature ($M_{\text{age}} = 23.72$), $F = 4.616$, $p = 0.011$; 3) Weibo users visited their sites more frequently, about 3.5 day a week, significantly higher than Renren ($M = 3.11$) and Qzone users ($M = 3.24$), $F = 3.03$, $p = 0.05$, and they also spent a little more time on the site, about 1.5 hours.

Motivations and SNSs Usage. According to the result of motivation questionnaire, we found people used SNSs to: 1) keep contact with old friends (90.08%) and family(33.33%); 2) relax(73.97%) and kill time(60.95%); 3) get more information(60.32%) and facilitate their work(62.86%); 4) communicate their hobbies(39.68%) and make new friends (35.56%); 5) record life events(50.16%), display themselves(27.30%), and finally find a sense of belonging(13.65%). In general, it consisted with a research conducted in Western country [3]. As mentioned above, this result also support that enjoyment (e.g. relax, killing time) and usefulness (e.g. contacting old friends, making new friends) are two main factors affecting people continue using SNSs [4].

Besides, we compared motivations variation between different genders, and found that: females would like to use SNSs to contact with their old friends(93.43%), significant higher than males(81.40%), $t = 3.41$, $p = 0.001$; more females thought SNSs would be helpful for their work(69.19%), significant higher than males(55.04%), $t = 2.62$, $p = 0.009$; females intended to believe they would get more information in SNSs(66.67%), significant higher than males(52.71%), $t = 2.55$, $p = 0.011$; besides, more female (56.06%) than males (40.31%) would like to use SNSs to record their life, $t = 2.81$, $p = 0.005$.

When making multiple comparisons among different SNSs’ users, we found: people believed they could get more information in Weibo ($F = 3.65$, $p = 0.027$), and meet more new friends in Renren, $F = 1.45$, $p = 0.236$, and tie to their family more closely in Qzone, $F = 4.43$, $p = 0.013$. As consequence of this, the SNSs behaviors data properly proved the results of the motivation variation. Results showed, Renren users significantly had more friends ($F = 23.05$, $p < 0.001$), used more private

message ($F = 37.54, p < 0.001$), and updated more photos($F = 7.58, p < 0.001$); although they'd like to search new friends, the acquaintance still took up a large part of their SNSs friends group. Whereas, Weibo users were also more likely to search strangers and add new friends, thus, they had more friends who they have no actual ties with ($F = 55.58, p < 0.001$); besides, they updated states more frequently ($F = 2.55, p = 0.079$) but updated fewer photos than Renren users. Qzone users had a significant large proportion of friends that they met in the reality, updated more blogs ($F = 2.35, p = 0.097$), and also cared more about the others' feedback.

Personality and SNSs Usage. Although multiple comparison of personality showed there was little difference among the personalities of different SNS users, but pairwise comparison indicated Renren users were more extroverts than Weibo ($F = 2.96, p = .049$).

We combined behavior data of different SNSs together, and for each behavior we performed a standard multiple regression analysis with gender, the Big Five Personality factors as the independent variables (see table 1). According to the regression analysis, in the dimensions of Big Five personality traits, the extroverts tended to be more active in the SNSs: they had more friends, updated their profiles more frequently, gave more feedback and also cared more about others' comments, and they were more likely to make new friends and share their profiles. Besides, those who scored higher on consciousness had more friends that they know in the reality, while net friends took up a larger proportion for people getting a high score in the openness. What's more, open people used more applications and spent more time in playing games. The agreeable tended to give more feedback. Meanwhile, the neuroticism gave less feedback, but care more about others comment towards themselves.

Table 1. Regression analyses of gender, age, Big Five personality factors on SNS usage

	NF	PF	PM	US	UB	UP	SP	GF	CF	SS	PG
GEN	0.08	-0.06	0.08	-0.13*	0.05	-0.07	-0.05	-0.09	-0.10*	0.19***	0.02
AGE	-0.08	-0.15**	0.13*	0.05	0.23***	-0.07	0.11*	0.03	-0.10*	0.11*	0.11*
AGR	0.03	0.08	0.01	0.03	0.07	0.05	0.06	0.16**	0.01	-0.08	-0.10*
NEU	-0.01	0.01*	-0.09	0.01	0.00	0.05	-0.02	0.02	-0.18**	-0.01	-0.04
EXT	0.27***	0.07	0.13*	0.19***	0.15**	0.33***	0.21***	0.20***	0.24***	0.21***	0.09
CON	0.07	0.12*	-0.04	-0.05	-0.07	0.05	0.05	0.02	0.05	0.08	-0.02
OPE	0.05	-0.19***	0.06	0.08	0.06	-0.06	-0.03	-0.01	-0.07	0.01	0.15*
R ²	0.09***	0.07***	0.03*	0.06***	0.07***	0.12***	0.04**	0.08***	0.07***	0.08***	0.03*

Note: NF = number of friends; PF= proportion of friends; PM = private message; US = update states; UB = update blogs; UP = update photos; SI = self-image; SP = share profiles; GF = give feedback; CF = care feedback; SS = search strangers; PG = play games; GEN = gender; AGR = Agreeableness; NEU = neuroticism; EXT = Extraversion; CON = consciousness; OPE = openness; + $p < .1$; * $p < .05$; ** $p < .01$; *** $p < .001$.

The results consisted with former study, which suggested that agreeableness was positively related to favorably commenting on SNS [19], extraversion was correlated with the communicative features of SNS [15, 17], openness to experience was correlated with the use of a wide variety of SNSs features[14]. Besides, conscientious

individuals upload significantly fewer profiles to SNS, and used less SNS features, which suggested that conscientious individuals tended to spent less time on SNS [17], because these sites promoted procrastination and served as a distraction from more important tasks [20].

2.4 Conclusions

In summary, our data suggest that, personality and motivation impact the preference for SNSs:

1. College students prefer Renren, which requires users to use real information; thus, they could make more friends that have actual ties with their real life. Renren provides a platform that helps users enhance their actual social relationships, which has attracted a lot of users who want to extend their social environment on the internet. Renren's real-name registration sets a limit to users behaviors, and users shall be responsible for every word they have typed. As a result, Renren users would use more private messages, and appear to be more extraverted.
2. Weibo appeals to more adults' appetite. Since anonymity means somewhat duty-free, Weibo users believe, they can get more information about society and social life. They are more likely to update states, and would like to communicate with people of different social backgrounds, as a result of which, they have more friends that have no actual tie. Weibo provides a platform to see the world in different views; thus, Weibo users seem to be more open, but have less interests in playing games.
3. Owing to the widely use of Tencent QQ (a popular instant messaging software service), Qzone has the widest range of user group. Although anonymity, Qzone users have a strong motivation to keep contract with old friends and family members; as a result, people met in real life still take up a large proportion of users' Qzone friends. Qzone provides a platform to record life, where users could seat alone and write in peace, that's why Qzone users are more likely to write blogs instead of short states.

3 Study 2: Happiness and SNSs Usage

In prior study, we find quite a lot of people seek fun in the SNSs, then, are people really happy in the SNSs? In the second study, we test the relationships between SNS behaviors and subjective well-being.

3.1 Participants

89 volunteers took part in Study2, 51 of them are females. The average age was 23.83 ($SD = 5.044$).

3.2 Methods

Besides recoding participants' SNS behaviors and their motivations, we measured their happiness level.

SWB. Subjective well-being (SWB), which is often referred to more colloquially as happiness, reflects the extent to which people think and feel that their life is going well [21]. SWB, in fact, is "a broad category of phenomena that includes people's emotional responses, domain satisfactions, and global judgments of life satisfaction" [22, 23]. Specifically, reported SWB consists of two distinctive components [24]: an affective part, which refers to both the presence of positive affect and the absence of negative affect, and a cognitive part. The affective part is a hedonic evaluation guided by emotions and feelings, while the cognitive part is an information-based appraisal of one's life for which people judge the extent to which their life so far measures up to their expectations and resembles their envisioned "ideal" life.

As consequence of this, to measure the cognitive evaluations of life satisfaction, we used a 5-item Satisfaction With Life Scale (SWLS)[25]. This 7-point Likert scale required subjects to view satisfaction with life as a whole, including past, current and future, and the internal consistency coefficient of the scale is good ($\alpha = 0.88$). To measure the affective aspects of SWB, we used an 8-item Affective Experience Scale (AES). In this 7-point Likert scale, 4 pleasant affects (happiness, contentment, joy, cheer) and 4 unpleasant affect(sadness, worry, anger, and unhappy) are included to measure participants' on-line evaluation of their mood or emotions. The internal consistency coefficient of the scale is also good ($\alpha = 0.83$).

3.3 Results and Discussion

We found that there was no differences on either cognition part or affection part of SWB among different SNSs users .

Motivations and SWB. We conducted correlations between SNSs users' motivation and their SWB level, and found that: a) those whose intention was contacting their family seemed to be more satisfied with their life ($r = 0.45, p < 0.001$); b) and those whose motivation was making new friends appeared to have more positive emotions in SNSs ($r = 0.24, p = 0.027$); c) however, those who wanted to kill time by using SNS feel less happy in the SNS ($r = -0.26, p = 0.016$). That is to say, people's happy experience would increase only when having a social motivation to maintain using SNSs, while those who want to seek pure fun would feel lonely and vanity instead.

SNS Usage and SWB. We computed correlations between SNSs usage and SWB level, and found that both cognition and affection part were significantly correlated with the time users had contacted with SNSs ($r = 0.23, p = 0.036$; $r = 0.27, p = 0.012$), but no significant correlation with the frequency or time spend in SNSs ($r_s < 0.06$). That is to say, people may benefit more if they have used SNSs for enough years, when having constructed stable social networks and utilized certain SNS features with facility.

More importantly, there was a significantly correlation between certain SNSs usage and happiness, for example, the use of private message, updating blogs, and playing games were significantly correlated with cognition part of SWB, and updating photos and making comments were significantly correlated with both cognition and affection parts of SWB. To further analysis, for each part of SWB as the dependent variables we performed a standard multiple regression analysis with gender, age, and SNSs behaviors as the independent variables. Results showed, in SNSs, frequency of updating photos and giving comments were impotent predictors of both cognition part ($\beta = .29, t = 2.361, p = .021$; $\beta = .38, t = 2.49, p = .015$) and affection part of SWB ($\beta = .29, t = 2.20, p = .031$; $\beta = .29, t = 1.72, p = .089$); however, caring others' comments could be a negative predictor of cognition part of SWB ($\beta = -.26, t = -2.12, p = .038$). However, other SNS behaviors were not significant predictors of either cognition part or affection part. This indicates the happiest SNSs users are those who have a larger proportion of acquaintance, update more photos, give more feedback, and care less about others' comments.

3.4 Conclusions

Different people surf different SNSs to make their ends meet, as consequence of which, users would feel equally both cognition part and affection part of SWB among different SNSs. However, it seems that a happy SNS users is the one who has a large proportion of acquaintance, updates photos and gives feedback frequently, and cares less about others' comments. Besides, people may benefit more if they have used SNSs for enough years, when they have constructed stable social networks and utilized certain SNS features with facility. What's more, people's happy experience would increase only when having a social motivation to maintain using SNSs, while those who want to seek pure joy would feel lonely and vanity instead.

4 General Conclusions

In the first study, after a series of surveys conducted among users of Chinese major SNSs, we carefully compared the similarities and differences between different SNS users, and explored the relationships among their personality, motivation and SNSs usage. The results suggest that, generally speaking, gender, age, and personality factors impact the choosing of SNS and provide clues for understanding their behaviors. This research recommends that SNS operators develop specific applications for the demands of different genders, different age groups, and different personality.

More importantly, our second study explores the happiness level of SNS users. Prior study has proved that people who have a larger number of self-defining identities are better prepared to face changes and stresses in life[26]. By interaction with others in the SNSs, people get new identities, which results in increased feelings of self-worth and acceptance. If defined properly, the "role rich" also experience better health [27, 28] and greater satisfaction with their real lives [29]. That is to say, when

using properly, SNSs would increase people's positive emotions and satisfaction with life. These results would promote network externalities development and encourage more people to use such a platform, which of course make SNSs industry another booming.

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