

The Influence of Internet Use on Interpersonal Interaction among Chinese Urban Residents: The Mediating Effect of Social Identification

Chen Hong¹

Qin Jing

School of Communication, East China Normal University, China

Li Jing

School of Media and Design, Shanghai Jiaotong University, China

Zheng Guangjia

School of Communication, East China Normal University, China

Abstract

The instability of social norms on the Internet causes the diversity of social identification. Meanwhile, the anonymity of online social identity and the chaos of the role-playing among the interacting participants cause an ambiguity of identity recognition, which intensifies anxiety about interpersonal interaction. Methods that promote face-to-face interpersonal interaction through the reconstruction of the identification to the social system and intergroup trust is worth further research. Based on a telephone survey of urban residents in thirty-six cities in China (N=1080), the study focuses on the influence of Internet use on interpersonal interaction of urban residents and the mediation effect of social identification. The results show that Internet use has a negative effect on the interpersonal interactions of urban residents, and social identification plays a mediating effect between Internet use and interpersonal interaction. Implications of the results are discussed.

Key words: Interpersonal interaction, Internet use, social identification, mediation effect

Introduction

¹ All correspondence concerning this article should be addressed to Chen Hong at the School of Communication, East China Normal University, No.500 Dongchuan Road, Minhang District, Shanghai, China or by email at hchen1012@163.com.

From the view of communication, interpersonal interaction as a kind of interpersonal communication behavior is defined as the social interaction between people who have a communication relationship and the meaning, identity, and relationship are determined through people's interpersonal interaction (Baxter & Braithwaite, 2008). Interpersonal communication is not only the basis of human social relationships, but also the most basic social communication activity. In this process, new media technology and communication tools lead the rise and fall of this mode of social interaction. The twenty-first century is the Internet era. According to the China Internet Network Information Center's (CNNIC) latest report on the Internet development status of China, as of December 2015, the number of Chinese Internet users has reached 688 million and the Internet penetration rate has reached 50.3% (CNNIC, 2016). The digital lifestyle and the development and popularization of the Internet have changed the traditional interpersonal interaction mode. Computer-mediated communication has become indispensable to the establishment, development, and maintenance of interpersonal relationships. In almost all interpersonal contexts, the formation of communication activities cannot be separated from computer-mediated communication (Y. H. Wang, 2015).

Previous studies on the influence of Internet use on human communication have focused on two perspectives: the network characteristics of interpersonal interaction based in a virtual society and the psychological demands of the public using of the Internet (C. Y. Chen, 2006). However, the conclusion of the different perspectives are basically consistent and focused on two points: first, the openness and tolerance of the Internet has expanded the space of interpersonal interaction and enhanced the universality and autonomy of interpersonal interaction; and second, the Internet's communication characteristic of hidden identity and non-presence to a certain extent has caused a decrease in interpersonal trust and the alienation of interpersonal feelings (Wang, 2002). These two seemingly opposite conclusions are based on different objectives: the positive findings mainly focus on the Internet's influence on the scope of interpersonal interaction, while the negative findings mainly focus on the influence of the network on the perception of public

interpersonal communication. In a word, it is generally believed that, although the Internet has provided space for interpersonal interaction, it has a negative effect on the establishment of interpersonal relationships and trust. In the Internet age, the contradiction and conflict of interpersonal interaction still exists, and may even become more difficult (Y. Y. Wang, 2011).

Georg Simmel's theory of the stranger is significant in explaining this kind of negative effect (Rogers, 2006). Interpersonal relationships in the Internet context are similar to the interpersonal relationships between strangers. Individuals communicate with each other only with the aid of symbolic exchanges, which are connected due to some factors and dispersed due to other factors. Interpersonal relationships are not as tangible as a traditional connection (Huang, 2002). The uncertain weak relationship is unable to establish strong emotional identity; instead, it increases communication subjects' value differences and the identity ambiguity, triggering a crisis of social identification. Hence, online interpersonal interaction is characterized by fragmentation, superficiality, instability, and so on. However, this view has not been confirmed by large-scale empirical studies in China.

Literature Review

Internet Use and Interpersonal Interaction

The study of CMC (computer-mediated communication) began in the 1980s and has become gradually increased with the marketization and socialization of the Internet in the 21st century. Although people use the Internet for a variety of purposes, it cannot be denied that interpersonal interaction is the main purpose. Research shows that computer-mediated interpersonal interaction is characterized by super interpersonal communication, which can lessen the sense of shyness at the first contact. The richness of the Internet can expand the range of interpersonal communication, increase people's communication opportunities in different regions and cultural backgrounds, and promote elastic contact

between people, which has a positive effect on people's daily interpersonal interactions (Lewis & West, 2009; Xiao & Bai, 2012).

However, with the increase of people's dependence on the Internet, scholars have found that the Internet has reduced the time people spend on face-to-face interaction as well as the quality of their face-to-face communication, i.e., they become less-skilled face-to-face communicators. An interpersonal network established through the Internet is often unreliable and easily hinders real communication. Researchers believe that Internet use has a time and media substitution for interpersonal communication. That is, the more time people spend on the Internet, the less time they spend communicating in person (Putnam, 2011). Kraut et al. (1998) found that the Internet has a weak but significant negative impact on people's social participation and mental health. As strong social ties have been replaced by weak social ties, people who often use the Internet may reduce their social connections and have less communication with family members and other people.

Zheng (2008) further studied different characteristics of Internet use on interpersonal communication. The research indicated that time spent online has a significant negative impact on social capital accumulation. Based on the above research, the following hypothesis is made:

H1: Time spent on the Internet has a negative effect on interpersonal interaction.

Internet Use and Social Identification

Social identification—"the individual's knowledge that he/she belongs to certain social groups, together with some emotional and value significance to him/her of the group membership" (Tajfel, 1982, p.31)—has been shown to provide a basis for group behavior in a wide range of contexts and in many different forms (see Tajfel & Turner, 1979; Hogg & Abrams, 1988). The emergence of a new network media provides a platform for individuals to express their social identification. While the diversification of the virtual online community and the exhaustiveness and depth of negative information also deeply

influences the psychological link of public social identification formation, they also reduce the public's perception of social justice, harmony, and safety awareness and influence their social attribution and recognition (Igarashi, et al., 2008; Wang, & Wu, 2014). Due to the unbalanced economical and technological development in different regions, the digital divide caused by the Internet further aggravates social differentiation, resulting in the negative effect of individuation, the vagueness of social cognition, the social identification dilemma, and so on. Studies have indicated that Internet use directly affects the level of social identification, and long-term addiction to the Internet reduces other forms of contact, which leads to cognitive ambiguity both in regards to identifying as part of a group and self-identification (Dong, Wen, & Yin, 2014). Xue, Yang, & Yu (2015) pointed out that the new media context has a negative effect on the social identification. Media contact frequency and diversity has a significant negative effect on the link between the new media context and social identification. Based on the existing studies, we make the following hypothesis:

H2: Time spent on the Internet has a negative effect on social identification.

Social Identification and Interpersonal Interaction

According to the social identification theory proposed by Tajfel (1974), social identification reflects the acceptance, adaptation, and internalization of individuals to the social environment and groups. Social identification reflects the immersion of individuals in social interactions. The formation of society depends on the interaction between individuals, and the cognition of a realistic social environment and social relationships are based on interpersonal interaction. The existing research has confirmed that social identification pays attention to the individual's interpersonal interaction and interpersonal relationship formation is modeled by the social environment. Positive social identification can help individuals to improve cognitive security, a sense of belonging, and social trust. The amount of harmony in interpersonal relationships is negatively related to depression, social avoidance, and social distress (J. S. Hu, 2009). Conversely, identity uncertainty is often accompanied by the confusion of social roles and value orientations, leading to social

phobia, paranoia, and self-inferiority (Kawasaki & Kodama, 2007). Social identification is an important factor in establishing a harmonious interpersonal relationship (L. P. Wang, 2009). Thus, we make the following hypothesis:

H3: Social identification has a significant and positive correlation to interpersonal interaction.

The development of network information technology makes social identification in a networked society more complex because of its anonymity and diffusible nature. Use of the internet influences and changes public social identification, which brings about a high degree of uncertainty and risk to interpersonal interaction activities (Liu, 2014). Based on the above analysis, we make the following hypothesis:

H4: Time spent on the Internet indirectly affects interpersonal interaction through social identification.

Psychological and Demographic Factors that Influence Interpersonal Interaction

Recently, the influence of Internet use on interpersonal interaction has become more of a concern to media psychologists. Previous research indicates that the factors affecting media use and interpersonal interaction also include personality traits and demographic variables.

Researchers have found that the use of social networking sites (SNS) has a close relationship with the extraversion and openness of one's personality, and extraversion has a direct positive effect on the preference for Internet social services. According to the theory of social compensation, an introverted person is more willing to build relationships through social networking platforms in order to get social support and psychological compensation (Lei, Yang & Liu, 2006). Self-esteem is a self-cognition evaluation, which starts in interpersonal interaction. Research indicates that individuals with high self-esteem are more active and confident in interpersonal communications and more likely to win the trust of others (Astra & Singg, 2000). However, some studies suggest that if their

identity is threatened, people with low self-esteem may put more emphasis on interpersonal relationships (Vohs & Heatherton, 2001).

Gender and age are important demographic factors that influence interpersonal communication. Whitty (2002) found that gender has an important influence on interpersonal communication in Internet chat rooms. Although males' network communication rate is significantly higher than females (Q. Z. Chen, 2006), the females have a higher degree of trust on social networks than do males, and women are more inclined to use the new media to maintain and expand social capital (Boneva & Kraut, 2008). Male college students are more likely to have an Internet addiction, which affects their normal interpersonal communication (Zhang & Zhao, 2010). There are differences in Internet social communication between different age groups as well. For example, teenagers may have larger networks of friends and use more self-references and negative emotions when describing themselves on their profile compared to older users of MySpace (Pfeil, Arjan, & Zaphiris, 2009).

Based on the existing analysis, we make the following hypotheses:

H5: Gender and age are significantly related to interpersonal interaction.

H6: Personality traits have a significant impact on interpersonal interaction.

H6a: The self-disclosure trait has a positive effect on interpersonal interaction.

H6b: The open personality has a positive effect on interpersonal interaction.

H6c: There is a significant positive correlation between self-esteem and interpersonal interaction.

Through our review of the relevant literature, we find that the influence of Internet use on interpersonal interaction has been actively explored, but more research is needed in the following areas: first, most of the relevant research in Asia, especially in China, is based on qualitative studies, while quantitative research was limited to college students or other

subgroups, lacking a national representative sample of citizens. Second, there has been a lack of consideration of the psychological cognitive mechanisms of the influence of Internet use on interpersonal interaction. Perceptions of the social environment and social relationships are the premise of interpersonal interaction. The shaping and changing of the residents' social identification by the Internet should not be underestimated. The role of social identification between Internet use and interpersonal interaction still requires further elaboration. Based on a telephone survey of residents of 36 cities in China, this study tries to use a quantitative research method to test the relationship between Internet use and interpersonal interaction.

Method

Participants

The data for this study came from a national survey, which covered 36 major cities in China. We selected the 36 cities as our sample frame from all the prefecture-level cities in China, considering their political, economic, and cultural status, including 4 municipalities, 27 provincial capital cities, and 5 cities specifically designated in the state plan (see Appendix A). A total of 1080 interviews were completed with respondents contacted through landline or mobile phones by using the CATI (Computer Assisted Telephone Interviewing) system, using RDD (Random Digit Dialing) sampling. The representation of the 36 cities is equal. Whoever answered the phone was invited to participate in the survey, regardless of age, gender, etc. The margin of error for the full sample is within 3%. Each interview lasted about 20 minutes on average.

The data was weighted to produce a final sample, among which females account for 49.3%, and males account for 50.7%. Participants under 20 years of age account for 9.0%, 20-29 years of age account for 20.7%, 30-44 years of age account for 30.8%, 45-59 year old respondents' account for 24.1%, 60 years of age and above account for 15.4%. The data was

analyzed with SPSS 21.0.

Measurements

The dependent variable of this research is interpersonal interaction, which is a five-point Likert scale that measures the trust and intimacy of the respondents to different groups of people, including colleagues, bosses, classmates, neighbors, friends, family members, and relatives (1=not trust at all/not close at all, 5=completely trust/very close). A higher score represents a better interpersonal interaction status. The independent variable of this research is the time spent on the Internet, which is scaled by hours.

The mediating variable is social identification. It measures the participants' evaluation of social harmony, social justice, social security, and social trust by using five-point Likert scales (1=completely disagree, 5=completely agree).

The control variables include demographic factors (gender, age) and personality traits (the self-disclosure trait, the openness personality, and self-esteem). In this study, male is encoded as 1 and female is encoded as 0. Age is encoded as follows: 1=20 years of age or younger, 2=20-29 years old, 3=30-44 years old, 4=45-59 years, and 5=60 years old and above. The self-disclosure trait was measured by asking whether the participants would talk with others when facing frustrations (talking to other people=1 never talking to anyone=0). The openness personality was measured by asking the degree of acceptance of new things (1=totally unacceptable, 5=very willing to accept). The Rosenberg (1965) self-esteem scale was used to measure the self-esteem of the residents (1=totally disagree, 5=totally agree).

Results

Correlation Analysis of Internet Use, Social Identification and Interpersonal Interaction

The study found that the average amount of time respondents' spend using the Internet per day is 3.96 hours. More specifically, the modal response category was 1-2 hours, 17.7%, followed by 2-3 hours, accounting for 13.3%, less than 1 hour accounts for 11.2%, 3-4 hours accounts for 9.4%. In addition, 8.4% of the respondents' average time spent on the Internet daily is more than 8 hours. The average score of residents' sense of social identification is 3.28 (points) and the standard deviation is 0.78. The average score of residents' interpersonal interaction status is 3.81 (points) and the standard deviation is 0.45.

Correlation analysis between variables shows that Internet use has a significant negative correlation both with residents' social identification ($t=-0.253$, $P<0.01$) and interpersonal interaction ($t=-0.120$, $P<0.01$) while residents' social identification has a significant positive correlation with their interpersonal interaction status ($t=0.386$, $P<0.01$). (Table 1)

Table 1 *The Mean, Standard Deviation, and Correlations of Each Variable*

Variable	M	SD	Internet use	Social identification	Interpersonal interaction
Internet use	3.96	2.74	1	-0.253**	-0.120**
Social identification	3.28	0.78	-0.253**	1	0.386**
Interpersonal interaction	3.81	0.45	-0.120**	0.386**	1

Description: ** $P < 0.01$.

Multiple Regression Analysis of Internet Use to Interpersonal Interaction

In order to further reveal whether Internet use of urban residents can significantly predict their interpersonal interaction situations, this study uses demographic variables and personality traits as control variables, Internet use as the predictor variable, and interpersonal interaction as the dependent variable to construct a three-level hierarchical regression model (Table 2).

Table 2 *Multiple Hierarchical Regression Analysis of Internet Use and Interpersonal Interaction*

	Predictor variable	Dependent variable: interpersonal interaction		
		Model 1	Model 2	Model 3
Demographic factor	Gender	-0.022 (.357)	0.018 (.363)	0.020 (.360)
	Age	0.045 (.169)	0.026 (.170)	-0.031 (.182)
Personality trait	Openness		0.060 (.228)	0.081* (.228)
	Self-disclosure		0.082* (.441)	0.084* (.437)
	Self-esteem		0.151*** (.030)	0.156*** (.030)
Internet use	Average daily time spent on the Internet			-0.148** (.072)
	ΔR^2	0.002	0.037	0.018
	Ftest value	0.758	5.158***	6.370***

Description: *P < 0.05, **P < 0.01, ***P < 0.001, figures in brackets are standard errors.

The regression result shows that gender ($\beta = -0.022$, $P > 0.05$) and age ($\beta = 0.045$, $P > 0.05$) have no significant effect on interpersonal interaction of urban residents, and H5 is not supported. By controlling the effect of the demographic factors, the higher the self-disclosure trait, the better the interpersonal interaction status ($\beta = 0.089$, $P < 0.05$), H6a is supported. The openness personality trait is not significantly related to the interpersonal interaction status ($\beta = 0.060$, $P > 0.05$), so H6b is not supported. The self-esteem level of the residents is significantly and positively correlated with their interpersonal interaction status ($\beta = 0.151$, $P < 0.001$), so H6c is supported.

By controlling the effect of demographic factors and personality traits, the influence of Internet use on interpersonal interaction is still significant, and the change of R2 is significant, which shows that the average daily time spent on the Internet has a negative effect on interpersonal interaction ($\beta = -0.148$, $P < 0.01$), and H1 is supported.

The Mediating Effect of Social Identification between Internet Use and Interpersonal Interaction

According to the research of Baron and Kenny (1987), the existence of the mediation effect should satisfy the following conditions: the mediating variable is significantly affected by the predictor variable; the dependent variable is significantly affected by the mediating variable. The analysis examines the effect of the predictor variable and medium variable on the dependent variable at the same time. If the effect of the predictor variable on the dependent variable is not significant or weakened (if the effect is changed to "0"), the mediating effect is a more powerful explanation.

Using social identification as an intermediary variable, Internet use as the independent variable, and interpersonal interaction as the dependent variable, while controlling for of demographic variables and personality traits, we study the mediating effect of social identification between Internet use and interpersonal interaction.

As shown in Table 3, the results show that the time spent on the Internet has a negative predictive effect on social identification. The longer the daily use of the Internet, the lower the social identification. H2 is supported. The higher the social identification, the better the perception on interpersonal interaction, H3 is supported.

Three steps were taken to test for mediating effects: the first step is to run the regression analysis of Internet use on interpersonal interaction, obtaining the path coefficient c ; the second step is to run the regression analysis of Internet use to social identification, obtaining the path coefficient a ; the third step is to put social identification and Internet use into the model and run the regression analysis of both the two variables to interpersonal interaction, obtaining the two path coefficients b and c' . From Table 3, we can see when we put the mediator, social identification, into the model, the impact of Internet use on interpersonal interaction is weakened, the regression coefficient declines from 0.148 to 0.072, which drops from significant to nonsignificant. It shows that Internet use can indirectly affect the interpersonal interaction status of urban residents through social

identification, and social identification has full mediating effect between Internet use and interpersonal interaction. H4 is supported.

Table 3 *The Test of Social Identification's Mediating Effect*

Step	Dependent variable	Predictor variable	β	SE	t
1 (path c)	Interpersonal interaction	Average daily use of Internet	-0.148	0.072	-3.461**
2 (path a)	Social identification	Average daily use of Internet	-0.163	0.070	-4.560***
3 (path b)		Social identification	0.377	0.034	9.556***
(path c')	Interpersonal interaction	Average daily use of Internet	-0.072	0.069	-1.727

Description: *P < 0.05, **P < 0.01, ***P < 0.001.

Discussion

This study investigates the influence of Internet use on interpersonal interaction by analyzing the interpersonal interaction status of urban residents in 36 cities in China and its factors using a telephone survey. The sample included all the administrative regions of China. The sample is generally more representative than previous studies.

This study reveals the factors influencing interpersonal interaction as well as the underlying mechanisms. Those who are more inclined to talk to others when facing trouble have a higher interaction initiative. This result confirms the study of Kraut et al. (2002), namely an extraverted individual's interpersonal communication ability is relatively stronger and their interpersonal interaction status is relatively better, which is also consistent with "the rich-get-richer" model. Self-esteem level and interpersonal communication are also significantly and positively correlated. The higher the level of self-esteem, the higher the social confidence and interpersonal trust. The positive judgment of self-value is a favorable condition for interpersonal communication.

Network information technology has increased the complexity of the social

communication environment. This study has further confirmed that the average daily time spent on the Internet has a negative impact on participants' interpersonal communication status, and social identification has a full mediating effect between them. Communication can be understood as a sense of social belonging and is one of the most important needs of mankind. Social identification is the inner foundation of the development of interpersonal communication and the establishment of good interpersonal relationships. Internet use involves the process of social identification and the establishment of social identification (Ye, 2015). Based on the findings of this study, it seems that Internet use affects interpersonal interaction negatively by reducing residents' social identification in the Chinese context.

At the social level, CMC has strengthened social isolation and atomization (C. Y. Hu, 2015). The instability, the flow of space, and the "digital divide" of the online society have intensified the stratification of social interaction and the dispersion of social structure, leading to the differentiation of social identification as well as a negative evaluation of society, such as low perception of social safety and social trust (Rawls, 1999). The reduction of the legitimacy of the social system has led to a tendency toward individualism, which has further exacerbated the differences of traditional values and weakened social connections. The collective consciousness has faced an identity crisis (Deng, 2014), which brings about a high level of uncertainty and risk to real communication. Simultaneously, the rise of online media has provided a platform for the public to express their emotions and opinions. At the same time, all kinds of negative social information have spread more widely. The network is full of "others' words," which reshapes people's cognition on the society, with decreasing emotional involvement and creating a negative social identification. It has been pointed out that the negative information on the network has increased the public's social mistrust (Yao, 2014), and the irrational judgment and cognition of society is doing harm to the development of healthy interpersonal and social interaction.

At the individual level, identity theory points out that people's social behavior specifically presents their choice of social roles. In this process, the self is embodied as

identity significance (Tajfel & Turner, 1979). Identity is an important factor of social identification. The interaction between social members is achieved through the identification of the identity. According to Meyrowitz's scene theory (1986), the social scene regulates the normative language expression and behavior norms. People formulate corresponding rules and play different roles according to different social scenes (Xue, Chen, & Liang, 2011). The popularity of the network media has isolated the traditional connection between environment "place" and society "place," erasing the boundary between private behavior and social action. The "off domain" characteristic of the Internet has pulled away the social relationships from the regional and temporal correlation of each other, initiating the reorganization of social stage and social behavior. The growing space of communication has constantly enhanced people's attention to identity and exacerbates the individual subjectivity crisis. On the one hand, the anonymity of network communication causes people to live in the "familiar stranger" community. The identity of the individual has been hidden, the users can't understand each other's real scene, and many false identities and images are presented in the communicative behavior, resulting in the loss of interpersonal trust and communication security, and increasing the resistance to real interpersonal communication. The frequent switch between the real society (foreground) and the network society (background) leads to confusion about the role of an individual. Multiple identities can easily result in the split between the real personality and virtual personality, which makes self-identity boundaries, blurred and aggravates the anxiety of real interpersonal communication (Bell, 2000). Besides, due to the characteristics of visual masking and physical isolation, only a small amount of communicative clues could trigger the identity of the communication subjects, therefore, the subjects completely formed their self-identification and others identification only in the virtual environment, forming a blurred mirrored-self (Castells, 1998) and stereotyped representation and cognitive misjudgment of interpersonal impression (Lea & Spears, 1992). In addition, because of the openness and anonymity of network space, the differences and boundaries between different individuals in terms of social status and regional culture are not significant, which makes it easier to obtain the identity of Internet users, attracting people to spend more

time on the superficial relationships in the network and reduce the input on the deep relationships in real interpersonal communication and the willingness of real-world interpersonal communication (Wei & Chen, 2015).

As a modern product of "dialectical essence and contradictory characteristics," the Internet has dispelled the certainty, continuity, and identity of modern society, amplified the crisis of social identification, and lead to "no communication," "superficial communication," and "off the domain communication" (B. J. Hu & Li, 2015, p.19). At the same time, the Internet also contains the potential of restructuring positive trust and social identification. Research indicates that based on the open, equal, and diverse dialogue, the Internet may reshape the legitimacy of social systems, liberate people from ascribed, compulsive, and binding interaction, and open a new trend of the interpersonal relationship (B.J. Hu & Li, 2015). How to discover and develop people's subjectivity, enhance the pure relationship in interpersonal interaction, reshape the social consensus, promote interpersonal communication and social interaction through the reconstruction of institutional identity, and intergroup trust in the dynamic, uncertain communicative context is worth in-depth study.

There are still some limitations and shortcomings of the current study: first, this study focuses on the impact of Internet use on interpersonal communication, while according to the uses and gratifications theory (Ruggiero, 2000) and the existing research, content preferences and purposes of media use are also important factors, which should be considered in future research. Second, this research is a cross-sectional study. A wide-ranging survey is its advantage, but it is difficult to explore the development of trends. Along with the rapid development of information technology, people's social interaction and interaction mode is changing. Future research should also focus on longitudinal study in order to better grasp the impact of media technology changes on a social interaction model.

References

- Astra R. L., & Singg, S. (2000). The role of self-esteem in affiliation. *Journal of Psychology Interdisciplinary & Applied*, 134(1), 15-22.
- Baron, R. M., & Kenny, D. A. (1987). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Baxter, L. A., & Braithwaite, D. O. (2008). *Engaging theories in interpersonal communication: Multiple perspectives*. New York: Sage Publications.
- Bell, D. (2000). *The End of Ideology: On the Exhaustion of Political Ideas in the Fifties*. Cambridge, MA: Harvard University Press.
- Boneva, B., & Kraut, R. (2008). *Email, gender and personal relationships*. Oxford: Blackwell Publishers.
- Castells, M. (1998). *The power of identity: The information age: Economy, society and culture*. Oxford: Blackwell.
- Chen, C. Y. (2006). Wang Luo Dui Ren Ji Jiao Wang Xin Li De Ying Xiang [The Internet's influence on interpersonal communication]. *Psychological Science*, 29(4), 1019-1021.
- Chen, Q. Z. (2006). *Sai Bo Kong Jian De Ren Ji Jiao Wang—Da Xue Sheng Wang Luo Jiao Wang Yu Xin Li Jian Kang Guan Xi De Yan Jiu [Study on cyberspace interpersonal communication and psychological health of college students network relations]*. (Unpublished doctoral dissertation). Jilin University, Changchun, China.
- CNNIC (2016). Di 37 Ci Zhong Guo Hu Lian Wang Fa Zhan Zhuang Kuang Tong Ji Bao Gao [The thirty-seventh statistical report on the development of Internet network in China]. Retrieved from http://cnnic.cn/gywm/xwzx/rdxw/2015/201601/t20160122_53283.htm
- Deng, Z. Q. (2014). Wang Luo Shi Dai Qing Nian De She Hui Ren Tong Kun Jing Ji Ying Dui Ce Lue [Social identification dilemma and coping strategies of young people in the network age]. *China Youth Study*, 2, 68-72.
- Dong, K. S., Wen, Q. N., & Yin X. H. (2014). Zhong Xue Sheng Wang Luo Shi Yong Yu She Hui Ren Tong Fa Zhan Guan Xi Fen Xi [Analysis on the relationship between Internet use and social identification development of middle school students]. *Journal of Harbin University*, 8, 46-49.
- Hogg, M. A., & Abrams, D. (1988). *Social identifications: a social psychology of intergroup relations and group processes*. London and New York: Routledge.

- Huang, S. H. (2002). Lun Wang Luo Kong Jian De Ren Ji Jiao Wang [Study on the interpersonal communication in cyberspace]. *Social Science Research*, 4, 93-94.
- Hu, B. J., & Li, Y. J. (2015). Hu Lian Wang Yu Xin Ren Chong Gou [Internet and trust reconstruction]. *Contemporary communication*, 4, 21-25.
- Hu, C. Y. (2015). Jing You She Jiao Mei Ti De Ren Ji Chuan Bo Yan Jiu Shu Ping—Yi EBSCO Chuan Bo Xue Quan Wen Shu Ju Ku Xiang Guan Wen Xian Wei Yang Ben [A review of research on interpersonal communication through social media: A sample based on the literature of EBSCO communication]. *Research on Journalism and Communication*, 11, 96-97.
- Hu, J. S. (2009). Zi Wo Ren Tong Que Ding Xing Yu Xin Li He Xing Wei Wen Ti [Self identity and psychological and behavioral problems]. *Chinese Journal of Health Psychology*, 17(12), 1461-1463.
- Igarashi, T., et al. (2008). No mobile, no life: self-perception and text-message dependency among Japanese high school students. *Computers in Human Behavior*, 24(5), 2311-2324.
- Kawasaki, N., & Kodama, M. (2007). Dissociated and unstable self-concept as a common factor in social phobia and narcissism. *Japanese Journal of Personality*, 15(2), 149-160.
- Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukhopadhyay, T., & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement and psychological well-being? *American Psychologist*, 53(9), 1017-1031.
- Kraut, R., Kiesler, S., Boneva, B., Cummings, J., Helgeson, V., & Crawford, A. (2002). Internet paradox revisited. *Journal of Social Issues*, 58(1), 49-74.
- Lea, M., & Spears, R. (1992). Paralanguage and social perception in computer-mediated communication. *Journal of Organizational Computing*, 2, 321-341.
- Lei, L., Yang, Y., & Liu, M.X. (2006). Qing Shao Nian Shen Jing Zhi Ren Ge, Hu Lian Wang Fu Wu Pian Hao Yu Wang Luo Cheng Yin De Guan Xi [Relationship between adolescents' neurotic personality, Internet service preference and Internet addiction]. *Psychological Bulletin*, 3, 375-381.
- Lewis, J., & West, A. (2009). Friending: London-based undergraduates' experience of Facebook. *New Media & Society*, 11, 1209-1229.
- Liu, S. J. (2014). Wang Luo Hua Shi Dai She Hui Ren Tong De Shen Ke Bian Qian [Profound changes of social identification in the network era]. *Journal of Renmin University of China*, 5, 63-65.

- Meyrowitz, J. (1986). *No sense of place: The impact of electronic media on social behavior*. Oxford: Oxford University Press.
- 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(3), 643-654.
- Putnam, R.D. (2000). *Bowling alone: The collapse and revival of American community*. New York, NY: Simon & Schuster.
- Rawls, J. (1999). *A theory of justice: Revised edition*. Cambridge, MA: Belknap Press.
- Rogers, EM.(2006).Georg Simmel’s concept of the stranger and intercultural communication research. *Communication Theory*, 9(1), 58-74.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Ruggiero, T. E. (2000). Uses and gratifications theory in the 21st century. *Mass Communication & Society*, 3(1): 3-37.
- Tajfel, H. (1974). Social identity and intergroup behavior. *Social Science Information*, 13(2), 65-93.
- Tajfel, H. (1982). Social psychology of intergroup relations. *Annual Review of Psychology*, 33,1-39.
- Tajfel, H. & Turner, J.C. (1979). An integrative theory of intergroup conflict. In Austin, W.G. & Worchel, S. (Eds), *The Social Psychology of Intergroup Relations* (pp.33-47), Monterey, CA: Brooks-Cole.
- Vohs, K. D., & Heatherton, T. F. (2001). Self-esteem and threats to self: Implications for self-construals and interpersonal perceptions. *Journal of Personality and Social Psychology*, 81(6), 1003-1118.
- Wang, L. P. (2009). Guan Xi Yu Shen Fen: Zhong Guo Ren She Hui Ren Tong De Jie Gou Yu Dong Ji [Relationship and identity: The structure and motivation of Chinese social identification]. *Journal of Changchun University of Technology (SOCIAL SCIENCE EDITION)*, 1, 50-52.
- Wang, W.B., & Wu, H.L. (2014). Hu Lian Wang Shi Yong Ji Qi Dui She Hui Ren Tong De Ying Xiang——Ji Yu CGSS2010 Shu Ju De Shi Zheng Fen Xi [Internet use and its impact on social identification——An empirical analysis based on the data of CGSS2010]. *Jianghai Academic Journal*, 5, 92-100.

- Wang, X.X. (2002). "Xu Ni She Hui" De Ren Ji Jiao Wang Ji Qi Tiao Shi [The interpersonal communication and its adjustment in virtual society]. *Nankai Journal (PHILOSOPHY AND SOCIAL SCIENCES EDITION)*, 4, 88-94.
- Wang, Y.H. (2015). Lun "Ren Ji Chuan Bo" De Ding Ming Yu Ding Yi Wen Ti [On the "interpersonal communication" naming and definition of the problem]. *Research on Journalism and Communication*, 7, 121-122.
- Wang, Y. Y. (2011). Wei Bo Ren Ji Gou Tong Mo Shi Tan Xi—Yi Xin Lang Wei Bo Wei Li [Analysis of micro blog interpersonal communication mode——Taking Sina micro-blog as an example]. *Youth Journalist*, 6, 31.
- Wei, L., & Chen, W. (2015). Cheng Shi Xin Yi Min She Jiao Mei Ti Shi Yong Yu Zhu Guan Xing Fu Gan Yan Jiu [A study on the use of social media and subjective well being in urban new immigrants]. *Journal of International Communication*, 1, 125-127.
- Whitty, M.T. (2002). An examination of how open, supportive and honest people are in chatrooms. *Computers in Human Behavior*, 18(4), 343-352.
- Xiao, R.C., & Bai, J. L. (2012). Xin Mei Jie Chuan Bo Dui Da Xue Sheng Ying Xiang De Shi Zheng Yan Jiu [An empirical study on the influence of new media communication on college students]. *Press Circles*, 23, 58.
- Xue, K., Chen, X., & Liang, H. (2011). Wei Bo VS. Cha Guan: Dui Ren Ji Chuan Bo De Hui Gui Yu Yan Shen [Micro-blog VS. tea house: The regression and extension of interpersonal communication]. *Contemporary Communication*, 6, 67-70.
- Xue, K., Yang, C.Z., & Yu, M.Y. (2015). Xin Mei Ti Yu Jing Dui Shou Zhong Jia Zhi Qu Xiang Ying Xiang De Yan Jiu [A study of the influence of new media context on the value orientation of the audience]. *Journal of Southwest University for Nationalities (HUMANITIES AND SOCIAL SCIENCES)*, 3, 166-172.
- Yao, J. X. (2014). Mei Jie Shi Yong, Mei Jie Yi Lai Dui Xin Ren Ping Jia De Ying Xiang—Ji Yu Bu Tong Mei Jie De Bi Jiao Yan Jiu [The effect of media use and media dependence on trust evaluation: A comparative study based on different media]. *Contemporary Communication*, 2, 19-23.
- Ye, M. R. (2015). Hu Lian Wang Zai Nong Cun Di Qu De Ren Ji Kuo San—Ji Yu Ren Tong Li Lun De Shi Zheng Yan Jiu [The diffusion of the Internet in rural areas: An empirical study based on the identity theory]. *Contemporary Communication*, 4, 87-89.
- Zhang, P.C., & Zhao, X. J. (2010). Da Xue Sheng Ren Ji Jiao Wang Te Zheng Yu Wang Luo Cheng Yin Qing Xiang De Guan Xi Yan Jiu [Study on the relationship between interpersonal interaction characteristics of college students and Internet addiction inclination]. *China Journal of Health Psychology*, 18(9), 1097-1098.

Zheng, S. X. (2008). *Hu Lian Wang Shi Yong Yu Nei Di Da Xue Sheng De She Hui Zi Ben—Yi Wu Han Gao Xiao De Chou Yang Diao Cha Wei Li* [Relationship between Internet use and the social capital of undergraduates in mainland China——Based on the survey in universities and colleges in Wuhan]. (Unpublished doctoral dissertation). Huazhong University of Science and Technology, Wuhan, China.

Appendix

Appendix A: The Names of 36 Selected Cities Included in the Survey

City type	City name	Sum
Municipalities	Beijing, Shanghai, Tianjin, Chongqing	4
Provincial capital cities	Changchun, Changsha, Chengdu, Fuzhou, Guangzhou, Guiyang, Harbin, Haikou, Hangzhou, Hefei, Hohhot, Jinan, Kunming, Lhasa, Lanzhou, Nanchang, Nanjing, Nanning, Shenyang, Shijiazhuang, Taiyuan, Urumqi, Wuhan, Xi'an, Xining, Yinchuan, Zhengzhou	27
Cities specifically designated in the state plan	Dalian, Qingdao, Ningbo, Xiamen, Shenzhen	5

Biographical Notes

Chen Hong, Ph.D., is a Professor and doctoral advisor at the School of Communication, East

China Normal University. Her major research interest is new media and society.

She can be reached at School of Communication, East China Normal University, No.500 Dongchuan Road, Minhang District, Shanghai, China or by email at hchen1012@163.com.

Qin Jing, Ph.D., is affiliated with the School of Communication, East China Normal University. Her major research interest is crisis communication.

She can be reached at School of Communication, East China Normal University, No.500 Dongchuan Road, Minhang District, Shanghai, China, or by email at 657516836@qq.com.

Li Jing, Ph.D., is affiliated with the School of Media and Design, Shanghai Jiaotong University. Her major research interest is crisis management.

She can be reached at School of Media and Design, Shanghai Jiaotong University, No.800 Dongchuan Road, Minhang District, Shanghai, China, or by email at 1653886392@qq.com.

Zheng Guangjia, Ph.D., is affiliated with the School of Communication, East China Normal University. Her major research interest is risk communication.

She can be reached at the School of Communication, East China Normal University, No.500 Dongchuan Road, Minhang District, Shanghai, China or by email at 234628543@qq.com.

Date of the submission: 2016-02-01

Date of the review result: 2016-02-15

Date of the decision: 2016-02-20