**Talk to Me, Don't Text Me: Face to Face Communication Generates Greater Closeness
Than Texting Among Generation Z in China**

Yanan Dou¹, Shuer Jiang², and Yuxuan Pan³

May 28th, 2020

¹Hathaway Brown School, Cleveland, Ohio

²Bryn Mawr School, Baltimore, Maryland

³Miss Hall's School, Pittsfield, Massachusetts

Acknowledgements

We would like to thank Dr. Elizabeth Goncy, Psychology department, Cleveland State University for her advice and inputs on this project.

Abstract

Different modes of communication have been shown to generate varying levels of closeness. This study assessed how communication methods impact the degree of closeness in relationships in Chinese society. Chinese participants aged 18-32 years old ($N = 142$) who had not met before were randomly assigned to interact with another participant for 30 minutes either in a face-to-face (FtF) setting, or over the WeChat text messaging app. They then rated their perceived interpersonal closeness with their conversation partner. Results indicate that both introverted and extraverted participants in the FtF setting perceived greater degree of closeness, felt more positively surprised, and were more willing to share their contact information with their partners, compared to those in text messaging groups. Whereas condition impacted closeness, personality-type determined enjoyment. Regardless of condition, extraverts enjoyed the conversation more so than did introverts. Findings suggest that even in a time when most young people interact online, face-to-face interactions generate a stronger perception of closeness regardless of whether the person is an introvert or extravert.

Keywords: Relationship Formation, Communication, Interpersonal Relationship, Self-disclosure, Social perception

**Talk to Me, Don't Text Me: Face to Face Communication Generates Greater Closeness
Than Texting Among Generation Z in China**

With the advent of the Internet and social media, various forms of social interaction have emerged. Indeed, more social and communicative problems emerge with the advancement of technology. Often, young adults struggle to express themselves authentically and to present their true selves. They often worry about how others will perceive them and are sensitive to being judged. Given these circumstances, a text-based communication may be seen as a preferable means of communication as it allows one to write out, edit and perfect their message before it is delivered. Although such a means of communication allows individuals to deliver an 'idealized' or 'perfect' persona, this is counterintuitive to presenting their true selves. In the midst of the current pandemic, virtually all social interactions beyond immediate family are largely limited to digital means of communication. This in turn may have implications on individuals' perception of closeness.

China is no exception to the increased reliance on and use of digital communication. Given China's collective culture which promotes the concept of the 'interdependent self' over the individual or 'independent self,' the concept of closeness through communication with others will likely be affected by seemingly impersonal digital communication methods. As a collective community, the Chinese also emphasize interdependence with others socially and place stock in the importance of maintaining social harmony (Triandis, 1989). Subsequently, people are expected to have social experiences by interacting with others, to shape their identity, determine their social perceptions, learn Chinese culture, and understand the values of a society. In China, the prevailing conception of the interdependent self is reinforced with these expectations through further social interactions (Markus & Kitayama, 1994). A majority of such interactions have now

shifted online. According to the Chinese Internet Network Information Center (CINIC), by June 2019, China had over 854,490,000 Internet users, 65.1% of whom are aged 10-39 (CINIC, 2019). This number is more than double the United States' total population of 329,281,201 as of February 2020 (US Census Bureau, 2020).

Psychological drawback of online communication

Psychological theories indicate that text-based communication among adolescents can cause problems. Research has found that digital communication through computer-mediated communication (CMC) like text messages and audio calls may cause the interaction to become more impersonal due to the absence of important components of social interactions that are traditionally present in face-to-face (FtF) communication (Kiesler, Siegel, & McGuire, 1984). These components include nonverbal cues such as body language, facial expressions, feedback about how others process the information communicated, and unclear social cues about social norms, personality types and social perceptions (Kiesler et al., 1984).

Moreover, text-based communication also limits social presence, which is understood as a combination of a feeling of community, awareness of others around us, and feeling appreciated in our social setting (Short, Williams, & Christie, 1976; Rice, 1993; Tu & McIssac, 2002; Walther, 1992). In particular, there are two main features of social presence. The first is intimacy, a relationship quality that individuals communicate their thoughts and feelings openly and have trust and emotional closeness reciprocally to each other (Timmerman, 1991). The second is immediacy, whereby certain communication behaviors create a higher degree of both physical or psychological closeness (Gottlieb, Wiener, & Mehrabian, 1967). Tu & McIssac (2002) found that, on a continuum of social presence, the FtF medium provides the strongest

feeling of social presence, while written or text-based communication presented the weakest social presence.

Potential benefits of online communication in Chinese society

Online or text-based communication may also provide a sense of comfort and protection when interacting with strangers and acquaintances. Chinese teenagers are culturally expected to abide by the social norm of socializing with others in their community to become better participants in a collectivistic society (Triandis, 1989). Because of the singular emphasis on education, however, a majority of teenagers and young adults in China remain unfamiliar with how to socialize, especially in a new environment—even after they enter college (Stanat, 2006). Due to the difficulty of balancing the psychological gap between society's expectations of socialization and the inability to interact with others, many Chinese teenagers find online socializing a favorable means of interacting with others. The happiness gained from social media enables them to compensate or even forget their difficulties in socializing in real life (ScienceBlog, 2019). Without exposure to open judgment, especially when talking to strangers, teenagers sense more security and protection of their privacy, so that they are more willing to open themselves to chat freely. This is referred to as the online disinhibition effect (Suler, 2004). Indeed, research on the online disinhibition effect finds that when people have the chance of separating their in-person and online selves, they feel less vulnerable about self-disclosing, and may even act out more due to the anonymity afforded by the online medium (Suler, 2004).

The present research

The purpose of the present study was to compare the sense of closeness created through texting and FtF settings among Chinese young adults. Unacquainted participants in an initial interaction with each other would either communicate through an unstructured digital

conversation or through a FtF encounter. The digital conversations were facilitated through WeChat, a multi-purpose messaging, social media, and mobile payment app developed by Tencent, and the FtF conversations were in a simulated conversational situation with participants seated at a coffee table. WeChat was deemed to be a suitable means of replicating real-life messaging conditions, given its popularity—an average of 38 billion messages were sent daily via WeChat by data in 2017, with users spending an average of 77 minutes daily on the app in 2019 (Smith, 2020). In Chinese society, most people have a limited understanding of “closeness,” which they refer to as something related to intimacy and romantic relationships (Sprecher, 2013). This is yet only a part of the concept of “closeness.” In our experiment, feeling close is defined as being heard, understood, able to share feelings, and to talk openly with another person (Popovic, Milne, & Barrett, 2003).

We believe the degree of closeness perceived following an interaction will be affected by methods of communication. In particular, we hypothesized that the FtF condition will generate the highest degree of closeness and enjoyment while the texting condition will generate the lowest degree of closeness. We also expected to find different results among introverted and extraverted participants because, consistent with conventional understanding, introverts are expected to interact more freely over online media. So, we expected that extraverted participants would feel greater closeness and enjoyment in the FtF and introverted participants would feel greater closeness and enjoyment in the online condition. Finally, we used participants’ willingness to share contact information as a measure of their closeness and hypothesized that introverted participants would be more likely to share their contact information in the online and extraverted in the offline condition.

Method

Sample

Chinese high-school and college students ($N = 142$) aged between 18 and 32 years ($M=20.21$, $SD=0.26$) from China participated in this study for half an hour in exchange for 20 RMB (about US\$2.85), which was almost more than double of the hourly minimum wages in Shanghai, China.

Procedure

Participants were recruited through online advertisements, which asked them to participate in a study about interpersonal relationships. Upon enrolling for the study, participants were randomly assigned to either FtF or texting conditions, then randomly paired with another participant who had been assigned to the same condition.

Face-to-Face (FtF) condition

Sixty participants in face-to-face conditions were asked to participate in a conversation with another participant that they had never met or interacted with before for around 30 minutes. Those in the texting condition were given the same instructions but asked to converse via text messaging (through WeChat). The pairing of participants was randomized, keeping in mind the time period they were available for.

On the day of scheduled conversation, participants in the FtF condition filled out a pre-experiment survey that evaluated their opinions about interpersonal relationships. Then, they met their partner in one of the rooms in our lab for the first time, and participated in the conversation guided by a series of questions that were divided into three levels of intimacy (weak, moderate, and strong), each set containing 2 or 3 questions with increasing levels of intimacy. All pairs received the same set of questions, in the same order. These questions and

conversation paradigm were adapted from Aron, Melinat, Aron, Vallone, & Bator (1997). For instance, one of the low-intimacy questions presented was, “If you can live until age 90, would you rather have the vitality you had at 18 years old, or the wisdom you had at 18 years old?” One of the high-intimacy questions presented was, “When did you last cry in front of another person?” Each participant was given about 2-3 minutes to answer each low intimacy question, after which an automated message on a video screen prompted them to move on to the next question. No observer was present in the room during the participants’ conversation. Participants were required to follow a dress code, which included a limitation to plain clothes restricted to black, gray, and white colors. No accessories like earrings, watches, etc. were encouraged. These measures aimed to focus the participants’ perception of their closeness to the interaction, without being affected by the partner’s visual presentation.

After the conversation, participants were asked to fill out the post-experiment survey containing questions about perceived closeness, enjoyment, and the willingness of each participant to meet and interact in the future outside of the research setting.

Text message condition

The text message condition followed a similar procedure such that 82 participants first answered the pre-experiment survey. Then, participants joined a WeChat group chat as opposed to sitting in a room in the FtF condition. Participants answered the same intimacy questions and post-experiment survey as the FtF participants during and after the non-verbal, text-based conversation.

Measures

The pre-experiment questions aimed to measure the participants’ views on interpersonal relationships, while the post-experiment survey questions aimed to quantify the participants’

perceived closeness with their partners. The pre-experiment survey assessed extraneous factors like their age, occupation etc. that could affect participants' feelings of closeness.

Pre-experiment survey

Demographic information. Upon registering for the experiment, participants were asked to report their age, gender, occupation, whether they live in a rural, suburban, or urban location, their level of education, and current relationship status.

Perceptions of close relationships. Four items assessed participants' perceptions of close relationships on likeness a scale from 0 (shorter) to 8 (longer). The questions asked include: "In your opinion, how long does it take to form a close relationship?" and "In your opinion, how long can a close relationship that was established in a short time period last?"

Personality type. To assess a participant's personality type, they were asked to rate their openness on a scale of 0 (introvert) to 1 (extravert).

Post-experiment survey

After the experiment, participants answered questions about their perceptions of the conversation and their partner.

Enjoyment. Participants were asked to assess their level of agreement on a scale from 0 (completely disagree) and 4 (completely agree) to the statement, "I really enjoyed my conversation with my partner."

Follow-up conversations. Participants reported if they would like to have a conversation with their partner again through 2 items: "I'm looking forward to another conversation with my partner"—0 (not at all) to 4 (very much) and "Can we provide your contact details to your partner?"—0 (no), 1 (not sure), and 2 (yes).

Content of the conversation. To assess the depth of the participants' conversations, we asked questions, "In the conversation, did you talk about something that you regard as a secret to you?"—0 (not at all) to 4 (very much) and "To what extent did you find the conversation surprising¹?"

Perceived level of identification with partner. One scale adapted from Aron, Aron, & Smollan (1992) asked participants to choose the pair of circles that best represent the extent to which the inclusivity they identify with their partner. The circles went from 1 = self and other not at all overlapping, to 7 = self and other almost entirely overlapping.

Perceived closeness with partner. The next scale asked participants to rate their level of closeness with their partner by selecting the circle that best described their closeness with their partner (Popovic, Milne, & Barrett, 2003). This was measured by asking participants to select the circle, from 7 concentric circles, that best describes how close or far-apart they feel with their partner, after their conversation (1= Distant, 2 = Neither close nor distant, 3 = A little bit close, 4 = Moderately close, 5 = Very close, 6 = Fully close).

Results

Participants

This study was conducted with 142 Chinese participants, consisting of 105 females and 37 males, aged from 18 to 32 ($M = 20.21$). Among the 142 participants, 60 were assigned the face-to-face condition, while 82 others were assigned in the texting condition; 78 self-identified as introverts (31 in FtF condition, 47 in texting condition) and 64 others self-identified as extraverts (29 in FtF condition, 35 texting condition).

¹ The Chinese character of surprise "惊喜," which directly translates to "unexpected pleasure." This item assessed if the conversation exceeded participants' expectations.

Table 1*Means and standard deviations of participant parameters (N=142)*

Measure	<i>M</i>	<i>SD</i>
1. Age	20.21	0.26
2. Perceived closeness	2.39	1.14
3. Enjoyment	2.62	1.34
4. Share Contact information	1.71	0.61
5. Surprise	0.58	0.50

We conducted a condition×personality analysis on our dependent measures to assess if the FtF condition raised perceived closeness, enjoyment, surprise felt, and whether they want to share contact information with their partners during the conversation, compared to the text message condition. We also wanted to observe whether the condition of conversation had any effect on a participant personality type.

Effect on perceived closeness

A 2×2 condition×personality ANOVA showed a significant main effect of the condition such that across both personality types, participants in the FtF condition ($M=2.88$, $SD=0.89$) reported greater closeness than those in the texting condition ($M=2.02$, $SD=1.21$), $F(1,138)=21.30$, $p<.001$, $\eta_p^2=.13$ (See Fig. 1). After accounting for the effect of the conversation condition, personality type was not found to affect perceived closeness, $F(1, 138)=1.36$, $p=.27$, $\eta_p^2=.01$.

Figure 1*Effect of Condition and Personality Type on Perceived Closeness* **Effect on surprise**

A 2×2 condition×personality ANOVA showed that there was a main effect by the condition on the extent to which participants were positively surprised by the conversation, $F(1, 138)=6.03, p=.02, \eta_p^2=.04$. Those in the FtF condition ($M=0.70, SD=0.46$) reported feeling greater surprise than those in the texting condition ($M=0.49, SD=0.50$) (See Fig. 2). There was however no effect of personality type on surprise felt, $F(1, 138)=2.45, p=.12, \eta_p^2=.02$.

Figure 2*Effect of Condition and Personality Type on Surprise* **Effect on the likelihood of sharing contact information**

As a behavioral measure, we tested if participants in the FtF condition were more willing to share their contact information with their partner than those in the text message condition, and whether this effect differed between personality types. There was a significant effect of condition, $F(1, 138)=8.61$ $p=.004$, $\eta_p^2=.06$ such that those in the FtF condition were more willing to share their contact information ($M=1.88$, $SD=0.37$) than those in the text message condition ($M=1.59$, $SD=0.72$) (See Fig. 3). There was no significant effect of personality, $F(1, 138)=0.11$, $p=.74$, $\eta_p^2=.001$, and no significant interaction, $F(1, 138)=0.32$, $p=.57$, $\eta_p^2=.002$.

Figure 3*Effect of Condition and Personality Type on Likelihood of Sharing Contact Information* **Effect on enjoyment**

Contrary to our hypotheses, we found that participants' level of enjoyment did not differ by condition. A 2×2 condition×personality ANOVA showed that there was a significant main effect of personality type on the extent to which participants enjoyed the conversation, $F(1, 138)=5.33, p=.02, \eta_p^2=.04$. Extraverts ($M=2.92, SD=1.33$) enjoyed the conversation more so than introverts ($M=2.37, SD=1.31$). The condition did not affect the participants' enjoyment, $F(1, 138)=1.82, p=.18, \eta_p^2=.01$ (See Fig. 4). There was no significant interaction between personality and condition, $F(1, 138)=1.65, p=.20, \eta_p^2=.01$.

Figure 4*Effect of Condition and Personality Type on Enjoyment* **Effect on level of identification with partners**

A 2×2 condition×personality ANOVA showed that there were no significant difference between the level of identification in the FtF condition ($M=0.41$, $SD=0.88$) and texting condition ($M=0.65$, $SD=1.20$), $F(1,125)=1.71$, $p=.19$, $\eta_p^2=.01$ (See Fig. 5). The personality also did not affect the level of identification with partners, $F(1, 125)=3.04$, $p=.08$, $\eta_p^2=.02$, and neither was there a significant interaction between condition and personality, $F(1, 125)= 0.21$, $p=.65$, $\eta_p^2=.02$.

Figure 5*Effect of Condition and Personality Type on Level of Identification*

Discussion

Summary of the Findings

Aligning with our hypothesis, the face-to-face (FtF) condition of communication generated a greater degree of closeness between participants. Our results collected from the post-experiment survey show that in FtF condition, participants perceived greater closeness with their partners, felt more positively surprised by the conversation, and were more willing to share their contact information with their partners for future interactions. While the mode of communication showed a significant effect on the degree of closeness perceived, the same could not be said of the personality types. These findings suggest that, compared to a text-based interaction, a FtF method of communication results in deeper, more intimate conversations

between young partners, regardless of personality type. This may in turn also increase the likelihood of forming a sustained friendship to lead to a long-standing relationship. Our ultimate goal is to address a common problem that may arise among young adults due to the use of text-based communication and empower them with self-confidence to express their true selves.

Interestingly, the participants' level of identification with their partner and enjoyment of the conversation were not impacted by the mode of communication. The non-significant effect of the condition on the level of identification with the interaction partner indicates that a FtF communication does not convey similarity (or overlap of self and other) with the conversation. However, such a conversation generated a sense of closeness (refer to Figure 2), despite personality differences. In terms of enjoyment, we find that extraverts enjoyed the conversation more than introverts, regardless of the mode of communication. This suggests that while FtF communication can generate closeness, personality-type plays a role in determining if an individual will find the conversation enjoyable.

Implications on Theory

Our findings are consistent with the literature. Previous research comparing enjoyment and feeling of liking one's partner in dyads connected through computer-media communication (CMC) or face-to-face (FtF) communication found that FtF communication generated greater liking and enjoyment in the dyads (Sprecher & Hampton, 2016). Another experiment comparing conversations in a FtF setting and an Internet chat setting also found that participants in the FtF setting felt greater satisfaction, experienced a higher degree of closeness and practiced more self-disclosure (Mallen, Day, & Green, 2003).

Unlike these previous studies, however, our experiment specifically focused on a unique population—the Generation Z population in Shanghai, China. Therefore, our results extend the

generalizability of the findings about the benefits of FtF communication into the modern, fast-paced Chinese context, which is characterized by heavy and frequent Internet use and therefore, text-based CMC. Moreover, our findings have immense external validity—for text-based communication, we used WeChat, China’s preferred mode of text-based communication, which is a text-based CMC, in which an average of 38 billion messages are sent daily, with people spending a daily average of 77 minutes on the app (Smith, 2020). Thus, using WeChat in our experiment makes our findings suitably representative of, and applicable to Chinese society. Moreover, unlike previous studies, we also tested if the mode of communication interacted with personality type to impact closeness.

Real Life Implications

As the current COVID-19 pandemic intensifies, social distancing prompts us to shift to online communication, with many of us resorting to text-based communication as a way of remaining connected. Our findings suggest that, even in a time of unprecedented reliance on text-based CMC, FtF interactions remain important. The consequences in the form of social distancing and the shutting down of the workplace and schools have compelled individuals towards increased usage of text-based CMC as FtF is discouraged or otherwise not possible. In many ways, social consequences of the pandemic are real-life examples of how even when they have all forms of online communication at their disposal, more and more people are yearning to go out and connect with people in person, even when they have a variety of online modes of communication at their disposal. Our findings show that while a certain degree of closeness can be achieved through text-based modes of communication—of which there are many—FtF communication confers the greatest degree of closeness regardless of personality type.

The experiment results indicate that a FtF conversation is a better way to generate closeness in a relationship with others. We do acknowledge how online communication helps with long distance conversations. However, the participants (as well as the general public) should be reminded of the value of FtF conversation in generating a sense of closeness, as illustrated through our experiment.

Another important implication is that our results apply to both introverts and extraverts. Even though many introverts may be reluctant to interact with people in real life, doing so may be a better method to build a closer relationship with others. Introverts indicate a stronger interest and gain greater enjoyment in text-based messaging compared to FtF conversation, but they also admit that FtF conversation may generate a higher degree of closeness. The rating of closeness they report is approximately the same as the rating given by extraverts. It is possible that introverts' underconfidence about their FtF interaction skills, and not their preference of text-based communication, might obstruct them from enjoying FtF communication. However, by encouraging introverts to step out of their comfort zone to meet new people or old friends in real life, parents and teachers can enable them to form close relationships and become more confident in FtF interactions both socially, professionally.

Limitations & Future Directions

Our methods were prone to some limitations. Firstly, even though participants were randomly assigned to different conditions, we assigned the pairs based on participants' availability. This could have potentially interfered with the random assignment paradigm. Next, in the texting condition, participants had the option to send both text and voice messages which could have led to discrepancy in communication methods, with participants having the choice to use both voice-recorded and text messages during the conversation. However, these were very

few: only three pairs (4.69% of pairs in the texting condition) utilized short voice recorded messages during their conversation. Moreover, gender may play a part in the perception of closeness (Bai, Leib, Puri, Whitney, & Peng, 2015), but we did not control for participants' gender when assigning pairs. Future research can follow a matched design making sure that there are similar numbers of same-gender and different-gender dyads in each condition. Lastly, participants' prior experience with social media could also be a potential confound: individuals who use CMC and social media more frequently may feel more comfortable in communicating online than those who use CMC and social media less often.

Future experiments could involve an audio component to expand the online condition through video and voice calls. This may provide a clearer picture into reasons why the FtF condition generates a higher degree of closeness, by assessing whether verbal and non-verbal involvement affects the degree of closeness perceived, and by extension, personal relationship formation. Another direction could be having a long-term CMC condition and FtF condition to see whether the degree of closeness maintains, increases or decreases (the comparison between CMC and FtF could eliminate the factor of time).

Moreover, to put the conditions into a more real-life scenario, there could be a cross-over of switching CMC condition to FtF condition or vice versa. It would be interesting to see how the switches impact the degree of closeness in different ways. In terms of exploring more of the gender effects, further studies could involve more detailed dyads of different genders, including cross-sex and cross-gender. Finally, it would be interesting to set different groupings of the personality dyads, acquainted/unacquainted dyads to conduct a more detailed analysis of the overall patterns of communication methods for different personalities across different situations.

References

- Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of other in the self scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology*, 63(4), 596-614. doi:10.1037/0022-3514.63.4.596
- Aron, A., Melinat, E., Aron, E. N., Vallone, R. D., & Bator, R. J. (1997). The experimental generation of interpersonal closeness: A procedure and some preliminary findings. *Personality and Social Psychology Bulletin*, 23(4), 363-377. doi:10.1177/0146167297234003
- Bai, Y., Leib, A. Y., Puri, A. M., Whitney, D., & Peng, K. (2015). Gender differences in crowd perception. *Frontiers in Psychology*, 6, Article 1300.
- China Internet Network Information Center. (2019, November 12). *Statistical Report on Internet Development in China*. From china internet network information center: <https://cnnic.com.cn/IDR/ReportDownloads/201911/P020191112539794960687.pdf>
- Gottlieb, R., Wiener, M., & Mehrabian, A. (1967). Immediacy, discomfort-relief quotient, and content in verbalizations about positive and negative experiences. *Journal of Personality and Social Psychology*, 7(3-1), 266-274. doi:10.1037/h0025082
- Kiesler, S., Siegel, J., & McGuire, T. W. (1984). Social psychological aspects of computer-mediated communication. *American Psychologist*, 39(10), 1123-1134. doi:10.1037/0003-066X.39.10.1123
- Mallen, M. J., Day, S. X., & Green, M. A. (2003). Online versus face-to-face conversations: An examination of relational and discourse variables. *Psychotherapy: Theory, Research, Practice, Training*, 40(1-2), 155-163. doi:10.1037/0033-3204.40.1-2.155

- Markus, H. R., & Kitayama, S. (1994). The cultural construction of self and emotion: implications for social behavior. In H. R. Markus, & S. Kitayama (Eds.), *Emotion and Culture: Empirical Studies and Mutual Influences* (pp. 89-130). Washington DC: American Psychological Association.
- Popovic, M., Milne, D., & Barrett, P. (2003). The scale of perceived interpersonal closeness (PICS). *Clinical Psychology & Psychotherapy*, 10(5), 286-301. doi:10.1002/cpp.375
- Rice, R. E. (1993). Media appropriateness: Using social presence theory to compare traditional and new organizational media. *Human Communication Research*, 19(4), 451-484.
- ScienceBlog. (2019). Surprising link between social media and happiness. Retrieved from <https://scienceblog.com/505768/surprising-link-between-social-media-and-happiness/>
- Short, J., Williams, E., & Christie, B. (1976). *The social psychology of telecommunications*. London: Wiley & Sons.
- Smith, C. (2020, May 16). *110 Amazing WeChat Statistics and Facts (2020) | By the Numbers*. From DMR: <https://expandedramblings.com/index.php/wechat-statistics/>
- Sprecher, S. (2013). *Modern China: An Ency Hist*. Routledge.
- Sprecher, S., & Hampton, A. J. (2016). Liking and other reactions after a get-acquainted interaction: A comparison of continuous face-to-face interaction versus interaction that progresses from text messages to face-to-face. *Communication Quarterly*, 65(3), 333-353. doi:10.1080/01463373.2016.1256334
- Stanat, M. (2006). *China's Generation Y: understanding the future leaders of the world's next superpower*. Paramus, NJ: Homa & Sekey Books.

Suler, John. (2004). The online disinhibition effect. *Cyberpsychology & behavior : the impact of the Internet, multimedia and virtual reality on behavior and society*. 7. 321-6.

10.1089/1094931041291295.

Timmerman, G. M. (1991). A concept analysis of intimacy. *Issues in Mental Health Nursing*, 12(1), 19-30. doi:10.3109/01612849109058207

Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, 96(3), 506-520. doi:10.1037/0033-295x.96.3.506

Tu, C.-H., & McIsaac, M. S. (2002). The relationship of social presence and interaction in online classes. *American Journal of Distance Education*, 16(3), 131-150.

doi:10.1207/S15389286AJDE1603_2

US Census Bureau. (2020). *U.S. and World Population Clock*. From United States Census Bureau: <https://www.census.gov/popclock/>

Walther, J. B. (1992). Interpersonal effects in computer-mediated interaction. *Communication Research*, 19(1), 52-90. doi:10.1177/009365092019001003