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Understanding Healthcare Knowledge Diffusion in WeChat

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Abstract: Social media such as We Chat provide new ways of communicating healthcare information and knowledge. Many healthcare institutions leverage We Chat public platform to disseminate healthcare knowledge in the hope of attracting public attention. It is critical for them to build a comprehensive understanding of the factors affecting WeChat users' willingness to diffuse healthcare knowledge, an issue that has seldom been studied in the literature. This research aims to address this gap. Drawing on prior research on word-of-mouth, we develop a research model by integrating six factors regarding three key elements of healthcare knowledge communications: content (interestingness, usefulness, emotionality and positivity), source (source credibility) and channel (institution-based trust). The research model will be tested through a scenario-based online survey. This research is expected to contribute by (1) integrating factors that determine healthcare knowledge diffusion including the factors about content, source and channel, especially including institution-based trust as an important determinant, (2) examining the diffusion of healthcare knowledge and taking WeChat as the research context, and (3) using survey with subjective measurements to test a more comprehensive model. Potential practical implications are offered for healthcare organizations and practitioners.

Keywords: Knowledge diffusion, WeChat, Healthcare knowledge

1. INTRODUCTION

Due to the growing population of aging people and chronic patients, along with the increasing public concern on health and wellness, there are increasing demands for healthcare knowledge among the public in many societies. In China, healthcare is the most concerned topic among all science popularization topics, accounting for over half of Web searches ^[1]. Wide diffusion of healthcare knowledge is critical for improving the public's health literacy and ultimately their health and wellness (through esteem improvement, opinion verification, and personal goal attainment) ^{[2]-[3]}. However, traditional channels for healthcare knowledge dissemination are usually limited in reach and effectiveness ^[4].

Social media, due to their ubiquitous accessibility and widespread usage, are thought to be useful for satisfying the mass's increasing demand of healthcare knowledge ^[5]. Social media have deeply changed how healthcare knowledge is received and disseminated in a networked environment. Among various social media platforms, WeChat (*WeiXin* in Chinese), a popular mobile instant text and voice messaging communication platform, has received a great deal of attention for its combination of interpersonal communication and mass communication. More than 846 million people worldwide were monthly active users of WeChat as of September 2016 ^[6]. Characterized by strong ties and the familiarity among users ^[7], WeChat is a proper and efficient platform to spread healthcare knowledge, as people tend to forward practical healthcare information to their friends or relatives ^[8].

Many healthcare professionals use WeChat public platform, which are usually operated by healthcare institutions, to disseminate healthcare knowledge in the hope of improving the health literacy of the public and gaining reputation among the content receivers ^[9]. The achievement of healthcare knowledge diffusion depends largely on content receivers' willingness to diffuse such information in their friend circles. Understanding why

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content receivers are willing to diffuse online healthcare knowledge would enable healthcare professionals to develop effective content, source, and media strategies. Yet, this issue has seldom been addressed. Hence, this research aims to address the following research question:

RQ: What are the main factors considered to be important in individuals' healthcare knowledge diffusion in We Chat, and how do they impact individuals' diffusion willingness?

Despite the importance of this RQ, the existing literature is limited in at least three aspects to address the RQ. First, prior research on online information diffusion or sharing has primarily focused on the effects of the information content and source ^{[10]-[13]}, but rarely concerned the factors about medium (platform) properties. Specifically, users' trust toward the medium platform or institution (i.e., institution-based trust) has been suggested to be an important predictor of social media users' attitude toward sharing ^[14], but has been overlooked in previous studies on online information diffusion.

Second, previous studies on online information diffusion have investigated various types of information including brand-related, random, news, and emergency information ^{[15]-[18]}. However, little attention has been paid to healthcare knowledge diffusion. Thus, it is unknown whether the previous findings about the diffusion of these types of information also apply to the diffusion of healthcare knowledge.

Third, prior research on information diffusion mainly uses secondary data analysis ^{[19]-[20]}, which can only capture the content and information source factors rather than media related factors (e.g. institution-based trust).

Filling in these gaps, this study aims to develop a comprehensive understanding of the factors affecting individuals' healthcare knowledge diffusion in WeChat. Specifically, drawing upon the literature on online information transmission and word of mouth, we propose a research model of WeChat users' intention to diffuse healthcare knowledge by integrating factors related to the three key elements of healthcare knowledge communications: content, source and channel (platform). As such, we expect to extend the current literature of online information diffusion by (1) integrating factors that determine healthcare knowledge diffusion including the factors about content, source and channel, especially including institution-based trust as an important determinant, (2) examining the diffusion of healthcare knowledge in the specific context of WeChat, and (3) using survey with subjective measurements to test a more comprehensive model. In practice, this study can provide useful insights for healthcare professionals on how to encourage WeChat users to spread healthcare knowledge.

2. RESEARCH BACKGROUND

2.1 Healthcare knowledge diffusion via WeChat

According to the diffusion of innovations theory, the best way to promote innovation is to combine mass communication and interpersonal communication ^[21]. Due to their ubiquitous accessibility and support of social networks, social media can easily combine both types of communication and, consequently, are useful tools for disseminating healthcare knowledge.

As the most widely used social media platform in China, WeChat provides users an innovative way to communicate and interact with friends through various modes including text messaging, hold-to-talk voice messaging, one-to-many messaging, photo/video sharing, location sharing, and contact information exchange ^[22]. As an important component of WeChat, WeChat public platform enables its followers (or subscribers) to receive, read and share information on various themes ^[23]. By the end of October 2016, the number of WeChat public platform had reached 12 million ^[24].

Compared to other social media, WeChat embraces an information transmission mode based on "strong ties" and "acquaintance". These close interpersonal networks can play a vital role in the distribution of healthcare knowledge, as individuals with low levels of health literacy consider family members and friends as their

preferred source when seeking healthcare knowledge^[25]. Thus, WeChat provides a convenient and cost-effective way to spread healthcare knowledge among a large number of audiences, satisfying the mass's increasing demand for healthcare knowledge^[8]. Recognizing this potential of WeChat, many healthcare organizations have registered WeChat public platform to disseminate healthcare knowledge. Their subscribers or followers who receive and read the information can then share it with a specific friend, in a WeChat chat group, and/or on WeChat Moments (*Pengyouquan* in Chinese). WeChat Moments support users to post instant messages, share information (mainly from WeChat public platform), as well as engage in (e.g., view, "like", comment and transfer) information shared by their WeChat friends^[22].

Although healthcare organizations and practitioners recognize WeChat and WeChat public platform as useful healthcare communication tools, little is known about how to take full advantage of them to prompt healthcare communication among the population at large. As an initial step in understanding the diffusion of healthcare knowledge in WeChat, we discuss factors that motivate individuals to share or distribute healthcare knowledge. Most previous studies on online healthcare transmission focus on understanding the current situation of online healthcare knowledge dissemination or its implications^{[26]-[28]}. However, to our knowledge, little (if any) research has directly investigated the determinants of online healthcare knowledge diffusion in WeChat.

2.2 Predictors of online healthcare knowledge diffusion

The literature on online information diffusion in other contexts (e.g., marketing) has provided rich and useful insights for this research. Based on a critical review of the literature, we identify three sets of factors that may have important effects on WeChat users' diffusion of healthcare knowledge. These factors regard three key elements of healthcare knowledge communications via WeChat, namely, content, source and medium (or platform), respectively.

2.2.1 Content factors

Prior literature on online information diffusion has revealed several content related factors including URL, hashtag, topic, reply, mention^{[29]-[30]} and sentiment^{[31]-[32]}. Further, content factors driven by psychological motivation may influence online transmitters' intention to diffuse information but has received little attention. Since information diffusion is a unique form of word of mouth (WOM), prior research on WOM provides useful insights on the psychological mechanisms underlying information diffusion.

One common reason people share WOM is to generate desired impressions or self-enhance, because what people talk and share will influence the impressions of other people on them^[33]. Furthermore, one way WOM facilitates impression management is through self-enhancement^[34]. Along this line, people are more likely to share useful and interesting things to make themselves look knowledgeable or interesting^[35].

Another reason people share WOM is to deepen connections with others, specifically by social sharing of emotion^[36]. Thus, emotionally charged content are more likely to be disseminated^{[31][37]}. It should also impact the valence (e.g., positivity, negativity) of what people share^[33]. But prior research has presented inconsistent findings on whether positive or negative content is more viral^{[10][38]}.

In the WeChat setting, healthcare knowledge is typically shown not using URL or hashtag, but as passages containing pictures. As such, the information disseminated via WeChat often leverages interestingness and emotionality to catch people's attention and desire to transmit it. Furthermore, health-related problems are closely linked with people's life, making usefulness an important factor for people's diffusing likelihood.

2.2.2 Source factors

In addition to content factors, the information source may also affect information diffusion^{[20][34][39]}. Unlike the mainstream media where professional reporters check information sources before publication, social media are often criticized for having too little reliable information but too much subjective interpretations and rumors^[19]. Thus, source credibility plays a critical role in the information dissemination via social media, especially when it

relates to healthcare knowledge. Prior literature has revealed source related factors behind the observed diffusion of information. These factors include not only the concrete factors of the content creator such as gender, authors' discipline^[34], and number of followers^[20], but also many other abstract factors such as source expertise^[39], trustworthiness^{[30] [40]} and ambiguity^[19]. As expertise and trustworthiness are both reflections of source credibility, we include only source credibility in our model for the sake of parsimony.

2.2.3 Channel factors

Besides information content and source, communication channel represents another important factor of information transmission^[41]. Communication channel relates to the media, including mass media, interpersonal channels, etc.^[21]. Among the channel factors, institution-based trust has been proposed as an important factor affecting information communication in the online environment^{[42]-[43]}. It refers to whether one believes that needed structural conditions are in place to support one's likelihood for success in a given situation^[44].

Institution-based trust is often conceptualized as a multidimensional construct^{[43] [45]}, containing two dimensions: structural assurance and situational normality. *Structural assurance* is the belief that success is likely because "structures like guarantees, regulations, promises, legal recourse, or other procedures are in place to promote success" (p. 339)^[46]. In the online environment, structural assurance mainly refers to legal and technological protections on the Internet, such as data encryption and privacy protection policies that safeguard one from loss of privacy, identity, or money^[47].

Situational normality refers to one's belief that "everything seems to be in proper order and success is likely because the situation is normal or favorable" (p. 339)^[46]. People tend to exert greater trust when the nature of the interaction is in accordance with what they consider to be typical and, thus, anticipated^[47]. Furthermore, a consumer who perceives high situational normality would believe that, in general, vendors in the environment have the attributes such as benevolence, integrity and competence^[46].

Prior research has identified four sub-dimensions of situational normality: (1) situational normality-general means feeling good and comfortable about Web activities^[48]; (2) situational normality-competence means perceptions of how well the vendor did its job or how knowledgeable the vendor was (expertise/competence)^[49]; (3) situational normality-integrity relates to perceptions of vendor honesty, truthfulness, sincerity, and keeping commitments (reliability/dependability); and (4) situational normality-benevolence refers to the vendor acting in the customer's best interest, trying to help, and being genuinely concerned^[49].

In our research context, users' trust beliefs towards WeChat (or WeChat public platform) can possibly be an important factor affecting information communication in the online environment^[43]. Thus, it is important to integrate this channel-related factor to develop a comprehensive understanding of the dissemination of health-related information.

3. RESEARCH MODEL AND HYPOTHESES

Our research model is shown in Figure 1. The hypotheses are presented and justified below.

3.1 Content effects

Content factors play vital roles in stimulating online information diffusion^[20]. From the perspective of information transmitters' motivation, Milkman and Berger [34] suggests two psychological drivers of sharing scientific content: self-enhancement and social bonding. Based on the motivation for self-enhancement, people are more likely to share interesting things, such as consumption stories that are extreme and novel^[50] or scientific discoveries that are framed in more interesting ways^[34]. By doing so, they want to be perceived by the content receivers as interesting persons^[51]. Moreover, people are more likely to share useful information, which can make them look smart and in-the-know^[34], or be helpful to others^[35]. They tend to think that sharing content that is useful to themselves or others reflect their concern about the self or others. Prior research has

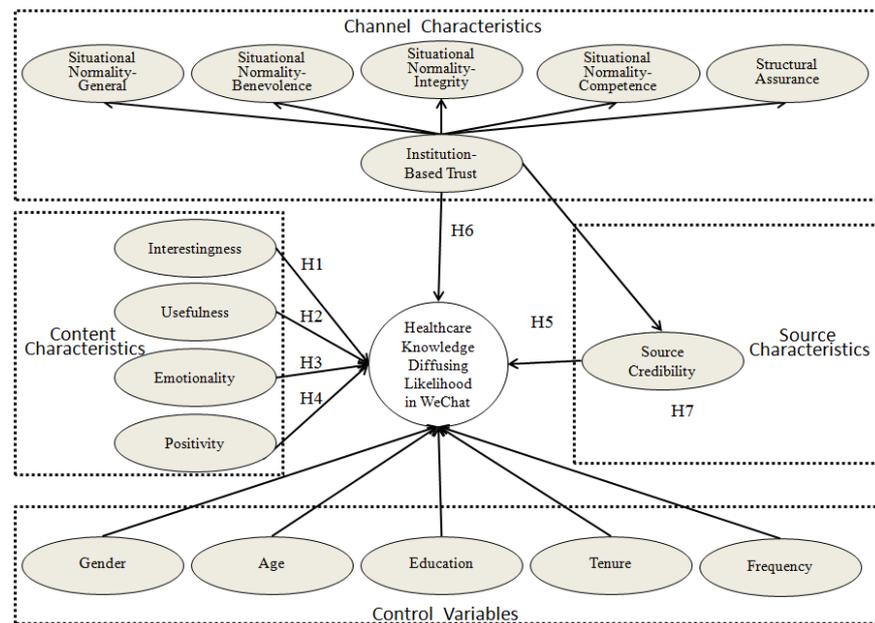


Figure 1. Research Model

found that more practically valuable marketing messages^[52] and news^[17] are more likely to be widely diffused.

Based on the motivation for social bonding, past research has shown that more emotional New York Times articles, brands information and obesity-related tweets are more likely to be diffused^{[4] [10] [12]}, as it produces a shared experience for the transmitter and recipient and increases cohesiveness^[53]. In addition, people prefer to make others feel good rather than bad, thus people are more likely to share positive scientific research^[34] and articles^[35].

As healthcare knowledge is a kind of scientific content, the theoretical foundation of sharing scientific discoveries should also apply to the sharing of healthcare knowledge. Based on the same logic, healthcare knowledge that is perceived by the transmitters as interesting or useful or framed in a more emotional or positive manner, should be more likely to be diffused. We'll use our data on healthcare knowledge in WeChat to examine whether insights from other platforms also apply to WeChat. Thus, we propose the following hypotheses:

H1: Interestingness of the content has a positive effect on WeChat users' healthcare knowledge diffusing likelihood.

H2: Usefulness of the content has a positive effect on WeChat users' healthcare knowledge diffusing likelihood.

H3: Emotionality of the content has a positive effect on WeChat users' healthcare knowledge diffusing likelihood.

H4: Positivity of the content has a positive effect on WeChat users' healthcare knowledge diffusing likelihood.

3.2 Source effects: source credibility

Besides content characteristics, credibility of the content generators and the diffusing channel are also an important factor that may influence information diffusion especially in the online context. In this paper, the credibility of the content generators is viewed as source credibility which refers to a message recipient's perception of the credibility of an information source^[54]. In prior research, expertise and trustworthiness are the two most commonly identified dimensions of source credibility^{[55]-[56]}. It is believed that individuals perceive online health information differently when the source of the information is a professional rather than a layperson

^[57]. Meanwhile, source trustworthiness appears to be influential in determining the credibility of forwarded health content ^[56]. Prior research suggests that source credibility of microblogging messages affect users' reposting likelihood by affecting their perceptions of the usefulness and enjoyment of the information ^[40]. This leads to the following hypothesis:

H5: Source credibility has a positive effect on WeChat users' healthcare knowledge diffusing likelihood.

In this paper, the credibility of the diffusing channel is viewed as institutional-based trust. Prior research shows that trust in social networking services is an important predictor of attitude toward information sharing (posting) ^[14]. Furthermore, users' trust in blog service providers has a positive effect on bloggers' knowledge sharing behavior ^[58]. Similarly, trust in WeChat and public platform may have a significant effect on healthcare knowledge diffusing likelihood. This is because if a user trusts a vendor, then he or she knows it can rely on the vendor to care about the user and its well-being, thus will increase behavioral intentions to share healthcare knowledge with their friends on the platform ^[59]. High levels of trust in WeChat and WeChat public platform will stimulate users to share healthcare knowledge with a free mind. On the contrary, a lack of institution-based trust may make users concerned about their privacy, especially when healthcare knowledge is always regarded as more personal and private. Overall, users' beliefs about situational normality and structural assurances (e.g., legal and technological protections) from the information transmission platform (e.g. WeChat) play critical roles in persuading users to diffuse the healthcare knowledge. Based on these arguments and findings, we propose the following hypotheses:

H6: Institution-based trust has a positive effect on WeChat users' healthcare knowledge diffusing likelihood.

3.3 Mediating effect of source credibility

We suggest that source credibility will mediate the effect of institution-based trust on WeChat users' healthcare knowledge diffusing likelihood. Institution-based trust increases source credibility. In the context of healthcare knowledge dissemination, most users are lay persons without sufficient medical expertise to judge the healthcare knowledge source ^[13]. In this case, they tend to depend on the situational normality and structural assurances provided by WeChat and WeChat public platform to ensure source credibility. Specifically, in normal situations, if a content receiver believes that needed structural conditions are in place to support information diffusion in WeChat, s/he will likely also believe that the information sources (i.e., authors) are trustworthy experts. This belief of source credibility (expertise and trustworthiness) will then lead to a diffusing intention, as mentioned above. Taken together, we propose that source credibility will mediate the effect of institution-based trust on WeChat users' healthcare knowledge diffusing likelihood.

H7: Source credibility mediates the positive relationship between institution-based trust and WeChat users' healthcare knowledge diffusing likelihood.

4. RESEARCH DESIGN

As the next step, we plan to conduct a large-scale, scenario-based online survey to evaluate our hypotheses. The scenarios will be created in the following procedures. First, using a Web crawler, we will extract real posts from a popular WeChat OA on healthcare – namely, “DingXiangYiSheng”. Each post will be treated as a scenario and randomly assigned to participants of the formal survey. Each participant will be required to read one randomly-assigned post and, subsequently, answer questions regarding all the main constructs contained in the model. Respondents will also report their demographics (e.g., gender, age and education) and usage experiences with WeChat (in terms of tenure and frequency).

The survey will measure the latent constructs based on items that have been used in other recent research articles. Items for healthcare knowledge diffusing likelihood and two content factors (emotionality and positivity) will be adapted from [34]. Items for the other two content factors (interestingness and usefulness)

will be adapted from [35]. Measures for source credibility and institution-based trust will be adapted from [60] and [46], respectively.

Before the formal survey, we will first conduct a pilot survey on a small-size sample to get feedback to further refine the survey. The finalized survey will be posted on a widely used online survey-servicing Web site. WeChat users will be invited to complete the survey through multiple channels including social media (e.g., WeChat, Moments and QQ) and an online crowdsourcing market (zbj.com), etc. Following prior research^[61], we will include an attention check question (“2+2=?”) in the middle of our survey, and drop the responses from participants who incorrectly answer this question. We expect to collect around 2000 valid responses.

Common method bias will be tested using multiple methods. Further, non-response bias will be tested using a wave analysis by comparing the first and last quartile of respondents^[62] in terms of key characteristics including demographics (age, gender, and education) and usage experiences with WeChat (tenure and frequency). We will use structural equation modeling (SEM) to assess the measurement and structural models.

5. EXPECTED CONTRIBUTIONS AND FUTURE RESEARCH

This paper outlines a planned study to explore factors affecting individuals' healthcare knowledge diffusion in WeChat. This study can potentially contribute to research in the areas of online information diffusion, e-health, and social media (WeChat in particular). First, through including institution-based trust as an important determinant in knowledge diffusion, the paper will contribute by developing a comprehensive understanding of factors in knowledge diffusion. Second, this study will be the first (to the best of the authors' knowledge) to investigate the dissemination of healthcare knowledge in the context of social media (i.e., WeChat). The study will therefore contribute by giving researchers novel insight into the specific information type of online information transmission research. Finally, this study will use survey with subjective measurements to test a more comprehensive model.

This study will also offer important practical implications for WeChat OA operators as well as health practitioners. By informing practitioners about the various factors that are influential to increase the popularity of healthcare knowledge, they can deploy proper strategies (e.g., the way healthcare knowledge is phrased or framed) to motivate individuals to disseminate healthcare knowledge.

Extending the current study, future research can possibly (1) further establish the generalizability of our results in a broader set of contexts, (2) consider topics of healthcare knowledge in the analysis of diffusing likelihood, and (3) make a comparison among the three sharing fields (sharing with friends, sharing in a WeChat Group, sharing on Moments) to investigate whether there is also a relationship between audience size and the WeChat users' healthcare knowledge diffusing likelihood^[63].

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REFERENCES

- [1] China Research Institute for Science Popularization. (2016). Report of Chinese Internet users' searching behavior of demand for science popularization. http://www.kepuchina.cn/notice/201611/t20161103_43467.shtml. (in Chinese)
- [2] Park, H., Rodgers, S., & Stemmler, J. (2013). Analyzing health organizations' use of Twitter for promoting health literacy. *Journal of Health Communication*, 18(4): 410-425.
- [3] Southwell, B. G., & Yzer, M. C. (2009). When (and why) interpersonal talk matters for campaigns. *Communication Theory*, 19(1): 1-8.

- [4] So, J., Prestin, A., Lee, L., Wang, Y., Yen, J., & Chou, W. Y. S. (2015). What do people like to “share” about obesity? a content analysis of frequent retweets about obesity on twitter. *Health Communication*, 31(2): 193-206.
- [5] Yonker, L. M., Zan, S., Scirica, C. V., Jethwani, K., & Kinane, T. B. (2015). “Friending” teens: systematic review of social media in adolescent and young adult health care. *Journal of Medical Internet Research*, 17(1): e4.
- [6] Tencent. (2016). Tencent announces 2016 third quarter results. <http://www.tencent.com/zh-cn/content/at/2016/attachments/20161116.pdf>. (in Chinese)
- [7] Gan, C. (2017). Understanding WeChat users' liking behavior: an empirical study in china. *Computers in Human Behavior*, 68: 30–39.
- [8] Li, WF. (2014). Discussion on the characteristics and application of health communication in the age of WeChat. *Journalism Bimonthly*, (6): 149-154. (in Chinese)
- [9] Huang, E. (2015). Building a patient-centered hospital Web site: best practices in China. *International Journal of Healthcare Management*. 8(3): 137-145.
- [10] Berger, J., & Milkman, K. L. (2012). What makes online content viral?. *Journal of Marketing Research*, 49(2): 192-205.
- [11] Chun, J. W., & Lee, M. J. (2016). Increasing individuals' involvement and WOM intention on social networking sites: content matters!. *Computers in Human Behavior*, 60: 223-232.
- [12] Lovett, Mitchell, J., Peres, Shachar, & Ron. (2013). On brands and word of mouth. *Journal of Marketing Research*, 50(4): 427-444.
- [13] Himelboim, I., & Han, J. Y. (2014). Cancer talk on twitter: community structure and information sources in breast and prostate cancer social networks. *Journal of Health Communication*, 19(2): 210-225.
- [14] Salehan, M., Kim, D. J., & Koo, C. (2016). A study of the effect of social trust, trust in social networking services, and sharing attitude, on two dimensions of personal information sharing behavior. *The Journal of Supercomputing*, 1-24.
- [15] Chu, S. C., Chen, H. T., & Sung, Y. (2016). Following brands on Twitter: an extension of theory of planned behavior. *International Journal of Advertising*, 35(3): 421-437.
- [16] Shi, Z., Rui, H., & Whinston, A. B. (2014). Content sharing in a social broadcasting environment: evidence from Twitter. *MIS Quarterly*, 38(1): 123-142.
- [17] Rudat, A., Buder, J., & Hesse, F. W. (2014). Audience design in twitter: retweeting behavior between informational value and followers' interests. *Computers in Human Behavior*, 35: 132-139.
- [18] Kim, T. (2014). Observation on copying and pasting behavior during the tohoku earthquake: retweet pattern changes. *International Journal of Information Management*, 34(4): 546-555.
- [19] Oh, O., Agrawal, M., & Rao, H. R. (2013). Community intelligence and social media services: a rumor theoretic analysis of tweets during social crises. *MIS Quarterly*, 37(2): 407-426.
- [20] Zhang, L., Peng, T. Q., Zhang, Y. P., Wang, X. H., & Zhu, J. J. H. (2014). Content or context: which matters more in information processing on microblogging sites. *Computers in Human Behavior*, 31(1): 242-249.
- [21] Rogers, E. M., (2003). *Diffusion of innovations* (5th ed.). New York, NY: Free Press, 19.
- [22] Wikipedia (2016). WeChat. <http://en.wikipedia.org/wiki/WeChat>.
- [23] Xu, J., Kang, Q., Song, Z., & Clarke, C. P. (2015). Applications of mobile social media: WeChat among academic libraries in China. *The Journal of Academic Librarianship*, 41(1): 21-30.
- [24] IiMedia Research (2016). Market research report of APP and WeChat OAs in 2016. <http://www.iimedia.cn/46539.html>. (in Chinese)
- [25] Longo, D. R., Schubert, S. L., Wright, B. A., LeMaster, J., Williams, C. D., & Clore, J. N. (2010). Health information seeking, receipt, and use in diabetes self-management. *The Annals of Family Medicine*, 8(4): 334-340.
- [26] Moorhead, S. A., Hazlett, D. E., Harrison, L., Carroll, J. K., Irwin, A., & Hoving, C. (2013). A new dimension of health care: systematic review of the uses, benefits, and limitations of social media for health communication. *Journal of Medical Internet Research*, 15(4): 1106-1112.

- [27] Scanfeld, D., Scanfeld, V., & Larson, E. L. (2010). Dissemination of health information through social networks: twitter and antibiotics. *American Journal of Infection Control*, 38(3): 182-188.
- [28] Park, H., Reber, B. H., & Chon, M. G. (2015). Tweeting as health communication: health organizations' use of Twitter for health promotion and public engagement. *Journal of Health Communication*, 21(2): 1-11.
- [29] Van De Velde, B., Meijer, A., & Homburg, V. (2015). Police message diffusion on Twitter: analysing the reach of social media communications. *Behaviour & Information Technology*, 34(1): 4-16.
- [30] Liu, Z., Liu, L., & Li, H. (2012). Determinants of information retweeting in microblogging. *Internet Research*, 22(4): 443-466.
- [31] Stieglitz, S., & Dang-Xuan, L. (2013). Emotions and information diffusion in social media—sentiment of microblogs and sharing behavior. *Journal of Management Information Systems*, 29(4): 217-248.
- [32] Nelson-Field, K., Riebe, E., & Newstead, K. (2013). The emotions that drive viral video. *Australasian Marketing Journal*, 21(4): 205-211.
- [33] Berger, J. (2014). Word of mouth and interpersonal communication: a review and directions for future research. *Journal of Consumer Psychology*, 24(4): 586-607.
- [34] Milkman, K. L., & Berger, J. (2014). The science of sharing and the sharing of science. *Proceedings of the National Academy of Sciences*, 111(Supplement_4): 13642-13649.
- [35] Berger, J. (2013). *Contagious: why things catch on*. New York, NY: Simon & Schuster, 111-184.
- [36] Rimé B. (2009). Emotion elicits the social sharing of emotion: theory and empirical review. *Emotion Review*, 1(1): 60-85.
- [37] Hasford, J., Hardesty, D. M., & Kidwell, B. (2015). More than a feeling: emotional contagion effects in persuasive communication. *Journal of Marketing Research*, 52(6): 836-847.
- [38] De Angelis M., Bonezzi, A., Peluso, A. M., Rucker, D. D., & Costabile, M. (2012). On braggarts and gossips: a self-enhancement account of word-of-mouth generation and transmission. *Journal of Marketing Research*, 49(4): 551-563.
- [39] Radighieri, J. P., & Mulder, M. (2014). The impact of source effects and message valence on word of mouth retransmission. *International Journal of Market Research*, 56(2): 249-263.
- [40] Yan, W., & Huang, J. (2014). Microblogging reposting mechanism: an information adoption perspective. *Tsinghua Science and Technology*, 19(5): 531-542.
- [41] Berger, J., & Iyengar, R. (2013). Communication channels and word of mouth: how the medium shapes the message. *Journal of Consumer Research*, 40(3): 567-579.
- [42] Fang, Y., Qureshi, I., Sun, H., McCole, P., Ramsey, E., & Lim, K. H. (2014). Trust, satisfaction, and online repurchase intention: the moderating role of perceived effectiveness of e-commerce institutional mechanisms. *MIS Quarterly*, 38(2): 407-427.
- [43] Lu, B., Zeng, Q., & Fan, W. (2016). Examining macro-sources of institution-based trust in social commerce marketplaces: an empirical study. *Electronic Commerce Research and Applications*, 20: 116-131.
- [44] McKnight, D. H., Cummings, L. L., & Chervany, N. L. (1998). Initial trust formation in new organizational relationships. *Academy of Management Review*, 23(3): 473-490.
- [45] McKnight, D. H., & Chervany, N. L. (2014). What trust means in e-commerce customer relationships: an interdisciplinary conceptual typology. *International Journal of Electronic Commerce*, 6(2): 35-59.
- [46] McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). Developing and validating trust measures for e-commerce: an integrative typology. *Information Systems Research*, 13(3): 334-359.
- [47] Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: an integrated model. *MIS Quarterly*, 27(1): 51-90.
- [48] Vance, A., Elie-Dit-Cosaque, C., & Straub, D. W. (2008). Examining trust in information technology artifacts: the

- effects of system quality and culture. *Journal of Management Information Systems*, 24(4): 73-100.
- [49] Ellonen, R., Blomqvist, K., & Puumalainen, K. (2008). The role of trust in organisational innovativeness. *European Journal of Innovation Management*, 11(2): 160-181.
- [50] Cowley, E. (2014). Consumers telling consumption stories: word-of-mouth and retrospective evaluations. *Journal of Business Research*, 67(7): 1522-1529.
- [51] Berger, J., & Schwartz, E. M. (2011). What drives immediate and ongoing word of mouth?. *Journal of Marketing Research*, 48(5): 869-880.
- [52] Chang, Y. T., Yu, H., & Lu, H. P. (2015). Persuasive messages, popularity cohesion, and message diffusion in social media marketing. *Journal of Business Research*, 68(4): 777-782.
- [53] Barsade, S. G., & Gibson, D. E. (2007). Why does affect matter in organizations?. *The Academy of Management Perspectives*, 21(1): 36-59.
- [54] Van Der Heide, B., & Lim, Y. S. (2015). On the conditional cueing of credibility heuristics: the case of online influence. *Communication Research*: 43(5):1-22.
- [55] Lowry, P. B., Wilson, D. W., & Haig, W. L. (2014). A picture is worth a thousand words: source credibility theory applied to logo and website design for heightened credibility and consumer trust. *International Journal of Human-Computer Interaction*, 30(1): 63-93.
- [56] Lee, J. Y., & Sundar, S. S. (2013). To tweet or to retweet? That is the question for health professionals on Twitter. *Health Communication*, 28(5): 509-524.
- [57] Thon, F. M., & Jucks, R. (2016). Believing in expertise: how authors' credentials and language use influence the credibility of online health information. *Health Communication*, 1-9.
- [58] Chai, S., Das, S., & Rao, H. R. (2011). Factors affecting bloggers' knowledge sharing: An investigation across gender. *Journal of Management Information Systems*, 28(3): 309-342.
- [59] Bansal, G., & Gefen, D. (2010). The impact of personal dispositions on information sensitivity, privacy concern and trust in disclosing health information online. *Decision Support Systems*, 49(2): 138-150.
- [60] Wu, C., & Shaffer, D. R. (1987). Susceptibility to persuasive appeals as a function of source credibility and prior experience with the attitude object. *Journal of Personality and Social Psychology*, 52(4): 677-688.
- [61] Mason, W., & Suri, S. (2012). Conducting behavioral research on Amazon's Mechanical Turk. *Behavior Research Methods*, 44(1): 1-23.
- [62] Armstrong, J. S., & Overton, T. S. (1977). Estimating nonresponse bias in mail surveys. *Journal of Marketing Research*, 14(3):396-402.
- [63] Barasch, A., & Berger, J. (2014). Broadcasting and narrowcasting: how audience size affects what people share. *Journal of Marketing Research*, 51(3): 286-299.