AN EXAMINATION OF WECHAT: PREDICTORS OF NEWS USE ON A CLOSED
MESSAGING PLATFORM

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ABSTRACT

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News use on social media channels enables users to actively select and read news based on

their interest and needs. The present research studied news use behaviors on the closed-messag-

ing platform WeChat. Concepts from the Unified Theory of Acceptance and Usage Model and

Task-Tech Theory were used to test what perceptional and technological factors influence users'

WeChat news behaviors. Results showed that the perceived fitness between task and technology,

effort expectancy, facilitating and social influence significantly related to Chinese students'

WeChat news use while performance expectancy did not predict news use behavior.

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INTRODUCTION

Social media channels became a primary avenue for accessing and experiencing news. Reuters Institute (2016) conducted a survey with more than 50,000 online news consumers from 26 countries, including countries from North America, South America, Europe, and Asia, finding that 51 percent of participants relied on social media platforms to get their news every week. Also, according to Pew Research Center report, almost two-thirds of U.S. Facebook users receive news through Facebook and three-fifths of Twitter users consume news on Twitter (Gottfried & Shearer, 2016).

The present study examined a unique and emerging technological social media application: closed messaging platforms. The most attractive attribute of closed messaging platforms is the closed environment setting which is purposely designed to protect users' privacy and security. Closed messaging platforms, such as WhatsApp, Viber, Facebook Messenger, Telegram, and WeChat, are growing in popularity among social network users (Metz, 2016). Until 2016, a billion of people used WhatsApp in the worldwide, and the majority of them (70%) used WhatsApp daily.

The technical uniqueness of closed messaging apps have garnered the attention of news organizations. For example, BBC launched its account on Telegram and has more than 100,000 subscribers (Reid, 2015). But as an emerging social media platform, it is still unclear how or wh1y people employ closed messaging platforms for their news use. The aim of this study is to explore people's adoption of a closed messaging app for news use. Of all these closed messaging platforms, this study chose WeChat as an example to examine WeChat users' news use behavior, because of its 846 million monthly active users (Statista, 2016), and it is a technically mature news use platform. In 2013, WeChat created the Subscription Account feature, which is used by

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news organizations to send daily news and information broadcasts. In 2015, more than 300 million WeChat users were subscribers of news media accounts.

The advent of social media platforms including closed-messaging platforms, have changed the role of the news audience, from a passive one to an active one. News consumption practices on websites and social media channels contain actions such as monitoring, checking, snacking, scanning, watching, viewing, reading, listening, searching, and clicking. Additionally, social media channels also generated other news use behaviors such as linking, sharing, liking, recommending, commenting, and voting (Meijer & Kormelink, 2015). Yet despite this evolution in news use practices, scholarly interpretations of the way people interact with news have not been organized to address the complexity of the news use construct at a conceptual and operational level. The present study contributed to theory through the identification of a conceptual definition, dimensions, and measures for the concept of *news use*.

Unified Theory Acceptance and Use of Technology Model (UTAUT) and Task-Tech Fit (TTF) theory were adopted as the theoretical basis to explain the association between news use and technology acceptance variables within a closed messaging environment. UTAUT was developed based on a review of eight information usage models, and it provides a systematic explanation of why people adopt an information system and their subsequent usage behavior (Venkatesh, Morris, & Davis, 2003). Information system refers to any organized system that is used for information collecting, organizing, storage, and communicating. By this definition, social media platforms, including closed messaging platforms such as WeChat, can be classified as an information system. Also, news use takes place within social media platforms and after an individual adopts a social media platform. Thus, news use behaviors are subsequent behaviors based upon the adoption of an information system, which is within the theoretical scope of UTAUT

model. Four variables were selected from UTAUT model (i.e., performance expectancy, effort expectancy, social influence and facilitating conditions) because these four variables were employed to explain the adoption of the social media network and relationship maintenance behavior. This study chose these four variables and hypothesized that these four variables would have an impact on WeChat news use.

The personal preferences and characteristics of individuals do not necessarily lead to a sufficient understanding one's news use behaviors (Kümpel, Kanowski & Keyling, 2015; Zhang & Leung, 2014). Kümmel et al. (2015) suggested that the technical structure of a social media platform such as its interface, certain functions or services, composition, network structure, and extensity can also have an impact on news use behaviors. Communication features on social media such as video, voice, and text chatting functions can boost the interaction and communication among users (Dou, Niculescu & Wu, 2013). And likely, the technological and news related functions on social media channels such as personal subscription, chatting box, sharing, and commenting functions can also influence the usage of the social media for news consumption. Thus, the present study explored the news use behavior not only from user-centric perspective, but also looks at how technological features of a certain social media would affect users news use behaviors.

Task-tech fit (TTF) posits that there is a perceived fitness between a task that needs to be accomplished and a technology that is going to be used for the task (Goodhue & Thompson, 1995). A higher degree of perceived fitness would increase the usage of the technology for that task such as news use. TTF theory is useful for this study because there is a task (i.e., news use) and a technology (i.e., closed messaging app) involved. If people perceive the closed messaging

technology is a fit for their news use, it will influence their use of a technology for news consumption.

LITERATURE REVIEW

News Use on Social Media Platforms

The concept of news use had been primarily interpreted from a passive information perspective before the birth of social media platforms (Beaudoin & Thorson, 2005; Guggenheim, Kwak & Campbell, 2011; Holbert, 2005). Scholars preferred to interpret news use behaviors as exposure to information, and they tended to measure it by frequency and length of time (Brians & Watteneberg, 1996; Eveland & Scheufele, 2010; Holbert, 2005; McLeod et al., 1996; Price & Czilli, 1996). For instance, when exploring the relationship between television news use and political participation, Evenland and Scheufele (2005) examined an individual's degree of news use by his or her exposure and attention to news, which was measured by the time one spent watching TV news. Similarly, when examining people's newspaper use, Beaudoin and Thorson (2005) measured how many days per week people read newspapers.

The conceptualization of news use may need to be re-defined as the news and communication environments are different within social media settings. Exposure to news is no longer enough to describe people's news use on social media platforms. Evenland and Scheufele (2010) said, "It is unclear whether measures of exposure and attention are best combined to create general 'news media use' measures (p. 222)." Thus, the conceptualization of news use is explored for the purposes of studying social media environments.

In the present study, it is assumed that news use consists of more active behaviors such as participating in or engaging with news. It is because when talking about news use behaviors, earlier researchers tended to describe it with actual and specific practices or behaviors. For example, Gottfried and Shearer (2016) used terms such as *getting news*, *seeing news*, and *seeking*

out news online in their social media news use research. Barthel and Shearer (2015) used statements such as *following news organizations*, *sharing news*, and *retweeting or tweeting about news* to depict how Americans engage with news on Twitter. Furthermore, Meijer and Kormelink (2015) argued that people's news use includes both traditional news consumption behaviors like monitoring, checking, snacking, scanning, watching, viewing, reading, listening, searching, and linking, and social media practices such as linking, sharing, liking, recommending, commenting, and voting. These empirical measures demonstrate the transition to a more active interpretation, yet it has not been conceptually defined in previous social media research. Thus, it is reasonable to emphasize the activeness of news users when conceptualizing news use.

Previous research enacted a uses and gratifications approach to analyze the activeness of news use behavior. U&G theory assumes that audiences are active users in linking needs and gratifications with media selection (Katz et al. 1974). Compared to traditional media users, social media users can be classified as active online participants because they actively seek, select, and interact with media content based on their social and psychological needs (Lain, 1986; Masouras & Papademetriou, 2015; Quan-Haase & Young, 2010; Shao, 2009; Vincent & Basil, 1997). This phenomenon is in accordance with what the use and gratifications theory that argues that people actively seek out certain media to satisfy their certain needs (Cantril, 1942). Thus, the news use concept can be defined as a behavior in which people actively seek, consume, and interact with news content to satisfy their daily social and psychological needs.

Dimensions of News Use

People's socio-psychological needs to some degree can determine how news media sources will be used (Lain, 1986). From this perspective, needs are the motivations which give rise to corresponding behaviors. However, Krisanic (2008) posited that needs not only serves as

the reason and cause of behavior, but is also a key approach in understanding the behavior. For example, one's behavior of news reading could be *information collecting* if an individual wants to read news because he or she wants to collect information. Moreover, Cooper, Shapiro, and Powers (1998) claimed that understanding the goals or needs of a behavior is the best way to understand the behavior of humans. Therefore, it is feasible to conceptualize people's behavior of news use by classifying them based on the generalized needs associated with them.

Based on this rationale, the present study used the dimensions of Masouras and Papademetriou's (2015) reading news on news media for conceptualization guidance. Masouras and Papademetriou (2015) also took a uses and gratifications approach to analyze how people use news media for information collection, which categorized news media use into four categories: 1) information (i.e., news media/social media users use of a channel for collecting information); 2) discussion (i.e., referring to users want to communicate or interact of other users or journalists); 3) entertainment (i.e., indicating that users want to receive entertainment services by using the news media); and 4) surveillance (i.e., referring to the usage of news media for the need of learning what is going on around the world). The operationalization of news use concept, however, was adjusted to accommodate a closed messaging platform because Masouras and Pademetriou's measurement targeted general news media rather than social media platforms.

Information. The information dimension means that people consume news in order to become informed, which includes several behaviors such as getting information, updating themselves with current issues, and searching for information. In fact, several other scholars consider information needs as an important factor that contributes to news media use (Froget, Baghestan, & Asfaranjan, 2013; Joinson, 2008; Krisanic, 2008). It is natural to include information in the concept of news media use because news media is a source of and a medium to disseminate

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information and news is a form of information; hence, any behavior related to news can be regarded as a behavior dealing with information (Keen, 2007; Nielsen & Schrøder, 2014). Thus, information-related behaviors, to some extent, demonstrate people's news use behaviors.

Entertainment. The entertainment dimension puts a greater emphasis on that people read news in order to kill time. The entertainment dimension has been discussed in social networking research (Froget et al., 2013; Joinson, 2008; Krisanic, 2008; Lasswell, 1948; Nyland, 2007). For example, Quan-Haase and Young (2010) did a factor analysis and found one major motivation for college students to use Facebook to past time. Facebook can satisfy their gratifications for entertainment in which university students can temporarily use entertainment content to get away from pressures and responsibilities. Friends' daily posts and news media's updates comprise the primary part of the content on social media platform. When people use social media for entertainment, it is reasonable to hypothesize that users may scroll for new updates and that behavior can bring users relaxation. There is no specific goal of accomplishing a task, instead the purpose is to fulfill people's entertainment needs.

Discussion. Discussion news use means that people consume news to satisfy their needs of having discussion with others. Actually, previous research found information acquisition from media sources can increase people's civic participation (Gil de Zúñiga, Veenstra, Vraga, & Shah, 2010; Wellman, Haase, Witte, & Hampton, 2001; Shah et al., 2005). For example, Zúñiga et al. (2012) discovered that use of social networking sites can boost users' civic engagement activities in politics such as increasing individual's frequency of discussing political events online and expanding discussion networks. Different from prior research discussing the relationship between news consumption and discussion behavior, this study argues that

discussion is a need and an aspect of news use behavior because people have to update news to have resources to discuss with others or exchange opinions on an issue.

> **Surveillance.** Surveillance has also been frequently mentioned in social networking and news media research (Froget et al., 2013; Joinson, 2008; Krisanic, 2008; Laswell, 1948). Surveillance means taking a closer observation of someone or something. Social networking sites serve a surveillance function that allow users to track friends' actions, recently happened events, and breaking news (Lampe, Ellison, & Steinfield, 2006). In this study, the behavior of news use can provide the function of surveillance by which people can observe what is going on around the world.

Closed Messaging Platform and WeChat

Closed messaging platform commonly refers to the proprietary and encrypted application for instant messaging, allowing users to exchange texts, images, documents, user locations, video, and audio or conducting free video conferences. Users can download closed messaging applications on their smart phones, tablets, laptops, and computers. Example closed messaging apps are WhatsApp, Facebook Messenger, Snapchat, Viber, and WeChat. Closed messaging applications successfully attract a population of users who want to share experience with a smaller, specific group. One report showed that 55 percent of internet users worldwide use closed messaging platforms (Webb, 2015).

Secured user privacy is the most notable feature of the closed messaging platform, which makes it attractive in comparison to other traditional social media sites such as Facebook and Twitter. The social media application constitutes a virtual world for people to express their opinions, vent emotions, build profiles, and share life stories. Privacy advocates and scholars claimed that online privacy is a big concern (Madden, 2012). A 2012 survey from Pew Research Center

reported that 58 percent social networking sites users had restricted the access to their profiles, only allowing their friends to see their content. Another privacy issue is that social media companies use users' profile data for marketing analysis and monetary purposes. A study published by Cambridge and Stanford Universities researchers (Kosinski, Stilwell & Graepel, 2013) indicated that Facebook can accurately predict users personality, preferences, likes or dislikes, and purchase intentions through analyzing the data of users' online profiles, actions, comments, and footprints. However, closed messaging applications can secure their privacy because closed messaging applications encrypt all messages, phone calls, photos, personal information, and videos (Metz, 2016). The encryption is end-to-end mode, meaning only the communicators of the two ends know the content of the message, not even the service company employees can get access to the data sent across the network. This stonewalling, or closed setting, helps to build a safe world for application users, which encourages more conversations and behaviors than cannot be found in other open network platforms (Radcliffe, 2015).

WeChat

WeChat, as one of the most popular closed messaging apps, has become the dominant social networking platform in China. The number of WeChat active users rocketed to 650 million in 2014, 42 percent of Chinese overall population, surpassing other more open messaging systems such as Weibo, QQ, and Renren (Zhu, 2016). There are 700 million users on average that log onto WeChat per month, more than 70 million of which live outside of China (Tencent, 2015). Not only has WeChat become the most popular messaging app in Asia, it also occupies a considerable proportion of U.S. messaging market: 41 percent of U.S. internet users use WeChat each day. As an emerging distribution channel, some major international news media such as the

Wall Street Journal and BBC, seek to find ways to engage WeChat users by launching public accounts on WeChat to deliver their information to a global audience (Drozdoff, 2014; O'Donovan, 2014).

WeChat has some similarities with traditional social media sites, but it also possesses the advantages of closed messaging system. First of all, WeChat enables users to send messages, documents, images, or videos, and it also supports different forms of chatting such as real-time voice intercom, video calling, and group chatting (Xu, 2015). Second, WeChat users can have a feed wall like Facebook users do, and on this wall, they can post anything they want to share with the public and they can also *like* or *comment* on others' posts. In recent years, WeChat developers extended more functions including taxi calling, money transferring, online shopping, and news updating and sharing (Zhu, 2016).

The closed messaging setting distinguishes WeChat from other open social media systems, in which users can share their posts and can be only seen by the community they created. WeChat user's wall cannot be visited by others until they send a request for it or they have already added that person as a "friend." If an individual has one-hundred friends in his or her WeChat contacts, his or her posts can only be seen by those one-hundred friends. This special setting not only protects privacy of WeChat users, but also encourages interactions that may be unique to a closed messaging system.

The journalistic value of WeChat is significant in news production and journalist-audience engagement. It is claimed that WeChat and other closed messaging apps (e.g. Snapchat, Whatsapp) one of the latest, but yet not as well understood, tool being used for news-gathering, a discussion space for both domestic and international stories, and a channel of news distribution

(Belair-Gagnon, Agur & Firsch, 2016). As a tool for news-gathering, researchers have discovered that WeChat has been used for journalists to follow real-time events, develop sources and engage with audiences in Hong Kong Umbrella Movement.

Theoretical Background and Research Model

It is also important to consider technological factors of social media apps such as interface, functions, or services and network structure when looking at people's news use behaviors because technology features may make users prefer one social media platform over others (Kumpel et al., 2015; Thorson, Shoenberger, Karaliova, Kim, & Fidler, 2015; Zhang & Leung, 2014). Task technology fitness theory was used to explore whether technological features would affect people's adoption and usage of WeChat for news consumption. Researchers have recognized that the frequency and intensity of news use practices differ on different social media platforms. For example, Meijer and Kormelink (2015) found that Twitter users would check, comment, or share more news than Facebook users, because Twitter is better at pushing messages and is easy for users to follow unfolding events. Meijer and Kormelink speculated that the technological advantages that occur on social and mobile media platforms and devoices brought a revolution in how people deal with news, but the authors did not look into technology features to explain why people prefer Twitter for news use than Facebook. The present study examined news use on closed messaging platforms not only from aspect of user perceptions, but also technology features as well. Thus, this research integrated four principal variables from UTAUT model with a task-technology fit concept from the TTF model (see Figure 1). The following section aims to justify how factors such as performance expectancy, effort expectancy, social influence, facilitating conditions, and task-tech fit likely relate to news use behaviors on a closed messaging platform such as WeChat.

Unified Theory of Acceptance and Use of Technology Model

Unified Acceptance and Usage of Technology Model is a model refined and synthesized from eight theories: the theory of reasoned action (TRA), TAM, the motivational model, TPB, the PC utilization model, the innovation diffusion theory (IDT), an integrated model of planned behavior and technology acceptance and the social cognitive theory (SCT). Comparative research was conducted to test each independent variable of each model for the purpose of selecting out the most significant factors from seven interrelated models (Venkatesh et al., 2003). Venkatesh and his coauthors found that performance expectancy, effort expectancy, social influence present as three direct determinants of intentions to use, intention and facilitating conditions are two significant factors that directly influence user acceptance and usage behavior. Even though UTAUT model is not as popular as TAM model in technology adoption studies, it has been recently used in mobile technology acceptance research (Carlsson, Hyvonen, Puhakainen, & Walden, 2006; Min, Ji, & Qu, 2008; Park, Yang, & Lehto, 2007).

Performance Expectancy. Performance expectancy has been defined as the degree to which an individual believes that the system will help him or her improve the performance or efficiency in completing a task or doing something (Venkatesh et al., 2003). It is a concept reflecting elements from five constructs from eight models: perceived usefulness (TAM/TAM2 and C-TAM-TPB), extrinsic motivation (MM), job-fit (MPCU), relative advantage (IDT), and outcome expectations (SCT). Perceived usefulness is the core construct that pertains to performance expectancy. The behavior decision that users adopt an information technology in a task, is largely influenced by the degree to which the user considers the technology as "capable of being used advantageously" (Davis, 1989, p. 320), which can contribute a positive relationship regarding use.

Performance expectancy, or perceived usefulness, has been corroborated to be a fundamental determinant of predicting the usage of new information technology in previous studies (Adams, Nelson & Todd, 1992; Alikilic & Atabek, 2012; Gruzd, Staves & Wilk, 2012; Zhou, 2010). For instance, Alikilic and Atabek (2012) found that a higher degree of performance expectancy contributed to PR practitioners' use of social media for promotion. Following this logic, this study posits that when people perceive WeChat as a useful technology, there would be higher possibility for people to employ WeChat for all dimensions of news use.

H1: Performance expectancy will have a positive relationship with news use on the

closed messaging platform.

Effort Expectancy. Effort expectancy is defined as "the degree of ease associated with the use of the system" (Venkatesh, 2003, p. 450). Effort here refers to the limited resource of time and energy that is needed to be spent on tasks (Radnerand & Rothschild, 1975). The amount of effort spent to complete a task is a concern of the instrumentality of a technology (Davis et al., 1989; Szajna 1996; Venkatesh 1999). If a technology is difficult to use, or takes lots of time or effort to accomplish certain tasks, it would affect people's decision to use the system (Venkatesh, 2000). The influence of effort expectancy on the decision to use a system is more obvious during the beginning phase of adoption. Moreover, Lane and Coleman (2012) found that a higher degree of effort expectancy contributes to higher intensity of social network use. In present research, it is assumed that if people perceive the technology is easy, convenient, and effortless for them to get, seek, comment, and share news on WeChat, they would more likely use the technology for news use.

H2: Effort expectancy will have a negative relationship with news use on a closed

messaging platform.

Social Influence. Social influence refers to the degree of an individual's valued others believe he or she should use the information technology (Venkatesh, 2003). Behavioral changes studies and technology adoption research found that individuals' technology usage behavior is influenced when they believe that others view them as already having used the technology (Davis et al., 1989; Moore & Benbasat, 1991; Thompson et al. 1991). Influence can come from both peer and superior colleagues (Mathieson, 1991; Taylor & Todd, 1995b). Effect of influence begins when people begin to change their behavioral intention in order to meet valued others' expectations (Fishbein & Ajzen, 1975). Thus, it is possible that people that use closed messaging apps for news use may be the result of recommendations, suggestions, or observations of other people.

H3: Social influence will have a positive relationship with news use on a closed messaging platform.

Facilitating Conditions. Facilitating conditions refers to the external and internal factors that can support or facilitate the process of accomplishing a task when using the system (Ajzen 1991; Taylor & Todd, 1995a, 1995b; Moore & Benbasat, 1991; Thompson, et al., 1991). If the infrastructure of the system can support users to complete a task on the system, the possibility of usage increases (Thompson et al., 1991). Also, if an individual has enough knowledge of how to use this system for a task, he or she would probably use this system (Ajzen 1991; Taylor & Todd, 1995a, 1995b). Results of previous research proved that facilitating conditions, external or internal, have an impact on social media usage behavior (Venkatesh et al., 2003). In this study, facilitating conditions are the functions and services provided by closed messaging platforms that

enable users to engage in news use on it. If people perceive the infrastructure, functions, and services of a closed messaging platform support their use of news, they will probably use it for news use.

H4: Facilitating conditions will have a positive relationship to news use on the closed messaging platform.

The UAUTM provides an insightful perspective to examine news use behaviors, but it falls short by focusing only on the subjective impacts on actual behaviors, such as people's attitudes or perceptions. For example, if a person uploads his or her photos online and has two choices - Facebook and Instagram. That person will also likely make a decision based on the functions of the social media platform such as the image display functions. The technological setting of a particular social media platform may lead a person to perceive that Instagram may have a better service for photo display and engagement. Hence, as more information systems are accessible to the public, and some of them may overlap on several functions, the reason why people choose one system over the other likely is not only explained only from a subjective perspective, but also a technological feature perspective.

Task and Technology Fit

Task and technology fit theory presumes that there is a *fitness* between the technological features and characteristics and the requirement of the task (i.e., news use). And the degree of the *fitness* will decide one's utilization of a technology (Goodhue, 1995). In the case of the present study, the features and characteristics of the technology refer to the unique closed message setting of WeChat and its stemming news-related functions. Task, technology and the fitness are also have been proved to be important antecedents for the usage of a social media (Thorson et al., 2016). For example, in a study on how to engage social networking sites, Lu and Yang (2013)

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found that social characteristics such as *developing new relationships*, *maintain existing relationship*, technology characteristics such as Facebook's *The wall function*, *Find friends*, *Like function*, and the fitness between the social and task characteristics has a moderate impact on people's intention to use Facebook.

Applied on the present study, it is assumed that news use is a task for WeChat users, newsfulness refers to the likelihood of the technology would be used for news consumption. The characteristics of the technology affect the news fulness and then influence users' perceived fitness between the technology and news use. So if WeChat users perceive that WeChat "personal subscription funtion", "moments function", and closed message setting, fit their news consumption preferences, they will be more likely to use it for news updating.

H5: The task technology fit will have a positive relationship to news use on the closed messaging platform.

METHOD

Sample

A quantitative survey was administered to 4353 Chinese undergraduate and graduate students at Michigan State University (MSU). This research selected Chinese students at the university because WeChat is the primary and widely used closed messaging app among Chinese students. Secondly, university students are a group of people that are active users of social media applications (Diddi & LaRose, 2006). Of 337 responses, 201 participants were undergraduate students, 59 were master's level students and 77 were Ph.D. students, and 151 participants were male and 188 participants were female.

Sampling Procedure

The questionnaire was emailed to Chinese students at MSU through Qualtrics and SONA. A mail list with 4353 Chinese students was required from MSU Registrars' office. Chinese students who have adopted the WeChat application were considered qualified to complete the questionnaire. After two months of data collection, 606 Chinese students responded the survey. I deleted invalid responses which were answered less than half of the questionnaire and kept the rest responses. So in the end 373 were used for statistical analysis .

Measures

The research model included five constructs, each of which was measured by items adopted and modified from previous research (see Appendix 1).

News Use. The concept of news use was measured from four dimensions: information, entertainment, discussion, and surveillance. Seventeen items of the scale were modified from Masouras and Papdemetriou (2015) social media uses and gratifications scale and three items were created based on conceptual definition. In the scale of news use, six items of information

news use, five items of entertainment news use, four items of discussion news use and two items of surveillance news use were modified from Masouras and Papdermetriou's scale to fit the news use context of this study; and three surveillance items were created. For example, information item "To get information that I need" was changed to "I use WeChat to get information that I need." It is necessary to add WeChat and "I" in the item because the purpose of this research was to understand people's news use behaviors on WeChat. The author also created some items for surveillance dimension but only one item (i.e., "Reading online news is a way to learn about people.") was provided, which is insufficient to capture the abstractness of the surveillance aspect of news use. Four relevant items therefore were created, such as "I use WeChat for news to learn about what is going on in the world" and "I employ WeChat for news to be informed the first moment when news happens."

Performance Expectancy. This study modified one item from Venkatesh (2003), one item from Subramanian (1994), and created three items based on the definition of performance expectancy. And in accordance to the context of this study, I changed the words "the system" to "WeChat" and "the job" to "news use." This survey asked respondents to what extent they agree or disagree with the performance expectancy items (e.g., "WeChat increases my mastery of what happening around the world") following a 5-poing Likert-type scale, ranging from *strongly agree* to *strongly disagree.*

Effort Expectancy. Effort expectancy had seven items in total. I modified two items from Venkatesh's (2003), two items from Saade and Bahli (2005) effort expectancy scale, and created three items in accordance to the context of this study. Words such as "the system" was changed to "WeChat." For example, "It would be easy for me to become skillful at using the system" was changed to "It is easy for me to become skillful at using WeChat for news updating." I

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asked respondents to what extent they agree or disagree with performance expectancy items (e.g., "It is easy for me to access news on WeChat.") following a 5-point Likert-type scale.

Social Influence. This study used Venkatesh's (2003) social influence scale and made changes to all five items in order to accommodate with the WeChat environment. For example, the original item "People who influenced my behavior think that I should use the system" was changed into "People who influenced my behavior think that I should use WeChat for news." I asked respondents to what extent they agree or disagree with social influence items (e.g., "People who are important to me think that I should use WeChat for news.") following a 5-poing Likert-type scale.

Facilitating Conditions. This research adopted Venkatesh's (2003) performance expectancy scale and changed "the system" to "WeChat" and "the job" to "consume news" in six items. I asked respondents to what extent they agree or disagree with facilitating conditions items (e.g., "I have the resources necessary to use WeChat news use related functions.") following a 5-point Likert-type scale.

Task-tech Fit. Four task-tech fit items were adapted from Lu and Yang (2014) and three items were modified from Klopping and Mickinney (2004). Lu and Yang (2014) developed items to address the fitness between Facebook functions and tasks people have to complete, and Klopping and Mickinney (2004) created items to explore the fitness between mobile technology features and business. This study chooses to use these two scales because Facebook and mobile technology are similar to WeChat which is a social media app used on mobile devices. Respondents were asked to what extent they agree or disagree that there is a degree of fitness between news use and WeChat (e.g., "In general, the news functions of WeChat are a best fit for me.")

Figure 1 Research Model (Integraded UTAUT with Task-Tech Fit)
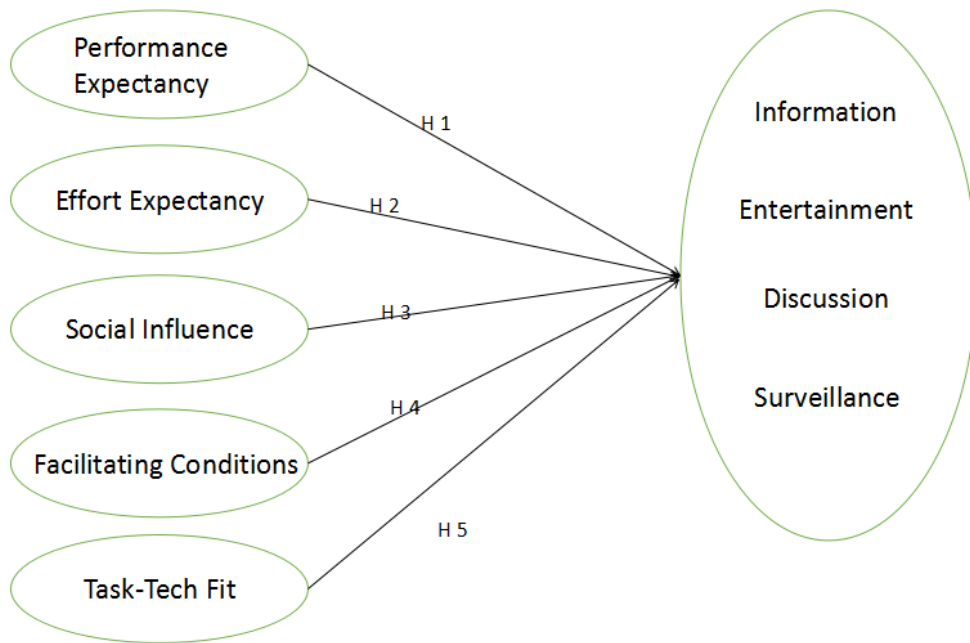
RESULTS

H1 posited that performance expectancy would have a positive relationship with news use on WeChat. The regression results showed that performance expectancy did not predict any dimension of WeChat news use behaviors, and hence H1 was not supported (see Table 1).

H2 hypothesized that effort expectancy would negatively relate to WeChat news use. According to regression analyses, effort expectancy negatively correlated with the discussion (β = -.30, p < .01), surveillance (β = -.30, p < .01), information (β = -.29, p < .01), entertainment (β = -.23, p < .05) news use dimensions. Thus, H2 was supported because effort expectancy significantly predicted all four dimensions of news use.

Table 1 Summary of Regression Results for WeChat News Use Analysis

_____

Predictors	Beta	*SE*
Information		
Performance Expectancy	0.087	0.110
Effort Expectancy	-0.297	0.084*
Social Influence	0.202	0.067*
Facilitating Conditions	0.232	0.094*
Task-Tech Fitness	0.208	0.057*
Adjusted R^2 = .186, n = 373, df = 5		
Entertainment		
Performance Expectancy	0.040	0.089
Effort Expectancy	-0.228	0.067
Social Influence	0.229	0.054*
Facilitating Conditions	0.073	0.076
Task-Tech Fitness	0.330	0.046**
Adjusted R^2 = .192, n = 372, df = 5		
Discussion		
Performance Expectancy	0.085	0.093

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Table 1 (cont'd)

	-0.309	0.071*
Effort Expectancy		
Social Influence	0.332	0.057**
Facilitating Conditions	0.142	0.080
Task-Tech Fitness	0.117	0.048

Adjusted R^2 = .159, n = 373, df = 5

<div align="center">Surveillance</div>

Performance Expectancy	0.085	0.093
Effort Expectancy	-0.309	0.071*
Social Influence	0.332	0.057**
Facilitating Conditions	0.142	0.080
Task-Tech Fitness	0.117	0.048

Adjusted R^2 = .159, n = 373, df =5

Note. Four standard regressions were conducted (one for each outcome variable). Betas are standardized coefficients.
**$p < .001$; *$p < .01$

H3 stated that social influence would have a positive correlation with new use behaviors on WeChat. Social influence was a positive predictor of the surveillance (β = .33, $p < .001$), discussion (β = .23, $p < .001$), entertainment (β = .22, $p < .01$), and information (β = .20, $p < .01$) news use behaviors. H3 was also supported by the data because it was significantly associated with four dimensions of news use.

H4 predicted that facilitating conditions would have a positive relationship with news use behaviors. The regression results indicate that facilitating conditions was a significant predictor of information news use (β = .22, $p < .01$). However, facilitating conditions was not significantly associated with entertainment, discussion, and surveillance news use. H4 was partially supported by the data.

H5 posited that users' perception of Task-Tech fitness would positively predict the news use behaviors on closed-messaging apps. The results found that task-tech fitness positively correlated with entertainment ($\beta = .33$, $p < .001$) and information ($\beta = .20$, $p < .01$) news use, but did not significantly associate with discussion and surveillance news use. Hence, H5 was partly supported.

DISCUSSION

The present study aimed to explore both perceptional and technological factors that may influence people's news use behaviors in the context of closed messaging platforms. Variables from UTAUT and TTF were adopted for factors exploration. After analyzing 373 valid responses, results showed that effort expectancy, social influence, facilitating conditions, and task-tech fitness can significantly predict news use behaviors on WeChat; however, performance expectancy was found not a significant predictor.

The present study uniquely contributed to knowledge by providing conceptual definition and operational measurement of news use. The conceptual definition was proposed based on a comparison of the differences between traditional mass media passive news consumption and social media active news use behaviors. Activeness is the most important feature of news use behavior on social media and was highlighted in the definition. Also, this study also provided a measurement of news use, which was referenced from measurement of social media use in previous research. The scale items emphasized the needs and gratifications of users when consuming news, which is in accordance with the activeness feature in proposed conceptual definition.

This study proposed that technology features of social media would influence news use and this hypothesis was supported according to the results. The technology features of a social media are important predicting factors, but they had not been substantially investigated in prior research. The results showed that the fitness between task and technology characteristics significantly predicted information and entertainment news use, which means that people think WeChat news related technology features a good fit to seek news, get information, and entertain themselves.

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Performance Expectancy

The results demonstrated that performance expectancy did not significantly relate to news use behaviors on WeChat, which is in contrast with that expectancy is an important factor in predicting the intention to use email in workforce (Venkatesh et al., 2013). One possible explanation is that news use behaviors do not involve dealing with performance issues such as accomplishing tasks quickly or increasing productivity. Prior research that used te UTAUT model to address the social media adoption concerned improving work efficiency. For example, it was found that scholars adopted social media to build and maintain their professional connections because it enabled them efficiently maintain social networks (Gruzd et al. 2012). Also, social media can help public relation practitioners be more effective in targeting audiences, promoting courses, and developing communication strategies (Curtis et al., 2012). Also, Mandal and McQueen (2012) used UTAUT model to explore whether the adoption of social media helped micro business owners attract more customers. Compared to the tasks studied in above research, reading or consuming news may be more of a daily habit or a way to kill time. And as result, news consumers may be indifferent regarding how much news they can read in ten minutes or their knowledge accumulation associated with the reading of current news. Thus, whether this technology can increase their mastery of what is going on in the world does not necessarily affect their news use behaviors.

Effort Expectancy

The findings found that effort expectancy results was a significant influence over the behavior of news use on a closed messaging platform. As the results indicate, effort expectancy significantly predicted information news use, entertainment news use, discussion news use, and surveillance news use. These results are supported by prior findings that social media network

usage increases when reading the news does not involve much time or effort (Lane & Coleman, 2012). Information, entertainment, discussion, and surveillance news use are involved with effort related behaviors such as news searching, news scanning, news reading, and news obtaining. The less effort and time for users to conduct these behaviors on a social media app, the more likely users will use it. Based on the results, WeChat users likely perceived it was easy, convenient, and effortless for them to seek, read, discuss and share news on that platform. This may be due to WeChat News Subscription easy reading interface, on which each news organization has its own tab and four to six piece of news are provided as a package every time in a box. According to the the present study's results, effort had a larger impact on information news use than discussion and surveillance news use. This finding may be because when people want an update with what is going on in the world, they desire to get as much information as possible in a certain amount time. Thus, social media companies who intend to integrate news related function into a platform or want to create a new news social media app, it is important to design an interface which it is convenient for news consumers easily to search and read information.

Social Influence

The results indicated that social influence also played a critical role in predicting the behavior of news use on WeChat, including information, entertainment, discussion, and surveillance news use. The result is in accordance with prior research findings, as Venkatesh and Davis (2000) thought that both peer and superiors suggestions and recommendations to someone about adopting an information system can largely affect the individual's behavior.

Actually, Kelman (1958) proposed that there are three levels of changes in attitude and behavior caused by social influence: compliance, identification and internalization. Compliance means people adopted an expected new behavior because they want to get the rewards or avoid

punishments. Identification means that people change to the suggested behavior because they want to maintain the relationship to the person or the group. Internationalization refers to that people accept the suggestion and change the behavior because it is in accordance with their value system. Based on Kelman's categorization of social influence, the social influence proposed by Venkatesh and Davis seems between the compliance and identification levels. However, compliance behavior occurs under surveillance of an influencing supervisor and will lead to a negative feeling and attitude toward the use of the information system (Kelman, 1958; Malhotra & Galletta, 1999). In contrast, the identification and internalization level of changed behavior will contribute to a positive attitude toward use of a technology system. Thus, WeChat users accept others' suggestions and use WeChat is because first they want to maintain the relationship to the person and the group they identified with, second users consider the capabilities of WeChat news service is in congruent with their news consumption needs.

Prior research findings also suggested that identification and internalization of induced behavior is a strong factor in predicting the behavior of technology acceptance and usage (Malhotra & Galletta, 1999). Inspired by the result and previous literature, it is important for social media app companies to think at two different levels. For app companies who want their new app to be adopted by people, it is to think about the targeted population or group. For companies who want their app to be continuous used by current users, it is critical to think about which aspects of this app can be improved to cater or meet the users' needs.

Facilitating Conditions

The results show that facilitating conditions only had a significant relationship with information news use. Facilitating conditions refers to the internal or external resources which one perceives that it can support the use of information system (Ajzen, 1991; Thompson et al. 1991;

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Venkatesh et al. 2003). Information news use emphasizes that users actively consume and experience news, which includes actively searching for interested topic, stories, or news organizations. Besides, the operation system in WeChat is different from other popular apps we used before, so having others' help or knowledge of how to use the app can facilitate the usage for news consumption. For example, when one wants to search some news articles, he or she needs to know where to type in keywords and how to filter out relevant articles. In WeChat, if you type keywords in chat section, all the information it provides is from the chat section and if you find articles in news subscription part, the information is all from the subscription section. Results also showed that entertainment, surveillance and discussion news use is not significantly related to facilitating conditions. This is because the other types of news use do not get involved with searching skills on WeChat, and hence do not need external help or internal knowledge of how to use this app.

Task Technology Fitness

This research also showed that the perceived fitness between a technology's functionality can predict users' information and entertainment news use behaviors. Particularly, task-tech fitness had a moderate impact on entertainment news use. Task-technology fitness refers to the degree to which one perceives a technology is fit to complete a task. WeChat is perceived fit for users' information and entertainment news use. In general, the news feeds function is one of the primary services of social media apps, which is provided to satisfy users' news needs. WeChat has its own special News Subscription function. For example, every news organization has their official account on WeChat and users can get the most current news by following the subscription account on WeChat. On the interface, each news account has their own tab and it never gets

mingled with other news organizations, which is very easy for users to read news by news organizations rather than reading stories organized by topic. Also, WeChat users can avoid reading repeating or similar news. Instead of scrolling until the last read post, WeChat News Subscription function provides the latest news as a form of matrix with four or five stories in it, users can read titles of each story first and then decide to choose which one to click to read. This function is not available on either Facebook or Twitter. In Facebook or Twitter, every news post will be provided on Wall and one needs to scroll all the way to the post he or she read the last time. Compared to Facebook and Twitter's scrolling to the last post, WeChat provides more efficiency and convenience for users on news use, and thus WeChat is an ideal app for information and entertainment news use.

However, the perceived fitness between WeChat and news did not predict discussion and surveillance news use in this study. This is because discussion news use is not a behavior which likely often takes place on WeChat and the technological features of WeChat do not facilitate discussion or surveillance behaviors.

CONCLUSION

The goal of this research was to identify the factors that contribute to the news use behaviors on a closed messaging platform. To my knowledge, this study is one of the few studies that not only addresses closed-messaging platforms and behaviors on it, but also attempts to explore news use by adopting four variables (performance expectancy, effort expectancy, social influence, facilitating conditions) from UTAUT and tech-task fitness variable from TTF theory. The research demonstrated that most of the adopted variables can provide a theoretical explanation of news use behaviors on WeChat.

Future studies can continue explore other privacy secured apps like WeChat and how the privacy technical features might influence news use behavior. As Kümpel et al. (2015) pointed out, many news sharing studies focus on Twitter because of the accessibility to data. Kümpel and her colleagues advised that scholars should also investigate other social media platforms because each social media platform likely has its special network structures, different mechanism for news sharing, and user characteristics.

It is necessary for future studies to capture the changing and evolving complexity of news use. As a term news use has been mentioned for years, but there was no formal conceptual definition found. As the role of news users keeps changing with the development of new technologies and become more complicated in the context of various news platforms, the behavior of news use is no longer restricted to simple behavior such as news sharing.

Since the launch of WeChat news function five years ago, its unique news service design, reading interface, and the chat function have attracted WeChat users. This study cut into WeChat news service area from the angel of WeChat news technical features and users' news use behavior and pointed out several technical factors which are different from Facebook and Twitter

news service functions can bring much use convenience to readers and contribute to news use behavior on WeChat. The results of this study reminded us that for social media app companies who want to extend the function to news service, it is not only important to get as many news feeds as possible, but also to consider whether it is easy, expedient and convenient to operate. Thus, future studies can continue researching about the special features of WeChat news service function discussed in this study and exploring their relationship with specific news related behavior. Also, following studies can compare the technical features among those social media apps in terms of news consumption convenience.

This study contributed to knowledge by integrating technology factors with user-centric variables to predict adoption and usage behavior. A user-centric approach can help us understand why people choose this social media rather than other apps from the angel of users' needs and perceptions. However, as different social media apps have their own special and distinct technical features, it is also interesting for researchers to think about whether these specific technology features of social media platforms play an important role in predicting news use behaviors. WeChat is one of the representative examples that created a distinguished service system and operational interface to attract users to consume news on it. Other social media platforms and its technology feature such as Instagram and its photoshop function, Snapchat and its ephemeral information feature, could also be research topics for further technology feature and corresponding behaviors study.

LIMITATIONS

First of all, the present paper is the first study to provide formal definition and measurement of news use and the definition and conceptualization of news use was based on previous description and scales. The validity of the measure needs to be tested in future studies. Second, variables from UTAUT and TTF theories are combined to explore how to use information system to improve performances at work. Technically, the usage of WeChat for news cannot be equated to the use of information system in workforce. The purpose of using information technology at work is to help users improve productivity and efficiency whereas people use social media for news is more for relaxing and getting informed and this process does not require productivity or efficiency. Thus, following scholars who want to use these two theories, may need to modify a little bit to fit the context. Finally, as for the social influence factor from UTAUT theory, this study only looks at normative social influence and the result showed a significant relationship with news use, so it is also important to look at informative social influence and its relationship with news use.

REFERENCES

REFERENCES

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179-211.

Barthel, M., & Shearer, E. (2015). How do Americans use Twitter for news? Retrieved June 07, 2016, from http://www.pewresearch.org/fact-tank/2015/08/19/how-do-americans-use-twitter-for-news/

Beaudoin, C. E., & Thorson, E. (2005). Credibility perceptions of news coverage of ethnic groups: The predictive roles of race and news use. *The Howard Journal of Communications*, *16*(1), 33-48.

Belair-Gagnon, V., Agur, C., & Frisch, N. (2016). *Studying chat app usage by American news organizations*. Retrieved July 17, 2016, from http://towcenter.org/studying-chat-app-usage-by-american-news-organizations/

Cantril, H. (1942). Professor quiz: A gratifications study. In P. F. Lazarsfeld & F. Stanton (Eds.), *Radio research 1941* (pp. 34–45). New York: Duell, Sloan & Pearce. Cantril.

Campbell, S. W., & Kwak, N. (2010). Mobile communication and civic life: Linking patterns of use to civic and political engagement. *Journal of Communication*, *60*(3), 536-555.

Carlsson, C., Carlsson, J., Hyvonen, K., Puhakainen, J., & Walden, P. (2006). Adoption of mobile devices/services-searching for answers with the UTAUT. In System Sciences, 2006. HICSS'06. Proceedings of the 39th Annual Hawaii International Conference on (Vol. 6, pp. 132a-132a). IEEE.

Chan, M. (2015). Examining the influences of news use patterns, motivations, and age cohort on mobile news use: The case of Hong Kong. *Mobile Media & Communication*, *3*(2), 179-195.

Chyi, H. I., & Chadha, M. (2012). News on new devices: Is multi-platform news consumption a reality?. *Journalism Practice*, *6*(4), 431-449.

Costera Meijer, I., & Groot Kormelink, T. (201*5).* Checking, sharing, clicking and linking: Changing patterns of news use between 2004 and 2014. *Digital Journalism*, *3*(5), 664-679.

Cooper, M. L., Shapiro, C. M., & Powers, A. M. (1998). Motivations for sex and risky sexual behavior among adolescents and young adults: a functional perspective. *Journal of Personality and Social Psychology*, *75*(6), 1528.

Dwyer, C., Hiltz, S., & Passerini, K. (2007). Trust and privacy concern within social networking sites: A comparison of Facebook and MySpace. AMCIS 2007 proceedings, 339.

Diddi, A., & LaRose, R. (2006). Getting hooked on news: Uses and gratifications and the formation of news habits among college students in an Internet environment. *Journal of Broadcasting & Electronic Media*, *50*(2), 193-210.

Dishaw, M. T., & Strong, D. M. (1999). Extending the technology acceptance model with task–technology fit constructs. *Information & Management*, *36*(1), 9-21.

Dou, Y., Niculescu, M. F., & Wu, D. J. (2013). Engineering optimal network effects via social media features and seeding in markets for digital goods and services. *Information Systems Research, 24*(1), 164-185.

Eveland Jr, W. P., & Scheufele, D. A. (2000). Connecting news media use with gaps in knowledge and participation. *Political Communication*, *17*(3), 215-237.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitudes, intention, and behavior. An introduction to theory and research*. Massachusetts: Addison-Wesley.

Lane, M., & Coleman, P. (2012). Technology ease of use through social networking media. *Journal of Technology Research, 3*(1).

Metz, C. (2016, April). Forget Apple vs. the *FBI: WhatsApp Just Switched on Encryption for a Billion People*. Retrieved August 01, 2016, from https://www.wired.com/2016/04/forget-apple-vs-fbi-whatsapp-just-switched-encryption-billion-people/

Min, Q., Ji, S., & Qu, G. (2008). Mobile commerce user acceptance study in China: a revised UTAUT model. *Tsinghua Science & Technology, 13*(3), 257-264.

Froget, J. R. L., Baghestan, A. G., & Asfaranjan, Y. S. (2013). A uses and gratification perspective on social media usage and online marketing. *Middle-East Journal of Scientific Research*, *15*(1), 134-145.

Gil de Zúñiga, H., Veenstra, A., Vraga, E., & Shah, D. (2010). Digital democracy: Reimagining pathways to political participation. Journal of Information *Technology & Politics, 7*(1), 36-51.

Goodhue, D. L., & Thompson, R. L. (1995). Task-technology fit and individual performance. *MIS Quarterly*, 213-236.

Gottfried, J., & Shearer, E. (2016). News Use Across Social Media Platforms 2016. Retrieved June 07, 2016, fromhttp://www.journalism.org/2016/05/26/news-use-across-social-media-platforms-2016/

Guggenheim, L., Kwak, N., & Campbell, S. W. (2011). Nontraditional news negativity: The relationship of entertaining political news use to political cynicism and mistrust. *International Journal of Public Opinion Research*, *23*(3), 287-314.

Joinson, A. N. (2008, April). Looking at, looking up or keeping up with people?: motives and use of facebook. *In Proceedings of the SIGCHI conference on Human Factors in Computing Systems* (pp. 1027-1036). ACM.

Katz, E., Blumer, J. G., & Gurevitch, M. (1974). Utilization of mass communication by the individual. In J. G. Blumler & E. Katz (Eds.), *The uses of mass communications: Current perspectives on gratifications research* (pp. 19-34). London, England: SAGE.

Klopping, I. M., & McKinney, E. (2004). Extending the technology acceptance model and the task-technology fit model to consumer e-commerce. *Information Technology, Learning, and Performance Journal*, *22*(1), 35.

Kosinski, M., Stillwell, D., & Graepel, T. (2013). Private traits and attributes are predictable from digital records of human behavior. *Proceedings of the National Academy of Sciences, 110*(15), 5802-5805.

Krisanic, K. (2008). Motivations and impression management: Predictors of social networking site use and user behavior (Doctoral dissertation, University of Missouri—Columbia).

Kümpel, A. S., Karnowski, V., & Keyling, T. (2015). News sharing in social media: a review of current research on news sharing users, content, and networks. *Social Media+ Society, 1*(2)*, 2056305115610141.

Lain, L. B. (1986). Steps toward a comprehensive model of newspaper readership. *Journalism and Mass Communication Quarterly*, *63*(1), 69.

Lampe, C., Ellison, N., & Steinfield, C. (2006, November). A Face (book) in the crowd: Social searching vs. social browsing. *In Proceedings of the 2006 20th anniversary conference on Computer supported cooperative work* (pp. 167-170). ACM.

Lasswell, H. D. (1948). The structure and function of communication in society. *The Communication of Idea*s, *37*, 215-228.
Lee, C. S., & Ma, L. (2012). News sharing in social media: The effect of gratifications and prior experience. *Computers in Human Behavior*, *28*(2), 331-339.

Li, X. (2013). Innovativeness, personal initiative, news affinity and news utility as predictors of the use of mobile phones as news devices. *Chinese Journal of Communication*, *6*(3), 350-373.

Liu, S., Zhang, Y., Chen, L., Guo, L., & Yu, D. (2015). Enterprise WeChat groups: Their effect on work-life conflict and life-work enhancement. *Frontiers of Business Research in China, 9*(4), 516. doi:10.3868/s070-004-015-0020-5

Lu, H. P., & Yang, Y. W. (2014). Toward an understanding of the behavioral intention to use a social networking site: An extension of task-technology fit to social-technology fit. *Computers in Human Behavior*, *34*, 323-332.

Ma, L., Sian Lee, C., & Hoe-Lian Goh, D. (2014). Understanding news sharing in social media: An explanation from the diffusion of innovations theory. *Online Information Review, 38*(5), 598-615.

Madden, M. (2012). Privacy management on social media sites. Pew Internet Report, 1-20.

Mandal, D., & McQueen, R. J. (2012). Extending UTAUT to explain social media adoption by microbusinesses. *International Journal of Managing Information Technology, 4*(4), 1.

Masouras, A., Siakalli, M., & Papademetriou, C. (2015). Uses and gratifications in online news: Comparing social media and news media use by users.

Martin, J. A. (2015). Mobile news use and participation in elections: A bridge for the democratic divide?. *Mobile Media & Communication*, *3*(2), 230-249.

Mao, C. (2014). Friends and relaxation: key factors of undergraduate students' WeChat using. *Creative Education*.

Meijer, I. C., & Kormelink, T. G. (2015). Checking, sharing, clicking and linking: changing patterns of news use between 2004 and 2014. *Digital Journalism, 3*(5), 664-679.

Min, Q., Ji, S., & Qu, G. (2008). Mobile commerce user acceptance study in China: a revised UTAUT model. *Tsinghua Science & Technology*, *13*(3), 257-264.

Moore, G. C., & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information Systems Research*, *2*(3), 192-222.

Nielsen, R. K., & Schrøder, K. C. (2014). The relative importance of social media for accessing, finding, and engaging with news: an eight-country cross-media comparison. *Digital Journalism*, *2*(4), 472-489.

Nyland, R. S. (2007). The gratification niches of Internet social networking, e-mail, and face-to-face communication. *Master Thesis*.

Oeldorf-Hirsch, A., & Sundar, S. S. (2015). Posting, commenting, and tagging: Effects of sharing news stories on Facebook. *Computers in Human Behavior*, *44*, 240-249.

Park, L. (2016). WeChat Red Bags: *How International Students from China Use Social Media While Attending a Public University in California.*

Park, J., Yong, S., & Lehto, X. (2007). Adoption of mobile technologies for Chinese consumers. *Journal of Electronic Commerce Research*, *8*(3), 196.

Price, V., & Czilli, E. J. (1996). Modeling patterns of news recognition and recall. *Journal of Communication, 46(2), 55-78.*

"Private messaging apps could push eyewitness media under the radar". (2015). Retrieved June 07, 2016, from https://medium.com/@emhub/private-messaging-apps-could-push-eye-witness-media-under-the-radar-c1c2f87d8268#.mlc0cg64k

Quan-Haase, A., & Young, A. L. (2010). Uses and gratifications of social media: A comparison of Facebook and instant messaging. *Bulletin of Science, Technology & Society, 30*(5), 350-361.

Saadé, R., & Bahli, B. (2005). The impact of cognitive absorption on perceived usefulness and perceived ease of use in on-line learning: an extension of the technology acceptance model. *Information & management*,42(2), 317-327.

Shao, G. (2009). "Understanding the appeal of user-generated media: a uses and gratification perspective". *Internet Research, 19*(1), 7-25.

Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Information Systems Research*, *6*(2), 144-176.

Thorson, E., Shoenberger, H., Karaliova, T., Kim, E. A., & Fidler, R. (2015). News use of mobile media: A contingency model. *Mobile Media & Communication.*

Thompson, R. L., Higgins, C. A., & Howell, J. M. (1991). Personal computing: Toward a conceptual model of utilization. *MIS Quarterly*, 125-143.

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.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly,* 425-478.

Vincent, R. C., & Basil, M. D. (1997). College students' news gratifications, media use, and current events knowledge. *Journal of Broadcasting & Electronic Media, 41*(3), 380-392.

Webb, J. (2015). The new social frontier: Instant messaging usage jumps 12% as more people opt for closed platforms | *TNS Global. Tnsglobal.com.* Retrieved 1 July 2016, from http://www.tnsglobal.com/press-release/new-social-frontier-instant-messaging-usage-jumps

WeChat: Number of users 2016 | Statista. (2017). Statista. Retrieved 1 March 2017, from https://www.statista.com/statistics/255778/number-of-active-wechat-messenger-accounts/

Weeks, B. E., & Holbert, R. L. (2013). Predicting dissemination of news content in social media a focus on reception, friending, and partisanship. *Journalism & Mass Communication Quarterly*, *90*(2), 212-232.

Wellman, B., Haase, A. Q., Witte, J., & Hampton, K. (2001). Does the Internet increase, decrease, or supplement social capital? Social networks, participation, and community commitment. *American Behavioral Scientist, 45*(3), 436-455.

Zhang, Y., & Leung, L. (2014). A review of social networking service (SNS) research in communication journals from 2006 to 2011. *New Media & Society.* Retrieved from http://doi.org/10.1177/1461444813520477

Zhou, T., Lu, Y., & Wang, B. (2010). Integrating TTF and UTAUT to explain mobile banking user adoption. *Computers In Human Behavior*, *26*(4), 760-767.

Zhu, X. Y., & Chhachhar, A. R. (2016). Descriptive analysis regarding use of WeChat Among university students in China. *Asian Social Science*, *12*(2), 151.