Mobile communication and political participation: unravelling the effects of mobile phones on political expression and offline participation among young people

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Abstract: In recent years, mobile devices have dramatically transformed the landscape of political communication by expanding individuals’ access to political information and their opportunities to express their own opinions among network ties. Previous research has already established a connection between informational uses of the mobile phone and the engagement in the civic and political spheres of social life. Consistent with this line of research, this study examined how various patterns of cell phone use affect the levels of political expression as well as offline participation, presenting a portrait of a new type of mobile political communication in the context of China. Hierarchical regression analysis reveals that reading news and tweeting via mobile phones were positively associated with political expression. Moreover, results indicate that mobile-based political expression had direct effects on offline political participation. Furthermore, results validate political expression as a mediator between certain mobile phone use and offline political participation. Finally, the study discusses the implications and limitation for future research.

Keywords: mobile devices; social networking sites; political communication; political expression; offline political participation; young people; China.

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1 Introduction

With the fast diffusion of mobile phones and wireless communication, the mobile device has not only been very fascinating, but has also engendered a new landscape in the political communication arena. Now mobile phones are regarded as promising applications due to they are enabled to widen the public sphere and strengthen civil society through the establishment of new networks and the proliferation of a great deal of political information (Rheingold, 2007). Today China has the world’s biggest mobile phone population at more than 1263 million users, according to latest statistics reported by China’s Ministry of Industry (CMI) (CMI, 2014). Meanwhile, by the end of June 2014, China has surpassed other countries to become the world’s largest internet-using population, reaching 632 million, 83.4% of which access the web through their smartphones (China Internet Network Information Center, 2014). With the help of mobile devices, ordinary Chinese citizens have new opportunities to express their discontent, voice their anger and organising various forms of political activities just by moving their thumbs on a mobile phone’s keyboard in their daily lives.

Although dramatic growth in mobile phone owners and mobile web users fuelled the increasing needs for political opinion-expressing and participation over the past years, Chinese citizens still have fewer opportunities to access to available information because of the Chinese government’s strict control of both traditional and new media. For example, Chinese people have an alternative to China’s domestic social media sites such as instant message service WeChat and Twitter-like microblogging service Weibo, when Facebook, Twitter, YouTube and other popular global social networking services (SNSs) are limited in the country (Pang, 2016). In such a complex media environment, relatively more freeways have been given to mobile devices (Wei, 2014). As Norris stated, digital media and technologies improve transparency and enhance the visibility of oppressed populations, in particular by contrast with print and broadcast media under tighter central government control (Norris, 2001). Consequently, the mobile phone has acted as an alternative political communication space for diverse interaction, political information sharing and discussions on various topics, as well as engagement in politics among young people (Chen, 2014; Vesnić-Alujević, 2016; Wallis, 2011; Wei, 2014). For instance, mobile phone users are able to obtain information and distribute unofficial versions of political information through mass texting and voice messaging. In addition, social networking sites on mobile devices such as Weibo (literally microblog) offers an efficient channel for political discussion and civic mobilisation by circumventing centralised information control and censorship (Chen, 2014; Cheng et al., 2014).

Moreover, the influence of mobile phone usage on civic and political communication has attracted much attention of researchers at home and abroad in recent years (Campbell and Kwak, 2010, 2011; Wei, 2014). Previous research has established the positive role of mobile phone use as an interpersonal communication tool in facilitating civic and political participatory behaviours. According to Rojas and Puig-i-Abril, informational uses of internet and mobile phones are significantly associated with expressive forms of participation in the online communication field, which in turn results in online or offline civic participation indirectly through mobilisation efforts (Rojas and Puig-i-Abril, 2009). In the same vein, more recent research suggests that informational uses of the mobile device were related to increased involvement of citizens in civic and political life (Campbell and Kwak, 2011). Despite the growing popularity and significance of mobile devices and the efforts of scholars to study the potential political power of this new
service, there is limited empirical research on the effects of using these services on citizens’ political attitudes and civic behaviours in authoritarian countries, particularly young people (Gil de Zúñiga et al., 2012; Hermanns, 2008). In this sense, China offers a compelling case to understand the political roles of mobile media and internet technologies in the course of the democracy construction.

Considering the mobile phone media is the most influential medium among the younger generation in Asian countries (Wei and Lo, 2006). At present, young adults are one of the largest and fastest-growing groups possessing and utilising mobile device in Chinese society (Chen et al., 2016). Additionally, due to that young people who have grown up with new media and internet are more likely to participate in politics and express their political opinions with the aid of new communication technologies than older people (Bennett, 2008). Moreover, the young cohort represents the next generation of adult voters who can have a very significant impact on the future development of the political pattern. So, this study draws on diverse theoretical and methodological approaches to explore how different patterns of mobile phone usage foster online political expression that result in mobilising efforts and ultimately in offline civic participation based on young people samples. It attempts to solve the following concerns: How do young people act and behave when using their personal cell phone for political expression in China? Besides, what opportunities and significance have mobile phone brought to young people with regards to political participation? Furthermore, will expressing different viewpoints via mobile phone affect their engagement in offline participation? To throw light on these questions, the paper will investigate the impact of four patterns mobile phone usage including messaging, mobile blogging, voice calling and news reading on young people’s political behaviours after giving an overall introduction of mobile political communication in Chinese society. In doing so, this paper aims to better understand how the less regulated communication technologies are utilised in contemporary political life and find out whether they contribute to the promotion of democracy in contemporary China.

2 Literature review

2.1 Mobile political communication in the context of China

Along with increasing ubiquity and widespread use of mobile phones, the new digital technologies have played an increasingly important role in the political communication field. As Hermanns argued that, “political influence of mobile phones can be noticed in the wider context of democracy, namely the building of networks, the provision of information to widen the public sphere and the mobilisation of activists” (Hermanns, 2008). In China, mobile communication not only transforms the way in which people cope with everyday communication activities (Chu et al., 2012), but also changes in the way in which people initiate, organise, and coordinate mass strikes and popular protests (Hermanns, 2008; Wei, 2014). Just as we have already seen in other parts of the world, mobile communication even tends to revitalise public discourse and act as a supplement layer of political communication (Rojas and Puig-i-Abril, 2009), suggesting it may have implications for individual’s political life that extend beyond the usage of other channels.

To maximise the economic benefits of rapid technological change through commercialisation of mobile telephony and to minimise potential threats to economic,
social and political stability, Chinese government implement ‘new authoritarianism’ (Lu and Weber, 2007). In political terms, the state and government control of the public sphere, mainly including political power and public opinion. Meanwhile, the state allows for the opening of the private sphere to increase the transparency of government and provide citizens with some opportunities for expanded freedoms relating to social and economic justice issues (Ding, 2002). In economic terms, the state promotes the adoption of a market economy structure to encourage the development of the telecommunications and information industry. These government initiatives result in that mobile political communication in China is different from that of established democratic societies. In contrast to Western countries, in repressive regimes like China, mobile political communication has been situated in a different context and remains under government control. The Chinese authorities have adopted a more discriminative position in term of mobile phone-based information flows in public and private spheres (Lu and Weber, 2007). For example, citizens are allowed to have more freedoms in the private space because the government expressed some level of tolerance regarding mobile-based jokes and unofficial information, which are often communicated interpersonally or privately (Lu and Weber, 2007). Consequently, when international social media such as Facebook, YouTube, and Twitter are blocked in China, Chinese people have been forced to adapt whatever type of communication channels they have access to, the mobile phone being the most popular and convenient option for creating an autonomous communication sphere, beyond and against the party-dominant public sphere (Liu, 2013).

Earlier studies have indicated that mobile communication lowers the threshold for interaction with select others, while at the same time raises the threshold for engagement with individuals not part of targeted exchanges (Campbell and Kwak, 2011). In addition, mobile communication affords heightened flexibility for discussing politics and public affairs by allowing users to connect virtually anytime and anywhere, thus contributed to delivering vast amounts of unofficial versions of information as well as expanding the influence of public opinion through networks (He, 2008). Moreover, mobile political communication functions as a democratising agent for young people because it promoted the offline political activities (Park and Karan, 2014). Due to young people are the most avid information and communication tools users and the most susceptible to the influence of different socialisation experiences (Quintelier and Vissers, 2008), thereby they tend to gather together to discuss political topics as well as engage in offline politics by virtue of mobile communication. However, previous studies on new media political communication are growing but mostly in the context of Western societies and advanced democracies (Zhang and Lin, 2014). Therefore, as an emerging yet under-researched area, mobile-based political communication in China offer cases worthy of closer investigation for illustrating and understanding the significant role of mobile devices play in political communication and digital democracy in contemporary society. Later we will turn to the literature on main patterns of mobile use to clarify the direct relationship between mobile usage patterns and political behaviours.

2.2 Four main patterns of mobile communication practices

Research on mobile communication by Liu suggested that public resistance and popular protests have been generated, facilitated, and empowered by the very fundamental functions of the mobile device in mundane communication such as calling, texting or information retrieving rather than more complex ones (Liu, 2013). In comparison with
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other functions, mass texting messages, mobile news, mobile tweet posts or voice calling are primarily created and easily operated by users via the cellular-based network connection (Wei, 2014). Therefore, this study pays attention to these four basic mobile-based communication practices including text messaging, mobile blogging, voice calling, and reading news, and it is expected that these media usage behaviours in China will have positive effects on political expression among private citizens and their engagement in political issues via mobile phone.

2.2.1 Text messaging
Short message service (SMS) refers to asynchronous wireless communication services that allow people to send and get text messages of within 160 alphanumerics characters via mobile telephones. The service by its short, efficient, convenient, inexpensive and so on many advantages has become the most popular method of electronic communication in China. Nearly 5061.6 billion text messages were sent from January to August in 2014, according to the report released by Ministry of Industry and Information Technology (MIIT) (MIIT, 2014). In recent years, SMS communication has been greatly embraced by young people due to its unprecedented opportunity for youngsters’ communication. Compared to texting only between two people, massive bulk texting appears more effectively because it could reach a large number of receivers from one sender simultaneously. In addition, text messaging as a flexible network that possibly even supplanted the solid network of personal relations (guanxi) (Haiqing, 2004). When trust strengthened through text messaging between people, information enjoys a higher degree of credibility, which makes mobile users prefer to trust and release these messages. Besides, He characterised mass texting as ‘a major carrier of the deviant discourse’ under the tight control of the authorities in China (He, 2008). In fact, the mobile device offers heightened flexibility for accessing and utilising news that involves individuals in public life by fusing aspects of information seeking, news consumption, multimedia exchange, and personal contact with a single portable media (Campbell and Kwak, 2010; Chen, 2014). Under this situation, mass texting generates new possibilities for ordinary citizens to challenge the party’s hegemonic discourses in the public sphere, affecting the government-controlled media, and increasing democracy in Chinese society. The study gauges the extent to how popular mass texting is among Chinese young people and attempts to find out what factors predict their mass texting behaviour.

RQ1: What factors predict mass texting behaviours on mobile devices?

2.2.2 Mobile blogging
Nowadays, smartphones have been dramatically transforming the way of that people interact with one another and with wider community anywhere anytime. The diffusion of smartphones (e.g., iPhone and Blackberry) encourages the emergence of mobile social networking applications by providing users with social networking-friendly platforms. In effect, smartphones can facilitate the intensity of social networking sites use with convenient interfaces and strengthen the cohesiveness of social networks among members of social networks (Park et al., 2012). As a result, the popularity of local SNSs, such as Renren (Chinese Facebook), blogs, and microblog, has continued to skyrocket among smartphone users. The growing popularity of the social networking use via mobile internet also boosts communication and information-sharing online (Antoniadis et al.,
These technological characteristics empower ordinary citizens, providing every user the primary resources to be a citizen journalist, and creating a new type of ‘mediated visibility’ in Chinese context (Liu, 2013). Especially, with their several hundred million users, Sina, Tencent and other microblog services provide a novel platform of allowing mobile netizens to receive and pass along uncensored information more efficiently than previous technologies in China’s tightly controlled media environment.

According to O’Brien and Stern, microblogging represents a new challenge to the state’s regime of information control, when there is growing discontent with the negative consequences of rapid economic growth, corruption and income inequalities in China society (O’Brien and Stern, 2007). For instance, during the period of the severe acute respiratory syndrome (SARS) in 2003 and major disaster like the Wenchuan earthquake in 2008, blogs and other online communication tools with freer media systems have taken on greater importance and credibility than that state-run traditional medium. It implies that the microblog has emerged as a more important and prominent news medium for citizens to freely openly exchange unfettered news and views in China (Wei, 2014). Meanwhile, some scholars have discovered that mobile tweeting will be positively associated with the political expression and participation among smartphone users (Chan et al., 2012; Wei, 2014). Accordingly, this study explores the behaviour of using mobile blogging among young people.

RQ2: What factors predict the behaviour of using mobile blogging on mobile devices?

2.2.3 Voice calling

In addition to textual exchange, calling friends or family was one of the most popular mobile activities for individuals (Campbell and Kwak, 2010). Voice calling tends to complement and even foster face-to-face contact with social ties, which provides a basis for users to talk about political issues and affairs directly with others. Empirically, semi-structured interviews showed voice calls are the best ways to link with authoritative individuals (Johnston and Bacishoga, 2013). Furthermore, research that situates user-generated mobile content within the larger flow of digital news and information also is required, both regarding the horizontal flow of political information and opinion across social contacts through voice and text and vertical flow of content with news providers, websites, and SNS (Katz, 2008). With the advantage of smooth operation, voice calling provides Chinese people especially those without complicated communication skills (e.g., tweeting, and online chatting) with a convenient means of accumulating individual power. Therefore, the current study also explores whether voice calling through a mobile phone can promote individuals’ level of political expression, which subsequently promotes their participation in public affairs.

2.2.4 News reading

Previous studies in the past years have demonstrated how media consumption for informational purposes plays a positive role in connecting citizens to the civic and political spheres of social life (Chen, 2014; Corrigall-Brown and Wilkes, 2014; Gil de Zúñiga et al., 2014). Not surprisingly, the general conclusions of these research is that informational uses of the traditional media as well as new communication technologies (i.e., internet and mobile phones), whether reading newspapers, watching news programs, or gathering and seeking information through the internet or mobile
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Mobile communication, offers a source of political news and a space for political expression, both of which would seem to contribute positively to a wide range of political actions. For example, Polat argued that certain internet uses emphasising informational usage result in increased political engagement from a theoretical perspective (Polat, 2005). Likewise, research by Rojas and Puig-i-Abril has demonstrated that informational uses of internet and mobile phones are significantly associated with expressive participation in the online domain, which in turn lead to a host of traditional or offline behaviours forms of participatory behaviours indirectly through mobilisation efforts (Rojas and Puig-i-Abril, 2009). Accordingly, previous research on the relationship between media use and political behaviours has served as a departure point for the present study. To better understand the role of mobile phones news use in contemporary society, this study thus explores how informational uses of information communication through mobile device foster political expression that results ultimately in political participation.

2.3 Effect of mobile phone use on political expression

Empirical research in Western democracies has shown that media use has played a significant role in political expression (Gil de Zúñiga et al., 2014). Specifically, media usage contributed to the improvement of individuals’ political knowledge by informing citizens of public affairs and issues in politics (McLeod et al., 2001). As the public’s political knowledge increases, it encourages media reflection and elaboration among the audience, thus cultivating better-informed citizens (Carpini et al., 2004). Furthermore, the impact of media use has been found to boost individuals’ sense of external political efficacy and political participation (Corrigall-Brown and Wilkes, 2014; Pingree, 2007).

These generalisations concerning the positive effect of news media use on triggering political expression can also be applied to China. As explained earlier, the Chinese government has long kept tight reins on both traditional and new media to control content and to maintain its authority (King et al., 2013). In this context, new wireless telephone technology maximises freedom through mobility; it also facilitates immediate accessibility to the fullest extent (Leung and Wei, 2000). Meanwhile, to avoid directly confronting state authority, Chinese netizens have adopted playful online strategies which skillfully delivered information in different ways draw on the Chinese socio-cultural context. Actually, the internet provides people with an unprecedented ability to communicate without relying on conventional media including newspapers, television, or any other traditional media, and therefore it has diminished the government’s abilities to control information contact. Chen also suggested that "online communicative space has formed where users comment and discuss public and private affairs, greatly enhancing the individualisation of civic engagement while making censorship difficult" (Chen, 2014).

The study anticipates similar results for this use of mobile devices, not only because it would be consistent with the previous research, but also because the medium offers a heightened degree of flexibility for information exchange by allowing mobile users to express their opinions and views, in addition to textual exchange and information retrieval. As emerging channel for news dissemination and information exchange, mass texting messaging, news delivered to the screen of mobile phones, and user-generated content originated from social network sites, they provide news reports and information typically not available on government-controlled traditional media (Wei, 2014). Along with mobile devices’ flood of up-to-date information, people are more likely to be
exposed to dissimilar political news and thus given more opportunities for them to express themselves politically (Kushin and Yamamoto, 2010). As Lupia and Sin reported, the expressive potential of the individual has been changed; citizens are currently in a position to “post, at minimal cost, messages and images that can be viewed instantly by global audiences” (Lupia and Sin, 2003). More importantly, the convenience features of mobile devices such as mass texting have spawned an explosion of grassroots participation, allowing individuals to express opinions about politics and current events more openly and freely with other people. Meanwhile, Wei demonstrated that mobile activities including consuming news and mass texting have established positive significant relationships with political expression (Wei, 2014). Therefore, based on the above analysis, mobile phone use is expected to be conducive to citizens’ political expression. Thus, it is further hypothesised that:

\[ H1a: \text{Use of mass texting will be positively related to political expression among Chinese mobile phone users.} \]

\[ H1b: \text{Voice calling will be positively related to political expression among Chinese mobile phone users.} \]

\[ H1c: \text{Mobile blogging will be positively related to political expression among Chinese mobile phone users.} \]

\[ H1d: \text{Reading news via mobile will be positively related to political expression among Chinese mobile phone users.} \]

2.4 Effects of political expression on offline political participation

As Pingree argued that “expression, not reception, may be the first step toward better citizenship” (Pingree, 2007), recognising that these expressive behaviours can “motivate exposure, attention and elaboration of media messages” (Pingree, 2007). The political expression may work to enable political action by causing the expresser to alter his self-perception from observer to participant (Bem, 1967). In fact, new ICTs offer new mechanisms to mobilise mobile phones users and research in this area has shown the importance of political expression via mobile phone in leading people to participate politically (Martin, 2014; Pingree, 2007). Moreover, on a theoretical level, McLeod et al. came up with a ‘communication mediation model’ (McLeod et al., 2001), theorising the political expression as a mediator of media use’s effect on citizens’ participatory behaviours. Based on this model, informational uses of media influence participation indirectly through their effects on discussion and reflection about politics (Zimmermann, 2015).

Recent research discovered that communication among people largely mediates the effects of news consumption on civic engagement. Hermanns suggested that mobile phone technology impact on forms of political participation, the formation of social capital through networks and the extension of the public sphere (Hermanns, 2008). Empirically, Campbell and Kwak explored how patterns of mobile phone use are linked to civic and political involvement. Their findings revealed that use of the technology for information exchange and recreation is a positive predictor of participation in public life (Campbell and Kwak, 2010). Suarez also provided evidence that mobile phones usage has the potential to foster political mobilisation during the Spanish general election of 2004 (Suarez, 2006). Findings from a large survey conducted by Rojas and Puig-i-Abri...
revealed that mobile phone informs individuals about politics, facilitate well-informed individuals freely to expression their political opinions and views by providing a convenient platform for it. This political expression, then, may work to change the person expressing it from observer to participant, leading to political action (Rojas and Puig-i-Abril, 2009). It is worth noting that Chinese scholars in this area have also demonstrated that the importance of political expression in boosting people to participate politically. For instance, Wei proposed that mobile phone use for news leads to expression, which in turn leads to participation (Wei, 2014).

Indeed, democratic benefits of information and communication technology might reach many places through the phone rather than the computer with the rapid deployment of cellular phones in the developing world such as China. As Liu argued, low-cost, convenient, and highly efficient attributes of the mobile communication make it possible for a large number of people to receive and exchange of information instantly (Liu, 2013). More importantly, the mobile phone’s flexibility and adaptability as a mundane communication channel enable ordinary citizens to engage in political affairs through expressing to the authorities, without governmental constraint. Consequently, given the emerging role of the mobile phone in facilitating civic and political engagement, it is expected that political expression will predict offline participation:

H2: Political expression will be significantly and positively associated with offline political participation.

In addition, the current study also explores the role of political expression as a mediator between mobile use for news and individuals’ political participation. Previous literature studies have suggested that patterns of media use related to information acquisition (e.g., internet news) exert a positive effect on political participation (Campbell and Kwak, 2010; Rojas and Puig-i-Abril, 2009). As Eveland explained, informational media, such as news programs, can also facilitate civic-oriented behaviors through triggering mental reasoning and elaboration of news affairs, which subsequently boost individuals’ participation in the public affairs (Eveland, 2001). Besides, people are more likely to be exposed to dissimilar political views when they consume news (Mutz, 2002). Therefore, news media use stimulates expression about politics with others, which in turn triggers political participation. In doing so, the study put forwards a new pathway of how the influence of media news use on expressions in the online domain can spill over to the offline participation area from the previous literature and research. Accordingly, we have formulated this hypothesis:

H3: The effects of mobile media use for news (e.g., reading the mobile news, mass texting, mobile tweeting and voice calling) on participation politically will be mediated through political expression.

3 Method

3.1 Sampling

The data for the survey is based on an online survey. The language of the questionnaire was designed in Chinese, and the study sample was drawn using convenience snowball sampling. Specifically, the sampling strategy started with posting links to online survey repeatedly on the popular forum and social networking sites among Chinese college
students for two weeks. Then each student who received the link was required to send it to other college classmates who are mobile phone users. Finally, a total of 358 respondents in China successfully completed the online questionnaire on www.sojump.com in the first week of June 2015. They were assured of anonymity and participation was voluntary. The advantage of using such kind of nonprobability sampling method is that it allows researchers to access and investigate a specific online population such as mobile phone users, but at the same time this sampling method is subject to self-selection bias that would affect the generalisability and interpretability of the results (Chan et al., 2012; Wright, 2005). Despite all this, it still offers a way for us to reach a small and target group of mobile phone users to understand this widespread medium in contemporary society.

Demographic characteristics of respondents were calculated by age, gender, monthly household income, education attainment. Each item was coded as a dummy in subsequent regression analyses. Of the present sample, 61.2% were male and 38.8% female. The age was ranging from 18 to 30 ($M = 2.55$, $SD = 0.83$). In terms of education, 4.8% were high school graduates, 40.8% were college graduates, 39.9% were master graduates, and 14.5% had a doctoral education. Regarding monthly household income, $M = 2.25$, $SD = 1.14$ (with an average monthly household income around 7,000 RMB), the median category was a monthly household income of RMB 3000–6000. Besides, respondents were asked whether they had a mobile phone. Results of this question showed that among the 358 respondents, 311 (86.7%) of samples own cellular phones, while 47 (13.1%) reported they do not have it. The results provided evidence that smartphone with multiple functionalities through various data services is very welcomed by the majority of young people ($M = 1.13$, $SD = 0.34$).

3.2 Operationalisation

Reading mobile news

Questions from Wei were adopted to examine the index of reading mobile news (Wei, 2014). Respondents were asked how often they used the mobile phone

- to read news on websites
- to read news on mobile versions of websites
- to read news apps for the mobile phone
- to watch TV news
- to listen to radio news.

The response categories ranged from 1 ‘never’ to 5 ‘frequently’. The five items were averaged to form a composite measure ($M = 2.99$, $SD = 0.72$, alpha = 0.69).

Frequency of texting messages

The text messaging variable, that is, the frequency of private text messages sent and received on the previous day. On a scale of 1–5 point where ‘1’ meant ‘never’ and ‘5’ meant ‘frequently,’ respondents were asked to indicate how often they sent and received texting messages on the previous day. The two items were combined as a measure of frequency of mass texting ($M = 3.47$, $SD = .87$, $r = 0.76$, $p < 0.001$).
Frequency of voice calling

For voice calling, respondents were asked how frequently they used a cell phone to give calls and receive calls. The frequency of voice calls made and received were then summed into a measure of the frequency of voice calling, with the scale ranging from never to frequency ($M = 3.79; SD = 0.83$).

Intensity of mobile tweeting

This refers to use the smartphone to post or view a tweet on one’s microblog. Use of mobile tweeting was also measured by frequency of sending and posting mobile microblogs per week. The two items were combined to generate an index frequency of mobile tweeting ($M = 2.46, SD = 1.06, r = 0.81, p < 0.001$). Second, respondents were requested to report the number of mobile microblog posts they received and forwarded per week. They were combined into a single measure labelled as ‘amount of mobile tweeting’ ($M = 2.08, SD = 1.13, r = 0.71, p < 0.001$). Finally, the frequency of mobile tweeting and amount of mobile tweeting were averaged to construct an index called ‘intensity of mobile tweeting’ ($M = 2.27, SD = 1.01$).

Political expression

Following the approach of Rojas and Puig-i-Abril, 2009), political expression as an expanded definition of political action covers a broad range of political activities, including ‘sending messages with political information’; ‘commenting news online’; ‘participating in online forums’; ‘posting comments to political blogs’; and ‘using social networking sites to express their opinion on current affairs’. Respondents were asked how often they engaged in those activities on a 1–5 point scale (1 meant ‘never’ and 5 meant ‘frequency’) ($M = 1.66, SD = 0.70; Cronbach’s $\alpha = 0.89$).

Offline political participation

Respondents were asked to report how often during the past 12 months they had engaged or not in any of the following actions: ‘attended a public hearing, town hall meeting, or city council meeting’; ‘called or sent a letter to an elected public official’; ‘spoken to a public official in person’; ‘attended a political rally’; ‘participated in any demonstrations, protests, or marches’; ‘participated in groups that took any local action for social or political reform’; and ‘been involved in public interest groups, political action groups, political clubs, or party committees’ (Gil de Zúñiga et al., 2012). All responses to each statement were added into a single index (10 items averaged scale, Cronbach’s $\alpha = 0.90$, $M = 1.39, SD = 0.53$).

Political efficacy

Given that political efficacy has been observed as a robust predictor of participatory behaviours in the previous literature (Gil de Zúñiga et al., 2012), the study controls for the effect of this construct on people’s political participation. According to Campbell, Gurin, and Miller, political efficacy refers to the feeling that an individual citizen can play a part in affecting political and social change (Campbell et al., 1954). It was then divided into two dimensions: internal political efficacy and external political efficacy. Internal political efficacy is an individual’s belief about her competence to understand and to participate actively in politics. On the other hand, external political efficacy is an individual’s belief about the responsiveness of governmental authorities and institutions
to citizens’ requests. In the study, two statements, one external and one internal political
efficacy, were adapted from previous literature to assess political efficacy: ‘people like
me have no say over who gets to be president’ and “sometimes elections seem so
complicated that a person like me cannot really understand what is going on” (Kenski and
Stroud, 2006). Then the two correlated items were combined into a composite scale
\( M = 2.67, \text{SD} = 0.83, r = 0.50, p < 0.001 \). This variable was used as a control in the
regression analyses based on previous literature.

4 Statistical analysis

To explore the popularity of mass texting among young people in China, the study first
used descriptive analysis among mobile users to summarise and organise the data.
Secondly, in order to test the hypotheses posed by this research, hierarchical regression
was separately conducted for each of the two variables: frequency of texting messages
and intensity of mobile tweeting. Thirdly, the direct relationship between different
patterns of mobile phone use and political expression was examined by hierarchical
regression analysis. Then hierarchical regression analysis was applied again to predict
political participation. Finally, Sobel tests were utilised to identify the mediating role of
political expression between mobile phone use and offline political participation. The
software SPSS was used for the data analysis.

5 Findings

Relying on descriptive analysis among 358 surveyed respondents, results indicate the
frequency of receiving mass texting \( M = 3.56, \text{SD} = 0.91 \) and forwarding such messages
\( M = 3.38, \text{SD} = 0.93 \) fell between ‘sometimes’ and ‘often’. On average, the frequency
of receiving and sending message averaged between ‘sometimes’ and ‘often’ per week
\( M = 3.47, \text{SD} = 0.87 \). This result confirmed He’s finding that SMS has emerged a major
medium for unofficial discourse (He, 2008). Likewise, research into SMS in China and
Hong Kong has found that SMS has been deemed as a useful platform for users in China
for accessing and delivering politically sensitive topics and adult content (Yan et al.,
2006).

Later, a hierarchical multiple regression analysis predicting the frequency of mass
texting was applied with predictors being mobile phone use and control variables being
demographic variables and political efficacy in the analyses. The first block that entered
into the equation were demographics, followed by reading the mobile news, frequency of
texting messages, frequency of voice calling and the intensity of mobile tweeting. The
last block was political efficacy. Indeed, a number of researches has revealed the
important role of political efficacy in affecting smartphone use effects such as
knowledge, interest, and engaging in civic society (Jun et al., 2014; Park and Karan,
2014). Therefore, political efficacy was placed as a control variable in the model. Results
indicate that reading mobile news (\( \beta = 0.19, p < 0.001 \)) and frequency of voice calling
(\( \beta = 0.46, p < 0.001 \)) were all significantly related frequency of texting messages. As
shown in Table 1 (the first column), a total of 32.3% of the variance was accounted for
the variance in frequency of texting messages by the significant predictors. These the
findings show that university students who used the smartphone to reading news and
voice calling more often tended to send and receive mass texting messages more frequently.

Meanwhile, with regards to mobile blog use (see Table 2, the second column), RQ2 measured the popularity of mobile tweeting among college students in China and factors that would predict mobile tweeting behaviour. Overall, our models predicting mobile blog use (see Table 1, the second column) worked quite well with 8.5% of variance explained. Among the 385 respondents, the frequency of posting on mobile microblogs ($M = 2.56$, $SD = 1.16$) and sending such posts ($M = 2.37$, $SD = 1.06$) was both found between ‘rarely’ and ‘sometimes’. In an average week, respondents posted nearly 8 tweets on their mobile microblogs ($SD = 1.36$) and forwarded about 5 tweets ($SD = 1.08$). These findings confirm earlier research that the potential role of mobile microblog in creating a public sphere in China (Chan et al., 2012). Results of a hierarchical multiple regression (Table 1, the second column) show that among the mobile use variables, only reading mobile news ($\beta = 0.285$, $p < 0.001$) was a significant predictor of the intensity of mobile tweeting. That is, the more the respondents used the smartphone for reading news on the mobile screen, the more they used their smartphone to tweet.

### Table 1 Hierarchical regression analysis predicting texting messages and mobile blogging

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Frequency of texting messages</th>
<th>Intensity of mobile tweeting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$t$-Value</td>
</tr>
<tr>
<td><strong>Block 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>0.122</td>
<td>2.500</td>
</tr>
<tr>
<td>Education</td>
<td>0.051</td>
<td>0.971</td>
</tr>
<tr>
<td>Income</td>
<td>–0.071</td>
<td>–1.368</td>
</tr>
<tr>
<td>Age</td>
<td>–0.121</td>
<td>–2.197</td>
</tr>
<tr>
<td>Incremental $R^2$</td>
<td>5.7%</td>
<td></td>
</tr>
<tr>
<td><strong>Block 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading mobile news</td>
<td>0.190</td>
<td>3.828</td>
</tr>
<tr>
<td>Frequency of voice calling</td>
<td>0.464</td>
<td>9.220</td>
</tr>
<tr>
<td>Incremental $R^2$</td>
<td>33.8%</td>
<td></td>
</tr>
<tr>
<td><strong>Block 3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political efficacy</td>
<td>0.036</td>
<td>0.746</td>
</tr>
<tr>
<td>Incremental $R^2$</td>
<td>33.9%</td>
<td></td>
</tr>
<tr>
<td>$R^2$ (adjusted)</td>
<td>0.323</td>
<td></td>
</tr>
</tbody>
</table>

Entries are standardised regression coefficients.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

The analyses reported in Table 2 investigated the direct relationship between different patterns of mobile phone use and political expression. Accordingly, those four hypotheses under H1 assumed that

- use of mass texting
- voice calling
• mobile blogging
• reading mobile news will be positively related to political expression among Chinese college students.

Results of the hierarchical regression analysis (see Table 2) show that after the influence of all significant predictors were taken into consideration, reading mobile news (beta = 0.25, \(p < 0.001\)) and intensity of mobile tweeting (beta = 0.20, \(p < 0.001\)) appeared as significant predictors of political expression, but voice calling did not. A possible explanation is that Chinese citizens are more preferred to express political voices that are beneficial to the general public, that are lower in conflict with other people, that can be completed without difficulties, and that have a lower risk of suppression by the Chinese government (Zhang and Lin, 2014). Compared with the other two patterns of mobile communication behaviours, voice calling is not a relatively safe choice to express anti-government sentiments and comments because it may easily attract interest among government authorities or opponents in such an authoritarian state.

Besides, the frequency of texting messages (beta = –0.155, \(p < 0.05\)) has a negative influence on political expression. It’s likely that young people in China may tend to use mobile texting primarily for entertainment purposes, such as sending jokes and funny pictures to each other. Thus, such entertainment uses of mobile media would reduce their levels of political expression (Chan et al., 2012; Zhang and Lin, 2014). Taken together, H1c and H1d were supported, but H1a and H1b were not. Regarding our second research question, we could generalise that the more respondents read news delivered on the screen of the mobile phone and the more they send or post microblogs via mobile phone, the more frequently they would like to express personal opinions and perspectives.

H2 seeks to establish the positive relationship between people’s political expression and the extent to which this behaviour would affect their offline political participation. To test it, a hierarchical regression was run with treating offline political participation as the dependent variable. As Table 3 shows, the initial block that entered into the equation were demographic variables (gender, education, income and age), followed by reading the mobile news, frequency of texting messages, frequency of voice calling as well as the intensity of mobile tweeting. Besides, another two blocks were respectively political efficacy and political expression in the analysis. After controlling for the influences of demographics, individual’s expressing politically via mobile media was positively associated with their offline political behaviours (beta = 0.532, \(p < 0.001\)). As expected (H2), these results observed in Table 3 support the view that the more the respondents expressed their political opinion via mobile phone, the more often they engaged in offline political participation. As Table 3 shown, the total variance explained by the equation was 30.6\% (adjusted R2) in the regression analysis.

After that, so as to understand the mediating role of political expression between the use of mobile phone and offline political participation, a path model was established by using beta coefficients generated from the multiple regression in Tables 2 and 3. The test allowed us to shed more light on the influence of different patterns of mobile media uses on political participation behaviours by estimating direct and indirect relations through individuals’ political expression to political participation outcomes. As Figure 1 shows, the effects of reading mobile news and intensity of mobile tweeting on political expression were positive and direct (\(p < 0.001\)), but such effects on offline political
participation were not significant. Meanwhile, the frequency of texting messages has a
direct but negative effect on political expression. Furthermore, there was a positive and
direct relationship between political expression and offline political participation
\( p < 0.001 \).

**Table 2**   Hierarchical regression analysis predicting political expression

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Political expression</th>
<th>( \beta )</th>
<th>( t ) Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Block 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>\text{-0.036}</td>
<td>\text{-0.634}</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>\text{0.009}</td>
<td>\text{0.147}</td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>\text{-0.022}</td>
<td>\text{-0.364}</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>\text{-0.054}</td>
<td>\text{-0.846}</td>
<td></td>
</tr>
<tr>
<td>Incremental ( R^2 )</td>
<td>\text{0.5%}</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Block 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading mobile news</td>
<td>\text{0.250***}</td>
<td>\text{4.133}</td>
<td></td>
</tr>
<tr>
<td>Frequency of texting messages</td>
<td>\text{-0.155*}</td>
<td>\text{-2.341}</td>
<td></td>
</tr>
<tr>
<td>Frequency of voice calling</td>
<td>\text{0.064}</td>
<td>\text{0.980}</td>
<td></td>
</tr>
<tr>
<td>Intensity of mobile tweeting</td>
<td>\text{0.202***}</td>
<td>\text{3.540}</td>
<td></td>
</tr>
<tr>
<td>Incremental ( R^2 )</td>
<td>\text{12.9%}</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Block 3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political efficacy</td>
<td>\text{0.071}</td>
<td>\text{1.290}</td>
<td></td>
</tr>
<tr>
<td>Incremental ( R^2 )</td>
<td>\text{13.4%}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( R^2 ) (adjusted)</td>
<td>\text{0.108}</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Entries are standardised regression coefficients.
\*\( p < 0.05 \); \**\( p < 0.01 \); \***\( p < 0.001 \).

Finally, in order to support the proposed mediation model, Sobel tests were performed to
verify the significance of a mediation effect (Sobers, 1982). This test was designed to
measure whether a mediating variable carries the influence of the independent variable to
a dependent variable (Luthans et al., 2008). In mediation, the computed statistic assesses
an indirect effect that exists between the independent variable and the dependent variable
by way of the third variable (the mediator). Given that the size of the indirect effect
\((b = 0.115)\), the standard error, associated z-score \((z = 3.10)\) and \( p \)-value \((p = 0.002)\), so
there was a significant indirect effect of reading mobile news on political participation
because the \( p \)-value was quite under the 0.05 threshold. In addition, in terms of the
intensity of mobile tweeting, there was also a significant indirect effect of intensity of
mobile tweeting on political participation through political expression \((b = 0.732, z = 2.84, p = 0.005)\). Therefore, the relationships confirm the mediating model,
suggesting that the effects of mobile phone use for news and mobile tweeting on offline
political participation work through political expression.
Table 3  Hierarchical regression analysis predicting political participation

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Offline political participation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
</tr>
<tr>
<td><strong>Block 1</strong></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-0.088</td>
</tr>
<tr>
<td>Education</td>
<td>0.030</td>
</tr>
<tr>
<td>Income</td>
<td>-0.028</td>
</tr>
<tr>
<td>Age</td>
<td>-0.007</td>
</tr>
<tr>
<td>Incremental $R^2$</td>
<td></td>
</tr>
<tr>
<td><strong>Block 2</strong></td>
<td></td>
</tr>
<tr>
<td>Reading mobile news</td>
<td>0.015</td>
</tr>
<tr>
<td>Frequency of texting messages</td>
<td>0.017</td>
</tr>
<tr>
<td>Frequency of voice calling</td>
<td>0.027</td>
</tr>
<tr>
<td>Intensity of mobile tweeting</td>
<td>0.071</td>
</tr>
<tr>
<td>Incremental $R^2$</td>
<td></td>
</tr>
<tr>
<td><strong>Block 3</strong></td>
<td></td>
</tr>
<tr>
<td>Political efficacy</td>
<td>0.025</td>
</tr>
<tr>
<td>Incremental $R^2$</td>
<td></td>
</tr>
<tr>
<td><strong>Block 4</strong></td>
<td></td>
</tr>
<tr>
<td>Political expression</td>
<td>0.532***</td>
</tr>
<tr>
<td>Incremental $R^2$</td>
<td></td>
</tr>
<tr>
<td>$R^2$ (adjusted)</td>
<td></td>
</tr>
</tbody>
</table>

Entries are standardised regression coefficients.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Figure 1  Path model predicting offline political participation

6 Discussion

Today, the literature revolving around new media and political participation is growing but mostly in well-established democracies (Wei, 2014). With the advent of 3G, high-speed broadband and the widespread availability of mobile phone technologies have
Mobile communication and political participation

opened up new spheres for people to consume information and exchange opinions in several different ways in China. In particular, the convergence of the mobile phone and the internet makes young people post and follow mobile news in the form of Twitter-style microblog update more and more convenient and efficient than ever before (Kariuki, 2015; Martin, 2014). This study is the first empirical study in a non-Western background that attempts to determine the significant role of mobile phones in support young people’s political expression and offline engagement in the political spheres of social life in China in the new media age. Beyond providing additional support for earlier findings, this exploratory research adds interesting new insights to the literature by provides initial evidence that political expression may play as an important mediating link between different patterns of mobile communication such as mobile phone use for news and mobile tweeting and offline political participation.

In attempting this analysis, the critical role of political expression in linking four patterns of media use and civic discourse engagement offline was explored. These findings suggest that as a personal technology, the smartphone would facilitate the distribution of user-generated content; exposure to such content would trigger expression about politics with other, which in turn leads to civic discourse engagement in the offline domain (Smorgunov, 2016). Findings of our study show that mobile news-reading behaviour via the mobile phone is rapidly on the rise users read a variety of news packaged and delivered for the mobile phone screen. Besides, mobile news-reading behaviour predicts the frequency of texting messages and intensity of mobile tweeting among young people. It implies that the more young people reading news via mobile phones, and the more they use mobile tweeting and text messages through mobile phone. This might be explained by the fact that this increases information flow among different mobile users such as the user’s friends, coworkers, acquaintances and relatives who have access to the more diverse information posted by different subjects, which may result in the users were probably more motivated to draw on a variety of mobile communication functions such as mobile tweeting and text messages to voice their viewpoints and justify their ideas (Campbell and Kwak, 2010).

Given the interactivity of the mobile device, the youngest generations today potentially are active participants in a networked, online public sphere where they can regularly express their opinions and learn from other citizens’ choices and ideas (Chan et al., 2012). Mobile media seem to serve as a critical space for Chinese young citizens who aspire to active participation under the present Chinese political and media system. One of the largest contributions of this paper lies in the way it advanced and confirmed that access to mobile news and user-generated mobile tweets were conducive to express their political opinions in a non-Western context. In other words, reading the mobile news and higher frequency of mass texting were positively related to increases in individual’s political expression. In addition, the effects of news media use on political expression can be attributed to offline political participation in China. Such results echo an earlier large survey study finding that in the political context of China, interpersonal networks shaped through mobile media might transfer to offline political participation (Wei, 2014).

Moreover, findings of this study underscore the important role of political expression in linking use of mobile media for news and civic engagement. The previous literature that has pointed out the role of political conversations connections citizens’ personal experiences to their political world (Kim et al., 1999). Specifically, smartphone users who discussed politics with others and those who used smartphones for news-getting and
for posting mobile tweets were more likely to post on BBS, to blog, and to participate in offline participation (Schossböck et al., 2016). This finding is consistent with other studies conducted in China, which reported that through mobile phone and other creative techniques, Chinese cyberspace has become a realm for polyphonic expressions to exist outside the dominant discourse, and as such, it is constitutive of political and social change in China.

Overall, the empirical findings of this exploratory study demonstrate that mobile-based political communication has opened up a new sphere for public expression and political participation by disseminating uncensored news and information originated from users. Based on assumptions in the literature on mobile use and involvement studies, and related new media theories, this study seeks to contribute to the growing research in mobile communications in terms of underscoring how different patterns of mobile technologies usage help political expression and participation among Chinese young people when cyber-censorship still suppresses most dissenting voices and strictly controls the freedom of the press. The results of this study, especially the Sobel test, clarifies the effect of using mobile media for reading news and blogging in fostering political expression and participation processes. Like previous studies, the results of this study indicate that certain mobile media use has indirect effects on offline political participation mediated via political expression (Chen, 2014; Wei, 2014). The proposed path model predicting offline political participation was also confirmed in the study.

Although these results help to shed some light on the effects of mobile media utilisation in the democratic process, this study still has several limitations that should be mentioned. First, our sample of university students does not allow us to generalise these results to the rest of the other population, though we do think these data provide a robust snapshot of young mobile phone users. Second, the data are collected from a random sample; thereby the proportion of the male was higher than female subjects. In addition, as other scholars argued that new technologies can re-energise public discourse, supplementing traditional forms of online media, and potentially, in contemporary societies where news media do not claim their independence, even replacing them as antecedents of political participation (Rojas and Puig-i-Abril, 2009). The present study did not consider some of the measures such as the relationship of government-controlled traditional media use and their effect on political participation, whether the mobile phone supplement the traditional media as other stated. Therefore, future research can build on the exploratory conclusions of this study and explore a complete causal model of use of new media, traditional media and political participation with national samples.

References
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