Use of Social Media for Academic Purpose in China

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ABSTRACT
In this article, social media in the academic context is summarized, differences between social media usage patterns in China and the United States are contrasted. Research methods are described and final results are presented. Our specific contribution is to clearly delineate the unique social media ecosystem as found in Mainland China and its subsequent impact on social media as applied to academic settings. Social media is very helpful in auxiliary academic activities but is not a suitable way for people to obtain specialty information due to insufficient credibility, information management functions and Chinese users' usage pattern. Expectation on social media to support academic relationship building has generally failed. We hope to suggest how to integrate the power of social media to promote academic activities while avoiding these negative effects. The article concludes by evaluating social media as a tool to support academic purposes with the facets of user experience and suggests future research directions.

Author Keywords  
Social media; Academic purpose; Usage pattern

ACM Classification Keywords  
H.5.3 [Information Interfaces and Presentation]: Group and Organization Interfaces - Web-based interaction

INTRODUCTION
The wide adoption of social media in recent years has greatly increased our ability to communicate and coordinate. In addition to social, entertainment and marketing purposes, social media has also seen increased usage in the academia. Academic usages include teaching, learning and scientific research. Current research about social media used in academia has primarily focused on countries in the Western Hemisphere while relatively understudied in Eastern Asian countries such as China. For example, WeChat, the most popular social media platform in China, reported 963 million monthly active users in Q2 2017 by Statista (2017), which is almost equal to all European Internet users and more than twice of North American users (InternetWorldStats, 2016). Popular Chinese social media platforms such as QQ and WeChat are mainly used among Chinese netizens because of factors such as language barrier and the active censorship of Facebook, YouTube, and Twitter by the Chinese government.

According to Kantar (2016), the positive aspects of social media include "Regulating mood and relieving stress," with more than half the people agreeing to it in 2014 and 2015. "To make life more convenient and efficient" and "Expand the social circle" follow in second and third position (Tencent, 2016). "Friends circle," "Messages" and "Official accounts" are the top three functions on WeChat being used; people follow official accounts to access information (41.1%), to do daily errands (36.9%) and to learn new knowledge (13.7%) (Tencent, 2015). The majority of the existing studies on social media usage in academic settings primarily focus on classroom case studies, where social media is used to enhance teaching and facilitate learning in higher education. Also, large portion of the literature on social media for academic purpose centre around classroom setting, such as Facebook, Twitter, LinkedIn or other social media popular in western countries. Could these research frames and results also help with understanding in another context? What’s the difference when we utilize social media to promote academic activities in China, comparing with that happens in US? In this paper, we focus on understanding how social media is used by Chinese academics to facilitate their research, try to understand why and how academics use social media, and whether social media is an active mechanism for establishing and coordinating research collaborations and disseminating research outcomes in China.

To answer the above questions, we conducted interviews and found that social media is especially helpful in auxiliary activities such as teaching, learning, and research but only modestly effective in career development or establishing research network. We also report unique cultural context in how the Chinese higher education system adopts social media as work platforms, and the consequence it brings to academic users.

2 Related Work
2.1 General Use of Social Media
Benefited from mobile and web-based technologies, social media create highly interactive platforms through which individuals and communities could share, co-create, discuss,
and modify user-generated content, also participate in social networking. Whiting et al. (2013) identified ten uses and gratifications for using social media: social interaction, information seeking, pass time, entertainment, relaxation, communicatory utility, convenience utility, expression of opinion, information-sharing, and surveillance /knowledge about others.

Business and entertainment saw the first batch of social media practice besides casual communication among users around 2008. Studies such as “Motivations for social networking at work” (DiMicco et al., 2008) explained the impact that social software will have inside the corporate firewall, and ultimately how staff will work together in the future. Newson et al. (2008) gave a practical guidance on using social media in business as well as the risks associated with it. Safko (2010) provided practical examples of how businesses have successfully implemented strategies for using social media to reach their desired audiences with powerful and efficient messages in their book “The social media bible: Tactics, tools, and strategies for business success.” Qualman (2012) talked about Socialnomics and how social media transforms the way we live and do business. Another case study of Zhang (2010) is about the early adoption and use of micro-blogging in a Fortune 500 company. Research also offers advice for companies on when to utilize social media (Kaplan et al., 2010). Kietzmann et al. (2011) presented a framework that defines social media by using seven functional building blocks: identity, conversations, sharing, presence, relationships, reputation, and groups, to help executives with understanding social media use. Treem et al. (2012) uncovered four relatively consistent affordances enabled by social media: visibility, persistence, editability and association that are important to the organizational communication processes.

2.2 Social Media Use in the Classrooms
In higher education, research has hypothesized that Web2.0 and social media platforms such as video, podcasts, and wikis can be valuable tools for teaching and collaborative learning. Grosseck (2009) introduced theoretical aspects of using Web2.0 technologies in higher education, and present models of integrating them in teaching, learning, and assessment. He identified the potential benefits of these technologies as well as highlighted some problematic issues/barriers encountered. Dabbagh et al. (2012) conceptualized a Personal Learning Environment as a potentially promising pedagogical approach for both formal and informal learning for students with PKM and self-regulatory skills to effectively use social media. They also indicated that whether PLEs can be used as an effective pedagogical and educational tool depends on further research that assessed the students' actual social media use, motivational beliefs such as self-efficacy as well as learning styles, etc. However, Tess (2013) conducted a literature review of social media use in higher education and found that while most research rely on self-report data, there is very little evidence of whether social media could facilitate effective learning outcomes.

In general, existing research has found mixed or negative results in attempts to use social media to facilitate learning in higher education. Moran et al. (2011) indicated concerns include time requirements, privacy, and integrity of using social media in teaching. Cao and Hong (2011) found four antecedent factors and two factors important for assessing the consequences of social media in teaching. Grosseck et al.,(2011) found that the majority of students spent significant time on Facebook more for social uses and less for learning purposes, even if they take part in discussions about their assignments, lectures, study notes or share information about research resources, etc. Wise et al., (2011) also pointed out that Facebook in higher education promotes social but not academic engagement. They argued, “rather than promoting social engagement in a way that might increase academic engagement; it appears that Facebook is more likely to operate as a distracting influence.” Analyzed the relationship between multiple indices of Facebook use and academic performance, Junco (2012) found that time spent on Facebook was strongly and significantly negatively related to overall GPA, while only weakly related to time spent preparing for class.

Regarding social media use in non-U.S. countries, there have been reports related to how blogs are used in teaching and learning. In the United Kingdom, Halic et al. (2010) found that blogs enabled students to express their emotional experiences of learning and to exchange social /cognitive support with their peers, as well as providing opportunities to practice self-directed learning. In Korea, Kang et al. (2011) found that blog discussions take shape multi-dimensional and multi-layered interactivity among the team. A blog can function as a place where instructors and students can experience decentralized relationships among themselves; it also provides an opportunity to shape a social constructivist learning environment allowing their experiencing of a community of practice and preserving their unique networked individuality as well. Lupton (2014) offered insights into strategic ways in which some Australian academics are using social media, and also their general perceived benefits and concerns.

2.3 Academic Use of Social Media in China
WeChat and QQ are the two most popular social media platforms in China now (Statista, 2017). Previous studies on social media use in Chinese higher education commonly fall into the following three categories.
(1) General discussion about the feasibility and effects to adopt social media in teaching and learning. Yue et al. (2014) argue that mobile education involving social media platforms such as WeChat is a new experience of digital informatization teaching and one of the indispensable learning modes in the future. Lu et al. (2014) found that social media use in teaching resulted in positive effects, such as enhancement of cooperation, creation of learning
opportunities, improvement of enthusiasm and engagement, and reduction of teaching cost. It also led to some negative effects such as lowering students’ independence, integrity, and creativity, causing learning distraction, reducing persistence and reflection, interfering by improper information, and influencing the development of students’ ability to communicate in a real environment.

(2) Social media assisted teaching; or platform and teaching model construction based on social media, generally using WeChat. Such studies are usually conducted in certain groups, majors, or specific courses, among which language teaching, especially English teaching, is the most often discussed and practiced. The possibility and feasibility of social media, such as WeChat assisting formal class teaching are discussed.

(3) Factors influencing university teachers’ use of social media to assist teaching. Xu Meidan (2014) constructed the acceptance model of university teachers to use WeChat as auxiliary teaching technology. The empirical research investigated factors influencing WeChat use in teaching among faculty. The results showed that perceived usefulness and perceived ease of use have a positive impact on the intention to use; age and education will have some impacts on the use intention, while gender or experience have no effect on that. Many existing research take social media in classroom setting for the subject; investigation about how social media is used for other academic purposes is still insufficient. What's the actual situation of applying social media in academic context? Are teachers and students happy to interact in this way and find it useful and helpful? What is social media's real usage and advantage for academic purpose?

2.4 Social Media in China Comparing in US

There are plentiful social network sites across the world; users have diverse types of goals in their usage. The two most popular in western world: Facebook and Twitter, are basically inaccessible in mainland China, which makes the 963 million Chinese users to be somewhat isolated from the global-scale social media. Obvious differences exist between the pattern of social media usage in China and the Western. The former could be highly overlapped by variety purposes on a single platform, while the latter is more platform-based, means users choose different social media platforms to achieve different goals. Among the most popular social media in U.S. (Facebook, Twitter, Instagram, and YouTube), although some of them support both text content publishing and photo/video sharing, users still utilize their respective strengths to achieve different aims. For example, people usually use Facebook to connect with other people; they share photos mainly focusing on human connection. They might also own Instagram or Pinterest accounts for formal/professional photo sharing and photo gallery; meanwhile, Twitter is primarily used to share small bits of info such as thoughts, quotes, links, and observations.

According to Statista (2017), the top three social media QQ, WeChat, and Sina Weibo hold a commanding market share in China; just like Facebook and Twitter in U.S.; however, QQ and WeChat actually belong to the same company. Numerous functionalities accumulate on WeChat, which makes it more like an interesting blend of messaging, Facebook, Twitter, social gaming, mobile payment, and more. Diverse demands could be fulfilled without leaving this single platform. For example, there are also many other domestic Instagram/Pinterest-like Apps in China mainland, such as LOFTER, Tuding, etc., but are usually fashionable among certain population only; none of them could achieve the similar user cohesion as Instagram or Pinterest does in western countries. The most popular photo sharing APP is, in fact, WeChat friends circle. Even business could be done all through WeChat, including communication, contracts, distribution, payments and so forth. These made the social media ecology in China quite different with that in the U.S., significantly challenges the practice for academic purposes.

3 Methods

After contacted with 20+ people, half from authors’ acquaintance, half from a huge group consisted of visiting scholars to US from all over China. We conducted semi-structured interviews with 15 of those who were willing to accept further interviews after the simple preliminary questionnaire in order to understand their general situation of social media usage. This convenient sample consisted of researchers from provincial or national research institutes in China, and college teachers varied from rather prestigious universities to regular colleges. The composition ensured the sample variety in age, discipline, professional background, and the level of organizations to which they belonged. All of the interviewees use QQ and WeChat, the two most popular social media platforms in China. Some of them also have Facebook or LinkedIn accounts and have access to YouTube, microblog platforms such as Twitter, etc., although the restrictions of the Chinese Internet policy prohibited the widespread use of these social media platforms among Chinese academic communities.

Table 1 shows the demographic information of interview participants, “unit size” here represents the number of faculty and staff in their academic unit, such as the school or department they belong to in the university, instead of the entire higher level academic institution. About 80% of them have the experience of studying abroad which makes sure that they have a good understanding in the difference of social media usage between China and overseas.

The interviews were done over the phone, online voice chat, or face to face, depending on the particular facts, and lasted between 35 to 75 minutes each. The interview questions focused on themes related to their experiences with using social media for academic purposes (e.g., research, teaching, learning, networking, collaboration, etc.) and the perceived benefits and challenges. We tried to understand how the
interview participants used social media interact with professorial colleagues and academic peers, also the usage differences between China and overseas. The interviews were recorded, transcribed, portion translated from Chinese to English, and analyzed with an open coding approach (Strauss & Corbin, 1990). The authors iteratively refined the emergent themes until saturation was reached. We report the findings in the remainder of this paper.

To better understand the actuality, limitation, and potential of applying social media in academic context, we could also utilize “User Experience Honeycomb” to classify and summarize the interview content.

User experience honeycomb (Figure 1), produced by Peter Morville, was originally intended to explain the qualities of user experience that web designers must address. This framework is also helpful with understanding the situation of social media in academic context in China.

4 Results & Discussion
We found that social media is quite useful in supporting the auxiliary activities of research, teaching, and learning, but not very helpful with academic development or establishing research collaborations. The main result could be concluded as general usage, intentions, benefit, limitation, reason behind and suggestions/potential in the future.

Figure 1. The facets of user experience

(1) The most widely use of social media is information obtaining, yet bits and pieces of information in a passive way; not good enough experience when applying to further tasks due to inadequate functional support.

Social media have features respectively corresponded to its social side and its media nature. To the media part, respondents’ main usage for academic purpose is to obtain related information and track the research trend, which is similar with the result of Han et al. (2016). Whiting et al. (2013) also identified information seeking and sharing as the most uses and gratifications for using social media.

“You could see one said in this way and other guys said in another way (in QQ or WeChat groups), then you could grab a point out, and understand the (research) dynamics.”(P9).

Nonetheless, this type of information acquisition is rather passive in most cases, and basically beyond user’s control, because the discussion, even in a social media group creating for academic purposes, is usually quite casual and multiple clues involved, cross-message coherence is hard inferred from meaning sometimes.

Active information seeking through social media is target-driven, yet doesn’t make contributions to core academic tasks.

“For example, when selecting peer reviewer for journal papers, you could understand his research better from his microblog (if he has one) to determine the relevance; then send invitation email to him. But if it is for a cooperation project, you must possess deeper understanding to this person (social media isn’t enough and reliable in this situation)” (p4)

This perspective is reasonable and pervasive among our interviewees, explainable by Goffman’s(1978) information control and personal identity theory as well. Most people tend to set their virtual personal images on social media platforms, which in general, are what they wish others to accept, instead of expressing their true natures, let alone when those information is mainly academic career related.

Almost all the responders acknowledge that social media only works for very general, bits and pieces of academic information, it isn’t their main access to more valuable and specific research resource. Most indicate that social media is not very helpful for their professional development; on the whole, it’s only a tool for peripheral info posting and

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Table 1. Demographics of Interview Participants

<table>
<thead>
<tr>
<th>#</th>
<th>Gender</th>
<th>Age</th>
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<td>Researcher</td>
<td>100+</td>
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<tr>
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<td>F</td>
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<td>90+</td>
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<td>P8</td>
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<td>Business</td>
<td>Faculty</td>
<td>300+</td>
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<tr>
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<td>Economics of law</td>
<td>Faculty</td>
<td>40+</td>
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<td>F</td>
<td>42</td>
<td>pedagogy</td>
<td>Faculty</td>
<td>90</td>
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</tbody>
</table>

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Figure 2. Social media application in China
receiving. If further information processing is needed, social media platforms, in most cases, aren’t seamlessly connected with other professional software, such as Office, Mindmaps, etc. Unlike Facebook users who could easily post or comment either on mobile devices or desktop; born mobile, WeChat, the most popular social media currently in China, focuses on mobile experience, which conforms to the trend of mobile technology. The experience of reading and inputting on mobile devices is obviously not compatible with on desktops by far. Those above factors apparently affect WeChat users’ time performance.

This situation is rooted in the inherent nature of social media: those platforms are not designed to support academic usage from the very beginning. Compared with information accessed from academic database, information posted on social media platforms are usually broader topics instead of highly correlated with users’ specific research interests, let along some researchers do not feel comfortable to share their research results in this way. But as social media becoming increasingly popular and exerting more extensive influence on society, if evaluation to researchers could also include social influence beyond current methods for academic achievements evaluation, such as citation analysis, things will be different in the future. After all, research impact should not be limited among academic communities only, the public also have intention to access the recent development in some areas, and to understand how their daily lives will be affected. Aimed at the situation that scholars all around the world are almost solely judged upon their publications in (prestigious) peer-reviewed journals, Asit K. Biswas and Julian Kirchherr (2015) argue that publications in the popular media must count as well, especially when these publications are crucial in informing practitioners’ decision-making.

The less optimistic situation of social media in academic information utilization could also be ascribed to the fact that the majority of users tend to check their accounts “when they have time away from work”, which seems not a good time to think about serious questions.

P12 followed more than 10 public accounts related with research knowledge, yet when found a post useful, the most frequent action she conducted was to “collect” it for “a more appropriate time in the future” instead of browsing through it at once. On the contrary, recreational posts have much higher chance to be read at once and go viral.

Furthermore, people also expressed their dissatisfaction to interference from irrelevant information, even in academic communities; due to the lack of control on social media, concerns about information authority and intellectual property also hurt the experience of using social media in academic contexts. Reversal cases happened more than once because the full original research are seldom posted on social media, not just because of content length and copyright limitation, but also the editor’s effort to make the post more attractive, while credibility in this way is not so satisfying.

(2) Powerful in improving efficiency during the process of informal academic activities, for example, community building and information transmission, helps with public understanding of research results and the education of the masses.

For the social side of social media, on account of the huge user base and powerful connectivity of QQ and WeChat in China, people with same interests could gather pretty easily and quickly, which makes info distribution quite effective. Many interviewees claimed that they found social media such a powerful tool in improving efficiency when conduct informal academic activities, such as conference organizing, calling for papers, expanding influence of R&D.

P9 and several other interviewees particularly stressed “information sharing is quite quick via QQ or WeChat group.” With some small discussion about the core information posted in these groups, related questions and interests are soon be expressed, people will also transfer the information to friends outside the group by several simple clickings, if they believe it will trigger their participation. Better effectiveness than through group emails.

“Take conference organizing as an example; you post the news in relevant WeChat group, it gets really fast responses, and the conference could soon be organized, tasks could be completed quickly and efficiently.” (P4)

“Editor of CPA (an academic journal) pulled all the authors over the years into a WeChat group; when there’re needs of solicit contributions, requirement were posted into the group and received lots of high-quality articles in very short period of time. Compared with traditional ways, this propagation is more effective in timeliness and extensiveness.” (P5)

The information diffusion ability echoes Kwak et al. (2010) that “Once retweeted, a tweet gets retweeted almost instantly on next hops, signifying fast diffusion of information after the 1st retweet.” With the powerful social bonding characteristics, social media does act rather effectively in making information reach potential target audiences and make subsequent tasks go smoothly.

Traditional channels for releasing research results, by contrast, are quite limited in small groups and often kept unknown to public, while social media is making a big difference, especially topics closely related to people’s daily lives. One interviewee shared a successful WeChat group of non-profit communities, which obviously needs broad participation. Some researchers put their study in a not-so-academic-way for non-academic magazines and received very good response. Another social science researcher is planning to share part of his new book through social media this time; his last book was very good, but without the help of social media, only people who access the physical book could appreciate. He believes social media could make a difference in improving access and
visibility of academic work to the public with their strong info dissemination ability. This view latterly echoed by the concept of “sociable scholarship” and the use of social media in the 21st century academy (Pausé, C., & Russell, D., 2016). They believed social media together with many other Web 2.0 tools could broaden academic spaces, enabling the participation of different voices, and addressing the academy’s commitment to social justice.

(3) Maintaining and enhancing existing connection with peers, instead of creating new relationships

Social media’s main advantage over traditional media is its merging between content distribution and social interaction, which makes more than a few people have the belief that social media will be very helpful with creating new connections, even cooperative relationship building, which proved to be kind of an illusion by our interview result. When talking about the professional network, most respondents indicate that social media is only helpful with maintaining and enhancing their existing connections with peers, instead of creating new relationship. Such view echoes the result in Lampe (2006) but differs with the result in Han et al. (2016): where graduate students are seeking to create more connections at the start of their career.

“I temporarily haven’t such experiences (that meet somebody online and develop into research cooperation offline). As a matter of fact, QQ and WeChat have certain closure property, they most likely provide the convenience of time and space (rather than create new social relationship), for example, contact easily with friends living far away.” (P6)

Another responder provided the similar opinion: “...the circle of friends, you join and join, and finally you’ll find you are actually in the same circle. (I feel it) No helpful with research collaboration.” (P2)

P4 emphasized that “trust building and cooperation in scientific research must be conducted upon sufficient understanding to each other, (Get to know a person) from the network is only part of the way to really understanding, and offline communication is a must-have.”

Besides, nearly all the respondents indicated that the suitable communication method for research cooperation purpose is still email, which has been proved the most successful application in CSCW area by far.

About the question “do you have the experience to know/recognize experts in this area through social media? “, we could conclude opinions as below:

- “To establish academic contact via social media is unreliable: for example, expert A (a well-known professor in P1’s research field) seldom uses these platforms. (In this situation, you even have no chances to do so). If (I’m working) on serious academic problems, I’ll still choose traditional ways, such as e-mail (to communicate with them). QQ and WeChat are only appropriate for short and rapid communication.” (P1)

P2 is now at abroad, and she keeps contact with domestic counterparts through WeChat; but “to get in touch and start the relationship-building process is always through email.” (P2) “Cooperating between acquaintances and communication on specific things, I will use cell phone or telephone, QQ is too informal; if there is a need, I will transfer documents via email (instead of QQ).” (P2)

“Domestic cooperation is usually by meeting face to face or via email; (To coordinate with) Foreign cooperation? No, I will not utilize social media.” (P9)

P8 did have several cooperators he never met in person; they co-published papers and contacted through emails, but he knows them from somebody else instead of through social media. In these cases, the common friend is equivalent to endorsement of their personality.

People’s lacking experience of success in building new cooperation relationship via social media has its root in sociological theory foundation and psychological reasons. Hardly anyone thought it is a proper approach to build new connection before they have other chances to know each other; face to face communication is still considered the most effective way to understand a peer. They will add people they know at conferences/ seminar/workshop into their social network and steadily develop into a cooperation relationship if possible. No one reported that they had obtained new collaborative partnership totally through social media tools, even those appear in the same social media group. This result is different with “In online interaction, trust is not as necessary in the building of new relationships as it is in face to face encounters” (Dwyer et al., 2007). The little world theory does provide more opportunities for people literally to know almost anybody in the world, but they still live in reality and concern trust building when related with their professional career.

The fore-mentioned different result in Han et al. (2016) is mainly because graduate students are the group with relatively weak reputation and they have an urgent need to establish their professional network for career. But for people who have been in this area already, they tend to be more cautious.

Besides the difference of respondents, the above situation could also ascribe to the characteristics of those most popular social media in China. Comparing WeChat with Sina Weibo, both among the top 3 most popular social media, we could understand their difference from the perspective of social and media. Sina Weibo, inherited media genes from Sina: a portal site, is essentially a media platform with social functionality; while WeChat is more like a social communication tool with media functionality. Weibo is rooted in content feature while WeChat focuses on relationship, although it’s also a platform for content sharing, the accessibility is yet limited in a certain group,
you could call it circle of friends; but Weibo is publicly broadcasting, users could access content easily without following certain accounts or joining some groups. WeChat transfers many strong connections from real life into the virtual world, however, relationship on Weibo is basically unidirectional and is much looser than those bidirectional relationships on WeChat.

This is why our interviewees universally mentioned the fact that social media help people with maintaining and enhancing existing connections instead of creating new relationships.

(4) Privacy, time management and interference challenges on account of the widely usage of social media platforms for work communication in China

Privacy concern is a frequently mentioned problem when talking about applying social media even in classroom setting. Davis III, et al (2012) find faculty have high levels of concern with multiple aspects of privacy, such as class discussions and materials, and of course “personal privacy” for students as well as for themselves. When social media being used to support academic tasks, situation could become more complicated.

In spite of admitting the convenience that social media brought to his communication with cooperators, P13 underlined that it’s impossible for him to discuss specific technical details through social media, because all these popular platforms are third-party, users could do very little to ensure information security. Too many security vulnerabilities may induce leakage of sensitive information in such unsafe environments. He said they have their own platform developed to support academic collaboration.

“The core research ideas is always related with copyrights, while relevant laws (about information exchanged via social media) haven’t been in place yet. So we definitely transfer important information by email instead of through social media.”—P13

Challenge to users’ time management capability is quite obvious when social media gets more and more pervasive; People worry that the young generation get addicted to social media and waste too much time. Some respondents even expressed themselves as social media addicts at least for quite period of time. As mentioned earlier, the multifunctionality provided by QQ or WeChat, makes many Chinese users rely more and more on these mobile-friendly and handy tools gradually, which in turn means they spend a lot of time on such tools in daily life. Besides, there is another fact which makes the issue more complex. Due to the popularity, convenience, and powerful functionality, many organizations count social media platforms as a nice choice for work. Half responders verify that QQ or WeChat is indeed a semi-formal collaboration platform in their organization, even digital campus platforms failed to attract them back. In this case, their social media accounts must be shared among the organization; most notifications and documents are distributed via social media, which is quite different with situation in the U.S., where email systems and official websites undertake most communication and coordination work horizontally/vertically throughout the organization. As a consequence, border between work and life especially blurred; people feel obligated to check their social media account frequently to ensure timely info receiving and response. At such times, it’s hard for them to avoid being distracted by non-work related info coming into the same account; whereas, when plan to have some fun via social media, work related info often greets them even on weekends. Very few people could address this issue well, 80% interviewees expressed their dissatisfaction with such situation, stated that social media used in this way caused higher anxiety to them, which spoiled the effect of using social media in academic settings as well.

(5) Potential

When talked about opportunities/expectation of social media for academic purpose in the future, the feedback is positive but not very optimistic. Several respondents believed that QQ or WeChat is only tool for communication, people should not expect too much on its application in educational/research environment or cooperation/relationship building. Still, a couple of application directions are supposed to be hopeful:

Community building with higher professional level; self-study supporting since social media could provide rich enough resources, and short videos could be very attractive for fragmented learning, especially for those who no longer study systematically in educational institutes; Internet technology, mobile technology, and social media bring both challenges and opportunities in knowledge acquisition mode, WeChat public class, and Live class on Zhihu, a popular Quora-like Chinese social Q&A platform, are increasingly prevalent.

P8 claimed that Wikipedia, YouTube and Google are good enough to support self-study for college students; although none of them are easily accessible in China, this form is still helpful with domestic social media applications. Besides, considering the disconnection between academia and public perceptions in many fields, social media will help with bridging the gap and promoting public understanding. This might also trigger thought about the scholarly publication in the future. In a word, social media’s value in academic context couldn’t be denied, but need more skills to tame it.

Playing a role in academic contexts, social media provide interface for people to share information and communicate, while Peter Morville’s Honeycomb was originally to illustrate the facets of user experience to websites. We adjust the original model to adapt the core value of adopting social media in academic environment, to discuss each of these factors separately.

After all the discussion, the situation of social media in academic context in China could be summarized with “User Experience Honeycomb” framework as below:
Effective with information diffusion and community building  

**Useful**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Rate</th>
<th>Pros</th>
<th>Cons</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Useful</td>
<td>****</td>
<td>Interruption, time fragmentatio n, New information literacy needed to deal with the era of social media carnival</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Easy, convenient, and great accessibility on mobile devices  

**Usable**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Rate</th>
<th>Pros</th>
<th>Cons</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usable</td>
<td>***</td>
<td>Convenienc e increases the interference to routine work</td>
<td>Inadequate function such as sort, retrieval or filter</td>
<td></td>
</tr>
</tbody>
</table>

Not support information sorting, retrieval or filtering well  

**Findable**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Rate</th>
<th>Pros</th>
<th>Cons</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Findable</td>
<td>***</td>
<td>Circle of friends and acquaintance s</td>
<td>lack of peer-review or security mechanisms</td>
<td></td>
</tr>
</tbody>
</table>

Concerns of information authority, intellectual property and security  

**Credible**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Rate</th>
<th>Pros</th>
<th>Cons</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessible</td>
<td>****</td>
<td>Information could be stored and transferred to another devices</td>
<td>lack of interface and information management functions</td>
<td></td>
</tr>
</tbody>
</table>

Bad information processing ability  

**Desirable**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Rate</th>
<th>Pros</th>
<th>Cons</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desirable</td>
<td>***</td>
<td>Access multifarious information; EVERY-ONE is using them</td>
<td>Multi-functionality leads to the blurring of private life with work and research</td>
<td></td>
</tr>
</tbody>
</table>

Distraction, group pressure lead to usage convergenc e  

**Valuable**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Rate</th>
<th>Pros</th>
<th>Cons</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valuable</td>
<td>***</td>
<td>Powerful with auxiliary academic activities</td>
<td>Interpersonal trust mechanism; transfer existing strong ties to virtual platforms instead of breaking trust barrier</td>
<td></td>
</tr>
</tbody>
</table>

Not so helpful with new academic cooperation building  

**Table 2: Social media in academic context**

**Useful:** Helpful with some academic activities, but many features are not related with this goal.

**Usable:** Easy to use--- Convenience and great accessibility especially on mobile devices, actually hurt the experience in academic contexts. People find themselves having hard time to focus on serious problems on such platforms; time is seriously fragmented by social media, it was considered rather interruptive. Because of its social nature, applying social media in academic contexts could hardly avoid to affect users’ daily life.

**Desirable:** Are people willing to use it to support their academic purpose?--- Multi-functionality and the use as work platforms increased interference between private life and academic activities, leading to pressure and concerns of privacy and security.

**Findable:** Info on these platforms need to be navigable and locatable. The precondition is people are using certain social media already, to be findable is not a serious problem, we don’t take APP icons mixing up into consideration either. Not all social media support users with disabilities, although QQ and WeChat partly do. So we focus on the requirement that content needs to be accessible to people easily.

**Accessible:** Content needs to be accessible to people easily.

**Credible:** Information from social media credible? As a MEDIA platform, information could be diffused easily and quickly, however, due to lack of peer-review mechanisms, concerns about authority and intellectual property seriously affected user experience.

**Valueble:** Help users achieving the goal smoothly. Some popular social media are rather effective with academic info diffusion and community building; Further investigation reveals many detailed obstacles when adopting in academic contexts, such as severe interruption, time fragmentation, bad info management functionality, etc. General evaluation result is positive but not so satisfying.

A new fact discovered is that enthusiasm of adopting social media in academic purpose in China is also related with their role as platforms for work communication in many academic institutes. In quite a few higher educational institutes, especially whose email system is not strong enough to support daily work previously, people had to fall back on commercial email services, later to the group function of Fetion, QQ or WeChat, which, comparing with their own OA system, were more convenient, powerful, stable, and they are free. Lots of organizations employ QQ and WeChat as the de facto interoperable platform, or an important complement to OA system. Interaction among colleagues and students is usually conducted via all kinds of such social media groups, which also leads to an illusion that to extend the application into academic purpose very attractive, since great user base and habits are there already.

Unfortunately, sharing the same social media account, one consequence of adopting social media at work is that users could hardly avoid their personal lives from being mixed with professional aspects. Using different social media accounts for different purpose might be a choice, but it will not solve the problem fundamentally.

What’s more, several people feel that students are not so active on social media platforms in academic setting, primarily undergraduate students. In most cases, such groups quickly went into channels for sharing trivial information about courses, such as schedule, assignments, or asking for a leave. Very few academic conversations happens. P10 runs a WeChat public account, and he uploads teaching videos onto it, with a hope to create MOOCs like platform, but disappointed with the poor result.
He believed the reason is that learning resources are not inadequate nowadays, the key element is still students’ interests and motivation in learning; in their spare time, young students tend to have fun instead of studying through social media. Synthesizing other responds, we believe this point is relevant with different user levels. P4 verified the efficiency of social media when leading graduate students research and projects. In such groups, the supervisor has more influence on other student users, and they are knit by a more specific research goal, unlike undergraduate students. But this little success alone couldn’t lead to the conclusion that social media is successful in academic contexts. When users are fanning out across the organizations, and more equal to each other, discussion among the group tend to be disjointed without an authority figure, according to P12’s observation in an academic WeChat group with almost 300 users for years.

5 Suggestion
Convenient and efficient, social media’s role in academic context isn’t without controversial. Based on the interview content analysis, we suggest that the concerned parties should be careful with the following when considering social media for academic purpose.

(1) Understanding the limitation/potential, be calm to act.
Social media is not a panacea and could not guarantee a successful adoption alone. People shouldn’t act rashly before adequate assessment of their adoption in projects involves lots of people. Traditional ways are very useful and helpful at present, such as email system, owning functions such as category, sorting, filtering, search, annotation, etc., which are more useful and effective to users both in professional and academic setting. Decision makers should be more cautious than ordinary users when considering adopt social media for professional purpose.

(2) Make clear why use and devise right policies
As a tool, social media’s actual contribution basically depends on the goal behind it. So, make sure to integrate them into daily academic activity towards the goal, instead of using it passively. Utilize the functions wisely and strategically, enjoy the convenience and avoid negative effects. Many setting choices in those apps should be used to support privacy setting; users should also make an effort to draw a line between personal life and professional world.

(3) Develop good time-management capability
More convenience and mobility also mean more interference to users’ daily routine. Try to set aside certain period of time for social media every day and reduce its interference. People report the distraction from social media in part because of the first impression to these new services is for leisure/entertainments, besides they do help with the content distribution and social connection. That’s why people tend to check non-academic information from social media so frequently when they have time.

(4) Accordingly, time management skills and clear social media positioning are necessities for individual users. New information literacy should be highlighted if consider to adopt social media as a tool for academic purpose. The I/O effectiveness might be much lower than expected otherwise.

(4) New features and enhancements for social media
To companies who provide social media services, more info management functions need to be added in future version. Seamless transition between social media and other applications will greatly improve the user experience and gain more business opportunities in return. Also, security concerns need more customized setting functionalities.

6 Conclusion
This paper conducted an exploratory study to investigate the reality of social media for academic purpose in China mainland, seek to provide suggestions to users, developers and decision makers involved. Our study finds obvious different social media ecology and usage patterns. Lack of clear division hurt users’ experience both in daily life and in academic context when serves as organizational platforms. User levels and relationship between group leader and others affect the effectiveness. When users are teamed by more specific research goals, and one user having more influence over others, such as a supervisor and whose graduate students, social media works much better than groups composed by undergraduate students and class teacher, or academic group consisting of researchers with loose relationship in certain field all over the country, where nobody’s Influence is so powerful. This result might remind people rethink the role of traditional organizational factors in the process of knowledge management and collaboration in networks. Different from general expectations on relationship building, our research revealed social media indeed a great help for maintain existing connections rather than a powerful tool to create new relationships, their effect on supporting professional development and cooperation relationship building is rather limited. Limitation of this article is not big enough size of sample; the result needs further validation with large-scale survey. A better devised method is needed for further research to reveal more details related with different features people and organization holds, such as use level, relationships between group users, group size, organizational culture, and to propose refinements for improving social media as a tool supporting academic activities in the future.

REFERENCES


