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Collaborative planning in the new media age: The Dafo Temple controversy, China

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ABSTRACT

New media have accelerated China's social transition by distributing information, restructuring ways of communication, and changing social relationships and public values. They have also facilitated the development of new types of collaborative planning that are characterized by a broad range of agents, new forms of communication, and new roles for planners. These new types of collaborative approaches promote social interaction, public participation, and the collaboration between various actors. By reviewing theoretical and empirical studies, this article first presents a conceptual framework for assessing collaborative planning in the new media age. The framework comprises three components: the diversity of agents, the nature of communication, and the roles of planners. A case study of the Dafo Temple controversy is used to illustrate the framework's application. After comparing traditional with new forms of collaborative planning, ways to achieve effective consensus building in collaborative planning in the new media age are suggested.

Introduction

Along with its transition from planned economy toward a more market-oriented one (Logan, 2011), China is also undergoing social transition. The Chinese are becoming more mobile, more diversified, more segregated, and more open to the world (Hu, 2005). Newly developed information and communications technology (ICT) has accelerated this transitional process by distributing information, changing social relationships, and restructuring communication styles (Wang, 2012). In January 2014, mainland China had 618 million internet users, of whom 80.1% were mobile internet users (CNNIC, 2014). The internet provides informational services through various devices. It has evolved from an information distribution tool into a network for informational interaction. Facilitated by the development of social network sites (SNSs), the "network society" defined by Castells (1996) is gradually taking shape in China. SNSs are internet-based communication platforms that have some common characteristics, such as public or semi-public forums and the sharing of information (Boyd & Ellison, 2007). Their important social function is that large-scale online networks can be harnessed to perform powerful collective actions (Gordon & Manosevitch, 2011).

In China, new media have had a great impact on the traditional urban planning system and have facilitated the development of new types of planning. Urban planning in China had long been dominated by top–down approaches (Wu, Zhang, & Shen, 2010). Planners had to fully comprehend the intention, and even the tastes, of the local political leaders and further justify and formalize them into a planning scenario (Wu & Zhang, 2007). Rather than suggesting that planners had made the plan, it was perhaps more accurate to attribute the composition of the plan to major or key leaders (Wu & Zhang, 2007). The lack of community-based non-governmental organizations made it difficult for planners to advocate on behalf of the "public" or to engage with the concerns of the grassroots (Leaf & Hou, 2006).

In 2008, however, the Urban–Rural Planning Law was introduced, clearly stating the basic requirements for public participation in the planning process. Chinese planners therefore needed to develop their skills in communicating with the public (Sun & Yin, 2008). Nevertheless, it seems that Chinese planners have almost no time to think about appropriate methods and tools to engage the public in a formal procedure. Public participation in the planning process has become a bottom-up approach that in recent years has been promoted by the spread of new media. For instance, citizens in Nanjing used microblogs and city forums to

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oppose the felling of established trees to make way for a new subway project; this resulted in the revision of the project and the conservation of the trees (Yan & Zhu, 2013). Experts and civic groups utilized microblogs and micro-journals to criticize "the regeneration project of Beijing's bell and drum tower neighborhood" proposed by the local government (Lin, Zhang, & Geertman, 2014). Planners have also recognized the powerful role of new media and have started to use them as a participatory platform for engaging the public in the planning process. For instance, online forums became an important method of public consultation during the early phase of master planning in Chaohu City (Ma & Hu, 2011).

Cheng (2013) argues that the incipient collaborative planning and public participation through the functions of the internet in China have had an increasingly vital influence. She points out that by using the internet, grassroots participants, with their ever-increasing power, have significantly influenced urban planning practices and increased the public's awareness of planning participation through the social learning process. We take this argument a step further and suggest that new media have facilitated the development of new types of collaborative planning in China. These new types of collaborative approaches promote social interaction, public participation, and the collaboration between various actors. They are characterized by a wide range of agents, the crucial impacts of new media, and the new roles of planners. New media play a key role in promoting collective actions, in which the participants are not necessarily the stakeholders. These characteristics differ from those of traditional collaborative planning in which stakeholders have face-to-face dialogue and collectively work out a strategy to address a shared problem (Innes & Gruber, 2008).

In response to these new phenomena, we developed a conceptual framework for assessing the new types of collaborative planning. The framework comprises three components: the diversity of agents, the nature of communication, and the roles of planners. Here, we use a case study of the controversy over the Dafo Temple in China to illustrate the framework. We then present a comparison between traditional and new forms of collaborative planning and highlight their respective advantages and disadvantages.

Conceptual framework

Traditional collaborative planning

Since the early 1970s, urban planning in western countries has increasingly taken the form of collaborative and communicative approaches. Collaborative planning has emerged to address two new issues: (1) the global interconnectedness of people and places (Healey, 1997), and (2) the emergence of network power (Booher & Innes, 2002). Healey (1997) indicates that the involvement and interaction of three key stakeholders (the economy, civil society, and the state) and place-focused governance are crucial to successful collaborative planning. According to Innes and Gruber (2008), an ideal model of collaborative planning is one in which stakeholders representing the differing interests meet for face-to-face dialogue, and collectively work out a strategy to address a shared problem. Although collaborative planning theory misses many of the realities of life, it defines an important role for citizens, namely as actors contributing to planning argumentation (Bäcklund, 2010).

Nevertheless, due to the abstract spatial concepts in urban planning, it tends to be hard to engage citizens in the participation process (Rinner, Keßlerb, & Andrulisa, 2008). This problem is more serious when it comes to the details of urban form, where there is a huge gap between professionals and local people in conceptualizing the urban space (Carmona, Heath, Oc, & Tiesdell, 2010), especially when the urban space under discussion does not yet exist. Therefore, in order to achieve a meaningful collaborative planning process, apart from involving the majority of citizens and facilitating the interaction between diverse stakeholders, more needs to be done to help citizens understand the spatial concepts under discussion. As facilitators and mediators, planners play a crucial role in this. The widespread use of SNSs and other types of new media provides new ways to deal with the mentioned issues, and has also facilitated the development of new types of collaborative planning.

Social network sites as new media

The development of ICT in the 1970s led to the rise of the network society, which has transformed almost every aspect of the world (Castells, 1996). It is facilitated by the development of SNSs, such as Facebook, Google+, LinkedIn, Twitter, and Weibo. As new media for information sharing and broadcasting, SNSs are internet-based communication platforms that have some common characteristics, such as public or semi-public forums and the sharing of information (Boyd & Ellison, 2007). They enable users not only to maintain a number of weak ties cheaply and easily, but also to create and maintain large and diffuse networks of relationships (Mandarano, Meenar, & Steins, 2010). They reinforce the process of restructuring society, which is becoming more open and decentralized (Castells, 1996). Information distribution is no longer a purely top-down model with a single source and a single direction. An almost real-time information exchange and a more equal network structure are formed based on SNSs, breaking traditional social boundaries (Mandarano et al., 2010). The real-time reporting function of SNSs allows any citizen to be the center of a certain information network, resulting in multicenter networks that can be employed for public participation.

The important social function of SNSs lies in the possibility to harness large-scale online networks and then perform powerful collective actions (Gordon & Manosevitch, 2011). Citizens can increase their power to achieve certain goals by developing their own networks, which helps to build a stronger civil society and more effective public participation (Hillier, 2002; Tayebi, 2013). This is mainly because in the process of information production and distribution, SNSs can effectively build up social capital that can be regarded as a trust fund held by social networks that enables individuals to participate in achieving a common goal and facilitates collective actions (Putnam, 1995). SNSs can also facilitate a more transparent and accountable public decision-making process, due to the availability of more information (Chadwick & May, 2003; Ho, 2002). For instance, public authorities post planning information on their websites, informing and communicating with the majority of citizens. This can lead to an extensive interaction between public authorities and citizens.

Particularly Weibo and online forums have recently been widely used in public participation in China. Weibo is a Chinese microblog platform that integrates the functions of both Twitter and Facebook (Chen & Qiu, 2013). This advanced microblog, which was launched by major Chinese web portals (e.g. Sina Weibo), fulfills the need for an interactive and vivid communication platform for users to upload and share pictures, videos, and music. It provides services for discussions, virtual meetings, and instant message sharing (Chen & Qiu, 2013). Since 2009, microblogs have become exceedingly popular in China. Their widespread use (nearly 97% coverage of 300 million social media users) provides opportunities for firms, organizations, and governments (McKinsey, 2012). Various levels of Chinese city government opened their own official microblogs using the multifunctional Weibo platform (Zhou & Wang, 2014).

However, the digital divide is one of key challenges in the new media age (Castells, 1989): There are inequalities between different social groups in terms of access to, use of, or knowledge of ICT. New media provide new opportunities to involve most citizens and civic organizations in the planning process, but they also exclude those who cannot access or cannot use the internet. Furthermore, although it seems that distance is no longer important in the new media age, space is still a crucial factor for urban planning to seek social outcomes from physical design (Fainstein, 2000).

A conceptual framework for assessing collaborative planning

New media have facilitated the development of new types of collaborative planning. Although discussions in cyberspace can lead to informational polarization (Wilhelm, 2000), internet users who frequently exchange information with each other are more likely to have social trust and an active civic life (Shah, Kwak, & Holbert, 2001), which is crucial for collaborative planning. They can contribute to the development of real-time, multiparty interaction and open discussion platforms (Fong & Wigand, 2011). A number of free web applications are suitable for participation and collaboration, such as Twitter, social networks, blogs, and crowdsourcing (Steins, 2009). For instance, government microblogs have become communication and dialogue-oriented platforms that connect the public sector with the general public (Zhou & Wang, 2014). The crowdsourcing model – which was originally a web-based, distributed problem solving and production model for businesses – can be used to enable citizens to participate in the planning process and to help public authorities receive public input (Brabham, 2009). The internet and microblogs have facilitated the engagement of experts and civic organizations in the planning process (Lin et al., 2014). By using information technology and social media, planners can become planning activists who advocate, empower, and mobilize local citizens to claim their marginalized interests based on their right to the city (Tayebi, 2013).

New media have changed the ways of participating, interacting, and organizing in planning practices. The success of collaborative planning in the new media age lies in how it makes good use of the advantages afforded by SNSs while overcoming their weaknesses. After reviewing theoretical and empirical studies, we developed a conceptual framework for assessing collaborative planning in the new media age, comprising three key components, namely the diversity of agents, the nature of communication, and the role of planners.

First, the success of collaborative planning lies in the active inputs from diverse agents (Booher & Innes, 2002), who can help to develop a complex understanding of planning issues from various perspectives and provide different forms of support for the planning process. Decisions can be made only when all or most of them agree (Innes & Gruber, 2008). Under these conditions, collaborative planning can produce a shared vision, innovative solutions, and motivations for collective action (Innes, 2004).

Second, the nature of communication is crucial for collaborative planning. The dialogue should, in general, be inclusive and interactive (Cheng, 2013). It should be a two-way and reciprocal intercourse, which is something that is equally important for both powerful and less powerful stakeholders (Innes, 2004). The dialogue should also be authentic in the sense that the communication flowing through the network must be both accurate and trusted by participants to allow full advantage to be taken of the agents' diversity and interdependence (Booher & Innes, 2002). An authentic dialogue can lead to consensus building, which is crucial for collaborative planning (Innes, 2004). The dialogue also needs to be open and facilitate the sharing of information (Fainstein, 2000), and the decision should be made only after extensive public discussion (Innes & Booher, 1999). A self-organizing structure is an effective form for establishing common interest and initiating collective actions (Innes & Booher, 1999).

Third, planners can play multiple roles in collaborative planning. As professionally trained spatial experts, planners can bridge the knowledge gap between professionals and lay persons, and foster creative thinking (Innes & Booher, 1999). Based on planners' general understanding of the power structure in the decision-making process, they are able to contribute their knowledge to shape the participative procedure and to form a workable agenda (Fainstein, 2000).

In sum, the introduction of new media provides new opportunities and challenges for collaborative planning. These opportunities and challenges are related to all the mentioned key components, as illustrated by the following case study.

Methods

The Dafo Temple controversy

Here, the framework is used to assess a case study of the Dafo Temple controversy, in order to clarify the advantages and challenges of collaborative planning in the new media age. The controversy was sparked by planning professionals with strong inputs from online society, and eventually affected the real-world public decision-making process. The key point of discussion was whether an arcade that is a part of Guangzhou's historical heritage should be demolished to allow for the expansion of Dafo Temple (Deng, Wang, & Zhao, 2014).

In Guangzhou, arcades were first proposed in 1912 as part of the implementation of the urban redevelopment policies of the newly established Republican government (Gu, Tian, Whitehand, & Whitehand, 2008). Guangzhou adopted a policy whereby reconstruction on major commercial streets or on a frontage to a road along the riverside had to incorporate an arcade, so that pedestrians would be separated from vehicular traffic (Gu et al., 2008). Arcades also protect pedestrians from rain and the scorching sun. They have proven suitable for the unpredictable sub-tropical climate in the city and provide local people with a great convenience. The arcades are now historical landmarks and part of the city's cultural heritage.

Dafo Temple is located in a vibrant commercial area. According to The Urban Design of Dafo Temple Expansion (GZPI, 2003), the arcade located to the north of the temple (Fig. 1, right) would be replaced by a public square in front of the new Buddhism library. In 2003, a scholar published an open letter in a local newspaper appealing for the protection of the arcade, but there was little public reaction. In November 2011, the planning permit for the urban design project was issued by the municipal planning bureau and the redevelopment of the area began (see Fig. 2).

In the same month, a local planner (Xiangming Ma) saw the project renderings on a wall at the construction site. He took a photo of the arcade (Fig. 1, left) and posted it on Weibo, along with a message condemning the demolition of the arcade to allow for the temple's expansion. The message was commented on and reposted more than 900 times by Weibo users, including planning and architecture professionals in Beijing, Shanghai, and other cities.

In December, Ma was interviewed by several local newspapers and television programs. With the involvement of traditional media, this controversy finally went beyond cyberspace. In the same month, the local government stated that there were two reasons to demolish the arcade: It was dilapidated, and the demolition and redevelopment of the arcade would create more public spaces in the city center. In January 2012, however, an officer in Guangzhou Municipal Planning Bureau announced that there

Fig. 1. Left: The shopping arcade that was to be demolished (photographed by Xiangming Ma and posted in his Weibo). Right: The original spatial layout. The gray shading indicates the arcade (drawn by the authors).

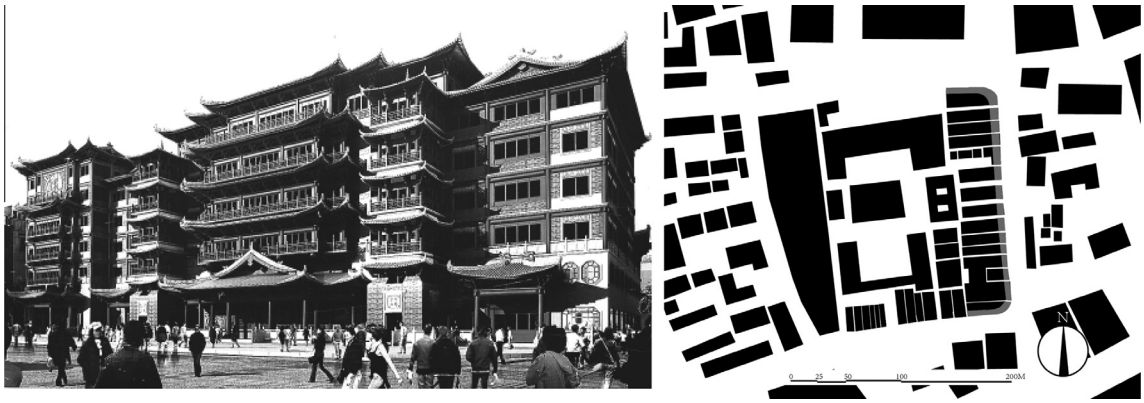

Fig. 2. Left: Project renderings of Dafo Temple expansion (He et al., 2014). Right: The ground plan of the redevelopment proposal. The gray shading indicates the shopping arcade (drawn by the authors).

would be no demolition until a study had been carried out into the feasibility of restoring the arcade (He, Chen, & Ying, 2013). With the help of the traditional media, the online discussion initiated in cyberspace finally affected the public decision-making process.

Data collection

The data was collected mainly through information tracking and questionnaires. We first analyzed the dissemination and transfer of Weibo messages over time. The basic data on the Weibo users who disseminated the message were recorded. These data included their professional backgrounds, registered locations, and when they had commented on or reposted the message, and were required in order to understand how the message was transferred over time and reveal the power structure within the network. Weibo users were further divided into four groups according to their social backgrounds, namely planning expert, non-planner VIP account, Weibo public account, and common user. We used the social network analysis tool Ucinet 6 (Borgatti, Everett, & Freeman, 1999) to analyze the network of the information flow. The Weibo user who produced the first message in this controversy is considered the central node of the information source. In this case study, the message that triggered the controversy, namely the message posted by Xiangming Ma, is the information source. The users who commented on or reposted this message are the first tier of nodes. The users who distributed the "second-hand" message can be considered the second tier of nodes in the network. This allowed us to trace the important nodes within the distribution network.

Second, we distributed online and on-site questionnaires to assess the controversy. Through Sina Weibo, we emailed 900 questionnaires to all the online participants who had commented on or reposted Ma's message. In total, 163 valid, completed questionnaires were received. Furthermore, 120 on-site questionnaires were randomly distributed around the arcade to shoppers, merchants, temple visitors, and local residents; here, more than 95% of the completed questionnaires were valid. The contents of both the online and the on-site questionnaire focused on three key issues related to the mentioned framework. When we analyzed the data, we also assessed whether there were significant differences between the online and the on-site respondents. We carried out chi-square tests using the cross-tabulation function of SPSS 18. If the linear-by-linear association (p value) was less than 0.05, there was a big difference between online and on-site respondents.

Results

The diversity of agents

Initially, an online community evolved around the Dafo Temple controversy. Although it was loosely organized, its members were interested in the discussion on whether the arcade should be demolished to allow for the expansion of the temple.

The online respondents were mainly aged 25–55 years and had higher educational backgrounds (Table 1). However, they had diverse socioeconomic backgrounds: The group included experts (planners, architects, etc.), representatives of civic groups, and individual citizens (workers, students, managers, etc.). Furthermore, according to the users' usual location records in Weibo, around 62.7% of the online participants were from Guangzhou. Most of the large number of users who were not local citizens, lived in cities on the east coast of China (e.g. Beijing and Shanghai), or even abroad. This suggests that new media make public participation possible beyond spatial limits. Thus, the online participants were diverse in terms of their socioeconomic backgrounds and geographic locations.

Nearly 60% of the on-site respondents were not aware of the controversy, mainly because of their inactiveness in using SNSs and the spontaneous nature of the online discussion. Sampling results show that the on-site respondents had far fewer activities in SNSs than the online respondents (Table 2). Only 27.5% of the on-site respondents used SNSs regularly or daily, whereas 77.9% of the online respondents did so. Compared to the active involvement of the online respondents who commented on or reposted messages, 58.3% of the on-site respondents did not know about the controversy or the online discussion.

It is very surprising that the stakeholders who are crucial for collaborative planning (i.e., developers, local authorities, and landowners) were absent from this controversy. In order to understand this phenomenon, in June 2013 we conducted in-depth interviews with the planners who had played a key role in the controversy. The interviews revealed several reasons behind the phenomenon. First, the developer already possessed a planning permit. As the controversy took place beyond the official time for the public exhibition of the project, it was not officially recognized. The developer was therefore not worried about it. Second, local authorities, particularly those of the municipal planning bureau, kept silent. They were afraid of saying something inappropriate, and besides, the formal planning process had been straightforward and completely legal. It seemed unnecessary for them to respond to the controversy. Finally, the affected landowners were absent, as a demolition compensation scheme had already been devised and they were not familiar with SNSs and the online discussion.

The nature of the communication

Unlike conventional top-down planning approaches, the dialogue around this controversy was started by a spontaneous Weibo message and was then mainly self-organized. The controversy was initiated by a planning expert (Xiangming Ma) who posted a Weibo message in cyberspace. The message was then transferred to his colleagues (planners, architects, etc.), notable scholars, institutions, and citizens. Guangzhou Sina Estate (an official Weibo

Table 1
Basic data on the two groups of respondents (Underlined values indicate significant differences between two groups of respondents).

	Online respondents (%) (n = 163)	On-site respondents (%) (n = 120)	Chi-square		
			χ^2	*d.f.*	*p*
Gender			1.572	1	0.210
Male	46.6	54.2			
Female	53.4	45.8			
Total	100.0	100.0			
Age			23.482	2	0.000
<25	36.2	39.2			
25–55	63.2	46.7			
>55	0.6	14.2			
Total	100.0	100.0			
Educational background			114.937	3	0.000
Primary school and lower	0.6	21.7			
Middle school	3.1	28.3			
Junior college	9.8	24.2			
Bachelor and above	86.5	25.8			
Total	100.0	100.0			

Table 2
Respondents' online activities (Underlined values indicate significant differences between two groups of respondents).

	Online respondents (%) (n = 163)	On-site respondents (%) (n = 120)	Chi-square		
			χ^2	*d.f.*	*p*
Frequency of using SNSs			95.735	3	0.000
Never	0.0	26.7			
Sometimes	22.1	45.8			
Regularly	28.8				
Daily	49.1	7.5			
Total	100.0	100.0			
Level of involvement in the Dafo Temple online discourse			234.143	3	0.000
Comment	56.4	4.2			
Repost	43.6	6.7			
Browse only	0.0	30.8			
Unaware of the controversy	0.0	58.3			
Total	100.0	100.0			

account for an internet-based corporation focusing on real estate information in Guangzhou) also posted a message opposing the demolition of the arcade two days after Ma posted his message. Through reposting and commenting, the message was disseminated to the general public and attracted the attention of the traditional media. The controversy then appeared on the TV news and in newspapers, and received broad coverage. Consequently, local planning authorities were forced to respond to the public. They bowed to the public criticism and adjusted the project.

Multicenter networks were found by tracing the information flow. In the Weibo network initiated by Xiangming Ma (Fig. 3, above), two of the sub-centers were formed by a notable planner (Professor Wang) and a famous architect. In the Weibo network of Guangzhou Sina Estate (Fig. 3, below), an important sub-center was initiated by a civic group that is concerned about old urban areas. Thus, notable planners, architects, professionals, and civic organizations all played key roles in the dialogue around the controversy.

The timeline of Weibo message flow initiated by Xiangming Ma shows that there were explosive effects during the message transfer process (Fig. 4). Two peaks of information explosion occurred in the month following Ma's post. These two peaks lasted only two or three days, and the rest of the timeline was almost flat. Thus, the explosive effects of new media led to the dialogue around the controversy becoming information that was open and easy to share. It made it possible to quickly engage the majority of citizens and diverse agents in the planning controversy. It also indicates that in the new media age, a message can easily be obscured by another one, until some powerful agents in the network retrigger a discussion on the message.

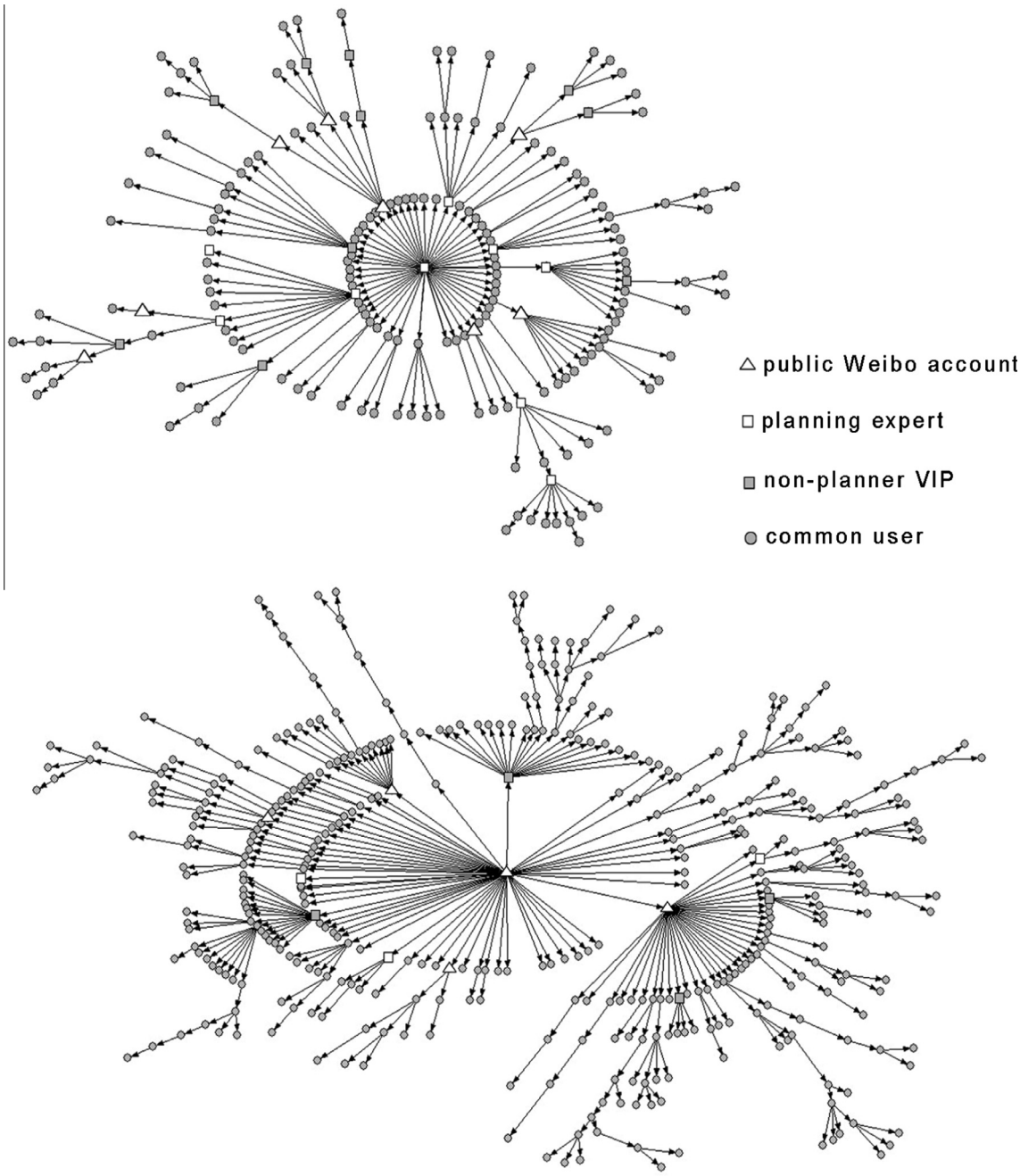

Fig. 3. Multicenter networks of the information flow: (1) the Weibo network initiated by Xiangming Ma (above), and (2) the Weibo network of Guangzhou Sina Estate (below). Modified from Deng et al. (2014).

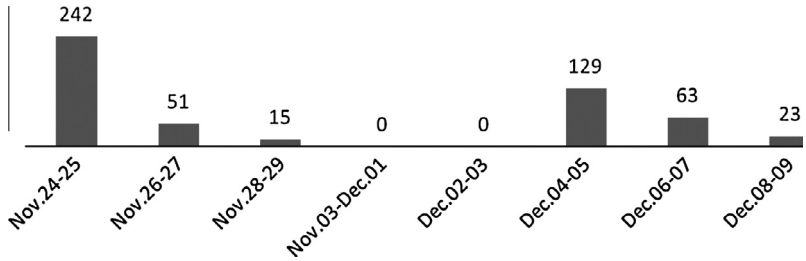

Fig. 4. The timeline of Xiangming Ma's message flow, modified from Deng et al. (2014).

However, the dialogue around the controversy was one-sided and incomplete, rather than a fully interactive and inclusive process. For instance, sampling results revealed substantial differences between the online and the on-site respondents (Table 3). Online respondents, most of whom were against replacing the arcade with a public entrance square in front of Dafo Temple, rarely visited the temple; 93.8% of them visited the site less than once a month, and 57.7% did not care whether the temple had enough space to accommodate activities. On the other hand, more than half of the on-site respondents visited the temple at least twice a month, and about one third of them indicated that the temple did not have enough space and that the construction of a public entrance square was necessary.

Both new and traditional media played a crucial role in this controversy by actively supporting the broadcasting process. First, new media enabled the voice of planners to be heard. The planner' Weibo message was extensively reposted and went beyond spatial boundaries. For instance, Ma's Weibo connects more than 20,000 users, 50% of whom live outside Guangzhou. His message can be viewed and commented on by these users and can then influence their values. Furthermore, local Weibo public accounts connect a large number of local citizens and are able to engage them in the dialogue. For instance, the message posted by Guangzhou Sina Estate received many responses, 75% of which were from local people. Moreover, the controversy triggered by new media attracted the attention of traditional media (TV news and newspapers), which then joined in the dialogue. Since the coverage of traditional media is broader, local planning authorities were finally forced to respond to the public's criticism.

The role of planners

Planners played an important role in this controversy, as they both initiated and facilitated it. Sampling results show that planners strongly influenced the common users' value orientation. Ma's Weibo message expressed a very negative opinion on the proposed project. It delivered three pieces of information: The temple's expansion should coexist with the arcade; the design proposal for the temple's expansion was bad; and the project would damage Guangzhou's arcade heritage.

Given that the on-site respondents to the questionnaire had limited awareness of the controversy, the differences in opinion between on-site and online respondents reveal the influence of planners. It is not surprising that online respondents strongly supported Ma's criticism (Table 4). Most of the online and on-site respondents agreed that the arcade and the temple's expansion should coexist. Compared with online respondents, more on-site respondents said that the temple is more important than the arcade. In terms of the design proposal, differences were also found between these two groups. More than half of the online respondents thought that the proposal was bad, while more than half of the on-site respondents thought that it was acceptable. In terms of the degree of damage, over three quarters of the online respondents believed that the arcade would be damaged a lot by the project, whereas about half of the on-site respondents said that the damage would not be serious.

Discussion

New media have promoted the development of new types of collaborative planning. By extending and building on the existing literature concerning traditional collaborative planning, we developed a framework to assess these new approaches. We then used the Dafo Temple controversy to test the framework. The research results reveal the advantages and challenges of new types of collaborative approaches (Table 5).

Government organizations and major stakeholders are traditionally the dominant proactive participants, with limited and reactive inputs from targeted or local interest groups. The widespread use of new media allows civic organizations and most

Table 3
The differences between online and on-site respondents regarding the temple (Underlined values indicate significant differences between two groups of respondents).

	Online respondents (%) (n = 163)	On-site respondents (%) (n = 120)	Chi-square		
			χ^2	*d.f.*	*p*
Visit frequency to Dafo Temple (per month)			110.147	4	0.000
⩾4 times	0.0	28.3			
2–3 times	2.5	20.0			
Once	3.7	13.3			
Less than once	65.6	33.3			
Never visit	28.2	5.0			
Total	100.0	100.0			
Spatial cognition of Dafo Temple			27.152	2	0.000
Enough space	29.5	31.7			
Not enough space	12.9	36.7			
Do not care	57.7	31.7			
Total	100.0	100.0			

Table 4
Different opinions on the design proposal (Underlined values indicate significant differences between two groups of respondents).

	Online respondents (%) (n = 163)	On-site respondents (%) (n = 120)	Chi-square		
			χ^2	*d.f.*	*p*
Importance of arcade and temple			26.389	2	0.000
Arcade is more important	28.8	19.8			
Temple is more important	4.3	24.8			
They need to coexist	66.9	55.4			
Total	100.0	100.0			
Opinion on the design proposal			93.182	2	0.000
Good	6.7	38.3			
Acceptable	31.3	53.3			
Bad	62.0	8.3			
Total	100.0	100.0			
Opinion on the degree of arcade damage			27.460	2	0.000
Damage a lot	75.5	45.0			
Have some damage	21.5	49.2			
No damage	3.1	5.8			
Total	100.0	100.0			

Table 5
Comparison between traditional and new forms of collaborative planning, developed by the authors with references to Margerum (2002) and Dragićević and Balram (2004).

		Traditional collaborative planning	Collaborative planning in the new media age
Level of agent diversity	Government organizations	Proactive	Proactive or reactive
	Major stakeholders	Proactive	Proactive or reactive
	Interest groups	Targeted or local groups	Groups with SNS skills
Nature of communication	Initiators	Government or stakeholders	Any agent
	Time and space	Locally specified	Flexible
	Procedural management	Structured	Unstructured
	Media flow	Official and delayed broadcast	Real-time, self-broadcast, easily biased
	Spatial deliberation	Workshop, interviews, questionnaire survey	Various spatial support tools or none Online survey
	Consensus outcome	Certain	Uncertain
Role of planner	Technical expert, facilitator and mediator	Yes	Yes/No
	Initiator and organizer	No	Yes/No

citizens (in addition to governments and the private sector) to participate in the planning process (Cheng, 2013; Tayebi, 2013). This Dafo Temple case shows that new media are a powerful and effective tool to engage experts, citizens, and civic groups in the planning process. They expand the scope of agents in traditional collaborative planning, which often focuses only on stakeholders. However, proactive actors in the traditional planning practices such as key stakeholders may retreat to a reactive position in new media age. Most of the agents involved in this controversy were not stakeholders who were directly affected by the project. The absence of affected stakeholders led to a partial dialogue and a one-sided understanding of the planning issues. Consequently, a crucial challenge is how to bridge the digital divide by engaging both online society and stakeholders for better communication.

In terms of communication, the Dafo Temple controversy reveals that the explosive effects of new media can lead to an open dialogue and a rapid interactive process involving diverse agents, but they can also make the online discussion a flash in the pan, suddenly ending with limited outcomes. In the new media age, in addition to government and stakeholders, almost any agent can initiate a collaborative planning process, by attracting public attention to a particular case and building up public pressure. The use of SNSs allows agents to perform more flexible participations beyond time and space boundaries. Compared to the official and delayed broadcast media's flow characteristics, the real-time and self-broadcast nature of new media enables more bottom-up information to be heard by a wider public (Mandarano et al., 2010).

The dialogue around the Dafo Temple controversy was not inclusive, however, since the affected stakeholders and on-site citizens were absent from the process. As mentioned, most agents involved in this controversy were not stakeholders who were directly affected by the project. Under the mass media pressure, the planning authorities acted rashly in an attempt to stifle the media discourses without having to carry out an in-depth investigation. Therefore, the dialogue around the controversy was one-sided and incomplete, rather than a fully interactive and inclusive process. It did not lead to an effective consensus-building process, which Innes (2004) calls "authentic dialogue." Apart from information bias resulting from the spontaneous nature of SNS communication (Wilhelm, 2000), there is also the issue of a potential "digital divide" (Castells, 1989), that is, a gap between those who can and those who cannot use new media.

Online surveys and discussions have been added to the conventional spatial deliberation methods, such as workshops, face-to-face dialogues, and questionnaires. The challenge here is how members of the online forum, who communicate via simple, short sentences and small pictures, can clearly express the spatial condition. In traditional on-site community participation, planners can provide communities and stakeholders with intensive and hands-on support in order to achieve meaningful discussions about space. How can this support be provided in an online planning

controversy? A proper management and support of the online discussion process seems necessary in order to facilitate meaningful discussions. Online planning support systems can play a strong role in helping online participants to understand spatial conditions (Lin & Geertman, 2013; Lin et al., 2014; Poplin, Pereira, & Rocha, 2013). A combination of face-to-face meetings, workshops, and e-dialogue can lead to a good understanding of planning issues and a shared vision among agents.

The self-broadcast function of SNSs enables planners to easily initiate public discussion to pursue marginalized citizens' right to the city (Tayebi, 2013). In a self-organizing process, planners can bring together agents, enable information to flow, build trust and reciprocity, represent interests, connect networks, and mobilize action (Booher & Innes, 2002). Besides their conventional roles as experts, advocators, and mediators, planners in the Dafo Temple controversy also became "planning activists" (Tayebi, 2013), using new media to establish networks and encourage citizens to participate in planning processes. However, they failed to establish an effective process to enable the engagement of various actors (including online participants, affected stakeholders, and on-site citizens) and facilitate their communication and co-production.

There are several new issues regarding the new role of planners. Firstly, it usually takes some time for planners to understand the conflict of interests between the agents in a planning process, while planners can rapidly influence public value by online discussions and comments. This suggests that planners (and other key agents) should be careful about their online arguments and ensure that they are based on accurate information. Furthermore, since traditional planning in China is usually led by governments, it is difficult for planners to establish an effective process that enables the engagement of various agents and facilitates their co-production. Moreover, planners in this controversy suffered from information bias and the lack of skills to organize these kinds of new events. Therefore, new regulations and a new institutional design are required to clarify the roles of different agents, particularly planners and governments, and facilitate the co-production of various agents. There is also a need for planners to acquire new knowledge and new planning support tools for e-participation.

Conclusions

New media change the boundaries of time, space, and society, and disseminate social values. These new models of mass communication have accelerated social transformation in China and facilitated the development of new types of collaborative planning, which are characterized by a broad range of agents, the new type of communication, and the new role of planners. These new collaborative approaches all exhibit elements of collaboration, participation, and interaction. Compared to traditional collaborative planning practices, the new approaches successfully broaden the scope of agents, but challenges lie in how to activate key stakeholders and citizens who have limited SNS skills. Collaborative planning enjoys the advantages afforded by new media. For instance, any agent can initiate a real-time participative process, and the influence of a planning event can extend beyond spatial and social boundaries. New media also provide new platforms for the communication between the government and actors from society. In a way, they push the government to communicate with citizens, civic organizations, and experts. The traditional government-led planning system finally has some space for public participation.

Nevertheless, these new types of collaborative planning present new challenges. In order to achieve a consensual outcome, more work needs to be done to deal with the issues of unstructured procedural management and poor spatial deliberation. With the help of SNSs, planners now can perform the roles of imitator and activist, in addition to the conventional role of technical expert, facilitator, and mediator. However, planners need to learn new skills and develop new knowledge in order to organize the new planning events, so that the online spontaneous arguments can become authentic dialogues. Future research can shed more light on the effective organization and cooperation in the planning process and the development of new planning supports for these new collaborative approaches.

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