How Do Chinese Civic Associations Respond to the Internet? Findings from a Survey*

Guobin Yang

ABSTRACT Based on survey data collected from October 2003 to January 2004, this article provides the first systematic empirical analysis of how civic associations in urban China have responded to the internet. It shows, first, that urban grassroots organizations are equipped with a minimal level of internet capacity. Secondly, for these organizations, the internet is most useful for publicity work, information dissemination, and networking with peer and international organizations. Thirdly, social change organizations, younger organizations and organizations in Beijing report more use of the internet than business associations, older organizations and organizations outside Beijing. Finally, organizations with bare-bone internet capacity report more active use of the internet than better-equipped organizations. These findings suggest that the internet has had special appeal to relatively new organizations oriented to social change and that a "web" of civic associations has emerged in China.

For almost a decade, popular and scholarly interest in the social impact of the internet in China has grown unabated. Reports about internet activities in China splatter the global news media. Academic studies are catching up in quantity and quality. Much of the interest understandably focuses on the politics of the internet: whether and how it may bring about social and political change and what kinds of sophisticated technologies of control are used. Yet current work focuses almost exclusively on internet use at the individual level and ignores how civic associations respond to the internet.[1] In China, the internet began to develop in the early 1990s when civic associations were undergoing a revival.

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1 I use "civic association" as a generic term to refer to voluntary and non-profit organizations. Other similar terms in the social science literature are civil society organizations, non-governmental organizations (NGOs), and non-profit organizations (NPOs).

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Many new civic associations have since appeared. Have they gone online? How do they use the internet? With what impact?

A growing social science literature suggests that these are important questions to address. Some scholars have argued that the adoption of new information and communication technologies (ICT) by voluntary organizations can reconfigure information flows and relationships.[2] Others have shown that in transitional societies, the use of new information technologies can lead to organizational innovation.[3] Still others have focused on how civil society organizations use the internet to promote social causes.[4] A common message is that the internet matters to civic organizations. Technological change may provide new opportunities and resources for organizational development and institutional transformation.

This message should have special resonance for students of contemporary Chinese society. Since the early 1990s, numerous studies of Chinese social organizations have appeared.[5] There is also a growing literature on how the internet affects China's social, cultural and political landscape.[6] If both the internet and civic organizations produce social change, their interactions should merit even more attention, yet surprisingly, scholars have not explored such

2 Eleanor Burt and John Taylor, "Information and communication technologies: reshaping voluntary organizations?" *Nonprofit Management and Leadership*, Vol. 11, No. 2 (2000), pp. 131–43; Eleanor Burt and John Taylor, "When 'virtual' meets values: insights from the voluntary sector," *Information, Communication & Society*, Vol. 4, No. 1 (2001), pp. 54–73.

3 Jonathan Bach and David Stark, "Innovative ambiguities: NGOs' use of interactive technology in Eastern Europe," *Studies in Comparative International Development*, Vol. 37, No. 2 (2002), pp. 3–23. László Bruszt, Balázs Vedres and David Stark, "Shaping the web of civic participation: civil society websites in Eastern Europe," *Journal of Public Policy*, Vol. 25, No. 1 (2005), pp. 149–63.

4 See J. G. McNutt and K. M. Boland, "Electronic advocacy by non-profit organizations in social welfare policy," *Non-profit and Voluntary Sector Quarterly*, Vol. 28, No. 4 (1999), pp. 432–51; Christopher Mele, "Cyberspace and disadvantaged communities: the internet as a tool for collective action," in Marc A. Smith and Peter Kollock (eds.), *Communities in Cyberspace* (New York: Routledge, 1999), pp. 290–310; and Elisabeth Jay Friedman, "The reality of virtual reality: the internet's impact within gender equality advocacy communities in Latin America," *Latin American Politics and Society*, Vol. 47, No. 3 (2005), pp. 1–34.

5 The literature is large. For a few samples, see Anita Chan, "Revolution or corporatism? Workers and trade unions in post-Mao China," *The Australian Journal of Chinese Affairs*, No. 29 (1993), pp. 31–61; Gordon White, Jude Howell and Xiaoyuan Shang, *In Search of Civil Society* (Oxford: Clarendon Press, 1996); Christopher Earle Nevitt, "Private business associations in China: evidence of civil society or local state power?" *The China Journal*, No. 36 (1996), pp. 25–43; Timothy Brook and B. Michael Frolic (eds.), *Civil Society in China* (Armonk, NY: M.E. Sharpe, 1997); Margaret Pearson, *China's New Business Elite: The Political Consequences of Economic Reform* (Berkeley: University of California Press, 1997); Anthony Saich, "Negotiating the state: the development of social organizations in China," *The China Quarterly*, No. 161 (2000), pp. 124–141; Kenneth W. Foster, "Embedded within state agencies: business associations in Yantai," *The China Journal*, No. 47 (2002), pp. 41–65; and Bruce J. Dickson, *Red Capitalists in China: The Party, Private Entrepreneurs, and Prospects for Political Change* (New York: Cambridge University Press, 2003).

6 Guobin Yang, "The internet and civil society in China: a preliminary assessment," *Journal of Contemporary China*, Vol. 12, Issue 36 (2003), pp. 453–75; Chin-fu Hung, "Public discourse and 'virtual' political participation in the PRC: the impact of the internet," *Issues and Studies*, Vol. 39, No. 4 (2003), pp. 1–38; Kathleen Hartford, "Dear mayor: online communications with local governments in Hangzhou and Nanjing," *China Information*, Vol. 19, No. 2 (2005), pp. 217–60; Randy Kluver, "The architecture of control: a Chinese strategy for e-governance," *The Journal of Public Policy*, Vol. 25, No. 1 (2005), pp. 75–97; and Yongming Zhou, "Living on the cyber border," *Current Anthropology*, Vol. 46 (2005), pp. 779–803.

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interactions. We do not even know whether Chinese civic associations are online, let alone how they use the internet and with what effects.

This article is a first step towards filling this gap. It provides the first systematic empirical analysis of internet capacity and internet use in 129 civic associations in urban China. Four findings stand out. First, Chinese civic associations have built a minimal level of internet capacity. Secondly, the internet is most useful for publicity work, information dissemination and networking with peer and international organizations. Thirdly, social change organizations, younger organizations and organizations in Beijing report more use of the internet than business associations, older organizations and organizations outside Beijing. Finally, organizations with bare-bone internet capacity report more active use of the internet than better-equipped organizations. These findings show that the internet has had special appeal to relatively new organizations oriented to social change and indicate that a "web" of civic associations has emerged in China. The conclusion discusses the significance of this web of associations for institutional transformation and political change in China.

Data and Methodology

I collected the data for this study through a survey of a purposive sample of 550 urban civic associations conducted from October 2003 to January 2004.[7] An urban focus is necessary because internet use in rural areas remains marginal. My goal was to understand the level of internet capacity and internet use in urban grassroots associations. I used a proxy measure of internet capacity by adapting an informatization index used by the International Telecommunication Union to measure the development of telecommunications technology at the national level.[8] This informatization index distinguishes information technology (IT) from telephones and cellular phones and measures national-level IT development by the number of personal computers, computer hosts[9] and internet users. Adapting this index to the organizational level, I use four indicators to measure an organization's internet capacity – number of computers, number of computer hosts, proportion of computers to staff and proportion of computer hosts to staff.[10]

I drew my sample from four sources.[11] The two main sources are *250 Chinese NGOs: Civil Society in the Making* edited by China Development

7 Most questionnaires were returned in or before December 2003, a few in January 2004. In this article, I consider December 2003 as the cut-off point of my data.

8 International Telecommunication Union, *Yearbook of Statistics: Telecommunication Services Chronological Time Series 1989–1998* (Geneva, Switzerland: Place des Nations, CH-1211, 2000).

9 Following the definition used by the International Telecommunication Union, I define computer hosts as computers directly connected to the worldwide internet network. See International Telecommunication Union, *Yearbook of Statistics: Telecommunication Services Chronological Time Series 1989–1998*.

10 What I refer to as internet capacity may be called "information technology capacity" more generally (as is consistent with the language of the ITU). My emphasis, however, is on the internet.

11 A main challenge for conducting the survey was sampling. There are no comprehensive and up-to-date directories of civic associations for drawing a random sample. Minxin Pei's study is based on *A*

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Brief[12] and *500 NGOs* edited by the NGO Research Centre at Tsinghua University.[13] These are the two most recent directories of civic associations in China. Although neither comprehensive nor representative, they offer the best available sample for a study of urban grassroots organizations in contemporary China. Practically, because these two sources are quite recent, they are likely to contain up-to-date contact information. Both directories contain some government-organized NGOs (GONGOs) such as the Chinese Women's Federation. I excluded these from the sample because they are more like state agencies than non-governmental organizations. The third source of sampling is an organizational directory of the Beijing Federated Association of Industry and Commerce. Finally, in selecting organizations based in Sichuan province, I relied on information provided by two local informants in the city of Chengdu. The final sample consisted of 141 organizations in Beijing, 28 in Sichuan and 381 elsewhere, totalling 550. It covered all provinces, autonomous regions, and "directly-governed municipalities" (*zhixia shi* 直辖市) in mainland China.

For sampled organizations in Beijing and Sichuan, trained interviewers were sent to conduct a questionnaire survey with each organization's office manager. Forty of the 141 sampled organizations in Beijing turned down the survey request; 27 organizations could not be located. Altogether 74 valid questionnaires were collected. Of the 28 organizations in Sichuan, five turned down the interview request, nine could not be located, and 14 valid questionnaires were obtained. For the 381 sampled organizations elsewhere, standardized questionnaires were sent by regular mail on 6 October 2003. By the end of January 2004, 50 valid questionnaires had been returned. The response rate for the entire survey was 25 per cent, yielding a valid sample of 138 civic organizations in China. No questionnaires were returned by sampled organizations in Heilongjiang, Inner Mongolia, Shandong, Jiangsu, Hunan, Jiangxi, Hainan, Qinghai or Tibet. Organizations in these regions are not represented in this study. After preliminary diagnostics, nine extreme cases were detected and removed from the sample.[14] The data analysis was based on 129 cases.

footnote continued

Comprehensive Handbook of Chinese Civic Associations edited by Fan Bojun, a handbook that is limited to organizations registered before 1992. See Minxin Pei, "Chinese civic associations: an empirical analysis," *Modern China*, Vol. 24, No. 3 (1998), pp. 285–318. Another similar directory is *A Compendium of Social Organizations* edited by Chen Dongdong, which is also confined mostly to organizations formed before 1990. See Chen Dongdong (ed.), *Zhongguo shehui tuanti daquan* (*A Compendium of Social Organizations in China*), 3 vols. (Beijing: Zhuanli wenxian chubanshe, 1998). On issues and challenges of doing survey research in China, see Melanie Manion, "Survey research in the study of contemporary China: learning from local samples," *The China Quarterly*, No. 139 (1994), pp. 741–65.

12 China Development Brief (ed.), *250 Chinese NGOs: Civil Society in the Making* (Beijing, 2001).

13 Tsinghua University NGO Research Center (ed.), *500 NGOs in China* (Beijing: United Nations Center for Regional Development and Tsinghua University, 2002).

14 Three cases are over 92 in organizational age, while the median organizational age of the data set is 10. Another three report full-time staff members of 150, 180 and 219 respectively, when the median number of full-time staff members is seven. The final three outliers respectively have 180, 150, and 200 computers, while the median number of computers in our sample is only four.

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Characteristics and Growth of Civic Associations in China

Chinese civic associations consist of a medley of formal and informal groups working in a variety of areas. I grouped the sample into five broad categories: business associations, environment, women, social services, health and community development, and others (such as religious and cultural organizations). Reflecting the broad trend in the development of civic associations, the largest category is business associations, numbering 56 out of 129. These are primarily trade associations and chambers of commerce. Also reflecting a new trend since the 1990s, the sample has a relatively high percentage of environmental organizations (n=16).

The sampled organizations are relatively young, mostly founded since the 1990s. As of 2003, they have an average organizational age of nine-and-a-half. Eighty-two (67 per cent) of 122 organizations with information about organizational age were founded in or after 1991. Only seven organizations were founded in or before 1984. Most of the organizations are modest in size with an average of nine full-time staff members. Out of 112 organizations with registration information, 100 are officially registered, accounting for 89 per cent of the sample; 12 (11 per cent) are not registered. Table 1 presents the average age and number of full-time staff by organizational type.

My survey captures three modes of growth of civic associations since the founding of the PRC: 1988, 1993 and 2000–2002. Ten out of 122 organizations were founded in 1988, eleven in 1993 and 27 between 2000 and 2002. They account for 39 per cent of the sample. The first mode of growth is consistent with the findings in Minxin Pei's study. Covering the years from 1979 to 1992, Pei's study finds that 1981, 1988 and 1989 saw the most visible gains in the number of newly formed associations, whereas 1983 and 1990 saw drastic falls.[15] While organizations established in the first wave of growth (1981) in Pei's study are under-represented in my study, my sample captures Pei's second phase (1988 and 1989) well. Furthermore, my sample captures new trends that appeared after

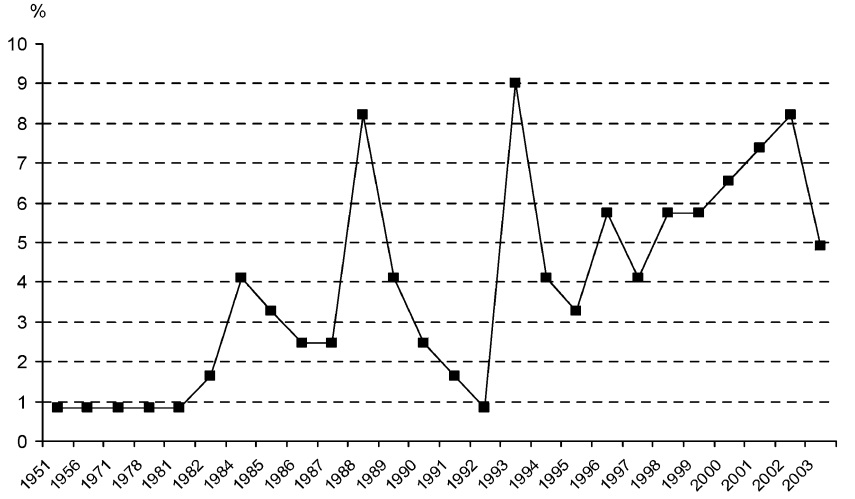
Table 1: **Organizational Age and Number of Full-Time Staff by Types of Civic Associations, December 2003**

Organizational type	Age in 2003 (mean)	Full-time staff (mean)
Social services,health, community development	7.8 (n=36)	10.1 (n=33)
Women	7.6 (n=8)	8.3 (n=7)
Environment	7.3 (n=16)	7.2 (n=13)
Business associations	11.3 (n=53)	9.3 (n=53)
Other (religion, culture/education, etc)	11.8 (n=9)	5.4 (n=8)
Total	9.5 (n=122)	9.0 (n=114)

15 Minxin Pei, "Chinese civic associations: an empirical analysis."

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Figure 1: **Chinese Civic Associations Founded by Year, 1951–2003 (%, n=122)**



1992, the cut-off point of Pei's data. As Figure 1 shows, the number of newly founded civic associations began to increase again in 1993. The growth remained robust throughout the 1990s, peaking in 2002. This pattern resembles that found in a study by Shaoguang Wang and Jianyu He.[16] One difference is that the slump in the number of newly founded organizations between the mid-1990s and the early 2000s in the Wang and He study occurred later than that in our study. This may be because my sample includes 12 (11 per cent) unregistered organizations, whereas the Wang and He study samples only registered organizations. As Wang and He note, the Chinese government raised the bar of renewing and registering organizations in 1998. This may have led to a decline in the number of registered associations, but not necessarily unregistered ones.

Minxin Pei attributes the drastic growth of civic associations in 1988 and 1989 to the relatively relaxed political climate in 1988.[17] Pei also finds that of all types of civic associations, trade and business associations were growing the fastest in number, reflecting the deepening of market reforms. The first wave of growth of civic associations in our sample was due to similar structural processes as identified in Pei's study. Those organizations founded in 1988 in our sample existed in the same political climate as those in Pei's sample. In another similarity, the number of business associations founded in 1988 was relatively large – six out of ten.

16 Shaoguang Wang and Jianyu He, "Associational revolution in China: mapping the landscapes," *Korea Observer: A Quarterly Journal*, Vol. 35, No. 3 (2004), pp. 485–533.

17 As Pei notes, however, the increase in the number of civic associations in 1989 in his sample is surprising, given the political conservatism after the crackdown of the student movement. This trend is not discernible in my sample, where compared with 1988, 1989 marked a visible decline in the number of civic associations founded.

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On average, the non-business associations in my sample are younger than the business associations. They are more likely to be founded in the 1990s and after. Pei's study finds that although business and trade associations flourished in the 1980s, there was a dearth of public affairs organizations then.[18] Jude Howell observes that from the early to mid-1990s onwards, the most notable development in Chinese civil society was the rapid growth of associations concerned with providing services to marginalized groups.[19] My study supports both Pei's finding and Howell's observation.

Several domestic and international factors may explain the jump in the number of new civic associations in 1993 and the relatively stable growth thereafter. Internationally, the 1995 UN World Conference on Women in Beijing had a significant impact on the growth of NGOs in China, especially women's organizations.[20] The growing presence of international NGOs in China is another source of influence. Jude Howell argues, for example, that "external agencies have played a much greater role in the nurturing of civil society and public spheres than has been previously understood in China."[21] Keith, Lin and Huang similarly point to the importance of international contacts for the development of local NGOs.[22]

On the domestic front, as Howell argues, the deepening of the market reform following Deng Xiaoping's southern tour in 1992 bankrupted the socialist welfare system and created a large marginalized population badly in need of social support.[23] This structural change necessitated the rise of new social service organizations. We may add that, in the case of environmental groups, which make up 12 per cent of my sample, the acceleration of the market reform in the 1990s was accompanied by severe environmental degradation. The appearance of grassroots environmental groups was at least partially a response to China's environmental crisis. Furthermore, the development of the internet, which parallels the revival of civic associations, is another favourable condition. As the following analysis shows, the internet is more than a technological tool; it is a

18 Minxin Pei, "Chinese civic associations: an empirical analysis," p. 294.

19 Jude Howell, "New directions in civil society: organizing around marginalized interests," in Jude Howell (ed.), *Governance in China* (Lanham, MD: Rowman and Littlefield, 2004), p. 145. Several other studies have similarly drawn attention to the rise of new types of grassroots organizations since the 1990s. See Xiaoyuan Shang, "Looking for a better way to care for children: cooperation between state and civil society in China," *Social Science Review*, Vol. 76, No. 2 (2002), pp. 203–28; Ronald C. Keith, Zhiqiu Lin and Huang Lie, "The making of a Chinese NGO: the research and intervention project on domestic violence," *Problems of Post-Communism* (November/December 2003), pp. 38–50; and Zhang Xin and Richard Baum, "Civil society and the anatomy of a rural NGO," *The China Journal*, No. 52 (2004), pp. 97–112.

20 Jude Howell, "Post-Beijing reflections: creating ripples, but not waves in China," *Women's Studies International Forum*, Vol. 20, No. 2 (1997), pp. 235–52. Ping-chun Hsiung and Yuk-Lin Renita Wong, "Jie Gui – connecting the tracks: Chinese women's activism surrounding the 1995 World Conference on Women in Beijing," *Gender & History*, Vol. 10, No. 3 (1998), pp. 470–97.

21 Howell, "New directions in civil society," p. 165.

22 Keith *et al.*, "The making of a Chinese NGO," p. 39. On the role of international NGOs in the growth of Chinese environmental organizations, see Guobin Yang, "Environmental NGOs and institutional dynamics in China," *The China Quarterly*, No. 181 (2005), pp. 46–66.

23 Howell, "New directions in civil society," p. 147.

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strategic resource and opportunity for small and resource-poor organizations to strike out an existence in China's constraining political context.

Internet Capacity of Chinese Civic Associations

To be able to use the internet requires basic capabilities such as computer equipment. Although some observers have argued that in many industrialized societies, internet access is no longer a main issue for civil society organizations,[24] it remains a challenge for organizations in developing countries. A digital divide is still a serious barrier. China has a numerically large but proportionally small internet population; less than 10 per cent of its population is online.[25] Therefore, a starting point for understanding how Chinese civic associations respond to the internet is their basic internet capacity. Do average associations have computers? Are they linked to the internet? How many staff members share a computer?

Our survey shows that Chinese civic associations have a minimal level of internet capacity. On average, each organization has close to six computers and about five of these are linked to the internet. In terms of methods of connection, 43 (36 per cent) out of 119 organizations report using dial-up, 52 (43.7 per cent) report using broadband, and 24 (20 per cent) report using both dial-up and broadband. Only two out of 129 organizations do not own a computer. About half (60) have three or fewer computers while 22 (17 per cent) have one computer only. Table 2 shows the number of computers and computer hosts in Chinese civic associations.

The proportion of computers and computer hosts to the number of staff is low. On average, nearly two full-time staff members share one computer or computer host. The proportion becomes even lower if part-time staff are added. The average number of full-time staff for all organizations is about nine; for full and part-time staff combined it is about 19. This means that on average, more than three staff members (full and part-time) share one computer and every four people share a computer host. This is lower than the proportion of computer hosts to the number of internet users at the national level for the same period. Nationally, of those who use the internet for at least one hour per week, every two-and-a-half share a computer host.[26]

Chinese civic associations have an internet capacity comparable to civic associations in other developing nations but lag behind organizations in

24 Mark Surman, "From access to applications: how the voluntary sector is using the internet," prepared for the Government of Ontario, Ministry of Citizenship, November 2001. http://www.volunteersonline.ca/news/From%20Acess%20to%20Applications%20-%20V@O%20Environment%20Scan%20-%20English%20-%20Nov%202001.PDF, accessed 7 June 2005.

25 Eric Harwit, "Spreading telecommunications to developing areas in China: telephones, the internet and the digital divide," *The China Quarterly*, No. 180 (2004), pp. 1010–30.

26 In December 2003, there were 30.89 million computer hosts and 79.50 million internet users in China, with a proportion of 0.39. See CNNIC (China Internet Network Information Centre) survey report, January 2004 at www.cnnic.net.cn.

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Table 2: **Number of Computers and Computer Hosts in Chinese Civic Associations, December 2003**

Computers	Organizations (n=129)	Computer hosts	Organizations (n=117)
0	2 (1.5%)	0	2 (1.7%)
1	22 (17%)	1	35 (29.9%)
2	20 (16%)	2	19 (16.2%)
3	16 (12.4%)	3	12 (10.3%)
4	11 (8.5%)	4	11 (9.4%)
5	8 (6.2%)	5	4 (3.4%)
6	6 (4.7%)	6	4 (3.4%)
7	5 (3.9%)	7	4 (3.4%)
8	7 (5.4%)	8	10 (8.5%)
9	5 (3.9%)	9	3 (2.6%)
10 and above	26 (20.2%)	10 and above	14 (12%)

developed countries. Data compiled in 2001 by Mark Surman show that as of 2000, 97 per cent of voluntary organizations and small businesses in Britain already had internet access and 87 per cent of the voluntary organizations in the United States had web sites.[27] Although Surman provides no statistics on the actual number of computers or computer hosts, his measures of internet access include up-to-date computers and dial-up or high-speed internet connections. The high rate of internet access in the voluntary organizations he examined leads him to conclude that "basic Internet connection and access issues are no longer a major issue for most voluntary organizations."[28]

Studies of voluntary organizations in Latin America, Africa and south-east Europe show lower levels of internet capacity than those in the United States and Britain. For example, a study of 100 gender equality organizations in Argentina, Brazil and Mexico found that one-third of the organizations had no computer, one computer for the organization or used home computers for their work. Some 42 per cent of the organizations did not have all their computers connected to the internet.[29] A study of ICT use in 78 civil society organizations in Buenos Aires, Argentina found that only one-third of the organizations had internet connections, with an average of five computers per organization. The same article also studied 60 NGOs in Montevideo, Uruguay and found that 87 per cent of the organizations had at least one computer and 60 per cent had internet connections.[30] Finally, a study of six regions in south-east Europe conducted in 2001 found that despite unevenness in ICT capacity across the region, almost all the NGOs in the study had at least one computer, although

27 Surman, "From access to applications."
28 *Ibid.* p. 10.
29 Friedman, "The reality of virtual reality."
30 Susana Finquelievich, "Electronic democracy: Buenos Aires and Montevideo," *Cooperation South Journal* No. 1 (2001), pp. 61–81. http://tcdc.undp.org/coop_south_journal/2001_oct/061-081.pdf, accessed June 2003.

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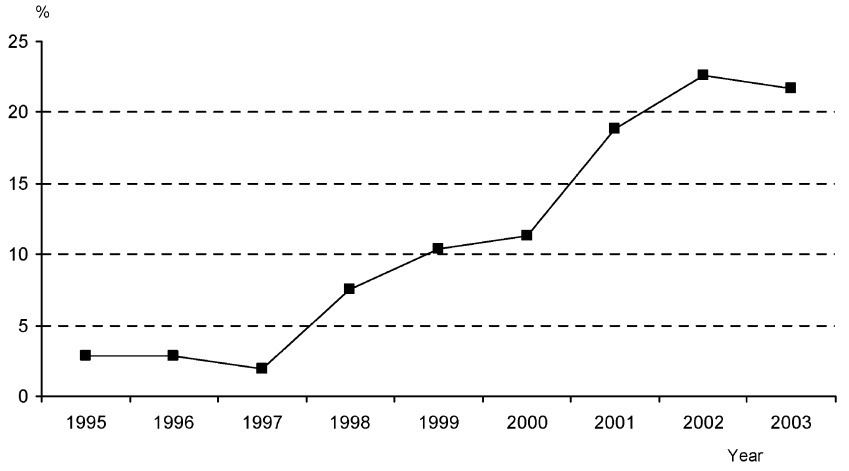
only about 9 per cent of them have web sites.[31] In comparative perspective, then, Chinese civic associations are not at the head of the curve in terms of internet capacity but neither are they far behind. They have a minimal level of internet capacity comparable to civic associations in other developing countries.

Internet Connectivity and Frequently Used Network Services

Given a minimal level of internet capacity, how do Chinese civic associations use the internet? Are they connected? Do they have web sites? When did they go online or launch their web sites? What network services do they commonly use?

Our survey shows that internet connectivity in Chinese civic associations is high for their low capacity. Out of 129 organizations, 106 (82 per cent) were connected and 69 (65 per cent) had web sites as of December 2003. As Figure 2 shows, most organizations went online between 1998 and 2004, with 1998 marking the first major jump, followed by a steady annual growth. Out of 106 wired organizations, only eight went online between 1995 and 1997. A similar pattern holds for web launching. Only two organizations had web sites before 1997. Web launching jumped in the year 2000, with 86 per cent (59) starting their web sites between 2000 and 2003 (see Figure 3). Not surprisingly, web launching lags a year or two behind the initial wiring of the organizations, indicating that organizations do not launch web sites as soon as they go online.

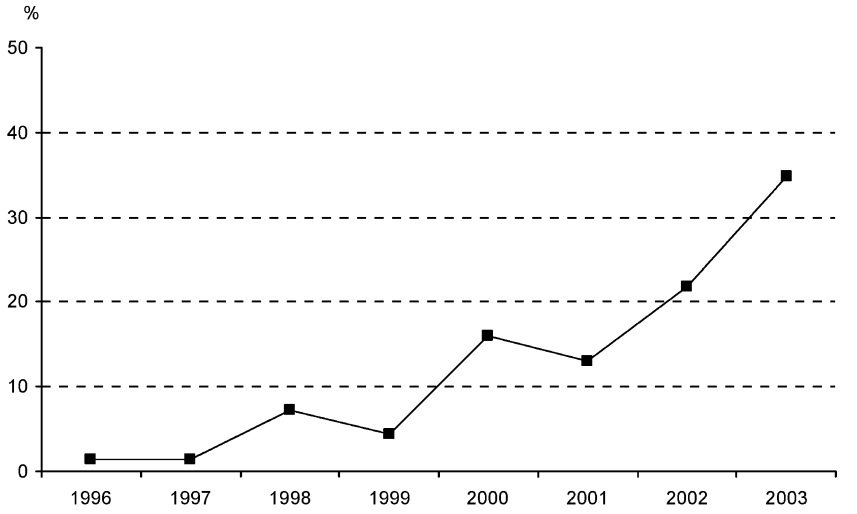
Figure 2: **Chinese Civic Associations Connected to Internet by Year, 1995–2003 (%, n=106)**



31 OneWorld International and the Open Society Institute, "The use of information and communication technologies by non-governmental organizations in Southeast Europe," 2001. http://www.southeasteurope.org/documents/NGODoc.pdf, accessed June 2003.

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Figure 3: **Number of Chinese Civic Associations Launching Home Pages, 1996–2003 (%, n=69)**



The timing of civic organizations going online and launching web sites parallels the national diffusion of the internet. Although China went online in 1994, the internet did not become widely available until about 1998. There were only about 10,000 internet users in 1994, but in December 1998 the number exceeded two million and the number of computer hosts reached over 700,000. Thereafter, the development of the internet accelerated. During the eight-year period from 1997 to 2004, 1999 and 2000 saw the most dramatic growth in the number of computer hosts and internet users.[32]

The internet is associated with a variety of network applications. Among these, email is the most frequently used by Chinese civic associations, followed by search engines and web sites. As Table 3 shows, electronic newsletters and BBS (bulletin board systems) are used quite often. Twenty-five per cent of surveyed organizations indicate that they frequently use electronic newsletters, while 14.3 per cent indicate frequent use of BBS. This is particularly notable in view of the previously mentioned report by Surman, which suggests that few non-profit organizations in the United States or Britain use such discussion forums.[33] Eleanor Burt, the author of several studies of internet uptake by British voluntary organizations, expressed surprise at the "relatively high figure for online discussion" shown by my survey, noting that "this is an activity that has been slow to take off in the UK voluntary sector."[34]

32 CNNIC, "15th statistical report of the development of Chinese internet," 2005. http://www.cnnic.net.cn/.
33 Surman, "From access to applications," p. 15.
34 Eleanor Burt, email to author on 7 March 2005.

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Table 3: **Most Frequently Used Network Services in Civic Associations in China, December 2003 (multiple option)**

	%
Email	95.5
Search engine	58.9
Home page	47.7
Electronic newsletter	25.0
BBS	14.3
Video conference	2.7

The network services used by civic associations parallel national patterns for individual internet users. As Table 4 shows, at the national level, individual users also favour email and search engines most. Similarly, interactive functions such as BBS and chat rooms are popular. It is clear that internet capacity and use in the voluntary and nonprofit sector is related to the overall internet development of a country. National internet development is an important precondition. Furthermore, internet use by civic associations probably reflects the national internet culture. Thus if BBS forums are more popular with Chinese civic associations than with their counterparts in more developed countries, it is probably because there is a more vibrant BBS culture in China.[35] Indeed, my own online ethnography indicates that there is some degree of cross-fertilization between the BBS forums run by civic associations and the nationally popular

Table 4: **Most Frequently Used Network Services for Chinese Internet Users, December 2003 (multiple option)**

	%
Email	88.4
Search engine	61.6
Browsing web site	47.2
BBS, community, newsgroup	18.8
Free personal home page	5.0
Electronic magazine	3.9
Video conference	0.4

Source:
CNNIC report, January, 2004.

35 There is no systematic account of why Chinese BBS culture is popular. Most studies emphasize that BBS offers an alternative space for public expression. See Guobin Yang, "The internet and civil society in China"; Chin-fu Hung, "Public discourse and 'virtual' political participation"; Michel Hockx, "Links with the past: mainland China's online literary communities and their antecedents," *Journal of Contemporary China*, Vol. 13, No. 38 (2004), pp. 105–127; Geremie R. Barme and Gloria Davies, "Have we been noticed yet? Intellectual contestation and the Chinese web," in Edward Gu and Merle Goldman (eds.), *Chinese Intellectuals Between State and Market* (London: RoutledgeCurzon, 2004), pp. 75–108; and Yongming Zhou, "Living on the cyber border."

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ones. The cross-posting of messages between these two types of forums is a common phenomenon.[36]

The Role of the Internet in Organizational Activities

With a relative high level of internet connection and web presence, do Chinese civic associations use the internet to perform core organizational activities? What network services are used for what activities? How important is the internet for performing various organizational tasks?

I collected both qualitative and quantitative data on these questions. One survey question asks the respondents whether they think the internet has any special significance (*teshu yiyi* 特殊意义) to their organizations and what it may be. A remarkable 40 organizations provided written responses to this question. Though mostly brief, these comments uniformly affirmed the importance of the internet to their organizations. Below are a few sample comments:

"Yes, it's an important tool for strengthening co-operation and networking."
"Low costs, broad reach, convenient."
"The internet is crucial for the development of our organization. It can be used to greet and understand the outside world, shorten the distance and broaden our horizons."
"For disabled people, the web is an important channel for communication and participation in social life."
"Yes. It increased our social influence."
"Yes. It speeds up information exchange and facilitates interaction with overseas organizations. It saves time and expenses."
"Yes. It shortens our distance with other organizations, facilitates interaction and increases information flow."

The quantitative data support the message of these comments while providing a more differentiated picture of the role of the internet in different kinds of organizational tasks. Table 5 shows that the internet is most important for "organizational development" and "organizing activities." It is also important for networking, although here there are interesting differences. The internet is more useful for interacting with peer or international organizations than with government agencies. The implication is that the internet is a favoured means of horizontal communication. This suggests that for Chinese civic associations, it may not be an effective means of communicating with or lobbying government officials, but may be effective for mobilizing peer groups and international organizations.

The same pattern holds for the use of home pages. When asked what they used their home pages for, over 90 per cent of the organizations selected "organizational publicity." Over 70 per cent chose "publicizing laws, regulations and other information" and "networking with domestic organizations,"

36 An example is the debate in the first half of 2005 between Fang Zhouzi and Chinese environmentalists on the practices of environmental protection in China. See special features on the debate in Fang Zhouzi's web site New Threads (www.xys.org) and the BBS forums run by Friends of Nature (www.fon.org.cn).

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Table 5: **''Overall, What Role Has the Internet Played in Your Organization?'' December 2003 (5=most important; 1=least important)**

Organizational development	4.1
Organizing activities	3.97
Interactions with international organizations	3.87
Interactions with domestic organizations	3.86
Interactions with government agencies	3.53
Member recruitment	3.07
Fund-raising	2.99

Table 6: **Main Uses of Home Pages by Chinese Civic Associations, December 2003**

	%
Organizational publicity	90.9
Publicizing laws, regulations and other information	75.8
Networking (*goutong* 沟通) with domestic organizations	74.2
Networking with international organizations	45.5
Networking with government agencies	33.3
Online discussion	24.2
Recruiting volunteers	10.6
Fundraising	6.1

followed by ''networking with international organizations'' and ''networking with government agencies'' (Table 6). One notable feature is that more organizations use home pages for online discussion than for fund-raising or recruitment. The internet is least important for membership recruitment and fund-raising.

It is clear that the internet is more useful for some purposes than others. It is a supplement to, not a replacement of, traditional means of communication. This feature is highlighted when organizations are asked about how they publicize activities and recruitment information. As Table 7 shows, the favoured means of publicizing recruitment information are acquaintances, the telephone, organizational publications, web sites and email, in that order. The favoured means of publicizing activities are the telephone, email, organizational publications, public presentations and web sites.

Table 7 suggests that conventional mass media (newspapers, television and radio) appear to be least used for recruitment and publicizing activities. One obvious reason is the high costs of placing commercials in the mass media. Table 7 further shows that in publicizing recruitment information, face-to-face and telephone communication is clearly favoured over internet-based communication, yet email becomes much more important in publicizing activities. This suggests that the internet may be especially useful for publicity and information

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Table 7: **Means of Publicizing Selected Types of Information in Chinese Civic Associations, December 2003**

Main means of publicizing recruitment information (n=127, %)		Main means of publicizing activities (n=127, %)	
Acquaintances	36.0	Telephone	68.5
Telephone	30.6	Email	41.7
Own publications	24.8	Own publications	39.4
Web site	19.2	Public presentations	33.9
Email	18.4	Web site	26.0
Newspaper	16.8	Newspaper	15.7
Public presentations	13.6	Magazine	16.5
Magazines	9.6	Acquaintances	11.8
TV	8.8	TV	11.0
Radio	4.8	Radio	7.1

dissemination, whereas traditional means of communication may be more appropriate for activities involving interpersonal relations such as member recruitment. Of course, this is not to say that the internet does not lend itself to interpersonal interactions. The popularity of BBS forums suggests that many such interactions take place online, but online interactions are usually anonymous and therefore differ from face-to-face or telephone interactions.

Overall, our survey shows that the internet plays a significant role in interactions with international organizations. This finding merits special attention because of the important role, mentioned earlier, which international organizations play in the growth of new types of civic associations in China. If international organizations significantly contribute to the development of Chinese civic associations, we would expect relatively high levels of communication between them. The technological features of the internet applications facilitate long-distance communication. Do Chinese civic associations use the internet to network with international organizations? What kinds of interactions?

The survey shows that 90 (or 71 per cent) out of 126 surveyed organizations report having contact with international organizations. Fifty-one organizations report having contact with fewer than five international organizations, 28 report contact with six to ten international organizations, and seven report 11 to 30. Chinese civic associations interact with international organizations for various purposes such as information exchange, project collaboration, mutual visits and consultation. Seventy-one out of 90 organizations (79 per cent) report that information exchange is their main area of contact with international organizations. Sixty-eight per cent selected "project collaboration," 48 per cent "mutual visits" and 26 per cent "consultation." In order of descending importance, the main means of communication in networking with international

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organizations is email, fax, telephone and regular mail.[37] This forms an interesting contrast with networking with domestic peer organizations, where telephone is the most important means of communication, email the second, fax the third and regular mail the least.[38] The importance of email for international communication may be due to its speed, convenience and low costs. Our evidence supports similar findings about email use in different national contexts.[39]

Variations in Internet Capacity and Internet Use

The above discussion set out the general features of internet capacity and use in Chinese civic associations. Variations in internet capacity and use emerge after breaking down the sample by organizational type, location and organizational age. Business associations make up 43 per cent of the sample (56/129). Other types include environmental, women's, health, social service and community development organizations, and culture and education organizations. The data-set contains only a small number of each of these other types. I therefore grouped the sample into two big categories by organizational type – business and non-business associations. Similarly, the data-set has 71 associations in Beijing, but contains only a small number of organizations from each of the other provinces and regions in the sample. Thus I distinguished organizations by two locations, Beijing (n=71) and "Other" (n=58). I also separated organizations established in or before 1990 from those founded in or after 1991. The results are shown in Table 8.

Table 8 reveals three interesting patterns. First, business associations are better equipped with the internet than non-business associations, yet they make less use of it. On average, they have more computers and computer hosts than non-business associations, but only 58 per cent have web sites, compared to 66 per cent of non-business associations. On all but one parameter, the internet plays a lesser role in business associations than in others. In interactions with government agencies, the internet appears to be slightly more important for business associations than for others. This, however, may simply reflect another phenomenon: business associations have more interactions of any kind with government agencies than non-business associations. This is confirmed by another finding in our survey: 75 per cent of business associations indicate that they often interact with government agencies, compared to 62 per cent of non-business associations.

37 On a scale of 1 to 5, with 5 indicating the most important, email scores 4.63, fax 4.03, telephone 3.87, and regular mail 2.76.

38 On a scale of 1 to 5, with 5 indicating the most important, telephone scores 4.44, email 4.06, fax 3.80, and regular mail 3.03.

39 See for example S. O'Lear, "Networks of engagement: electronic communication and grassroots environmental activism in Kaliningrad," *Geografiska Annaler: Series B, Human Geography*, Vol. 81, No. 3 (1999), pp. 165–78.

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Table 8: **Internet Capacity and Use by Organizational Type, Location and Age, December 2003**

	Mean	Organization type		Location		Year founded	
		Business (N=56)	Other (N=73)	Beijing (n=71)	Other (n=58)	−1990 (n=40)	1991+ (n=82)
No. of computers (mean)	5.86	6.16	5.63	7.01	4.42	5.93.	5.46
No. of hosts (mean)	4.47	5.08	3.98	5.54	3.13	4.42	4.12
No. of full-time staff	8.97	9.34	8.66	9.8	7.92	9.23	8.36
Staff/computer ratio	1.53	1.52	1.54	1.4	1.79	1.56	1.53
Web sites (% of orgs)	62	58	66	66	57	57	62
Role of internet in org development (maximum=5)*	4.21	4.00	4.37	4.26	4.14	4.11	4.23
Role of internet in organizing activity	3.97	3.78	4.11	3.97	3.98	3.89	4.01
Role of internet in interactions with domestic organizations	3.86	3.52	4.1	3.88	3.84	3.78	3.88
Role of internet in interactions with INGOs	3.87	3.35	4.25	3.78	3.98	3.79	3.89
Role of internet in interactions with government	3.53	3.63	3.46	3.70	3.30	3.72	3.37
Role of internet in recruitment	3.07	3.05	3.08	3.19	2.89	2.93	3.08
Role of internet in fund-raising	2.99	2.28	3.50	2.67	3.41	2.83	3.00

Note:

The survey question is: "Overall, what role has the internet played in your organization?"

Secondly, older organizations (those founded in or before 1990) have better internet capacity than younger organizations and yet make less use of the internet. As in business associations, the internet plays a lesser role in older organizations on all but one parameter. It is used more in interactions with government agencies. This again reflects the fact that older organizations simply interact with government agencies more often by any means. Ninety-one per cent of organizations founded in or before 1990 report that they often interact with government agencies, compared with a low 59 per cent of those founded in or after 1991.[40]

Thirdly, associations in Beijing have better capacity. With an average of seven computers, they own at least two more computers than organizations outside Beijing. Overall, the internet has a more important role in their activities than in associations elsewhere, but the differences are not so remarkable.

40 The similarity between older organizations and business associations may be due to some degree of correlation between the two types. On average, business associations are older than others. Their average age is 11.3 (n=53) in 2003, while the mean age of all sampled organizations is 9.5.

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There are several tentative explanations for these differences. First, organizational mission may influence an organization's responses to the internet. Non-business organizations (such as women's and environmental organizations) are mostly oriented to social change, whereas business associations largely represent the interests of their members. Social change organizations need to reach a broad-based public. They must mobilize large numbers of citizens. Furthermore, many of their activities (such as environmental education) aim to disseminate information to the general public, for which the internet serves as an accessible and money-saving tool. It is for these reasons that non-business associations make more use of the internet than business associations, even though business associations have more internet capacity.

This conclusion is confirmed by the finding that older organizations are better equipped than younger organizations and yet make less use of the internet. Thus resources are not the most decisive factor in influencing internet capacity and use. Organizations with good internet resources do not necessarily make full use of them, while resource-poor organizations may make much better use of whatever they have. This is a counter-intuitive yet perfectly understandable finding. With a minimal internet capacity, resource-poor grassroots organizations committed to social change have to make the most of the internet. For them, the internet becomes a more central resource than for the more established and resource-rich organizations. Indeed, the internet is no longer an ordinary resource (such as office space), but a resource-generating resource. Using the internet to network with international organizations, disseminate information or organize activities is an important way of generating organizational visibility, influence and social capital, which may then help to generate other kinds of resources such as project grants and personnel recruitment.

Internet culture and organizational culture also influence organizational responses to the internet. Generally speaking, the level of internet capacity and internet use in civic associations should reflect the broader internet culture. Civic associations in cities with a more developed internet culture should be more likely to use the internet. Thus, if the internet plays a slightly more important role in civic associations in Beijing than in other places, it may be partly because of the more developed internet culture and the bigger internet population in Beijing. At the time of our survey in December 2003, Beijing had the biggest percentage (28 per cent) of its population online of all Chinese cities. Furthermore, a quarter of all cn. domain names were registered in Beijing and one-fifth of the 595,500 WWW sites in China were concentrated in Beijing.[41] These factors should have a favourable impact on internet uptake in civic associations there.

With respect to organizational culture, organizational theory would expect that the chances of change decrease with an organization's age.[42] Thus,

41 CNNIC, "Statistical report on the development of the internet in China," January 2004. http://www.cnnic.net.cn.

42 Michael T. Hannan and John Freeman, "Structural inertia and organizational change," *American Sociological Review*, No. 49 (1984), pp. 149–64.

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well-established organizations may experience difficulty in adopting new technology, because such technology requires new organizational capabilities.[43] It has also been argued that "organizations are likely to adopt the technologies that are prominent during the time of their formation."[44] These theoretical perspectives may partially explain why older organizations in my sample use the internet less even though they are better equipped. It may be that they have the resources to build the infrastructure and yet lack the innovative impulses to use new technologies. Another possible reason is that they are relatively well established organizations and have less need for the new technology than younger organizations.

Obstacles to Better Use of the Internet

Chinese civic associations face many challenges in using the internet. Some are common to all internet users in China, individual or organizational; others are unique to civic associations. One obstacle is political control. It is well known that an internet regulatory regime has developed in China over the past decade, a regime with extensive power and resources and increasingly sophisticated methods of surveillance and control.[45] If commercial and public web sites and BBS forums are regularly monitored, it is likely that those of civic associations are as well. Due to the political nature of this issue, we did not ask explicit survey questions about how Chinese civic associations experience surveillance and control. Yet interview evidence does indicate the presence of surveillance, although overall, political control does not appear to be a top concern. In an interview with an NGO office manager in December 2004, it was revealed that the public security agency investigated the organization about messages posted in its BBS forum related to the *falun gong* (法轮功). The investigation involved a couple of "friendly visits" to the organization by public security personnel. After being assured that the organization had nothing to do with the postings, the public security people let the matter rest but did ask the organization to monitor its BBS forums more closely in the future.

Besides political control, there are other barriers to better use of the internet. Our survey indicates that the degree of satisfaction with various aspects of the internet is relatively low. As Table 9 shows, respondents report the highest level of satisfaction with "convenience in use," but even this has an unimpressive score of 3.59 on a scale of 1 to 5. Furthermore, Table 9 shows that there is some concern with the services of Internet Service Providers (ISP), costs, internet security, and even the truthfulness of internet content and the openness of

43 Rebecca M. Henderson and Kim B. Clark, "Architectural innovations: the reconfiguration of existing product technologies and the failure of established firms," *Administrative Science Quarterly*, No. 35 (1990), pp. 9–30.

44 Doug Guthrie, "A sociological perspective on the use of technology: the adoption of internet technology in US organizations," *Sociological Perspectives*, Vol. 42, No. 4 (1999), p. 586.

45 OpenNet Initiative, "Internet filtering in China in 2004–2005: a country study," 14 April 2005. http://www.opennetinitiative.net/studies/china/ONI_China_Country_Study.pdf, accessed 24 May 2005.

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Table 9: **''How is Your Organization Satisfied with the Following Aspects of the Internet?''**

	N	Mean (maximum = 5)
Convenience in use	107	3.59
Variety of functions	103	3.48
Richness of information in Chinese	102	3.44
Speed	114	3.32
Openness of information	107	3.21
Truthfulness of content	104	3.13
Internet security	103	3.12
Costs	105	3.08
Quality of ISP services	91	3.07

information. The degree of satisfaction with internet speed scores 3.32. Considering that 43 (36 per cent) out of 119 organizations still use dial-up connection and therefore must experience low satisfaction with internet speed, this score can only be interpreted as unremarkable.

Conclusion

This article provides a first empirical analysis of the level of internet capacity and internet use in civic associations in China. The analysis leads to four conclusions. First, it shows that Chinese civic associations have a minimal level of internet capacity. More than 80 per cent were connected to the internet and more than half had web sites. Only two out of 129 organizations did not own a computer at the time of the survey; all the others had at least one. Considering that small and poorly equipped organizations actually make better use of the internet, the difference between zero and one computer has to be a qualitative difference, for with even one computer, an organization can be linked to the outside world.

Secondly, my analysis shows that social change organizations, younger organizations and organizations in Beijing make more use of the internet than business associations, older organizations and organizations outside Beijing. This is so even when they have lower capacity. This finding suggests that organizational mission, organizational culture and internet culture influence organizational responses to the internet. Social change organizations aim to reach a broad-based public; organizations founded in or after 1991 have developed in tandem with the internet and are thus acculturated to it; organizations in Beijing exist in a culture of high internet-density. To promote internet use by civic associations, therefore, it is necessary to build the national internet culture and an organizational culture committed to horizontal relationships and the open flow of information. In the broadest sense, it

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may be suggested that the civic uses of the internet depend on a democratic social and political environment, just as they help to cultivate such an environment.

Thirdly, this study shows that organizations with bare-bone internet capacity can make effective use of whatever they have, whereas resource-rich and better-equipped organizations may not. The internet may be more valuable to shoestring organizations.[46] It has been observed that in the history of the development of the internet world-wide, civil society organizations embraced the internet before government and commercial institutions.[47] This was not because civil society organizations had more resources, but because they needed the internet more and therefore they would use what they have to full capacity.[48] This also seems to be the case in China. The analysis suggests, first, that it is essential for civic organizations to have a minimal level of internet capacity, and secondly, that capacity does not determine use. For civil society organizations to achieve strategic growth by taking full advantage of new technological capabilities, it is equally important to understand what needs the new technologies can best meet.

In this respect, finally, a main finding of this study is that the internet is most useful for publicity, information dissemination and networking with peer and international organizations. In interactions with government agencies or when it comes to recruitment or fund-raising, Chinese civic associations rely more on face-to-face and telephone communication. This finding shows that corresponding to the hierarchical power structures in society is a hierarchy of communication media. In this hierarchical structure, different kinds of organizational tasks are accomplished with different communication media. It also suggests that for civil society organizations eager to seek development in a politically constraining environment and anxious to reach a broad public but with no privileged access to the mass media, the internet provides a critical alternative medium. In this sense, the internet is more than just a technological tool for Chinese civic associations. It provides a strategic opportunity for organizational growth.

Together, these findings suggest that a "web" of civic associations has emerged in contemporary China. This web assumes special significance in China's political context. Chinese civic associations must negotiate a state that seeks to maintain political control over them. Perhaps it is precisely because they have to manage this daunting environment that they have built at least a

46 Elisabeth Jay Friedman's study of civil society organizations in Latin America confirms this finding. See Friedman, "The reality of virtual reality."

47 Roberto Bissio, "The network society, 1990–2000: electronic conferences, global summits, getting together for good purposes," in The Association for Progressive Communications, *APC Annual Report*, pp. 22–26. http://www.apc.org/english/about/index.shtml, accessed 16 May 2003; Patti Whaley, "Human rights NGOs: our love-hate relationship with the internet," in Steven Hick, Edward F. Halpin, and Eric Hoskins (eds.), *Human Rights and the Internet* (New York: St Martin's Press, 2000), pp. 30–40.

48 Craig Warkentin, *Reshaping World Politics: NGOs, the Internet, and Global Civil Society* (Lanham, MD: Rowman & Littlefield, 2001), p.144.

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minimal level of internet capacity. Such capacity is important for organizational survival. Herein lies an important message concerning the relationship between technological change and institutional transformation. When the development of new institutional forms (such as Chinese civic associations) and new technologies (such as the internet) coincide, their interactions become more than incidental. The new technologies may become a strategic opportunity and resource for achieving organizational and social change even where there is strong resistance to change. Such a strategic opportunity and resource does not always present itself. When it does, it is not always seized. This study shows how grassroots civic associations in urban China have seized the opportunity, why they have done so, and what has followed from that. Future research should examine in more detail how internet use shapes the development of civic associations in China as well as their role in producing broader social change.

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