

Environmental Activism, Social Networks and the Internet

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ABSTRACT Social networks and the internet both have a substantial individual effect on environmental activism in China. In this article, we speculate that social linking patterns between environmental actors, which often facilitate activism on the ground, may also exist in cyberspace in the form of an online network. The article addresses the following empirical questions. Does such an online network exist? If so, who are the constituent actors? Are these the same actors observed on the ground? In addressing these questions the article aims to contribute to the growing debate on the implications of the internet for the potential emergence of social movements in China.

The sites and modes of popular protest in China are rich in variation, from rural activists engaging in “rightful resistance,”¹ to the “not in my backyard” protests of urban house-owners,² to the transnational activism of the Free Tibet movement.³ The variation and sheer pervasiveness of popular protest in China has led to an intensification of research⁴ on the organization, forms and sites of protest; exploration of the implications for civil society, state–society relations and political change; and meaningful discussion on bringing China into the study of contentious politics and vice versa.⁵

One area of increasing interest is the potential role of the internet, as a communication tool and a public space, in facilitating and channelling dissent.⁶ The

- 1 Kevin O'Brien and Lianjiang Li, *Rightful Resistance in Rural China* (New York: Cambridge University Press, 2006).
- 2 Fayong Shi and Yongshun Cai, “Disaggregating the state: networks and collective resistance in Shanghai,” *The China Quarterly*, No. 186 (2006), pp. 314–32.
- 3 Michael Chase and James Mulvenon, *You've Got Dissent! Chinese Dissident Use of the Internet and Beijing's Counter Strategies* (Santa Monica: The RAND Corporation, 2002).
- 4 Elizabeth Pery describes contentious politics in China as a “rapid-growth industry” amongst social scientists: “Chinese conceptions of ‘rights’: from Mencius to Mao – and now,” *Perspectives on Politics*, Vol. 6, No. 1 (2007), p. 37.
- 5 Kevin O'Brien (ed.), *Popular Protest in China* (Cambridge, MA: Harvard University Press, 2008); Guobin Yang, “Civil society in China: a dynamic field of study,” *China Review International*, Vol. 9, No. 1 (2003), pp. 1–16.
- 6 Yongnian Zheng, *Technological Empowerment: The Internet, State and Society in China* (Palo Alto: Stanford University Press, 2008).

dramatic growth of China's internet population and the emergence of an "internet culture" are well documented.⁷ In some demographic sectors, such as urban youth, the level of internet usage is high. Official reports indicate that half of Beijing and Shanghai residents "frequently use the internet."⁸ Recent research also demonstrates that dissent is highly visible in Chinese cyberspace,⁹ prompting speculation about the potential effects of information and communication technologies on the emergence of social movements and the pluralization of Chinese society.¹⁰

Though there are obvious geographic and demographic disparities in levels of access to information and communication technologies in China, it appears that activists have embraced and learned to exploit the opportunities afforded by the internet to "organize and communicate with each other, to access banned information and draw support from a global network of activists and NGOs."¹¹ Indeed, many activists have found expression in cyberspace easier to achieve than on the ground, where state policing of mobilization and other activities has proven more effective.¹² A virtual dimension to social organization amongst the activist population is increasingly visible and grows in importance as more activists develop a capacity for publicizing and co-ordinating their activities online, and more citizens are able to access the World Wide Web.

In the case of the environment, activism is clearly flourishing on the web. Indeed it has been argued that the contemporaneous rise of environmentalism and the internet in the mid-late 1990s was not coincidental.¹³ The nascence of web-based environmental NGOs (ENGOS) and green virtual communities has stimulated interest as a case study in how the internet potentially "facilitates the creation of new institutions for social change."¹⁴ As yet however, little is known about the behaviour of activist groups online or how their activities in cyberspace reflect or interact with those offline.

In this article we speculate that linking patterns in the form of social networks, which often facilitate environmental activism on the ground, may also be visible in cyberspace in the form of an online network of activists. This conjecture raises several questions explored in the article. Is it possible to identify an "environmental network" in cyberspace? Which actors constitute the online network?

7 For instance Guobin Yang, "The co-evolution of the internet and civil society in China," *Asian Survey*, Vol. 43, No. 3 (2003), pp. 405–22.

8 "Di ershiyi ci Zhongguo huliangwang fazhan tongji zhuangkuang baogao" ("21st report on internet development in China"), 2007. Available at <http://www.cnnic.net.cn/index/0E/00/11/index.htm>.

9 Chase and Mulvenon, *You've Got Dissent!* Jens Damm and Simona Thomas (eds.), *Chinese Cyberspaces: Technological Changes and Political Effects* (New York: Routledge, 2006); Guobin Yang, "Activists beyond virtual borders: internet-mediated networks and informational politics in China," *First Monday*, No. 7 (2006), pp. 1–22; Yongnian Zheng and Guoguang Wu, "Information technology, public space, and collective action in China," *Comparative Political Studies*, Vol. 38, No. 5 (2005), pp. 507–36.

10 Zheng, *Technological Empowerment*.

11 Chase and Mulvenon, *You've Got Dissent!* p. 3.

12 Shanthi Kalathil and Taylor Boas, *Open Networks, Closed Regimes* (Washington DC: Carnegie Endowment for International Peace, 2003).

13 Guobin Yang, "Environmental NGOs and institutional dynamics in China," *The China Quarterly*, No. 181 (2005), pp. 46–66.

14 Guobin Yang, "Weaving a green web: the internet and environmental activism in China," *China Environment Series*, No. 6 (2003), p. 92.

Are they the same kind of actors observed on the ground? In addressing these questions the article aims to contribute to the growing debate on the implications of the internet for the potential emergence of social movements in China.

Environmental Activism and the Internet

Environmental activism in China encompasses many disparate causes and the state has not, in the main, conceived ENGOs as an explicit challenge to its authority. A state-corporatist model arguably best fits the evolution of ENGO activity in China, albeit one where “those groups working in the field of education and environment have been permitted or have negotiated relatively free space.”¹⁵ This latitude is one reason for Economy’s argument that “ENGOs in China are at the vanguard of non-governmental activity.”¹⁶

Nevertheless, green activists are faced with multiple constraints and few opportunities to influence or even access the environmental policy making process. Whilst several environmental laws require the government to make information public, few allow for citizens to become involved in the policy making process. The Environmental Impact Assessment Act 2003 affirms the right of public participation, but in practice the law is seldom followed.¹⁷ The legal framework is complemented by the Environmental Protection Administrative Licensing Hearings Provisional Measures 2004 and Provisional Measures for Public Participation in Environmental Impact Assessment 2006. Both legal documents define measures for citizen participation in environmental impact assessment, but implementation is weak and geographically uneven.¹⁸

Would-be ENGOs are confronted with an array of legal restrictions and financial restraints. Co-ordinated actions that are not in line with state policy or enjoy tacit support from the government are difficult to execute and potentially risky. Consequently, Chinese ENGOs are seldom able to exploit the strategies, resources or organizational schemes available to Western NGOs.

Given these constraints, the internet represents an attractive new opening for activists. Cyberspace offers room for expression in a relatively uninhibited space with low financial and social costs. For many ENGOs, particularly small groups in their emergent phase, the web is a lifeline. As Yang observes, “for groups of volunteer environmentalists lacking both official status and office space, an online presence is a key sign of their existence.”¹⁹

15 Tony Saich, “Negotiating the state: the development of social organizations in China,” *The China Quarterly*, No. 161 (2000), p. 129; Yiyi Lu, “The autonomy of Chinese NGOs: a new perspective,” *China: An International Journal*, Vol. 5, No. 2 (2007), pp. 173–203.

16 Elizabeth Economy, *The River Runs Black: The Environmental Challenge to China’s Future* (Ithaca: Cornell, 2004), p. 131.

17 Marilyn Beach, Bill Bleish and Shelly Yang, “The role of public participation in Ecological Impact Assessment (EcIA) and Environmental Impact Assessment (EIA) in China,” *China Environment Series*, No. 8 (2006), pp. 117–21.

18 Allison Moore and Adrian Warren, “Legal advocacy in environmental public participation in China: raising the stakes and strengthening stakeholders,” *China Environment Series*, No. 8 (2006), pp. 3–26.

19 Guobin Yang, “Weaving a green web,” p. 90.

The internet is also a powerful communication tool, allowing activists to receive and disseminate information, much of it more contentious than that available through official sources, and to co-ordinate with like-minded domestic organizations and, potentially, actors in the international environmental movement. Internet communications are well suited to maintaining, amplifying and expanding such connections, and preliminary evidence suggests some interaction between activities online and on the ground. For instance, examining four prominent ENGOs, Yang demonstrates how these groups “move between the virtual and the real world to deal with environmental problems.”²⁰

In this context of constraints and opportunities, it is not surprising that ENGOs are frequently found to have at least a minimal level of internet proficiency and utilize the internet in a variety of ways.²¹

Environmental Activism and Social Networks

China scholars are no strangers to the concept of social networks, particularly in the form of *guanxi*,²² although a social network approach²³ to analysing patterns of connections among people and organizations in China is less well established.

Social networks amongst the activist population potentially act as a mechanism for coping with the absence of a formal and reliable system of laws and regulations.²⁴ Given the well-documented limits to transparency, association and resistance in China, pre-existing networks can reduce barriers to participation “by opening channels for censored materials to circulate, diffusing the risks of association and, most broadly, substituting for a public sphere.”²⁵ It is not coincidental that many ENGO founders have personal ties from previous episodes of activism, such as the pro-democracy movement of 1989. Individual activists are also frequently connected to ENGOs through personal networks.²⁶ The following illustration of the importance of such connections is typical.

In July 2003, the National Investigation Institute and the Kunming Investigation Institute issued a report entitled “Planning of electricity exploration in middle and lower stream of Nu River.” The report detailed a plan for the construction of 13 hydro-electric power stations on the Nu River (*Nu jiang*

20 *Ibid.* p. 92; similarly Guobin Yang, “Activists beyond virtual borders,” p. 2.

21 Guobin Yang, “How do Chinese civic associations respond to the internet? Findings from a survey,” *The China Quarterly*, No. 189 (2006), pp. 122–43.

22 Mayfair Yang, *Gifts, Favors, and Banquets: The Art of Social Relationships in China* (Ithaca: Cornell University Press, 1994).

23 Marijtje van Duijn and Jeroen Vermunt, “What is special about social network analysis?” *Methodology*, Vol. 2, No. 1 (2006), pp. 2–6.

24 Thomas Gold, Douglas Guthrie and David Wank (eds.), *Social Networks in China: Institutions, Culture and the Changing Nature of Guanxi* (Cambridge: Cambridge University Press, 2002).

25 Carsten Vala and Kevin O’Brien, “Attraction without networks: recruiting strangers to unregistered Protestantism in China,” *Mobilization: An International Quarterly*, Vol. 12, No. 1 (2007), pp. 79–94.

26 Lei Xie and Arthur Mol, “The role of *guanxi* in the emerging environmental movement in China,” in Aaron McCright and Terry Clark (eds.), *Community and Ecology: Dynamics of Place, Sustainability and Politics* (Amsterdam: Elsevier/JAI, 2006), pp. 269–92.

怒江).²⁷ Ecological and social impact was predicted to be serious and by August 2003 several environmental organizations had initiated a campaign to stop the project.

Global Environmental Volunteers (GEV), a Beijing-based environmental organization, played a crucial role in mobilizing a network of activists and supporters. The founder and leader of the GEV, Wang Yongchen 汪永晨, plays a significant role in its operations. A well-known journalist and environmentalist, Wang has an extensive personal network, with personal and professional contacts in government bodies, the scientific community and influential NGOs. She has repeatedly drawn on these contacts to gain openings and resources for GEV activities.²⁸

Wang's links to the State Environmental Protection Agency were crucial to the outcome of the campaign. Through Wang's connection to Mu Guangfeng 牟广丰, then vice-chancellor in the supervision department at this Agency, the campaign was able to access crucial information concerning environmental impact issues and the development of the political debate. These informational resources were fundamental to the positions and strategies adopted by GEV.

At the same time, GEV was similarly exploiting Wang's informal network of experts and scholars, seeking legitimizing arguments through access to specialist scientific, ecological and environmental information. Reports based on these materials were then widely disseminated via the media, again through Wang's contacts. Through its connections to other NGOs, GEV co-ordinated publicity-generating and non-confrontational collective activities in Beijing. In sum, the GEV network played a crucial role in a campaign that generated sufficient public support that a major state infrastructure project was suspended pending further environmental impact assessment.

A similar picture emerges in other case studies, where collective claims making and collective action are facilitated by social networks linking organizations, activists and individual stakeholders.²⁹ Where institutional channels are not established for NGOs to access policy information or exert influence on decision-making, social networks can have a strong influence on the mobilization of movement resources and the construction of collective identities.

Social Networks and the Internet

The application of social network analysis to the study of organized activism, such as social movements in Western and other contexts, has evolved through the concept of "social movements as complex social systems."³⁰ This complexity

27 For further discussion of this case, see Guobin Yang and Craig Calhoun, "Media, civil society and the rise of a green public sphere," *China Information*, Vol. 21, No. 2 (2007), pp. 211–36; Lei Xie, *Environmental Activism in China* (London: Routledge, forthcoming).

28 Interviews with second author in 2003.

29 Shi and Cai, "Disaggregating the state," pp. 314–32; Lei Xie, *Environmental Activism in China*.

30 Mario Diani, "Networks and participation," in David Snow, Sarah Soule and Hanspeter Kriesi (eds.), *The Blackwell Companion to Social Movements* (Oxford: Blackwell Publishing, 2004), p. 351.

is a product of the connection and interplay of all of the agencies and structures implicated in the movement.

A network is typically defined as a set of identified nodes linked by specific ties, in a context delimited by particular boundaries. Nodes can consist of individuals, organizations or any kind of social agency. The distinctive feature of network analysis is that it focuses on connections between nodes as the key units of analysis.

Empirical analyses of social movements have explored how collective action is affected by pre-existing social networks, how activists create and develop linkages between themselves to build and shape their network around a collective identity, and the relationships between social movements and broader political structures and processes. Network analysis has also been suggested as an appropriate method for uncovering social structures on the web,³¹ with a strong interest in the question of how “hyperlink networks among websites reflect social relations among their producers.”³²

Hyperlink network analysis³³ is an extension of social network analysis, where the focus of analysis is on virtual networks in cyberspace. If we assume that webmasters possess agency in the decision to link to other websites, then the action of hyper-linking can be conceived as a socially purposeful expression of the willingness to be associated with others. Networked hyperlinks have thus been described as social bonds, albeit virtual, embodying “ties of affinity, paths of communication, tokens of mutual aid in achieving public recognition, and/or potential avenues of coordination.”³⁴ The practical advantage of hyper-link networks is that they allow websites, which are often treated as actors, to be “linked together, exchange information and maintain cooperative relationships ... around a common background, interest or project.”³⁵ Revealing the structure of these linkages may therefore provide an additional perspective on the organization of particular social relationships.

We have argued that the internet and social networks have an important individual influence on environmental activism in China. There is also tentative

31 Michele Jackson, “Assessing the structure of communication on the world wide web,” *Journal of Computer-Mediated Communication*, Vol. 3, No. 1 (1997).

32 Han Woo Park and Mike Thewall, “Hyperlink analyses of the World Wide Web: a review of the literature,” *Journal of Computer-Mediated Communication*, Vol. 8, No. 4 (2003), pp. 1–32.

33 Laura Garton, Caroline Haythornwhaite and Barry Wellman, “Studying online social networks,” *Journal of Computer Mediated Communication*, Vol. 3, No. 1 (1997); Han Woo Park, “Hyperlink network analysis: a new method for the study of social structure on the web,” *Connections*, No. 25 (2003), pp. 49–61. A hyperlink is simply a navigation script connecting separate web pages.

34 Val Burris, Emery Smith and Ann Strahm, “White supremacist networks on the internet,” *Sociological Focus*, No. 33 (2000) p. 215. Against this argument, Thewall makes the point that since anyone can link to any site, hyperlinks may not have any meaning at all: “What is this link doing here? Beginning a fine-grained process of identifying reasons for academic hyperlink creation,” *Information research*, Vol. 8, No. 3 (2003). Nevertheless, Thewall and colleagues find that hyperlink networks accurately reflect off-line relationships between political actors in Korea: Han Woo Park, Mike Thewall and Randolph Kluver, “Political hyperlinking in South Korea: technical indicators of ideology and content,” *Sociological Research Online*, Vol. 10, No. 3 (2005).

35 Park, “Hyperlink network analysis,” p. 50.

evidence of an interactive effect of social networks and the internet on environmental activism,³⁶ although our understanding of such interaction is currently limited.³⁷ A first information gap concerns the extent to which, if at all, environmental actors are connected in cyberspace. A second concerns the identity of the actors involved.

A Virtual Environmental Network in China?

In order to address these gaps we used the IssueCrawler software package to generate data on hyperlink connections in cyberspace.³⁸ The software is free for academic use and is straightforward to use through an online interface. This computer assisted procedure is an appealing alternative to counting links manually.³⁹ Naturally it is much faster and less laborious and at the exploratory stage all that is required of the user is to enter a small number of urls from which the software initiates its web-crawl.⁴⁰ As it crawls the web, the software generates numerical data by counting and ordering links between websites. These data are more detailed and comprehensive than those derived from manual counts, generating information on the density and clustering of links. The resulting quantitative data matrices can be exported for statistical analysis with traditional network analysis software.⁴¹ Alternatively the quantitative data can be represented graphically as we do in this article, to facilitate visualization of the contours of the network.

In hyperlink network “maps,” websites are depicted as circles with arrows indicating the direction(s) of linkages. The size of the circles is proportional to the number of in-links received from the population of crawled sites; more in-links generate a larger circle. Websites that are located closer together on the map are more strongly linked, that is, they are connected by a higher number of hyperlinks. Groups of websites with strong connections are represented as clusters. The spatial location of websites on the map represents the degree of centrality in the network; nodes on the edge of the map are more peripheral actors in the network. The results of a recent analysis are represented graphically in Figure 1.⁴²

The first observation to make is that it is possible to identify an online network of groups involved in environmental activism in China. Moreover the network

36 Guobin Yang, “Activists beyond virtual borders,” pp. 1–22.

37 Qiusha Ma, *Non-Governmental Organizations in Contemporary China: Paving the Way to Civil Society?* (London: Routledge, 2006), p. 86.

38 The software is accessible at <http://www.issuecrawler.net>. The website includes full usage documentation and a growing number of articles on the method and its applications.

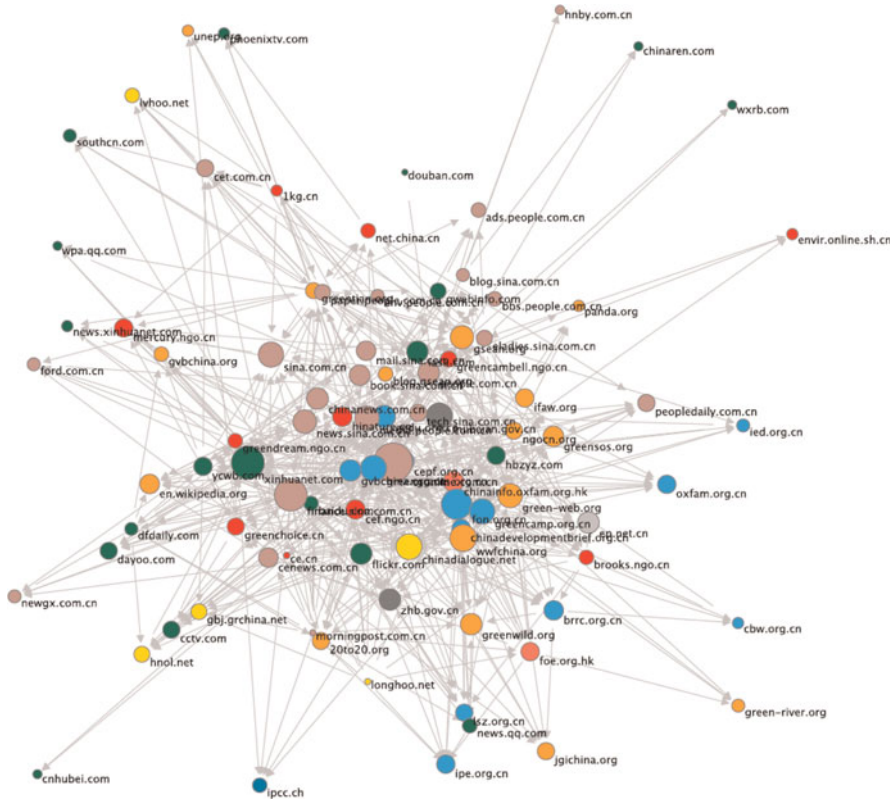
39 Guobin Yang “Activists beyond virtual borders,” p. 3.

40 The crawl we report here started with the following “prominent” sites identified in the literature: <http://www.fon.org.cn>, <http://www.gvbchina.org.cn>, <http://www.greensos.cn>, <http://www.huaxia-ng.com>, <http://www.green-web.org>.

41 For an overview of software packages for social network analysis, see Mark Huisman and Marijtte van Duijn, “Software for social network analysis,” in Peter Carrington, John Scott and Stanley Wasserman (eds.), *Models and Methods in Social Network Analysis* (New York: Cambridge University Press, 2005).

42 This crawl was initiated on 27 May 2008. The crawl depth and number of iterations was set to two. For more details on the process see http://www.govcom.org/Issuecrawler_instructions.htm. Searchable, downloadable archives, including the crawl discussed here, are available on the same website.

Figure 1: Online Environmental Network Cluster Map



appears to be comparatively large and dense, with 82 websites sharing 454 linkages within it. For the sake of comparison, a similar analysis of the *falun gong* online network, a group described as having “a massive and extremely sophisticated presence on the World Wide Web,”⁴³ identified 24 nodes sharing 125 linkages. Furthermore, an identical hyperlink analysis of online environmental actors conducted in June 2007 identified a much lower number of linkages (280) within the network, but not a substantially lower number of websites (68). In the absence of further analysis we should interpret these findings with caution, but they suggest that the level of connectivity within the environmental network is increasing rather than reflecting the expansion of the internet. One plausible explanation is that as ENGOs have grown in stature, the incentive for other groups to link to them has increased. This is consistent with Yang’s

43 Yuezhi Zhao, “*Falun gong*, identity and the struggle over meaning inside and outside China,” in Nick Couldry and James Curran (eds.), *Contesting Media Power: Alternative Media in a Networked World* (Lanham MD: Rowman and Littlefield, 2003), p. 217.

finding that “the more influential organizations are more likely to be linked to.”⁴⁴

One striking feature of the network is the variation in websites or types of organization that are linked. We interpret this as evidence of the blurring of boundaries and amorphous nature of the environmental sphere in China. Apart from green activists and ENGOs, political conditions in China have also provided openings for other actors, such as the media and government-organized NGOs (GONGOs) to become involved in the environmental sphere. As the GEV campaign against the Nu River project shows, the links between these different actors are often crucial to the nascence and outcome of collective action.

Extending Yang’s typology of organizations active in the environmental sphere in China,⁴⁵ we identified ten types of organization/actor in the online network: GONGOs, International NGOs (INGOS), registered voluntary groups, registered and unregistered NGOs, web-based NGOs, government departments, news organizations and business corporations, in addition to online discussion boards and blogs. Table 1 lists the top 20 actors in the network ranked by the number of in-links they receive from other actors in the network.

Registered NGOs, including Wang’s GEV,⁴⁶ INGOs, GONGOs and government departments occupy a central position in the network. It is also notable that organizations with their physical headquarters based far apart geographically are connected through the online network. Consistent with Yang’s concept of “transboundary interactions,”⁴⁷ we find links between actors that cross territorial and institutional boundaries.

An assessment of the websites in the network reveals four primary functions. These are publicizing and mobilizing for campaigns and activities at the national or local level, providing news and environmental information, promoting discussion and communication, and online collaboration. The first of these functions in particular, publicizing and mobilizing for local and national campaigns *on the ground*, supports the view that many actors are crossing the boundary between the online and offline realms.

The objective of this preliminary analysis was to ascertain whether or not an online “environmental network” exists, and to determine the identity of the actors involved. A more detailed understanding of the online network requires further analysis of the density, growth and internal variation of the network. Further work can also build on this study in several ways: by exploring the content of linked websites, tracking user behaviour to see how online networks are

44 Guobin Yang, “Activists beyond virtual borders,” p. 3. Also consistent with Yang’s study is the finding that small groups are among the most active in terms of their efforts to link to others. This is a strategy observed in other contexts: Isa Ducke, *Civil Society and the Internet in Japan* (Abingdon: Routledge, 2007).

45 Guobin Yang, “Environmental NGOs and institutional dynamics in China,” *The China Quarterly*, No. 181 (2005), p. 50.

46 In the guise of the website greensos.cn.

47 Guobin Yang, “Activists beyond virtual borders,” p. 5.

Table 1: Major Actors in the Online Network

Website	In-links	Type of group	Primary function
fon.org.cn	22	Registered NGO	Conduct campaigns and activities
chinadialogue.net	13	INGO	Provide news and information
wwfchina.org	12	INGO	Conduct campaigns and activities
gvbchina.org.cn	11	Registered NGO	Conduct campaigns and activities
zhb.gov.cn	10	Government department	Provide news and information
green web.org	9	Web-based group	Conduct campaigns and activities
ep.net.cn	9	Government support website	Provide news and information
Kekexili.com	9	Unregistered voluntary group	Conduct campaigns and activities
cfej.net	8	News agency	Provide news and information
cenews.com.cn	8	News agency	Provide news and information
Eedu.org.cn	8	Web-based for-profit organization	Provide news and information
Hinature.cn	7	INGO	Conduct campaigns and activities
tt65.net	7	GONGO	Provide news and information; conduct campaigns and activities
acef.com.cn	7	GONGO	Provide news and information; conduct campaigns and activities
discuz.net	6	discussion board/blog	Promote discussion and communication
greensos.cn	6	Registered NGO	Conduct campaigns and activities
greenchoice.cn	6	collaboration of GONGO and registered NGO	Online collaboration
mep.gov.cn	6	Government department	Provide news and information
ifaw.org	6	INGO	Conduct campaigns and activities
iucn.org	6	INGO	Conduct campaigns and activities

actually navigated, uncovering the motives of activists and webmasters in their networking strategies, and determining user attitudes towards organizations/web-sites in or out of the network. We also need to recognize that cyberspace is a dynamic entity and online networks require investigation as they evolve over time. Finally, instead of focusing primarily on organizational actors as we have done here, it may be instructive to explore the online networks of more informal actors such as those implicated in blogs and discussion boards.

Conclusion

Having argued that the internet and social networks have both had a significant influence on the evolution of environmental activism in China, we have also demonstrated that networking patterns observed on the ground are similarly visible in cyberspace. Preliminary analysis of hyperlink patterns demonstrates that extensive linkages exist between actors online, to the extent that it is possible

to identify a network of environmental actors connected in cyberspace. The constituent actors of this network are highly diverse, including state and non-state actors with a varied focus and various functions.

From a methodological perspective, these results suggest that the concept and method of identifying virtual networks has the potential to deliver additional insights on social activism in China that may be equally useful in other cases such as pro-democracy. From a substantive perspective we find evidence that environmental activism in China is situated in a grey area between state and society where multiple stakeholders interact and both offline and online activism involves “a network of informal interactions between a plurality of individuals, groups and/or organizations.”⁴⁸

48 Mario Diani, “The concept of social movement,” *Sociological Review*, No. 40 (1992), pp. 1–25.