As take up of the Internet in China rises towards the 50 million mark, speculation concerning the social and political impact of this new technology has grown accordingly. While much of the earliest writing on the phenomenon tended to be of a journalistic bent, two recent reports from US-based think-tanks RAND and the Carnegie Endowment for International Peace attempt to take the field to a new level of sophistication. At the same time, it is also worth considering how the appearance of Chinese writing about the Internet from a variety of perspectives might provide additional evidence for broadening out the research agenda beyond the narrow question of whether the spread of Information and Communication Technologies (ICTs) leads to liberal political change.

Considering how so much of the belief in the potential of the Internet to transform authoritarian states has been encouraged by policy-makers rather than academics, the strength of both RAND’s *You’ve Got Dissent* and Carnegie’s *Open Networks Closed Regimes* lies in the way that both avoid the temptation to exaggerate the significance of dissident activity in cyberspace. Instead, they pay close attention to how the state deters and monitors the Internet through a combination of low-tech and hi-tech methods. In terms of technicalities, *You’ve Got Dissent* is somewhat the stronger of the two. It provides reasonably detailed accounts of how dissidents have been hauled before the authorities and accused of various activities, lists of the main regulatory principles that have been established to demarcate what is deemed to be acceptable activity, and an overview of the physical shutdowns of network resources that have occurred. Social scientists lacking in technological training should also be grateful for explanations of how methods of control actually work, such as the proxy server system and the blocking of email from dissident websites outside China. With regard to hacking, the reader is even told how to trace culprits back to the Ministry of Public Security in Beijing! A list of addresses of dissident websites is contained in the appendix for those who wish to do some browsing for themselves.

Given the detailed description of the main practices of control and surveillance deployed by the state in *You’ve Got Dissent*, however, it is rather mystifying why the report should finish on the optimistic note that ‘the scale of China’s information-technology modernization would suggest that time is eventually on the side of the regime’s opponents’. Although the first half of the book deals with dissident activity in cyberspace, it provides no real evidence to suggest that this has been successful for political mobilisation inside China. Most of the case studies are actually related to overseas groups, and the authors elsewhere describe how the state is able to block these from penetrating inside China proper. Sometimes links between domestic and overseas activities are implied, as when the demonstration organised by the Falungong in April 1999 is juxtaposed with detailed descriptions of the movement’s activities in cyberspace outside China’s firewalls. But no real linkage between these two phenomena is established, other than a footnote citing a report in the *Christian*
Science Monitor. It could be added that the possibility that the Internet played an important role in the 1999 demonstration does not seem to sit well with the report’s own observations that most of the participants were elderly females, while 80 percent of Internet users in China are under 35 years of age and 60 percent are male. The frequent notes of optimism over the liberating potential of the Internet that pepper this text do not, therefore, really square with the evidence that is presented.

Perhaps it is a good corrective to read You’ve Got Dissent in tandem with Open Networks, because Kalathil and Boas actually set out to question the ‘conventional wisdom’ that the Internet is a force for liberal political change in authoritarian states, by developing ‘[...] a framework that allows for methodological thinking about limited evidence [...]’. The result is a much broader analysis, ordered under the categories of civil society, politics and the state, the economy and the international sphere. It is also a more sociological work in the way it locates the appropriation of the Internet both in the comparative context of other authoritarian states, and the specific cultural context of the nation-building project in China. The difference between the conclusions in this work and those reached in You’ve Got Dissent is indicated by the title of the final chapter, ‘Beyond Blind Optimism’.

The authors of Open Networks thus develop an argument that is both more nuanced and more cautious than that in You’ve Got Dissent. This is because they effectively broaden the debate away from issues of dissidents versus the state and begin to explore complex issues concerning the relationship between technological and social change by highlighting a number of important issues. How, for example, can bureaucratic organisations be developed to build and police the Internet, while competition is introduced into the IT sector to make it internationally competitive at the same time? How can the state maintain control while informatization be used to boost economic development, improve administrative efficiency, address the digital divide between the eastern and western provinces? And how can national security be maintained while foreign technology and know-how is adopted on a large scale?

Within these dynamics, important signs of change can be seen, such as the erosion of the SARFT’s monopoly on news information caused by the turf war between the MII and SARFT due to broadband convergence. Similarly, the authors acknowledge the existence of government officials who see informatization as ‘changing the very scope and structure of government processes’. Yet they are also careful to emphasise that change does not necessarily mean democratisation. As indicated by the high salience of nationalistic activity in Chinese cyberspace, the kind of change brought about by the Internet might actually give rise to challenges to the interests of liberal-democratic states.

If Open Networks is effective in questioning the conventional wisdom, though, the fact that its coverage of China is limited to one chapter makes it rather limited for country specialists and for those interested in the sociology of technology. It is also somewhat puzzling that the authors should feel the need to state that ‘little attention has been paid to the issue in academia’, when their work is in fact based on the sizeable body of academic literature that has already appeared on the subject of the Internet in China and the sociology of ICTs in general. In fact, the movement away

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4 Kalathil and Boas p. 3.
5 Ibid. p. 24.
6 Ibid. p. 3.
from technological determinism took place several years ago in Internet studies, as the panoply of methods available for the state to stage its counter-revolution began to emerge. Yet seminal works such as Boyle’s application of the Foucauldian Panopticon concept to explain the culture of self-surveillance in cyberspace, 7 or Lessig’s arguments concerning the regulability of cyberspace, 8 are either not mentioned or just touched on in passing.

Given the large number of international agreements on data sharing and electronic surveillance to which most states in the world have signed up since September 11 2001, or the uncertain fate of the CIA sponsored Triangle Boy project (which was supposed to provide Internet users in authoritarian states with on-line anonymity), the issue of regulating cyberspace is certainly more pressing than that of using it to bring about regime-change – especially for policy-makers. Give or take a few terrorists, child pornographers or money launderers, does anybody still believe that a completely unregulated Internet is a desirable thing? Yet while Kalathil and Boas do not really come to grips with the issue of security in cyberspace, they do touch on most areas of research that have been developed in Internet studies. They also pose enough questions to indicated a rich research agenda for the future.

A good example of one such issue is the relationship between the state, Chinese commercial Internet firms and foreign firms under WTO mechanisms. This is raised in Open Networks when the authors mention the partnership that has been established between AOL-Time Warner and Legend, China’s top PC manufacturer. It might be useful to begin to draw on some of the Chinese literature concerning the Internet to gain some insights into this highly complex issue. A good example is the popular biography of Liu Chuanzhi, former president and managing director of Legend Computers, by Song Huaijiang, a graduate of Beijing University. 9 Here the links between private enterprise and the state are laid out fairly clearly. The firm was established in 1984 with funding from CAS, and quickly achieved a domestic monopoly on the technology for inputing and displaying Chinese characters. With the CAS name behind it, Legend was able to raise funds in Hong Kong to enter the international OEM market in 1988. In 1994 CAS came to the rescue again by providing a new injection of cash to allow Legend to keep up with the IT boom. The firm plays a faithful role in return, having taken a lead in building the infrastructure that makes possible the state’s plans for e-government and e-commerce. When the firm launched its global Internet strategy in 1999, it chose the ancient capital city of Xian for the opening ceremony, indicating its commitment to project of linking the whole of China to the globalisation project. 10

The most interesting aspect of biographical literature, though, is what it tells us about the character or the main subject. It is not hard to see why Liu should have been considered to be the right person to play the leading role in Legend. Born in 1944, he received his original training at the Military Telecommunications Academy in 1961-

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10 Ibid. p. 228.
67, then spent a year carrying out defence-orientated research in Chengdu. He moved on to CAS in 1970, after his Cultural Revolution spell of agricultural labour at Zhuhai, Guangdong. When Liu was selected to found and lead the new firm, he was stationed in the cadre section of CAS. By March 1998 he had been appointed to the National People’s Congress.

Liu’s management jargon is fully in tune with the state’s nation-building project, as evident when he sums up a vision of his firm’s development from small enterprise through national enterprise to global corporation with the militaristic analogy, ‘speedboat mode, ship structure, flotilla mode’ (ping di kuai chuan moshi, da chuan jiegou, jiandui moshi). Similarly, his ‘Three Factors of Management’, namely ‘Organise the troops, fix the strategy, lead the team’ (zuzhi tuandui, ding zhanlue, dai duiwu), is characteristic of the language imposed on his generation by decades of political indoctrination. Lenin himself would not have blushed at the idea of building a corp of leaders who share common ideals, unite to cooperate and possess the strength to engage in ‘struggle’. Mao might well have recognised the call to ‘fix the strategy’ by calling on cadres at all levels to be aware of the general situation, consider the long-term, then break down the main objectives into particular tactics while always being able to adapt. Deng Xiaoping would have approved of ‘leading the team’ by creating a special culture for the enterprise, consolidating the strength of its personnel, creating an atmosphere of professionalism, cultivating leaders and establishing a firm base for the future. He would also have approved of Liu’s belief his thinking is distinct from foreign management theory due to its emphasis on collective leadership, consensus building and entering into a kind of contract with the firm to prevent the extremes that might arise from either individual leadership or factionalism.

If Liu Chuanzhi’s story provides interesting insights into the politicisation of management theory in the Chinese commercial ICT sector, a different perspective on the social impact of the Internet is provided by a report on military training by two Taiwanese experts on military affairs, Li Anfu and Song Binggang, which illustrates what happens when informatization leads managerialism to impact on military doctrine. While much of this work is an exhaustive technical account of the impact of ICTs on military doctrine that is framed mainly in the standard literature on the Revolution in Military Affairs (RMA), the fifth chapter is most interesting in this respect because it deals with the adaptation of military education and training to rapid technological transition. In doing so, the authors divide their subject into sections that deal with the need to make changes to ideas, modes of operation, system building, and cultural and psychological factors.

A striking irony emerges when it becomes apparent that military thinkers in Taiwan propose that they can meet the demands of the information revolution by using management theory, while a Chinese entrepreneur like Liu Chuanzhi believes that he can manage his business according to pithy slogans reminiscent of CCP propaganda. While Liu envisions his flotilla sailing out into the world, Li and Song see the armed

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11 Ibid. p. 278.
13 Ibid. pp. 68-70.
forces structuring themselves like commercial enterprises that constantly renew themselves in order to survive in the global marketplace. Whereas Liu sees his troops advancing under a collective leadership with himself at the core, Li and Song look to Organizational Behaviour theory (OB)\textsuperscript{15} to strike the optimal balance between hierarchy and levelling out, to face the conflicts imposed when the art of strategy clashes with the nature of technology, to establish a workable relationship between collectivist ideals and individualism, and to maintain the continuity of organisations as they go through different stages of restructuring.

What we see here, then, is a kind of breaking down of the barriers between militaristic and commercial thinking as different social sectors try to address the growing dependence of organisations on knowledge as a resource and a commodity. Li and Song illustrate this predicament for the military by citing the examples of Middle Eastern armies that have acquired high technology weaponry only to discover that they do not have competent personnel to operate it.\textsuperscript{16} They find the answer in the establishment of a US-style School of Information Warfare and Strategy, and having training systems focusing on long, medium and short-range scenarios, coordinated like the hands of a wristwatch.\textsuperscript{17} Liu Chuanzhi, meanwhile, wonders how to foster and retain creative personnel in a mobile labour market with increasing foreign competition for talent. His answer is to combine recognition and reward of individual talent with collective leadership and an appeal to patriotic and selfless values.

Yet the common problem that unites military and business managers most of all is the way in which their growing dependence on technological expertise gives an unprecedented degree of power and status to young professionals in both the military and civilian sectors. Liu Chuanzhi thus laments the loss of the ideals of honesty, seeking glory, hard work, thrift and patriotism, that were characteristic of the firm’s founding generation. Although the ‘Spartan’ spirit is still supposed to be at the core of Legend’s value system, Liu cannot help but complain about the decline of collectivist values that began to take place when Legend started to recruit personnel from sources other than CAS back in 1988. Members of this new generation, mainly in their thirties, were more interested in seeking their own personal glory, already accustomed to good work conditions and were fully aware that they could take up other job opportunities if they were not satisfied with the treatment they received at Legend. He thus reminds the new generation of employees that the greater part of what they produce should go back to their country, because without the CAS name behind it, his firm would never have even broken into the OEM market let alone grown to its present size.\textsuperscript{18}

Li and Song, on the other hand, grapple with the problem of how to restructure a hierarchical system in which the senior ranks are technologically illiterate in comparison with their subordinates. They find the answer in the idea of ‘popularised defense’ (guofang shiwu quanminhua), which means integrating the civilian and defense industries in ways that both maximise the cross-fertilization of technologies and allow individuals to develop talents that can develop their own professional careers in the civilian sector while meeting the requirements of the military when they are called on. Again, the organisational answer is to be found in management theory,

\textsuperscript{15} Stephen P. Robbins, Organizational Behaviour, v p 228 ff)
\textsuperscript{16} Li and Song, p. 271.
\textsuperscript{17} Ibid. p. 277.
\textsuperscript{18} Song Huaijiang, p. 200.
which addresses the need for enterprises to constantly remake themselves to survive, although Li and Song accept that this kind of constant remaking of the rules will be harder to adjust to for Asian societies with collectivist cultures derived from their agricultural mode of life.\textsuperscript{19}

In sum, then, works like \textit{You’ve Got Dissent} and \textit{Open Networks} provide a snapshot of the state of Internet related research in Chinese studies. While \textit{You’ve Got Dissent} has the space to provide more detailed information about the competing strategies adopted by dissidents and the state in Chinese cyberspace, \textit{Open Networks} makes the best attempt to develop a new research agenda. Ultimately, though, both works could be taken as representing a closure of the debate over whether the Internet transforms the authoritarian state along liberal-democratic lines. With both academics and policy-makers having moved on to more complex issues, asking whether the Internet is a force for liberalisation may end up becoming no more appropriate for guiding research than asking whether the printing press is a force for liberalisation. The answer for both is ‘yes and no’, depending on how the technology is appropriated by any particular society. Yet there are also many other phenomena generated by the impact of ICTs in China, and it is worth considering how the growing amount of Chinese material related to the Internet might be used to develop a broader research agenda that takes these into account.

\textsuperscript{19} Li and Song, pp. 299-300.