THE INTERNET IN CHINA

RICHARD CULLEN* AND PINKY D. W. CHOY**

I. INTRODUCTION

A. Conspectus

The impact of the Internet on all spheres of life, political, commercial, and social, has been very significant. This impact is still growing at a extraordinary rate and few are game to predict exactly where these developments will lead. This is a rather special sort of communications revolution, however. Unlike television and radio, for example, the Internet combines remarkable changes in mass communication *and* in person-to-person communications in a single technology, and it does so in ways that are far less expensive (and much faster) than its long standing competitors. It is now clear that modern trade and commerce must increasingly be linked into this system to compete. This truth is even more evident when one considers research and development.

For a country like China, which regards modernization as a near absolute fundamental value, the allure of the Internet is immense. But China is also still the largest One Party State, by far, that the world has ever seen. Although Marxism, as an economic doctrine, is largely a spent force in China, Leninism is alive and well. It remains the keystone of political structure theory in the People's Republic of China (PRC). A fundamental tenet of Leninism is the requirement that the state must control the media. The metaphor often used is that the media must be both the "throat and tongue" and "the eyes and ears" of the party.

---

* Richard Cullen is Head and Professor of Business Law at Monash University, Melbourne Australia. He previously spent some seven years working at the City University of Hong Kong. He graduated with LLB (hons) from the University of Melbourne (1983). He obtained his Doctorate from Osgoode Hall Law School in Canada in 1986. He is admitted to practice in Australia, England and Hong Kong. His principal research areas are media law, tax law and comparative law. He is currently involved in a research project examining Telecommunications Regulation in China funded by the City University of Hong Kong. This article is a product of that project.

** Pinky D W Choy graduated with LLB (Hons) from the City University of Hong Kong in 1997. She completed the Postgraduate Certificate in Laws at the University of Hong Kong in 1998. Since then she has worked on a Research Project looking at the Regulation of Telecommunications in China sponsored by the City University of Hong Kong. She is completing her LLM at the University of Hong Kong.

One can see, immediately, the inherent conflict, with respect to the Internet, which arises from China's contemporaneous devotion to both Leninism and modernization. This article seeks to explore how the PRC has mediated the serious tensions arising from this interaction. Some directions are now clear. Unlike some other countries concerned about balancing political control and economic development (for example in the Middle East), China has not allowed control concerns to "trump" development. The Internet is expanding at a very fast rate in China. By some estimates it is spreading more widely and more rapidly in the world's largest One Party State, China, than in the world's largest democracy, India. China's modernization is far from pain-free but is less hampered by oligarchic restraints and protectionist instincts than is the case in India. Also, unlike the Middle East, China's ideological concerns are terrestrial. In parts of the Islamic world, religious concerns appear to have had a major restrictive effect on Internet development.

Although China is embracing the Internet enthusiastically, it is also bent on maintaining as much control as it can. These control mechanisms are having an impact, but the Internet is testing the mettle of China's information control systems.

B. Structure of the Article

The next section provides a brief history of the Internet, followed by a short account of the history of the Internet in China in Part 3. The tensions arising from the drive to expand the Internet are then examined. In the following two Parts, the bodies involved in governing the Internet and the modes of regulation are reviewed. Next, the on-going development problems are discussed. In Part 8, a brief review of the approach taken in Singapore is provided prior to the Conclusion.

II. HISTORY OF THE INTERNET

Nowadays, the term "Internet" is commonly used to refer to "a collection of networks using different underlying network technology, but all tied into a virtual network by use of an Internet protocol that provides a common address space and routing."[1] The Internet that we are using today, however, has gone through well over a decade of continuous dramatic change and improvement.

The Internet really began life as the ARPANET, which was a packet-switching network jointly developed by the Advanced Research Project Agency of the US Department of Defense (ARPA), several military contractors and a group of academic institutions (including the University of California at Los Angeles, the University of California at Santa Barbara, the University of Utah and the Stanford Research Institute) during the cold war in 1969.[2] The aim of this project was "to aid researchers in the process of sharing information, and not coincidentally to study how communications could be maintained in the event of nuclear attack."[3] Due to the experimental nature of this project, the ARPANET system at that time was used principally to allow the remote access of programs by researchers. However, as the technology developed, the scope of its usage became greater. Moreover, the functions of ARPANET also increased: functions such as file transfer capabilities, electronic mail, distant database access and supporting online discussion groups were added to it.[4]

---

1. JOHN S. QUARTERMAN & SMOOT CARL-MITCHELL, THE INTERNET CONNECTION: SYSTEM CONNECTIVITY AND CONFIGURATION, 255 (1994).

2. INTERNET: GETTING STARTED 139 (April Marine et al. eds., 1994); *See also* University of Regina Student Connection Program: Internet History (last modified Aug. 18, 1997) <http://tdi.uregina.ca/~ursc/Internet/history.html> [hereafter Internet History].

3. PAUL GILSTER, THE INTERNET NAVIGATOR 16 (2d. Ed. 1994).

4. *Id. See also* Internet History, *supra* note 2.

As the ARPANET developed, another network also emerged. In 1973, the ARPA carried out their so-called "Internetting Project." The aim of this project was "to develop communication protocols which would allow networked computers to communicate transparently across multiple, linked packet networks."[5] The product of this research project was named the "Internet." Today's Internet did not really exist until the beginning of 1983, however, when the Transmission Control Protocol and the Internet Protocol (TCP/IP) were established and began to be used in all ARPANET connected machines.[6]

In the period of less than two decades since the creation of the Internet, the network has developed remarkably. Networks like Ethernet, Local Area Networks (LANs), Satellite Network (SATNET), Users' Network (USENET), Because It's Time Network (BITNET), Computer + Science Network (CSNET) and Advanced Network & Services (ANS) were products of this developmental period. Among all these network creations, the most important was the National Science Foundation Network (NSFNET). It replaced the forerunner of the Internet, the ARPANET, and became the backbone of the Internet from 1990 onward.[7]

Ever since its creation, the Internet has grown at a prodigious rate. In 1981, the estimated number of hosts was 213.[8] By July 1998, it was estimated that the number of hosts had already reached 36,739,000[9] with a continuous annual future growth rate of approximately one hundred percent predicted.[10] The following diagram, from a different source, shows the growth rate (which has been very high though less than one hundred percent per annum) of the number of Internet hosts during the last six years.

---

5. *Internet Society: A Brief History of the Internet and Related Networks* (last modified Feb. 20, 1998) <http://www.isoc.org>.

6. ED TITTEL & MARGARET ROBBINS, INTERNET ACCESS ESSENTIALS 25 (1995); *See also* Internet History, *supra* note 2.

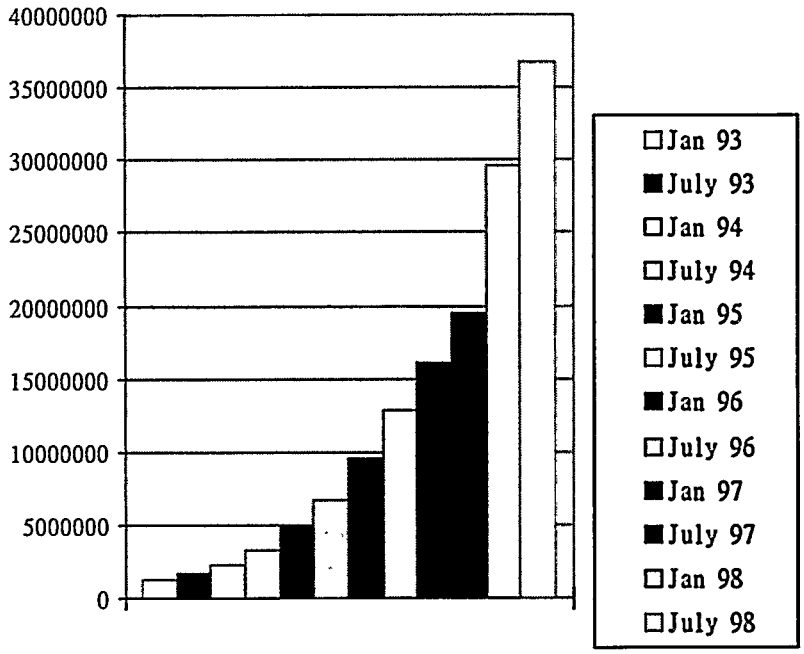
7. TITTEL & ROBBINS, *supra* note 6, at 25-27. *See also* Dave Kristula, *The History of the Internet* (March 1997) <http://www.davesite.com/webstation/net-history.shtml> [Hard copy on file with Journal and Authors].

8. QUARTERMAN & CARL-MITCHELL, *supra* note 1, at 6.

9. *Network Wizards Reports Slowing But Steady Internet Growth*, ELECTRONIC MAIL & MESSAGING SYSTEMS, Sept. 4, 1998, at 9; *See also Network Wizards: Internet Domain Survey* (July 1998) <http://www.nw.com>; *See also* Nua Internet Surveys: How Many Online <http://www.nua.net>, for another survey done by the Nua Internet Survey showing that by November 1998, the worldwide online population is approximately 149.75 million.

10. QUARTERMAN & CARL-MITCHELL, *supra* note 1, at 5.

Figure 1: Growth rate of the number of Internet hosts from January 1993 to July 1998



Source: Network Wizards, *Internet Domain Survey, July 1998* <http://www.nw.com>

III. HISTORY OF THE INTERNET IN CHINA

The Internet is still considered to be a young technology in China. Development of the Internet did not commence in China until a decade ago. The first computer network in China was the China Academic Network (CANET), which was set up in 1987.[11] The major purpose of this network was to facilitate academic and research support in computer science. It provided e-mail exchange services with the global Internet via a gateway at Karlsruhe University in Germany.[12] In 1990, following the

11. MILTON MUELLER & ZIXIANG TAN, CHINA IN THE INFORMATION AGE: TELECOMMUNICATIONS AND THE DILEMMAS OF REFORM 82 (1997); *See also* JOHN URE, *Information Service Technology in Hong Kong and China* <http://www.trp.hku.hk>, for a paper delivered to the Special Libraries Association Conference Southeast Asia: The Information Age, Washington D.C., USA, Nov. 2-3, 1995.

12. MUELLER & TAN, *supra* note 11.

establishment of the CANET, China registered its domain name of "cn" with the US Network Information Center.[13] After the establishment of the CANET, the local network of the Institute of High Energy Physics (IHEP) and the National Computer Networking Facilities of China (NCFC) were established in 1988 and 1989 respectively. The former was developed by the IHEP while the latter was a joint venture of the Chinese Academy of Sciences, Tsinghua University of Beijing and the Beijing University funded by the State Planning Commission and the World Bank. This latter network was entitled the ChinaNet.[14] The ChinaNet was one of two wide-ranging academic networks established around this time. The second was the China Education and Research Network (CERNET). Perhaps somewhat confusingly, the first commercial network developed by the Ministry of Post and Telecommunications (MPT) was commonly referred to as the ChinaNET.[15] To avoid confusion, the ChinaNET will be referred as the ChinaNET(C) ("C" for commercial) in the following discussion.

In the case of all the early Chinese networks, one common characteristic was shared— direct international Internet connections were not available. The first official (international) Internet link to the Internet in China was the IHEP link:[16] "Through a 64-k bps leased line from AT&T, IHEP connected with the Stanford Linear Accelerator Center for high energy physics international collaboration and provided e-mail accounts to many of China's top scientists."[17] The connection commenced operations in March 1993. In the following years, more and more networks were connected to the Internet directly, including: the NCFC link; the link operated by the Beijing University of Chemical Technology (BUCT); and the CERNET.

While most of the network operators in China at that time were academic or research institutions, the Ministry of Posts and Telecommunications (MPT) was an exception. For example, the MPT's CHINAPAC, which was set up in 1989, was the first public data network in China.[18]

---

13. *Id.*. at 83.

14. *Id.*

15. *See, Id.* at ch. 5, for further explanation of the origin and scope of these networks.

16. SANDY TSE & PHILIP TSANG, *Internet and WWW in China: All the Right Connections* (last modified July 2, 1997) <http://www.csu.edu.au/special/conference/apwww95/papers95/stse/stse.html>.

17. *Id.*

18. Bryce T. McIntyre, *China's Use of the Internet : A Revolution on Hold, in* TELECOMMUNICATIONS AND DEVELOPMENT IN CHINA 154 (Paul S. N. Lee ed. 1997).

Prior to 1995, most of the networks mentioned above operated principally for academic and research purposes. By mid-1995, this situation began to change. In May 1995, the ChinaNET(C), the first commercial network in China, was set up by the MPT and began to operate in Beijing and Shanghai.[19] Individuals were allowed to purchase Internet accounts from ChinaNET(C) directly.[20] According to Tse and Tsang, within the first month of ChinaNET(C)'s operation, 800 subscribers signed up for the service.[21]

Basically, the structure of ChinaNet (the main academic network) is as follows. Internally, it consists of a number of networks in China, such as CANET, Peking University Campus Network (PUNET), IHEPNET, CERNET, and so on[22]. Externally, through the use of the U.S. long-distance carrier Sprint, it was linked to the international Internet via the MPT's gateways.[23] Apart from academic/public Internet Service Providers (ISPs), in recent years private ISPs (whose international Internet connectivity is provided by the ChinaNET(C)) have also been allowed to offer Internet services to individuals in China.[24]

Another important element in China's Internet development has been the "Golden Project" factor. The term "Golden Project" refers to a series of high priority proposals for the development of information infrastructure in China. These projects began in 1993 under the guidance of the then Vice Premier (now Premier of China) Zhu Rongji.[25] An important focus of the projects has been the nation-wide expansion of the application of the Internet in China. Indeed some commentators feel that the development

19. TSE & TSANG, *supra* note 16.

20. See WILLIAM YURCIK & ZIXIANG TAN, *The Great (Fire) Wall of China: Internet Security and Information Policy Issues in the People's Republic of China* <http://www.pitt.edu/~wjyst/ascii_tprc96.txt>, for proceedings of the 24th Annual Telecommunications Policy Research Conference (TPRC), Solomons Island, MD. Oct. 1996.

21. TSE & TSANG, *supra* note 16.

22. *Id.*

23. MUELLER & TAN, *supra* note 11, at 87. *See also* URE, *supra* note 11.

24. YURCIK & TAN, *supra* note 20.

25. For the details of the Golden Projects, see Ma Rushan, *Golden Bridge-National Economic Information Network Project Shaping Up*, 8 (6) CHINA TELECOMMUNICATIONS CONSTRUCTION, 27-34; Zhang Qi, *China's Information Infrastructure and the Implementation of the Golden Projects*, 8 (7) CHINA TELECOMMUNICATIONS CONSTRUCTION, 49-52 and Gao Xingzhong, *CHINANET, China's Internet Backbone Network in Operation*, 7(5) CHINA TELECOMMUNICATIONS CONSTRUCTION, 22-28.

of the Internet now overshadows other Golden Projects.[26]

With the commercialization of Internet services and the momentum of the Golden Projects factor, China's Internet has developed rapidly. According to the first national survey on Internet in China, by the end of March 1998, China has already had 820,000 Internet users.[27] By the end of 1998, it was reported that the Internet population in China increased to more than 2.1 million.[28] By 2000, it is expected that the number of cases will reach 4.5 million.[29]

Apart from the increase in the number of users, the nature of Internet usage has broadened. For example, using the Internet for advertising and exchanging commercial information has become fairly common. The importance of the Internet for commercial purposes has been underlined by the Chinese government's acceptance of the use of the Internet to conclude contracts in the draft Unified Contract Law.[30] Shopping on-line is also becoming more popular. The first electronic business in China, run by the Xinhua Bookstore, started operations in the spring of 1996.[31] Although the Internet is playing an increasingly important role in the commercial sphere, its academic utility has not diminished. Most tertiary level academic institutions are connecting to the Internet. CERNET has claimed that it is planning to "connect all the universities and institutes in China in the near future and connect high schools, middle schools, primary schools and other education and research entities by the end of this century."[32] Also, China's first digital library system was established in Shenyang in October 1998.[33]

---

26. ZIXIANG (ALEX) TAN & WILL FOSTER, *Internet Diffusion in P.R. China: Global Diffusion of the Internet* (March 1998) <http://web.syr.edu/~ztan/China-tel.html> [Hard copy on file with Journal and Authors].

27. *Survey Reveals Information on China's Internet users*, XINHUA NEWS AGENCY, May 26, 1998, *available in DIALOG@CARL* [Hard copy on file with Journal and Authors]

28. *China's Internet Users Exceed 2 million*, XINHUA NEWS AGENCY, Jan. 22, 1999, *available at DIALOG@CARL* [Hard copy on file with Journal and Authors].

29. *Id.*

30. Article 14, *Explanation to Certain Questions Concerning the Draft to the Contract Law of the People's Republic of China* (May 14, 1997).

31. *CHINAINFOBANK: Internet users spur growth of on-line service*, (visited Oct. 30, 1998). <http://www.chinainfobank.com> [Hard copy on file with Journal and Authors].

32. MUELLER & TAN, *supra* note 11, at 86. There must be some serious doubt about this claim with respect to sub-tertiary level educational institutions.

33. CHINAINFOBANK, *China's First Digital Library Opens in Shenyang*, Oct. 15, 1998. <http://www.chinainfobank.com> [Hard copy on file with Journal and Authors].

IV. TENSIONS RELATED TO THE DEVELOPMENT OF THE INTERNET IN CHINA

A. The Need to Communicate

While the invention of the Internet has generally been hailed as a turning point and a communications breakthrough in developed countries, China has found itself confronting a dilemma in dealing with this advanced information technology.

The ten years of the Cultural Revolution not only stopped the internal development of China but also shut China off from the outside world. This caused China to fall far behind other developed countries by virtually all measures. When the chaos of the Cultural Revolution came to an end, China's doors opened again. The new open door policy emphasized the need for more communication capacity, both within China and with the rest of the world. Internally, under the centrally planned system, communications between ministries, local authorities and the central government were very important. Through telecommunications facilities, local authorities and ministries could report on their work to the central government while the central government could exercise supervision over and pass commands to local authorities and ministries. Externally, the role of telecommunications was even more significant. It was to play a major role in bringing China closer to the outside world and, most importantly, closer to desperately needed outside technology.[34] For these reasons, the development of China's telecommunications infrastructure has continued to be a top priority ever since the adoption of the open door policy.[35]

Apart from the broad open door policy, the continuing shift towards a (socialist) market economy, state enterprise reform and the process of disengagement of the state from the detail of day-to-day living have also led to an increase in the demand for better communications.[36] According to the principles of the socialist market economy, enterprises are required

---

34. URE, *supra* note 11.

35. In the 17th Annual General Meeting of the MPT in 1979, the MPT declared that it would devote full support to telecommunications development. Ever since 1984, telecommunications development began to be listed as one of the goals of the Chinese government in the Five-Year Plans. Douglas C. Pitt, Niall Levine and Xu Yan, *Touching Stones to Cross the River: evolving telecommunication policy priorities in contemporary China*, 5 J. CONTEMP. CHINA 1996, 347, 351. See also Li Jianqun, *Tengfeide Zhongguoyoudian [China's telecommunications in rapid development]*, 3 JIAOTONG YUNSHU JINGJI YOUDIAN JINGJI, 69-71 [Hard copy on file with Authors].

36. URE, *supra* note 11.

to operate within the broad plan of the central government — but they are also required to manage themselves. This management process includes the gathering of market information.

The globalization of telecommunications over the last decade-plus has been another significant factor forcing or inducing the Chinese government to introduce the Internet to China. Countries throughout the world are busy building their own "information superhighways" to facilitate more efficient communications internally and with the rest of the world. By drawing all nations closer together in this way and through a sharing of information, it is argued that all nations can benefit. It now seems beyond doubt that "no modern economy can do without a national information infrastructure."[37] Instant communications and updated information are two of the crucial elements for business transactions in a modern society. Under these circumstances, frankly, China has little choice but to introduce the Internet into its communications mix if it wishes to continue with the process of modernization. If there is one over-arching, vibrant "ideology" left in China (which is shared by Taiwan, as it happens) it is probably "modernism." Marxism is largely a hollow shell still acknowledged for historical and political reasons. Leninism, with its theory and techniques of mass control and political management, remains a guiding force while China retains the One Party State at the center of its political structure. But the One Party State is under enormous stress from the compounding forces unleashed by the open door policy. Modernization remains a clear, widely supported goal, however. China correctly sees itself, due to its size, traditions and especially its population, as an important world power. Technological backwardness over the last two centuries is one factor believed to have held China back from taking its rightful place in the world. Rectifying this technological lag is almost universally regarded as a fundamental good in China. The dangers that come with technological change — not least of all the political "pollution" of information flows— are widely recognized. Nevertheless, the need to change retains recognition as a fundamental requirement.

In the Middle East, the reconciliation of these conflicting outcomes has been notably less pragmatic than in China. There the power of religion (Islam) is immensely greater than in China. The resolution of the political and social tensions involved in modernization has resulted in a much more heavy-handed approach to the Internet designed to slow its progress (and

37. YURCIK & TAN, *supra* note 20.

thus lessen its potentially harmful effects).[38]

B. *Communications Concerns*

1. Political Considerations

As we have noted, the Chinese government clearly understands the power of the Internet and the immense benefits it can bring. On the other hand, it also understands that undesirable or even harmful effects will travel with the benefits. The possible impact of the Internet on Chinese politics is of foremost concern.

> [P]ersuasive communications are indispensable political tools in all Communist or totalitarian societies. For in a Communist state solidarity and achievement depend upon ideological unanimity, and communications provide the model with which to conform.[39]

The free flow of information offered by the Internet (and by new communications technologies in general) is politically contradictory to a fundamental principle of Leninism. For communist governments, the control of information flow is very important. However, once communication gateways are opened, information will be able to enter from all manner of "uncontrolled" sources. This is especially true in the case of instant communication technologies, such as e-mail, fax transmissions and the Internet. In other words, the Internet not only can strengthen an economy and the government — it can also weaken government control.

Few countries know better the "disastrous" effects that can arise from advanced communication technologies than China. During the Student Democratic Movement in 1989, fax machines — the new communication technology at that time — demonstrated their power. The political developments in 1989 almost led to the collapse of the Chinese government. Modern technology was used by the dissidents inside China

---

38. TAN & FOSTER, *supra* note 26, at 115-116.

39. Frederick T.C. Yu, *Communications and Politics in Communist China*, *in* COMMUNICATIONS AND POLITICAL DEVELOPMENT 259 (Lucian W. Pye ed., 1963).

to exchange information among themselves and to release information to the outside world.[40] As Parody and Sautedé noted:

> [I]n 1989 the Tian'anmen Square demonstrators promptly made use of the fax machine to transmit information, pamphlets and demands to the foreign press. Even if the government has since imposed registration of private fax machines with the Public Security Ministry, we know from experience that transmissions from undeclared machines continue to make their way out.[41]

Bearing this "nightmare" in mind, China has viewed the Internet, an even more powerful communication tool, with great suspicion as well as with great anticipation.

> The suspicious, almost pathological, attitude of the government in Peking towards these new means of communication reinforces all the more the legitimate defiance of the dissidents towards them. The association is quickly made between the use of these services and espionage, or even conspiracy against the State.[42]

As part of its strategy to prevent another Student Democratic Movement from arising, the Chinese government has tried to censor and block web sites of many foreign newspapers (such as New York Times), human rights groups (such as Amnesty International), dissident groups and Taiwanese agencies.[43] However, it seems these measures have not proved to be very effective.

Though some web sites, such as Human Rights in China and China News Digest were blocked by the Chinese government, access to these sites from inside China could still be managed. Moreover, an electronic political magazine, which is distributed "by e-mail to a Silicon Valley address where it is electronically mailed back to China to thousands of addresses," has also became available in China.[44]

---

40. Emmanuel Parody and Éric Sautedé, *Internet in China: A Modern Innovation with Little Tolerance for Control*, CHINA PERSP., Sep./Oct. 1995,36, 42; *See also* McIntyre, *supra* note 18.

41. Parody and Sautedé, *supra* note 40, at 40.

42. *Id. at* 41.

43. Erik Eckholm, *China Cracks Down on Dissident in Cyberspace*, N.Y. TIMES, Dec. 31, 1997.

44. *Id.*

As it happens, although the Internet can be most effective for mass communication purposes, it is not popular among dissidents for security reasons.

> [S]ending mail electronically always leaves a trace of the sender, the users would need to be able to code their address by having remote access via computers located outside China. However, the costs and difficulties make this impossible at the moment. At a higher level, the idea of setting up a subversive network, which would find a place in the present proliferation of telecommunications structures, is to be set aside for the distant future. Setting up a network means installing a fixed file server, which is easily spotted and, what is more, is very dangerous because it contains the electronic addresses of all the networks.[45]

As one commentary notes, the essential Internet dilemma for China is: "How to foster economic growth and freedom while keeping tight screws on politics."[46]

2. Social Considerations

As in the case of many other countries, the social and moral impact of the Internet is another factor that has made China hesitate in accepting the Internet without qualification.

The vast array of "spiritually polluted" materials available via the Internet (such as pornographic information and information about (and about how to commit) crimes) has become a matter of global concern. A flood of this sort of information can lead to the lowering of social and moral standards, it is argued, and can have a very harmful effect on vulnerable groups, such as children. Virtually all countries have sought to find ways to restrict the flow of this sort of Internet information. For China, the preferred method adopted is the same as the one used to deal with "politically undesirable" materials; that is, to block access to certain web sites.[47]

---

45. Parody and Sautedé, *supra* note 42, at 41.
46. Eckholm, *supra* note 43.
47. Parody and Sautedé, *supra* note 42, at 40; *See also* Eckholm, *supra* note 43.

C. *Summary*

The tensions affecting the development of the Internet in China are not confined to China. All countries in the West, for example, see both the advantages and the real dangers of the Internet. The positive side of its development has been the opening up of a vast new communications network which, apart from its global reach, enjoys immense cost advantages over traditional competitors. The clear negative impact relates, for example, to new avenues for crime and tax evasion which the Internet has opened up, and to the spreading of harmful materials such as those related to child pornography.

For China, a further crucial dimension is the way in which the Internet opens up the possibility of cheap, greatly enhanced political communications both within China and between China and the rest of the world.

V. INTERNET GOVERNING BODIES IN CHINA

The MPT used to be the major regulatory authority for all forms of telecommunication in China, including the Internet. The MPT was responsible both for formulating central policy and for implementing policy. With the help of its subordinate local authorities (Posts and Telecommunications Administrations (PTAs) and Posts and Telecommunications Bureaus (PTBs)), the MPT was empowered to regulate the administration, operation and management, inter alia, of Internet services in China. It was also the sole international Internet gatekeeper[48] and one of the public network operators in China.[49] However, in order to apply the principle of separating regulatory and operational functions in China, the MPT's network operation business was transferred to the Directorate-General of Telecommunications in 1994.[50] Set out below is a table summarizing the historical key Internet policy influencing bodies in China, numbers of which are discussed below. This structure has been modified fairly recently. These changes are also discussed below.

---

48. Article 1 of the Provisional Regulations of the PRC for the Management of International Networking with Computer Information Network, which came into force on February 1, 1996, stated clearly that the MPT was gives the sole international Internet gatekeeper in China.

49. The network operated by the MPT is the ChinaNET(C).

50. CHINA MARKET ATLAS 1997, 111 (Hong Kong: The Economist Intelligence Unit, 1997).

Figure 2: Historical Key Policy Bodies

Name	Historical Mission	Interest in Internet
Ministry of Posts and Telecommunications (MPT)	Regulator and operator of telephony and data networks	Protect its position as dominant provider of telecommunications
Ministry of Electronic Industries (MEI)	Manufactures information technology products	Leverage its decaying manufacturing base and political power to pursue lucrative service industry
Ministry of Broadcasting, Movies and Television (MBMT)	Regulator, producer, and operator of mass media	Protect ministry's power and influence as interactive technologies challenge traditional broadcast technologies

Name	Historical Mission	Interest in Internet
Ministry of Public Security (MPS)	Police of Chinese society	Ensure Internet is not used to leak state secrets, conduct political subversion, or spread pornography or violence
The State Education Commission (SEC)	Policy-maker and administrator for China's education system	Internet support for university and secondary education
The Chinese Academy of Sciences (CAS)	Science research policy-maker and host of hundreds of research institutes	Technology transfer; Internet-oriented research and development
Xinhua News Agency	Monopoly news producer	Leverage and protect monopoly on news
Propaganda Department	Makes sure that mass media is under the guidance of the Party	Especially concerned with the influence of Western information
State Planning Commission (SPC)	Control China's economic resources	Pricing of Internet and telecommunica-tions services; funds for infrastructure
State Economic and Trade Commission (SETC)	Policy decisions regarding infrastructure and relationships with foreign firms	Foreign investment in China's Internet Infrastructure

Name	Historical Mission	Interest in Internet
State Science and Technology Commission	Policy-making and financing of China's research and development	Internet is a major focus
People's Bank of China	Loans to Chinese firms	Loans to Internet firms
People's Liberation Army	State Security; also has ties to many manufacturing interests	Security issues; expanding into Internet
Provincial and Municipal Bodies	Moving away from Central government in pursuit of their own economic development	Development Internet infrastructure. Attract investment through Internet

Source: Zixiang (Alex) Tan and Will Foster, *Internet Diffusion in P.R. China, Global Diffusion of the Internet* (March 1998) <http://web.syr.edu/~ztan/china.tel.html>

In 1993, the Economic Information Joint Committee was established. Though the original purpose in forming this Committee was "to formulate policies for the development of a national information infrastructure,"[51] with the rapid development of the Internet over the past few years, the focus of this Committee has been the Internet. In March 1996, the status of the Committee was elevated. It became the State Council Steering Committee on National Information Infrastructure (SCSCNII)[52].

Steering Committees at this very high level are regularly established in China to deal with the problem of what might be termed "bureaucratic pluralism." Real power in China rests with the Standing Committee of the Politburo which normally comprises the top 5-7 leaders in China.[53] It is at this level that national strategy is decided. Tactical or operational decisions are then left to the formal Government (the State Council) and, more

51. Paul S. Triolo and Peter Lovelock, *Up, Up, and Away - With Strings Attached*, CHINA BUS. REV., Nov./Dec. 1996, at 18, 28.

52. *Id.*

53. TAN & FOSTER, *supra* note 26, , at 122.

important, to the bureaucracy (ministries and other agencies). In practice, the bureaucracy mostly makes and implements policy at this level rather than the State Council itself.[54] Where a number of competing elements within the bureaucracy are involved in policy development and implementation (as in the case of the Internet) real problems can arise. If it is a policy area of key importance, then the creation of a coordinating Steering Committee under the State Council is the mechanism often chosen to move policy development and implementation forward. Such Steering Committees are not permanent in nature but more like high level, short to medium term task forces designed to foster rapid collective decision making.[55] In fact the SCSCNII has demonstrated the efficiency of this approach, which takes advantage of China's collectivist political tradition. Despite the major competing commercial and ideological views within the bureaucracy, there has not been any paralysis in decision making over the Internet. Conversely, ways and means have been found to foster its very rapid development.

Upon its establishment, the major responsibilities of the SCSCNII were set out as follows:

1) to formulate guiding principles, policies, rules and regulations in the developing process of national informatization;
2) to formulate the strategy for developing national informationization and its overall and stage-by-stage plans;
3) to organize and coordinate the construction of important information projects;
4) to be responsible for the coordination and finding solutions for important issues arising from the computer networks and the Internet; and
5) to establish the standards for the technology and application related to informatization.[56]

By assigning all of the above duties to the SCSCNII, the government significantly reduced the power of the MPT. However, the MPT continued to exist until March 1998 when the Ministry of Information Industry (MII) was set up to replace three other ministries: the MPT; the Ministry of Electronic Industry (MEI) and Ministry of Radio-Film-Television(MRFT).

---

54. *Id.*
55. *Id.* at 109.
56. Information & Telecommunications in China on the Internet, *The State Council Steering Committee of National Information Infrastructure. P.R.C.*, <http://web.syr.edu/~ztan/china-tel.html>.

The MII is meant to act as an independent regulator.[57] According to the MII, its major functions can be summarized as follows:

1) to formulate development strategies, overall policy and plans for the national information industry, the telecommunications industry and the software industry;
2) to draft laws and regulations governing the information industry, telecommunications industry and software industry — to enact administrative rules — to enforce these laws and supervise their implementation;
3) to make comprehensive plans for government public networks, broadcasting networks and special networks of military and other public entities and to ensure proper technical and professional administration;
4) to formulate technological policies, systems and standards for the information industry and the broadcasting industry and the software industry — to administer entry licences into networks — to monitor quality supervision and control;
5) to allocate, organize and coordinate available electronic bandwidth, domain names and Internet addresses;
6) to supervise the telecommunications and information service markets — to implement a business licensing regime — and to formulate methods for interconnection between networks and the settlement of interconnection conditions;
7) to formulate pricing policies of the telecommunications and information services industries — to supervise the implementation of pricing policies;
8) to plan, build and manage special networks that are used by the Communist Party and the government — to coordinate these special networks, emergency networks and other important networks — to safeguard the security of state communications and information;
9) to guide and assist the development of the information industry according to the technological development policy — to supervise industry structures, industry products and enterprises — to deploy resources in a rational way;

57. CHINAINFOBANK, *New Chinese Ministry Begins Work*, (Apr. 1, 1998) <http://www.chinainfobank.com>.

10) to promote research and development in the electronic information industry, telecommunications industry and software industry — to organize large scale technological projects and to assist in the development of national industry;
11) to provide professional administration assistance with regard to military electronic systems and to carry out research on development strategies and policies and plans related to military electronic systems — to coordinate integration of MII plans and plans by the military and the national committee of defence technology and industry;
12) to assist the promotion of informationalization of the national economy and national key research projects — to guide, coordinate and organize development and utilization of information resources;
13) to organize and guide the sending, allocation and settlement of accounts by monetary means through postal and electronic information transfer systems;
14) to represent the government in joining relevant international organizations and in signing relevant international agreements — to organize foreign technology exchanges;
15) to carry out research on policies in regard to telecommunications and information systems with the HKSAR[58], Macau and Taiwan;
16) to compile statistics on the information industry and to report news about the information industry; and
17) to deal with matters assigned by the State Council.[59]

Apart from the various administrative bodies just mentioned, there are some other government bodies and organizations which have played an important role in the regulation of the Internet in China. The China Internet Information Center (CNNIC), which was established under the Chinese Academy of Sciences is responsible for all domain name registrations in China.[60] In addition, since the Chinese government worries

58. The Hong Kong Special Administrative Region of the People's Republic of China is Hong Kong's official title since the resumption of sovereignty by China over Hong Kong since July 1, 1997.

59. Ministry of Information Infrastructure, *Introduction of Ministry*, <http://www.mii.gov.cn>.

60. Barry Yen, *Accessing China on the Net*, 8 (1) COMPANY SECRETARY 1998, 26, 26-28; *See also* KL Wong, *Surfing the Dragon's Net*, ASIALAW, May 1998, at 29-33.

very much that the free flow of information through the Internet will lead to the reception of (both politically and socially) "undesirable" information within China, the Public Security Bureau (PSB) has been assigned the task of dealing with the registration of all Internet users and investigating crimes on the Internet.[61] Also, the Xinhua News Agency, the official Chinese news agency is responsible for approving the content of foreign information being disseminated within China.[62]

It is far from clear that the attempt to invest the MII with ultimate responsibility for oversight of virtually all communication systems in China will succeed completely. For example, the plan to draw important aspects of regulating military communication systems into the MII net is bound to prove most difficult to implement.

VI. REGULATING THE INTERNET IN CHINA

Systematic regulation of the Internet in China did not really commence until 1996. The regulations that presently govern the operation of the Internet in China can be classified into 4 broad categories: 1) regulations governing the establishment of ISPs and international network connections; 2) regulations dealing with crimes related to the Internet; 3) regulations monitoring the ISPs and Internet users and; 4) regulations dealing with domain names.

A. Regulating the Establishment of ISPs and International Network Connections

Most of the regulations in this first category involve controls over international connections to the Internet. The first regulations covering this matter were the Interim Provisions Governing the Management of Computer Information Networks in the People's Republic of China Connecting to the International Network (the "Interim Provisions"). The Interim Provisions were promulgated by the State Council on January 23, 1996 and came into effect on February 1 of the same year. They were

61. Yen, *supra* note 60.
62. *Id.*

subsequently amended by the State Council on May 20, 1997.[63] Article 5 of the Interim Provisions empowered the Economic Information Joint Committee (the then SCSCNII) to regulate and resolve important matters relating to international network connections, such as enacting management provisions as well as supervising the work of international network connections.[64] Article 6 provided that "all direct international networking traffic must use international incoming and outgoing channels provided by the MPT's national public network."[65] In other words, this provision gave the MPT the monopoly power to control China's gateway to the international Internet. Such a monopoly was further confirmed in the Provisions Governing the Management of Internet Inlets and Outlets for the Computer Information Network issued by the MPT on April 9, 1996.[66]

All networks with international connections have had to be approved by the State Council and have been subject to the supervision of the MPT, MEI, State Education Commission and the Chinese Academy of Sciences[67] (these duties have now, in part, passed to the new MII). Only entities that can satisfy the conditions listed in Article 9 may be granted international connection rights. These conditions are that:

1) they have to be an enterprise legal person or an institutional legal person established in accordance with the law;
2) they have to have the necessary networking equipment, technicians and management personnel;
3) they have to have comprehensive safety and security control systems and technical protection measures; and
4) they have to comply with all other laws and regulations and other conditions set out by the State Council.[68]

In addition, business entities must also obtain international network connection business permits from relevant government departments.[69] Furthermore, according to Article 13, those entities who have rights of

63. Decision of the State Council on Revising the Interim Provisions Governing the Management of Computer Information Networks in the People's Republic of China Connecting to Internet.

64. Article 5, Interim Provisions.

65. Article 6, Interim Provisions.

66. Provisions Governing the Management of Internet Inlets and Outlets for the Computer Information Network.

67. Article 7, Interim Provisions.

68. Article 9, Interim Provisions.

69. Article 8, Interim Provisions.

international connection must comply with all relevant laws and administrative rules of the nation and strictly enforce safety and security systems. They cannot manipulate the Internet for activities that endanger national safety or disclose state secrets or other similar activities. Also, they cannot produce, retrieve, duplicate or spread information that may affect public order and they must not reproduce pornographic information in any way.[70]

On February 13, 1998, the SCSCNII also published the Provisions for the Implementation of the Interim Provisions Governing the Management of Computer Information Networks in the People's Republic of China Connecting to the Internet (the "SCSCNII Provisions") which came into effect on March 6, 1998. The SCSCNII Provisions not only reiterate the above procedures and requirements for obtaining international connection rights (as stipulated in the previous two State Council Interim Provisions) but also clearly set out a three tier Internet access structure (i.e., for users, ISPs and interconnecting networks) in China.[71]

B. Regulating Crimes Related to the Internet

In response to the increasing seriousness of crimes related to the Internet, China has incorporated two specific provisions in the amended Criminal Law of 1997 to deal with the crimes related to "hacking." Article 285 provides that:

> Anyone who violates state regulations by breaking into computer database systems of the State, the national defence construction institutes or advanced science and high technology areas shall be sentenced to a fixed-term of imprisonment of not more than three years or criminal detention.[72]

Only the illegal accessing of databases listed in Article 285 will constitute a crime. The listed databases are marked as important to the national interest.[73] Any offense under this Article is a strict liability offense. No damage is required under this provision. Once a defendant has broken into

---

70. Article 13, Interim Provisions.
71. SCSCNII Provisions.
72. Article 285, Criminal Law 1997.
73. XIUDING XINGFA TIAOWEN SHIYONG JIESHI [A PRACTICAL EXPLANATION OF THE AMENDED CRIMINAL LAW] 371, (Zhang Qiong ed., Beijing: Chinese Procuratorate Press, 1997).

one of the listed databases, he will have committed a crime.[74] The second provision dealing with crimes on the Internet is Article 286, which provides that:

> Anyone who violates state regulations by deleting, altering, adding, or interfering with the functions of a computer database system, thus causing abnormal operations of the system, where serious consequences are involved, shall be sentenced to fixed-term imprisonment of not more than five years. If the consequence is exceptionally serious, the sentence shall be fixed-term imprisonment of not less than five years.[75]

C. *Monitoring of ISPs and Internet Users by the Public Security Bureau*

In addition to complying with all the requirements as stipulated in the SCSCNII Provisions, the Circular of the Ministry of Public Security on Entering on Record the Computer Information Systems Connected with Internet (the "PSB Circular") dated January 29, 1996 provides that ISPs are also required to register with the relevant PSB office within 30 days of connection. Individual Internet users, too, are also required to go through the same procedure. Any individuals or units who fail to complete the required registration may be punished under the Regulations on Protecting the Safety of Computer Information Systems of the People's Republic of China (the "Computer Information System Safety Regulations") dated February 18, 1994.[76]

To strengthen the security of domestic and international computer information network connections and to maintain public order and social stability, the PSB, with the approval of the State Council, passed the Provisions on Safeguarding the Security of Domestic Computer Networks in Linking with the Internet (the "PSB Provisions") on December 11, 1997, which came to effect on December 30 of the same year.[77]

In fact, these PSB Provisions are a combination of the SCSCNII Provisions, the PSB Circular, Articles 285 and 286 of the Amended Criminal Law and the Computer Information System Safety Regulations.

---

74. *Id.*
75. Article 286, Criminal Law 1997.
76. Paragraph 5, PSB Circular.
77. Article 1, PSB Provisions.

The PSB Provisions list the responsibilities of interconnecting networks, ISPs and Internet users. The responsibilities of the interconnecting networks, ISPs and legal enterprise or institutional Internet users can be summarized as follows:

1) they must assume responsibility for network security, protection and management and establish a thoroughly secure, protected and well managed network;
2) they must carry out technical measures for network security and protection and ensure network operational security and information security;
3) they must assume responsibility for the security, education and training of network users;
4) they must register units and individuals to whom information is provided and examine the information provided and make sure that no prohibited information is provided.
5) they must establish a system for registering the users of electronic bulletin board systems on the computer information network as well as a system for managing bulletin board information;
6) they must keep records of any violations of the PSB Provisions and report to the PSB; and
7) according to the relevant state regulations, remove from the network any address, directory or server that has prohibited contents.[78]

Under the PSB Provisions, information which can be categorized under any of the following headings is prohibited information:

- materials inciting resistance or breaking the Constitution or laws or the implementation of administrative regulations;
- materials inciting the overthrow of the government or the socialist system;
- materials inciting division of the country, harming national unification;
- materials inciting hatred or discrimination among nationalities or harming the unity of the nationalities;
- materials containing falsehoods or distorting the truth, or spreading rumours, or destroying the order of society;

78. Article 10, PSB Provisions.

- materials promoting feudal superstitions, sexually suggestive material, gambling, violence, murder, terrorism or inciting others to criminal activity;
- materials openly insulting other people or distorting the truth to slander people;
- materials injuring the reputation of state organs and;
- materials encouraging other activities against the Constitution, laws or administrative regulations.[79]

In addition, Article 4 also states that no unit or individual may use the Internet to harm national security, to disclose state secrets, to harm the interests of the State, society or a group, to harm the legal rights of citizens, or to take part in criminal activities.[80] For those interconnecting networks, ISPs and Internet users who fail to comply with these PSB Provisions, their rights to international connection may be cancelled.[81] Some ISPs have complained that it is quite unrealistic to make them responsible for the sites their customers visit.[82]

D. Regulating Domain Names

According to the Interim Provisions Governing E-mail Address Registration on China Internet (the "Domain Name Interim Provisions") which came into effect in June 3, 1997, the SCSCNII, with the assistance of CNNIC, became the governing body of China's domain names. The Domain Name Interim Provisions also set out the three tier domain names system in China: The first and the highest tier is the domain name of the nation, i.e. "cn." Domain names in the second tier are those that can represent the nature of the applicant, such as "gov" for government departments and "edu" for educational institutions. Domain names that represent the administrative region of the applicant, such as "bj" for Beijing and "sh" for Shanghai also belong to the second tier. The domain names of the third tier are chosen by the applicants.[83] However, some

---

79. Article 5, PSB Provisions.
80. Article 4, PSB Provisions.
81. Article 21, PSB Provisions.
82. U.S. Embassy Beijing, *New PRC Internet Regulation: A January 1998 report from U.S. Embassy Beijing* <http://www.redfish.com/USEmbassy-China/sandt/netreg.htm>.
83. Articles 7, 8, 10, Domain Name Interim Provisions.

words, such as "Chinese" and "national" cannot be used without the approval of the relevant government departments.[84]

One further important point which needs to be noted is that only organizations with civil liability can apply for domain names. In other words, individuals are not allow to have their own domain names.[85]

VII. PROBLEMS WITH THE DEVELOPMENT OF THE INTERNET IN CHINA

Despite the continuous rapid increase in the number of Internet users in China, there are still many problems hindering its development.

A. High Costs

The costs of connecting to and surfing on the Internet in China remain high. This discourages many new individual users. For example, ChinaNET(C) charged about 4 RMB to 6 RMB for 1 hour's surfing. Users also need to pay local phone charges of about 4 RMB per hour.[86]

The effect of this financial barrier is revealed in recent Internet development statistics completed by the CNNIC.[87] According to these statistics, by July 1998 more than 90% of Internet usage was by families with an average monthly income of more than 400 RMB. More than 60% of the existing users regularly complained about the price.[88] In fact, the high cost does not only discourage users— it also makes the business of the ISPs more difficult. To attract more clients, some ISPs are introducing preferential services, such as a "special price in early morning," offering discounts and giving one free account number when purchasing one.[89]

---

84. Article 11, Domain Name Interim Provisions.

85. Article 6, Domain Name Interim Provisions.

86. *The China Matrix, 'A meta-resource for understanding China's Internet'*, (visited October 1, 1999) <http://virtualchina.com/matrix/background.html> [Hard copy on file with Journal and Authors].

87. China Internet Network Information Centre, *The Statistical Report of China's Internet Development (1998/7)*, <http://www.cnnic.cn>.

88. *Id.*

89. Liu Dongping, *China Goes With Internet Flow*, 10 (6) CHINA TELECOMMUNICATIONS CONSTRUCTION, 35, 39.

B. *The Language Barrier*

Even where the financial barriers can be overcome, Internet users in China face another problem — the language barrier.

Since the Internet was originally developed in the US and first became popular in Western countries, it follows that most of the content on the Internet is in English.[90] Moreover, the complicated Chinese encoding systems need to render Chinese writing electronically have exacerbated the problem of scarce Chinese information on the Internet.[91] Therefore, many Chinese people (most of whom who are not very familiar with English or cannot read English) are discouraged from using the Internet. The degree of education of would be users thus seems to be a crucial factor affecting the development of China's Internet. According to the CNNIC statistics, over 90% of Internet users in China have received secondary or higher education.[92]

However, with the development of the Chinese language navigational guides and search engines as well as the increase in the number of Chinese language websites, it is believed that the language barrier can be reduced and more Chinese will be encouraged to use the Internet.[93]

C. *Power Struggles Among Ministries*

As mentioned above, the regulatory system of China's telecommunications was and remains complicated. Many ministries have been involved in the development and oversight of the Internet but their responsibilities were never clearly defined. Power struggles among ministries and agencies were thus inevitable.

The concurrent regulatory and business functions of the MPT made other ministries even more jealous. In addition, it seems the MPT has made use of its power to discourage competitors. For example, the MPT is alleged to have charged exorbitant leasing fees to make it very difficult for other providers to compete with it in the provision of international links

---

90. Zhang Xiaoming, *Wangshangde Dianzibaquan* (*Electronic Superiority on the Internet*), ZHONGGUO QINGNIAN BAO (CHINA YOUNGSTERS POST), Feb. 18, 1998 <http://www.chinainfobank.com>.

91. YURCIK & TAN, *supra* note 20.

92. China Internet Network Information Centre, *supra* note 87.

93. Zhang, *supra* note 90.

to the Internet.[94] The reforms of March 1998, however, have simplified the regulatory structure of telecommunications. It is possible, therefore, that the fall-out from these power struggles may diminish to a degree in the future. It is too early to tell, yet, if this is happening.

D. Recent Internet Related Developments

The intention of the Chinese government to try and tighten controls over the Internet is clear. The recent trial of Lin Hai provides a good example of how the Chinese government is attempting to strengthen its control of Internet usage.

On January 20, 1998, Lin Hai, a software entrepreneur was tried for allegedly giving 30,000 Chinese e-mail addresses to "V.I.P. Reference," a United States-based on-line pro-democracy magazine. He was sentenced to two years imprisonment for "incitement to subvert the state."[95] (Since his imprisonment, Lin Hai has been given a "Freedom of Cyber-space award" by a US based media organization.[96]) This is the first pure Internet-usage criminal case in China where the defendant has received a prison term.[97] Commentators have argued that this verdict was not only a heavy blow to the right to freedom of expression in China, but it also cast a shadow over the information technology industry in the PRC. This is especially true with respect to those companies who wish to expand their Internet business in China. It is argued that this verdict signals that the Chinese government is still very suspicious about the growth of Internet usage.[98] This case also demonstrated violations of basic rights, of course, including the right to privacy. Even the content of private e-mail can, it seems, be the target of government censorship.[99]

Compared with the sentence given to Hao Jing-long and his brother, Lin Hai's treatment was rather lenient. Hao Jing-long, a staff member of the Zhejiang branch of China Industrial and Commercial Bank, and his

---

94. Triolo and Lovelock, *supra* note 51, at 29; *See also* John Pomfret, *China's Telecoms Battle*, INT'L HERALD TRIB., Jan. 24, 1999., where China Telecom's brutal use of its commercial power to eliminate competition (by using the police, if possible) is detailed.

95. Human Rights Watch, *Computer Industry Must Speak Out on Chinese Internet Case*, (Jan. 24, 1999) <http://www.democracy.org.hk>.

96. *Award for Dissident*, SUNDAY MORNING POST, Feb. 14, 1999, at 5.

97. International Freedom of Expression Exchange Clearing House, *China: Man Sentenced in Internet Censorship Case* (Jan. 29, 1999) <http://www.democracy.org.hk>.

98. *Id.*

99. Hong Kong Voice of Democracy, *Electronic Forum Closed by Chinese Government* (Feb. 7, 1999) <http://www.democracy.org.hk>.

brother were found guilty of hacking into the bank's data-base from their home. They transferred funds amounting to 720,000 RMB to 16 accounts which had been opened in false names. The two brothers were sentenced to death.[100]

Apart from these cases, the determination of the Chinese government to tighten controls over the Internet is also reflected in its recent decision to censor the Bulletin Board System (BBS).

According to the Information Centre of Human Rights and Democratic Movement in China, the PSB is going to order the removal of those bulletin boards that contain "reactionary views" and, in addition, their origins will also be traced.[101] Immediately after this announcement, the electronic forum on the New Wave Net was shut down on February 1, 1999.[102] The Procuratorate Daily, one of the official newspapers in China, stated that these bulletin boards have been abused by many Internet users to criticise government policies and officials, as well as to spread "reactionary views" to slander the Chinese government. Interestingly, the newspaper also compared the BBS to the Big Posters used during the Cultural Revolution.[103] It is predicted that the effect of this new BBS monitoring policy is that it "will make Internet users more eager to censor the BBS themselves for fear of punishment by the government."[104] At almost the same time as this move against the BBS, a new committee to control Internet usage (to protect "national secrets," inter alia) was announced. This is the State Information Security Appraisal and Identification Management Committee (SISAIMC). The SISAIMC is responsible for "protecting government and commercial confidential files on the Internet, identifying any Net user, and defining rights and responsibilities" according to the Xinhua News Agency. China has also reportedly increased supervision of fast expanding "cyber cafes."[105]

---

100. Hong Kong Voice of Democracy, *Two Chinese Hackers Given Death Sentences* (Dec. 31, 1998) <http://www.democracy.org.hk>.

101. Hong Kong Voice of Democracy, *China to Censure Bulletin Board System* (Jan. 30, 1999) <http://www.democracy.org.hk>.

102. *Id.*

103. *Id.*

104. *Id.*

105. *Internet Use to be checked*, S. CHINA MORNING POST, Feb. 13, 1999, at 7.

VIII. SINGAPORE'S INTERNET REGULATORY FRAMEWORK

Singapore, like China, attempts to regulate Internet usage strictly. Accordingly, Singapore provides an interesting comparative perspective on Internet regulation in China. Moreover, China has been studying the regulatory systems in Singapore quite closely.

Compared with the regime evolving in China, Singapore's regulatory framework is more straightforward. Basically, Singapore's Internet regulatory framework can divided into two broad categories (according to their governing authorities): 1) regulation of the establishment of the Internet Access Service Provider (IASP) by the Telecommunication Authority of Singapore (TAS); and 2) regulation of content on the Internet by the Singapore Broadcasting Authority (SBA).

A. Regulating the Establishment of an IASP

As was the case in China, when the Internet was first introduced into Singapore, the right to provide Internet services was a monopoly. Singapore Telecom's SingNet was the sole IASP at that time. However, this monopoly ended in 1995 when the government approved Technet as the second IASP. Technet, which catered mainly to the academic and R&D institutions, was privatized, and renamed as Pacific Internet, and licensed as the second IASP.[106] Subsequently, the third IASP, the Cyberway emerged. Unlike the first two IASPs, the Cyberway entered the market by way of a public tender.[107] From October 1998, TAS decided to liberalize the establishment of IASPs further.

According to TAS:

> With effect from 8 October 1998, TAS will accept applications from any interested party for a public Internet Access Service Provider (IASP) licence . . . to establish, install and maintain a public Internet access facility or system . . . to provide public Internet access services in Singapore.[108]

---

106. Telecommunication Authority of Singapore, *TAS Further Liberalises the Internet Access Service Provision in Singapore* (Oct. 8, 1998) <http://www.tas.gov.sg>.

107. *Id.*

108. Telecommunication Authority of Singapore, *Licence Application Guidelines for the Provision of Public Internet Access Services in Singapore* (Oct. 8, 1998) <http://www.tas.gov.sg>.

In the Licence Application Guidelines, TAS listed the conditions that the applicants have to comply with before a licence can be granted. The following are some of the conditions:

1) the IASP must commit to enhancing Singapore's Internet regional/global connectivity;
2) the licence cannot be transferred without the approval of TAS;
3) the IASP may be required to comply with price controls established by TAS;
4) the IASP must fulfill certain quality service standards, such as network availability (the degree to which the Internet network is operable and not in a state of failure or outage at any point of time) and System accessibility (the ease with which subscribers are able to access the network); and
5) direct foreign equity within the IASP cannot be greater than 49%.

The licence is valid for only 5 years. However, renewal for another 3 years may be possible.

B. Regulation of Content on the Internet

The Internet is considered to be another component of the mass media (like radio and television) in Singapore. This helps explain why the SBA is the regulatory body for content of the Internet. Originally, this regulation duty lay with TAS. However, in order to tighten content control, the government forced TAS to transfer this power to the SBA in 1996.[109]

Basically, the SBA has adopted a scheme for regulating content on the Internet by implementing a combination of direct government intervention and self-regulation. Direct intervention comes in the following forms: (1) identifying blacklisted sites to the IASPs;[110] (2) requiring all IASPs and those Internet Content Providers (ICP) who provide political or religious or racial information to register with the SBA;[111] and (3) blocking pornographic sites.[112] With respect to self-regulation, the SBA has issued an Internet Code of Practice (the "Code")

---

109. Garry Rodan, *The Internet and Political Control in Singapore*, 113 POL. SCI. Q. 63, 80 (1998).

110. *Id.*

111. *The Singapore Broadcasting Authority (Class Licence) Notification 1996*, Paragraph 3 <http://www.SBA.gov.sg>.

112. SBA, *Myths and Facts about SBA and the Internet* <http://www.sba..gov.sg>.

for the IASPs and the ICPs to follow. Under the Code, their obligations vary according to different kinds of content. For example, an IASP will discharge its obligations "in relation to programs on the World Wide Web, when it denies access to sites notified . . . by the [SBA] as containing prohibited material,"[113] such as pornographic material, material concerning violence and cruelty, as well as material inciting racial and religious hatred.[114] However, if this material has "intrinsic medical, scientific, artistic or educational value," access does not have to be denied.[115] For content relating to Internet newsgroups, the IASPs are only required to "refrain from subscribing to any newsgroup if, in the IASP's opinion, it is likely to contain prohibited material and to unsubscribe from any newsgroups that the Authority may direct."[116] However, an ICP is required to choose "discussion themes which are not prohibited under the [Code]"[117] and to deny access to any programs that, to its knowledge, are prohibited by the Code.[118]

In addition to TAS and the SBA, the National Internet Advisory Committee (NIAC) also plays an important role in regulating the Internet. The NIAC, (a body appointed by the Ministry of Information and the Arts), was set up in August 1996 to "advise the SBA on the regulation of electronic information services and the development of the industry."[119]

IX. CONCLUSION

To exploit the advantages of the Internet while preventing "undesirable" influences from spreading, it seems certain that China will seek to retain strict controls on both Internet users and Internet content. Over the last two years, China has applied significant effort to learning about Internet policing from Singapore. Senior PRC officials have visited Singapore with this purpose in mind. The result has been a move, in China, towards "more selective restriction and a greater reliance on the threat posed by the possibility of monitoring."[120]

---

113. Clause 3(1), Internet Code of Practice <http://www.sba..gov.sg>.
114. Clause 4(2), Internet Code of Practice <http://www.sba..gov.sg>.
115. Clause 4(3), Internet Code of Practice <http://www.sba..gov.sg>.
116. Clause 3 (2), Internet Code of Practice <http://www.sba..gov.sg>.
117. Clause 3 (3)(a), Internet Code of Practice <http://www.sba..gov.sg>.
118. Clause 3 (3)(b), (c), Internet Code of Practice <http://www.sba..gov.sg>.
119. SBA, *National Internet Advisory Committee* <http://www.sba..gov.sg>.
120. Rodan, *supra* note 109, at 87.

The PRC approach to control of many "problems" tends, when the problem is difficult, towards complex, overlapping regulatory regimes. Very often, new regulations are piled on top of existing regimes with limited thought given to compatibility or integration. Too often, also, the "correct" behavior stipulations grow yet more vague and the punishment threats still more draconian. This is hardly to be applauded. Yet the need to resort to such mechanisms usually indicates that the area sought be controlled is, in fact, quite difficult to control. Technological developments are often part of the reason why this is so. Lack of government resources to administer and enforce controls is another explanation for this phenomenon. Endemic corruption also plays a part in undermining the effectiveness of unwieldy, vague regulatory regimes. The growing matrix of Internet control provisions in China fits this pattern.

Some commentators also are predicting that the Intranet — "an internal network to link organizational members to organizational information,"[121] instead of the Internet will be the direction of future development for China. As Yurcik and Tan have noted:

> [A] national Chinese Intranet with little or no access to the Internet provides one model for Chinese authorities who want to control Internet information. Intranet surveillance tools currently exist which allow Chinese authorities to track web-based information flows.[122]

As early as January 1997, China announced plans to build a nationwide Intranet.[123] According to the CNET News, the Intranet "will eventually link 50 cities across China," including Hong Kong.[124] Although this project, if successful, will provide a significant contribution to China's internal communication infrastructure, it is questionable to what extent it will draw China closer to the outside world.[125] Nevertheless, if such a "closed" Intranet is developed it does seem it would be bound to create an integrated network that would, potentially, be easy to "plug in" to the international Internet.

---

121. YURCIK & TAN, *supra* note 20.

122. *Id.*

123. Staff Writers, *China's National Intranet* (CNET NEWS, Jan. 15, 1997) <http://www.cnet.com>.

124. *Id.*

125. *Id.*

In the battle between the "technological modernizers" and the "controllers" in China, the former are clearly in the ascendency. This does not mean that systems of control are negligible in their impact. They are not. It does mean, though, that the shear size of the Internet and the massive volume of traffic it carries is likely, with time, to make the task of control increasingly difficult. Control-inclined states have long faced the same difficulty — for the same reasons — with their postal systems.

The Internet is not, however, about to "blow away" restrictions on freedom of expression in China overnight, less bring about the demise of the One Party State. There are still serious barriers (related to cost and language) to individual use of the Internet. Moreover, there remain security problems for those wishing to use the Internet to organize politically, and the control mechanisms (and punishments) applied are significant.

Someone recently suggested that the BBC World Service (BBCWS) radio organization should realize that the Internet was the way of the future for world-wide broadcasting.[126] This claim seems quite misconceived. In most places where the BBCWS is a prime source of reliable news, even if Internet connections are fairly readily available, as in China, the reality is that the Internet is a very poor competitor to short-wave radio on virtually every count apart perhaps from sound clarity. In terms of anonymity, cost and inconvenience (tying up your only telephone line to listen to the radio is hardly practical) there is little contest.

This comment does suggest, though, another technological innovation which is about to become commercially available could prove to be an important supplement to the Internet and other existing technologies in widening mass, global access to information. This innovation is digital satellite radio. It can deliver entirely clear sound and the receivers on the way will not require any sort of conspicuous dish — just an aerial. Moreover such devices will be compact, run on batteries and, in due course, cheap to buy. Despite our fascination with the Internet, we need to remember that the communication technology revolution remains multi-faceted and looks set to remain that way.

In summary, the Internet has already had a significant impact in China. This impact is bound to increase markedly. Overall, however, the impact of the Internet in China may be less than some imagine. The Internet, has certain built-in limitations which leave room for both

126. *The World Service-New Order*, ECONOMIST, Feb. 13, 1999, at 62.

traditional and still-arriving communications systems. Control mechanisms will also inhibit its use to a degree. Its impact politically — in particular — though important, could prove less significant than its economic and social impact.