

Breaking Through the “Golden Shield”

Garden Networks

The Golden Shield and Web Repression

What is the Golden Shield? If you perform a search of Golden Shield (pronounced Jin Dun in Chinese) on Google inside or outside China, contrary definitions come up. This shows us the impact of the Golden Shield as Google has reportedly followed China’s example in filtering content recently.[1]

The Golden Shield project is owned by China’s Ministry of Public Security (MPS); it was started in 1998 and will be completed in 2006. According to MPS, the aim is to construct a communication network and computer information system for police to improve their capability and efficiency.[2] In September 2002, Li Runsen, the technology director at MPS and member of the Golden Shield leadership, further explained this broad definition to thousands of police nationwide at a meeting in Beijing called “Information Technology for China’s Public Security”. He said:

Comrade Jiang Zemin [the former leader of China] emphasised that ‘security of information and network ensures the security of China’. . . . Golden Shield intends to build an electronic police system in the Public Security sector which includes constructing a powerful team of cyber police.[3]

In the West, however, the Golden Shield is often considered as controversial and directly violating people’s rights. Recent reports by human rights organisations revealed that the Golden Shield exacerbates China’s human rights violations with increasing imprisonment of online activists.

In October 2001, Greg Walton of the International Centre for Human Rights and Democratic Development published a report on the Golden Shield for the International Centre for Human Rights and Democratic Development based in Montreal, Canada. In the report, Walton stated:

Old style censorship is being replaced with a massive, ubiquitous architecture of surveillance: the Golden Shield. Ultimately, the aim is to integrate a gigantic online database with an all-encompassing surveillance network – incorporating speech and face recognition, closed-circuit television, smart cards, credit records, and Internet surveillance technologies.[4]

Though the objectives of the Golden Shield may sound far-fetched, they are by no means an exaggeration. The Chinese government views the Golden Shield as one of the most important projects for ensuring its political power. According to China Central Television (CCTV), the major mouthpiece of the ruling party, up to 2002, the preliminary work of the Golden Shield Project cost US\$800 million (equivalent to RMB6,400 million or €640 million).[5] On 6 December 2002, 300 people in charge of the Golden Shield project from 31 provinces and cities throughout China participated in a four-day inaugural “Comprehensive Exhibition on Chinese Information System”. [6] At the exhibition, many western high-tech products focusing on the solution strategies of the Golden Shield, including Internet security, video monitoring and human face recognition, were purchased. With regard to human resources, it is estimated that around 30,000 police are employed in this gigantic monitoring and censorship apparatus.

The Golden Shield soon took effect in tightening the web repression in China. According to a report by Reporters Without Borders (RSF) in May 2003: “More people are in prison in China for expressing their views on the Internet than in any other country in the world”. [7]

On 28 January 2004, Amnesty International reported that the number of people in China who have been arrested and incarcerated as a result of publishing or exchanging information over the Internet has been rising sharply. In 2003, the number of people arrested increased by 60 percent from past years. Those detained include students, political dissidents, Falun Gong followers, workers, writers, teachers, civil servants, former police officers, engineers and businesspeople. All are alleged prisoners of conscience. They have been accused of various "offences" including signing online petitions, calling for reform and an end to corruption, planning to set up a pro-democracy party, publishing “rumours about SARS”, opposing the persecution of the Falun Gong, and calling for a review of the 1989 crackdown.[8]

According to a human rights organisation headquartered in the USA, The World Organisation to Investigate the Persecution of Falun Gong (WOIPFG), by the end of April 2004, 108 Falun Gong practitioners have been incarcerated, illegally sent to forced labour camps and tortured as a result of Internet-related activities. Three identified Falun Gong practitioners arrested for Internet-related activities were tortured to death during their detention.[9]

The Golden Shield's Surveillance Methods

The first Internet connection in China was built in 1994 by an academic institution - the Institute of High Energy Physics, Academia Sinica. Internet commercial services were soon taken over by China Telecom, the state-owned company, for administrative reasons. Since day one, the Chinese government felt threatened by this emerging technology. Before the Golden Shield project, the method of censorship was limited to blocking the Internet Protocol (IP) addresses of some overseas websites. Soon authorities realised that Internet users were using overseas proxy servers (servers that retrieve website contents on the client computer's behalf) to access blocked websites and that the government was losing control. This became the driving force behind the Golden Shield project.

Blocking and Filtering

China still uses traditional IP blocking with access control lists in firewalls and routers. Many major western media such as CNN, BBC, RFA and VOA are on the blacklist, alongside the Falun Gong, pro-democracy groups and major Chinese news websites located outside of China, such as Epochtimes.com and Peacehall.com.

In order to deal with proxy servers, the Golden Shield project has employed more sophisticated blocking and filtering mechanisms. One of them is Intrusion Detection System (IDS), which was originally designed to detect attacks. However, these systems can be configured to filter certain strings in the URL (web site domain name and path). This URL filtering mechanism defeats http proxies because the traffic going through the proxies is unencrypted and is subject to filtering. China purchased the most advanced filtering devices from the leading firewall providers in the world to equip its national level gateways.

However, filtering did not stop at web servers. In fact, all of the major email service providers in China have been required to install keyword filtering systems on their servers. The same also happened to instant messaging service providers, who are required to filter chatting content and to record all chatting history for police inspection. The same technology was also used in content filtering. This involves screening all web pages in search for certain keywords. Subsequently, China began to ask Internet Service Providers (ISPs) to perform self-censorship, which has even been adopted by foreign ISPs such as Yahoo and recently Google.

Discussion forums were forced to install filter systems that block messages containing banned words. The list of banned words includes terms from politics, religion, and pornography. Research on <http://sina.com.cn> and other major websites in China, showed that words related to politics are under more scrutiny than pornography. The pictures below show the words Zhen Shen Ren (Truthfulness, Compassion, Tolerance -- the Falun Gong's principles) and the name "Jiang Zemin" were banned from a Sina's discussion forum. The word Sa Si (SARS) was banned from March 2003 to May 2003.

The Chinese government soon realised that even with advanced firewall devices, current processing power is insufficient to filter the ever-growing web traffic. Nevertheless, content filtering has been deployed in a number of areas.

ID Tracking

A multi-level system was built to track Internet users who violate the rules. All Internet cafes are required to install surveillance software either provided or approved by the police. This system monitors traffic on all computers in the cafe, even the screens of each user. The system also has direct access to the policy network system. Users at Internet cafes are required to present their ID cards before they can access the Internet. If violation occurs, their personal information will be submitted to the police immediately via the Internet by the Internet cafe owners.

Many Internet service providers (ISP) for residential users are also required to verify user ID information. Many of the web-based forums prohibit anonymous posting. Real names are required to register an ID or to submit articles.

Beyond Technology and Money -- Breaking through the Golden Shield

In 2001, after months of hard work, a group of volunteers, mostly computer engineers, established GardenNetworks.com and released the first anti-blocking software called "Garden as freeware". A Chinese saying, "let a hundred flowers blossom" illustrates the desire for an open and free environment where people can express themselves. Garden Networks wants to become the garden within which hundreds of flowers can blossom freely. Garden was the first intelligent proxy tool to help Internet users in China gain access to blocked sites. It uses a number of measures to defeat the blocking and filtering mechanisms. For instance, it uses data encryption to hide the sensitive information from being seen by censoring network devices. The first version of Garden was sent to a mailing list of 1000 users, who expressed their desire to break through Internet censorship and was well received. This can be seen from some of the users' feedback:



- “Air is free; water is free, why isn’t the Internet?”
- “Garden provides us with a breath of fresh air! People are being suffocated under high pressure. You do not know how much we need your help.”
- “It is your hard effort that gives us a sky of real freedom!”
- “Discovering Garden was the happiest day in my life.”

From that day on, knowledge about Garden has been spread by word of mouth among pro-democracy activists, students, researchers and other interested Chinese citizens.

Clearly, MPS is not happy about censorship being challenged. In 2002, China strengthened its Internet blocking efforts. The Minister of MPS, Jia Chunwang, announced the crackdown on subversive activities on the Internet, and email blockage was tightened as a result. Google was later blocked in September of that year via domain name hijacking technology.

Yet China’s blocking Google made the Internet blockade so well known that even more people grew eager to see what was being blocked. Hence the number of Garden users increased greatly over that month. In March 2003, while the government concealed facts regarding the SARS outbreak in China, the number of anti-blocking software users increased more than tenfold, and currently, estimated 250,000 Chinese users use anti-blocking software, including Garden, to access the Internet.

This experience shows that in the race between suppressing and accessing information, the key factor to winning the battle, rather than money or technology, is public’s craving to know the truth and pursuit of freedom. In the end, Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers. (Article 19, the United Nations Universal Declaration of Human Rights)

Footnotes

[1] “Google conforms to Chinese Censorship”, *NewsMax*, September 2004, available at: <http://www.newsmax.com/archives/articles/2004/9/26/103446.shtml>.

[2] *Introduction on the Golden Shield*, <http://www.china.org.cn/chinese/zhuanti/283732.htm>.

[3] Li Runsen, *Expedite Golden Shield Project, Strive to Implement Public Security Automation* (in Chinese), National Public Security Technology Conference, 26-27 September 2002, see: http://www.cnpsm.com/news/disp_more.asp?xw_id=4045&Dlid=2.

[4] Greg Walton, *China's Golden Shield: Corporations and the Development of Surveillance Technology in the People's Republic of China*, International Centre for Human Rights and Democratic Development, 2001, available at: <http://www.ichrdd.ca/english/commdoc/publications/globalization/goldenShieldEng.html> and <http://internetfreedom.org/gb/articles/1070.html>.

[5] “National Surveillance System: The Golden Shield Project, Initial Budget - 1 Billion Dollars”, *Epoch Times* (in Chinese), 22 October 2003, see: <http://www.epochtimes.com/gb/3/10/22/n397830p.htm>.

[6] (Information in Chinese) <http://www.adsale.com.hk/tw/iframe/anews-s3-n4.asp>.

[7] Reporters Without Borders, "Living dangerously on the Net", *Censorship and surveillance of Internet forums*, 12 May 2003, available at: http://www.rsf.org/article.php3?id_article=6793.

[8] Amnesty International, “People's Republic of China: Controls tighten as Internet activism grows”, 28 January 2004, available at: <http://web.amnesty.org/library/Index/ENGASA170012004?open&of=ENG-CHN>.

[9] This information is provided by WOIPFG. In its report released on April 2004, it details information on the names and locations of the Falun Gong practitioners persecuted with help of Internet surveillance.