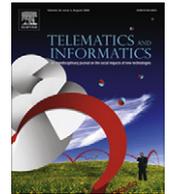




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The aborted Green dam-youth escort censor-ware project in China: A case study of emerging civic participation in China's internet policy-making process

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ABSTRACT

The educated and affluent Internet users in China have posed great threats to the stability and legitimacy of Chinese communist's regime where the access of non-government dominated information become a possibility. To restrain Chinese citizens' access to any Internet contents that are considered to undermine state control, China has developed and implemented one of the most sophisticated multi-layered Internet filtering systems in the world. These projects include the *Golden Shield* (or *Jin Dun*) and the *Great Fire Walls* of China that were implemented in the infrastructure to deter any undesirable or politically sensitive information.

The case study collected discussions and discourses from newspapers, websites, and blogs in Mainland China and Hong-Kong, SAR. A thematic analysis method was used to identify recurrent themes (i.e., arguments, points of contention, and concerns) that Chinese Internet users have about the Green Dam censor-ware project. These themes were interpreted from *Paltemaa and Vuori's (2009)* theoretical framework that helps understand the evolution of technology and its role in Chinese Communist Party's (CCP) political control over China. Data demonstrate the dynamics among the roles of government institutions, Internet regulatory regimes, the Internet technology, and a rapidly emerging civil society in China.

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1. Introduction

In early 2010, Google decided to stop censoring its online Chinese-language search engine service in China and redirected its users to its Hong-Kong site (*Neuharth, 2010; New York Times, 2010*). Google claimed the decision is to defend “the Internet itself against censorship, repression and attack” (*Neuharth, 2010, p. 15*). Some critics said that Google's decision violates the laws of a sovereign nation (*Scientific American, 2010*). As a result, Chinese officials have said to prepare shutting down Google's operation in China if Google is unwilling to comply with China's censorship policy (*Scientific American, 2010*). The tension between Chinese government's information control and Google's philosophy on free access to information represents a vital example in understanding China's Internet policy-making process.

The rapid development and deployment of the Internet around the world have posed considerable challenges to state's control over information. In less democratic or authoritarian countries, the Internet has continuously challenged these governments. For example, in Iran, the Revolutionary Guard has enforced Internet content control through software and used fear tactics to encourage self-censorship among Iranian Internet users (*Hookway, 2009*). In China, a country of over

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1.3 billion, access to the Internet has only reached 22% of its population (Hookway, 2009). Still, by the end of 2008, China has replaced the US as a country with the world largest Internet users (Liang and Lu, 2010). Nevertheless, many of Chinese Internet users are highly-educated and reside in metropolitan and urban regions of the country. As a result, these Internet users pose great threats to the stability and legitimacy of Chinese Communist's regime where the access of non-government-controlled information becomes a possibility. To restrain Chinese citizens' access to any Internet contents that are considered to undermine state control, China has developed and implemented one of the most sophisticated Internet filtering systems in the world (Hookway, 2009). These projects include the *Golden Shield* (or *Jin Dun* in Chinese) and the *Great Fire Walls* of China that were implemented in the infrastructure to deter any undesirable or politically sensitive information (Fallows, 2008). For example, any websites or web pages that contain "Tibet Independence", "Taiwan Independence", "Falun Gong", or "Tiananmen Massacre" have been filtered in China.

In 2009, the Chinese government proposed the installation of Green Dam-Youth Escort software in every home computer sold in China (Crovitz, 2010; Ministry of Industry and Information Technology, cited in Chinascope, 2009, p. 8). The project was initiated by China's Ministry of Industry and Information Technology (henceforth, MIIT), which required all personal computer manufacturers to install the software in any computers sold in China (Chao and Zhu, 2009; Chickowski, 2009a). The cost of the software was funded by the government's treasury (MIIT, cited in Chinascope, 2009, p. 8). Acer Inc. was reported to begin shipping personal computers that contain the censor-ware as of late July, 2009 (Chao et al., 2009). Even though government's surveillance of Chinese citizens' use of the Internet is widely known, this type of government invasion of personal privacy, even with the pretext of protecting youths from accessing harmful or pornographic information on the Internet (Chinascope Staff, 2009; Mooney, 2009), still caused a lot of outcries and protests among China's growing Internet population (Zhao et al., 2009). Many Chinese Internet users also believe that this project was intended to monitor their Internet use habits and an intrusion of their privacy (Chao and Zhu, 2009; Hennock, 2009). With the help of several lawyers in China and local civil right organizations, in the end, the Chinese government decided to "postpone the project" (Chickowski, 2009b), a euphemism for terminating the project (Chao and Dean, 2009). As the MIIT's key official, Li Yizhong, admitted, the project was "'a misunderstanding' due to poorly written regulations" (Wines, 2009, p. 1).

The growing economic, political, and military prowess of China deserves scholars' attention to examine Chinese government's development and deployment of surveillance technologies and projects that are used to control un-coerced and free access to Internet of its 1.3 billion citizens. The purposes of this study are to examine the dynamics of government surveillance technologies and projects, emerging civic participation in China in shaping China's surveillance and Internet policies and practices. The study aims to contributing to the understanding the causes and consequences of the aborted Green Dam project, demonstrating the roles of state institutions, civil society and participation, and surveillance technologies in China.

2. Literature review

2.1. Green Dam-Youth Escort Censor-ware Project: an overview

"Green" in Chinese represents safety and clean. In the context of Internet, the term is used by the Chinese government to free online contents from "pornography and other illicit material" (Chao and Dean, 2009, p. A10). Green Dam-Youth Escort Censor-ware program was developed by the collaboration of two Chinese companies: Jinhui Computer System Engineering Co. Ltd. and Dazheng Human Language Technology Academy Co. Ltd. (Yuan, 2009). Jinhui was in charge of developing Green Dam's image filtering capabilities, while Dazheng was responsible for the program's word filtering capabilities (Yuan, 2009). With 41.7 million Yuan (or USD\$6.1 million), the Chinese government procured a one-year exclusive rights to freely distribute the software (Yuan, 2009). The program was reported to "blocks online pornographic and violent content, keeps a record of users' surfing histories, controls the time a user can surf the Internet and can forbid playing Web games" (Yuan, 2009, p. 20).

Chinese government's arguments in promoting the installation of the Green Dam-Youth Escort software (or Green Dam, henceforth) were said to "block children from viewing online pornography and other 'harmful content'" (Chao and Dean, 2009, p. A10). As stated in the official document, *Notice to Pre-Install Internet Filtering Software on All Computer (MIIT Soft [2009] No. 226)*, released by the Ministry of Industry and Information Technology (MIIT) in China, the policy is to

further consolidate the achievement of rectifying against the low and degrading trends on the Internet, to protect the healthy growth of minors, via both punishment and prevention, to promote sound and orderly development of the Internet, and to follow the national strategy of protecting against the low and degrading trends on the Internet, the following are the specific requirements for pre-installation of Green Internet filtering software all computers. (MIIT, cited in Chinascope, 2009, p. 8)

According to the proposed MIIT plan, both harmful online text and image content were to be blocked and filtered to promote a harmonious and healthy Internet environment in China (MIIT Soft [2009] No. 226; Faris et al., 2009, p. 4). Faris et al. (2009) observed that the implementation of Green Dam is "to increase the reach of Internet censorship to the edges of the network, adding a new and powerful control mechanism to the existing filtering system" (p. 1).

Despite government's arguments in justifying this censor-ware deployment program, many have perceived that the sole purposes of installing the Green Dam censor-ware are to monitor Internet connected and words typed on the computer

Table 1

Occurrence of Falun Gong-related phrases in FalunWord.lib. Source: Chinascope Staff (2009, p. 7).

Chinese Phrase	What it means	Occurrence
法轮	Falun, the name of the practice	1140
中共	The Chinese Communist Party, often used in Falun Gong practitioners' articles	628
大法	The Great Way, another way of calling Falun Gong	568
学员	Practitioners, referring to Falun Gong practitioners	291
共产党	The Communist Party, often used in Falun Gong practitioners' article	250
迫害	Persecution, referring to the persecution on Falun Gong	184
弟子	Disciple, a term Falun Gong practitioners usually call themselves	143
李洪志	Li Hongzhi, the name of the Founder of Falun Gong	125
江泽民	Jiang Zemin, former Chinese Communist Party's chief, the main culprit of the persecution	122
邪恶	Evil, often used adjective to describe the persecution	96
器官	Organ, often appearing in the articles regarding Organ Harvesting of Falun Gong practitioners	86
真相	True, a term frequently used in Falun Gong practitioners' articles	66
九评 610	<i>Nine Commentaries</i> , referring to the <i>Nine Commentaries on the Communist Party</i> , a book published by <i>The Epoch Times</i> 610 Office, a Chinese Communist agency set up with the sole purpose of persecuting Falun Gong	64 63
真善忍	Truth Compassion Tolerance, the principles of Falun Gong	57
恶党	Evil Party, often used by Falun Gong practitioners to refer to the Chinese Communist Party	48
明慧	Minghui. Org., the Chinese version of Clear Wisdom.Net, Falun Gong's official Chinese website	41
退党	Quitting the Party, a movement driven by Falun Gong practitioners to encourage Chinese people to withdraw from the Chinese Communist Party and its affiliated organizations	41
真, 善, 忍	Truth, Compassion, Tolerance, the principles of Falun Gong	30
自焚	Self-immolation, referring to a staged incident by the Chinese Communist Party to slander Falun Gong in 2001	26
叁退	The Three Quitting, referring to quitting the Chinese Communist Party, the Communist Youth League of China, and the Youth Pioneers of China	25
大纪元	<i>The Epoch Times</i> , a newspaper launched and run by Falun Gong practitioners	15
六四	June 4, referring to the 1989 Tiananmen Massacre	15

(Wolchok et al., 2009). Politically undesirable and sensitive words are blocked and optionally reported to the Chinese government (Wolchok et al., 2009). Upon detecting these blacklisted words or phrases, the program will force the termination of the program and display an error image (Wolchok et al., 2009). For example, the decryption of blacklisted terms in four files contained in the program (*xwordl.dat*, *xwordm.dat*, *xwordh.dat*, and *Falunwordh.dat*) have found that the first file contains 253 Chinese characters, including a dozen of pornographic words, as well as Falun Gong-related words (Chinascope Staff, 2009). The second file, *xwordm.dat*, contains 229 Chinese characters and includes pornographic words only (Chinascope Staff, 2009). The file, *xwordh.dat*, is made up of 353 Chinese characters covering approximately 50% for Falun Gong¹ and another 50% for pornographic words (Chinascope Staff, 2009). The unencrypted file, *Falunwordh.dat*, contains 35,025 characters that include Falun Gong-related words and phrases (Chinascope Staff, 2009). (See Table 1 for a list of blacklisted words and phrases filtered by the Green Dam censor-ware program).

The Green Dam censor-ware (version 3.17) is capable of blocking “undesirable contents” by filtering image (such as large skin tone and nudity), text, and URL (Wolchok et al., 2009). Technically, the software has been found to be in conflict with other anti-virus programs such as McAfee (Chao, 2009). The software was also found to subject users' computer to malicious software installation (Wolchok et al., 2009). Faris et al. (2009) also criticized Green Dam for its poor design and intrusive block-kill functions that terminate offending words and phrases. Furthermore, the project has also been criticized for its violation of its intellectual property. A US company, Cybersitter, has filed a lawsuit against China for allegedly stealing code from its parental-control software (Crovitz, 2010). Other software company, like Solid Oak Software, made similar claims of intellectual property infringement. The software was also found to compromise security and privacy of personal computers that install the program. First, the monitoring and filtering of URL addresses have subjected any computers to encounter web filtering vulnerability by enabling remote hosts to block and install malicious software (Wolchok et al., 2009). Secondly, remote parties can also execute arbitrary code and obtain control of any computer when the Green Dam software has been installed (Wolchok et al., 2009).

¹ Falun Gong is a religious and spiritual sect banned in China (Damm, 2007). It was first founded Li Hongzi in 1992 by emphasizing the practices of Truth, Compassion, and Tolerance. Since 1999, the Chinese government has declared the religious practice illegal (Damm, 2007). Falun Gong has accused the Chinese Communist Party of persecuting its practitioners (or disciples). Some accusations included the staged self-immolation, imprisonment, and organ harvesting. Falun Gong-related words and phrases filtered in China include “(Falun)”, “(Truth, Compassion, Tolerance)”, “(Disciple)”, “(The Epoch Times)”, “(Nine Commentaries)”, “(Quitting the Communist Party)”, and “(Evil)” (Chinascope Staff, 2009).

The project has been scaled back in response to strong public criticisms, domestic and international media attention, and international opposition since its launch in March 2009 (Chao and Dean, 2009). The project first began with China's information ministry (MIIT) talking to personal computer manufacturers about installing content filtering software sold in China (Chao and Dean, 2009). The ministry has quietly required all computers sold in China to be equipped with the Green Dam software after July 1, 2009 (Chao and Dean, 2009; Chinascope Staff, 2009; Wolchok et al., 2009). Personal computer manufacturers, like Acer Inc. or Lenovo Group, have voluntarily incorporated the software in their personal computers sold in China (Chao et al., 2009).

In response to heated public criticisms, Li Yizhong, The Industry and Information Technology Ministry (MIIT), said the belief that each computer in China must install the Green Dam-Youth Escort software is "a misunderstanding" (Chao and Zhu, 2009) and "not thoughtful enough" (Clark, 2009). On June 30, 2009, Chinese governmental officials announced the postponement of the project (Chao and Dean, 2009). A spokesman from the agency also reassured that the installation is optional to consumers and will not be used collect user data (Chao and Zhu, 2009). Only computers at Internet cafes, schools and other public spaces were required to install the software (Wines, 2009). The announcement to postpone the full-scale installation came even though the software has been downloaded 3.27 million times, installed at 518,000 at about 2279 school, and deployed to more than 53 million personal computers for home use (Faris et al., 2009).

2.2. Internet censorship in China

The Chinese government has placed a stiff control on the Internet since it was first introduced in China in early 1990s (Paltemaa and Vuori, 2009). The rationale behind the government control is justified by "a desire to guide the Chinese people through the easily misused online environment" (Cannici, 2009, p.4). However, the control is often extended to suppress dissidents who voiced viewpoints that the Chinese government perceives politically sensitive and objectionable (Cannici, 2009). Several political dissidents (such as Li Zhi and Shi Tao) have been sentenced to jail time, with the help of US companies, such as Yahoo (Cannici, 2009). For example, Xia (2008) found a list of blacklisted websites after extensive search using Google.com.cn. These sites included *dajiyuan.com*, *kanzhongguo.com*, *voa.gov*, *secretchina.com*, *renminbao.com*, *peacehall.com*, *bbc.co.uk*, *libertytimes.com.tw*, *hrchina.org*, *hrw.org*, *falundafa.org*, and *chinese.faluninfo.net*. These sites included foreign media such as Voice of America (*voa.gov*), BBC (*bbc.co.uk*), pro-Taiwanese independence media (e.g., *libertytimes.com.tw*), or sites sponsored by Falun Gong religious sect (e.g., *falundafa.org*, *chinese.faluninfo.net*, and *dajiyuan.com*).

However, fast economic growth in China in the past decades has fostered a growing segment of citizens that are getting more conscious of their own civil rights. A survey by the Global Communication Association, in collaboration with two local Chinese websites, reported that 94% of survey participants ($N = 1702$) were aware that information available to Chinese is censored and government is implementing censorship or filtering software to better control its citizens to access true and accurate information (Chinascope, 2007). In the 42 question survey, 87.9% of the respondents stated that oversea media has more objective news, touches more core issues, contain more thorough coverage, and different viewpoints (Chinascope, 2007). Over 79% of the participants strongly disagreed with Chinese Internet censorship practices and around 79% of the participants used anti-blocking software everyday (Chinascope, 2007).

There has been constant tension among Chinese government's censorship measures, the roles of foreign Internet technology companies (such as Yahoo, Google, and Cisco System), and the rights of ever-increasing Chinese Internet users. The Internet was conceptualized as a technology in the 60s to evade any potential loss of connectivity among information-delivery nodes and networks (Cannici, 2009; Fallows, 2008; Shyu, 2008). Nevertheless, free and open access to information is perceived by the Chinese government as a threat to a harmonious society. Like many less democratic societies, the Chinese government wants to "reap the tangible benefits of ICTs without having to pay the ultimate political price of system collapse" (Kalathil and Boas, 2003; Hachigian, 2002; Al-Tawil, 2001, cited in Paltemaa and Vuori, 2009, p. 2). Therefore, the censorship measures adopted by the Chinese government often rely on the use of Internet police patrols (an estimate of 30,000–40,000), business license control of Internet café and ISP operators, registration of Internet users' identity, and censor-ware installations at the network and client computer levels (Archie, 2009; Cannici, 2009; Chinascope, 2008). Regardless of the effectiveness of these approaches, the control of Internet contents by the Chinese government touches upon a more fundamental issue: are Chinese citizens allowed accessing all types of information while maintaining the legitimacy of the Chinese Communist government?

2.3. Theoretical framework

The study was developed from Paltemaa and Vuori's (2009) theory on technology that examined the evolution of technology in the Chinese Communist Party's (henceforth, CCP) political control over China. They traced the stance of CCP's views on technology and science as 'revolutionary utilitarianism' that was characterized with "a close connection between basic and applied research in the service of national defence and economic growth" (Neushul and Wang, 2000, p. 62, cited in Paltemaa and Vuori, 2009, p. 8). Paltemaa and Vuori (2009) argued the control of the Internet in China should be interpreted from what China intends to accomplish, namely, social transformation and political security (p. 2).

Contrary to traditional totalitarianism model that theorized the Chinese government will have complete control over the private life of its citizens and maneuver potential changes of social life, the post-totalitarian regime under Deng Xiaoping's and its followers' leadership does not force Chinese citizens to believe in, but rather demand full compliance with, CCP's

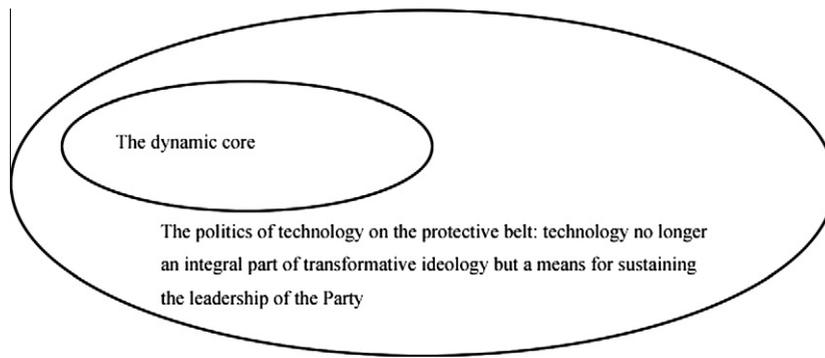


Fig. 1. The Politics of Technology vis-a-vis the Totalitarian structure in a post-totalitarian political order (Paltemaa and Vuori, 2009, p. 7).

political ideology (Paltemaa and Vuori, 2009). To protect the dynamic core that are composed of an absolutist ideology, ideological commitment, and a dictatorial party-state system, methods such as censorship, police oppression, and prison camp are often used in a totalitarian system (Paltemaa and Vuori, 2009). Technology was commonly employed in a post-totalitarian political order to serve similar purposes. Paltemaa and Vuori (2009) observed, “[t]he post-totalitarian order aims at harmony and peace, at the obedience of the subjects within the system, without overt use of coercion” (p. 7).

According to Paltemaa and Vuori’s model (2009), the center of a post-totalitarian political order in China can be conceptualized as integrating technologies as protective belt to deter any challenges of “the dynamic core” by which the existing political system is legitimized and maintained. Consequently, technology policies in the post-totalitarian China have become an important part of the protective belt of the post-totalitarian system as shown in Fig. 1 (Paltemaa and Vuori, 2009). The transformative ideals of the technology are shifted to maintain the exclusionary and unquestionable control of political power by CCP. On the other hand, Chinese citizens are expected to govern and discipline themselves with the implementation of technologies (Paltemaa and Vuori, 2009). As Chung (2007) pointed out, Chinese citizens are often prohibited to raise any political issues and debates online. Censorship technologies and regulations have functioned as mechanisms to ensure full conformity and discipline to control Internet freedom of Internet users in China. However, the failure to connect technology deployment and planning with ideological transformation in a post-totalitarian China has also limited the efficacy of this technology (Paltemaa and Vuori, 2009).

The introduction of the Internet in China is intended for economic developments, as stated in the editorial of Chinese government news agency, Xinhua, “[t]echnological leap frogging supports the tomorrow of the Republic” (Damm, 2007, p. 279). However, official position has also been clearly stated that “technology must not endanger state security” (Paltemaa and Vuori, 2009, p. 13). Although factors leading to and outcomes from the development of the Internet in China are multi-faceted to cover economic, cultural, social, and technological dimensions, this paper argued that surveillance technologies developed and employed by the Chinese government have been used like a “protective belt”, like other technologies, to ensure that CCP is “the exclusive holder of the ultimate political power in China” (Paltemaa and Vuori, 2009, p. 1). The ideological basis of this mechanism was originally intended to facilitate the social transformation after the CCP took power in 1949. Unlike the pessimism as to whether the post-totalitarian political order cannot be challenged in China, the study used the Green Dam project as a case study to examine the effects of increasing civil participation on CCP government’s policy-making in general and Internet policy in particular. The emergence of the Internet has fostered a group of netizens who express their opinions vehemently online. The emergence of public awareness of their civil rights, along with the transformation of Chinese political system into a post-authoritarian regime, has led to greater frictions among different stakeholders to make a seamless and un-challenged control less likely. Consequently, the understanding of the definition, approach, and legitimacy of emerging Internet surveillance in China is essential to the development of surveillance theory of the Internet.

3. Methodology

The study collected discussions and discourses from selected newspapers, websites, and blogs in Mainland China and Hong-Kong, SAR. The selection of a thematic analysis method was because this method is useful for “the explication or assessment of the social, cultural and political dimensions of the media discourse” (Wang, 2008). A thematic analysis method was used to identify recurrent themes (i.e., arguments, points of contention, and concerns) that Chinese citizens have about Chinese government’s Green Dam project. Data collected from the research intended to repetitive and recurrent themes in these discourses about government’s proposal to install the Green Dam censor-ware in every computer in China.

The discourses collected for this study came from Goggle search results on the Chinese keyword, “绿坝 (Green Dam),” that generated related postings written in simplified Chinese only. A total of 750 search results were generated. Excluding results not related to the discussions on the Green Dam project, a total of 128 items were used for the analysis. About 75% of the items were originated from Mainland China, while 25% were from Hong-Kong, SAR. The selections included newspaper and magazine articles and blog postings originated from Mainland China and Hong-Kong, SAR. Because the sample was

clearly limited and not inclusive for a quantitative content analysis approach (Lemish and Barzel, 2000), it was useful to employ a qualitative thematic analytical approach to demonstrate dominant themes in the examination of public and government stances with the Internet censorship project.

4. Findings and discussions

A closer examination of these recurrent themes revealed that these Internet users' discourses produced in responses to government's proposal to install the Green Dam censor-ware project can be broadly categorized into the following themes:

4.1. Theme 1: Questioning the usefulness and safety of the Green Dam censor-ware project

An article from BLMCSS IT and Computing forum (Sample #13) in Hong-Kong, SAR summarized that complaints about the Green Dam installation were erroneous filtering results, slowed Internet connection speed, unrequested password change, involuntary closure of web browser, etc. In another article (Sample #8), the blogger reported that the censor-ware only produced inconsistent filtering results. For example, when typed in sensitive words like "Falun Gong," the browser was shut down and terminated. However, on some other occasions, the filtering software did not work. Also, the filtering of pornographic materials was not successful.

Several postings have indicated that the program is not effective because its flaws and ease of modification ("doable even by an elementary school kid" as one posting shows) (Samples #25, #31, #84, and #103). For example, one blogger indicated that the Green Dam's image filtering mechanism "blocked a picture of a piggy, but not that of a fully naked African woman". Article #32 noted images such as Garfield and Hello Kitty were also filtered because the Green Dam software also censored images showing a large area of yellow color and similar posture. Another posting (Sample #2) indicated that the Green Dam only worked in Microsoft systems, not those of Mac or Linux. Also, the filtering software is only effective when browsing Internet contents using Internet Explorer browser. Citing a researcher from Harvard's Berkman Center, one posting found that communications between client-end filtering software and Jinhui's servers are encrypted and likely to cause a large-scale disaster (Sample #2). Minor technical problems have also been identified by many Chinese Internet users testing the censor-ware. For example, one article (Sample #36) criticized that the software is not capable of converting from simplified to traditional Chinese characters.

These explanations of the defects and flaws of Green Dam have been concurred by Wolchok et al. (2009), Faris et al. (2009), and many media outlets. For example, Wolchok et al. (2009) comprehensive assessment pointed out there are at least two major security vulnerabilities: web filtering vulnerability and blacklist update vulnerability. Faris et al. (2009) also pointed out similar inconsistent filtering functionality.

4.2. Theme 2: Protecting rights of individual Internet users

A news article (June 24, 2009) (Sample #19) from the Hong-Kong based *Mingpao* has criticized the Chinese government's plan to install the Green Dam software as an attempt to "use government power to evade individual privacy"... "the software records and produces an Internet log files to record and monitor individual Internet usage behaviors" (Sample #85)... "the plan is solely used to mis-inform and blind China's netizens". Several blog postings have repeatedly shown that Chinese netizens are aware of the goals of Green Dam in terms of filtering undesirable political information and distrust government's rhetoric (Samples #45, #49, and #83). These discussions were in line with the quantitative survey that showed 94% of the Chinese Internet users were aware of government's censorship of information in China (Chinastop, 2007). It also demonstrated that, while the Chinese government has employed various actions and methods to control the Internet, Chinese Internet users are capable of circumventing existing filtering mechanisms and accessing non-government censored information in a post-totalitarian China.

Dissident newspapers such as *Remingbao* (i.e., *People's News*) have quoted foreign media (such as BBC or *New York Times*) to reveal the intentions of the Green Dam project are to address the lack of control on client's computers that current network-based filtering mechanism is missing. By installing the Green Dam censor-ware inside the Internet users' computer, the Chinese government is capable of controlling what contents are available to users in a more effective way. Nevertheless, this policy has been perceived as violation of individual privacy among many Chinese Internet users (Sample #55). For example, when using the Green Dam censor-ware, Internet user's computer will obtain updated blacklisted/filtered sites or words by communicating with an embedded site, <http://www.zzjinhui.com/softpatch/> (Sample #55). Faris et al. (2009) also identified similar government control over Internet users' overall experiences online. Furthermore, by initiating the execution of *xnet2.exe*, client's computers will communicate with two remote sites with the following Internet protocol addresses: 211.161.1.134 and 203.171.236.231 (Sample #55). These communications created security concerns among many Internet users in China. Another article (Sample #66) discussed the impacts of Green Dam on filtering contents that aimed to helping homosexual minorities in China. Consequently, disadvantaged homosexual minorities in China were blocked from accessing any websites that provide medical and psychological consultation.

The discussions above clearly demonstrated the politics of Internet technology in a post-totalitarian China. Although the Internet has been widely promoted by the Chinese government to create economic developments, the government has, at

the same time, “employed remarkable efforts to constrain and control the use of this communication technology” (Paltemaa and Vuori, 2009, pp. 13–14). The constant tension between the protective belt function (as intended by the Chinese government) and the liberating/emancipating function (as desired by the Internet users in China) of the Internet has led to the several emerged themes; namely, if the Chinese government has made an effective and feasible policy decision with the full participation of its citizens (Themes #3, #4, and #5).

Interestingly, in a post-totalitarian China, criticisms of government’s policies were allowed to some extent whether they appeared in government-controlled media or less-regulated computer bulletin boards or blogs on the Internet. These heated discussions were likely to give an impression that freedom of speeches is common in China. However, Paltemaa and Vuori (2009) argued, because technology was used as a protective belt of the dynamic core to maintain CCP’s legitimacy in China, tolerating criticisms of Green Dam did not mean that the CCP has given up its intention to control flow of information on the Internet, but rather an alternative technology may be used to replace the defective Green Dam censor-ware. Furthermore, as long as the criticisms of the Green Dam project have been restricted to the censor-ware itself without challenging the essence of democratic policy-making process and the dominant political control exerted by the CCP government in China, these will be tolerated. Paltemaa and Vuori (2009) succinctly concluded, “[t]he post-totalitarian political order no longer actively controls everything it can; it is sufficient to control what is necessary for the perpetuation of the system” (p. 7).

4.3. Theme 3: Criticizing government in-competence

Unlike newspaper articles, blog postings and netizens’ responses/criticisms addressed the price tag of purchasing Green Dam from a private company that was said to have a higher level government relationship (*guan xi*) with top provincial officials (Samples #28, #51, #60, and #101). The granting of the government contract, however, was reported to undergo a public bidding in May 2009 (Yuan, 2009). The article from Hong-Kong, SAR (Sample #13) questioned Chinese government’s in-competence in purchasing a “junk (useless) software” at the expenditure of 40 million *yuan*s of tax-payers’ money. The same criticism about government waste and corruption was found in other blog postings (Samples #5, #8, and #14). Some articles have pointed out the role of corrupted government officials in the procurement of the software program. One comment (Sample #22) criticized that money must be involved in making this decision to procure Green Dam. One response (Sample #101) proposed an alternative policy, stating that the government should make use of the 40 millions to build schools for children suffering from the earthquake in Sichuan Province.

In addition to criticizing the lack of transparency in government’s policy-making process to implement and acquire Green Dam without involving the public, many articles in the sample raised the question about whether the censor-ware program was a stolen intellectual property from an US software company, Solid Oak Software. The company claimed that the Green Dam’s program codes were stolen from its other filtering software programs (Samples #51, #74, #80, and #84). The core program code (*XFlmage.xml*) of Green Dam was found to duplicate from Open CV’s *haarcascade_frontalface_alt2.xml* (Sample #80). Problems like these have plagued the credibility of the project among many Internet users in China.

4.4. Theme 4: Criticizing government’s totalitarian control over Internet contents

The Internet has provided an arena that enables Chinese Internet users to voice their dissents. This was particularly demonstrated among Internet postings and media articles originated from Hong-Kong SAR, a special administrative region after China took over the territory from UK in 1997 and promised no changes for 50 years. Several Internet postings (Samples #10, #33, #36, and #44) vehemently criticized the Chinese government that this type of information control is like “another aborted Cultural Revolution”, “Internet Cultural Revolution”. “Going back to the Ching Dynasty in the 19th century” and “China is not likely to become an information center because of this project”. One article from the *Phoenix Weekly* addresses the lack of legitimacy in planning this project (Sample #1). This article by Liu (Sample #1) analyzed the totalitarian nature of implementing the censor-ware and its lack of moral justification to treat Chinese Internet users as ignorant people who lacks of self-discipline.

Articles published as editorials in Chinese newspapers, on the other hand, have used less critical words of government’s decision to implement Green Dam. They often chose less politically sensitive words such as “not acting as people’s parents” or “parental love” (Samples #59, 63, and #70). These articles often began with supporting government’s justifications to implement the Green Dam censor-ware to protect minors from pornography and other harmful contents. They stated that government’s good intention to protect minors is not necessary and should be left to parents to make their own decision. For example, in Article #63, the author advised the government should give up “national parental love” in making decision for people. Instead, Chinese people should be the one to determine what they need after several decades of economic developments in China.

In spite of the relentless government control of Chinese mass media, increasingly, discourses in these media (including news articles and editorials) have demonstrated criticisms of government’s policies. This situation is partially attributed to the emergence of free media market in China, which has transformed the mentality of media managers is oriented to meet market or consumer needs. This is particularly noteworthy among many media outlets in the southern part of China, where is geographically distant from Beijing in the political north. For example, *Southern Weekly News* (www.infzm.com) is renowned among Chinese readers for its liberal points of views. Moreover, increasingly free flow of information on the Internet has continued to challenge the government-controlled information in China. The combination of post-Mao political order

shift and greater emphasis on economic developments has posed dilemma in terms of CCP's technology policy-making process and civil participation, as demonstrated in the case of Green Dam. Derived from [Paltemaa and Vuori \(2009\)](#) observations on post-totalitarian political order, the main objectives of the technologies and technology policies are to maintain "the unquestionable and exclusionary hold on political power" (p. 7). However, because technologies and technology policies have become "part of the protective belt of the post-totalitarian system" and only "pay lip service to the original transformative ideals of the order" ([Paltemaa and Vuori, 2009, p. 7](#)), challenges to the Green Dam project are allowed.

4.5. Theme 5: In search of full civic participation in the Internet policy-making process

The article (Sample #13) quoted comments from an expert in policy research in China, saying "It is my individual decision whether to lock my door or not". In the same article (Sample #13), experts have demanded public hearings before promoting the installation of Green Dam. One of the blogs (Sample #39) and newspaper articles (Sample #40) particularly pinpointed the awkward situation of spending tax-payers' money to install a software program to monitor their own online behavior. If an Internet user can choose to un-install the Green Dam from their computers, this led to thousands of dollar loss in national treasury. One article (Sample #107) has criticized that the government should take into consideration the public opinions in making this decision.

Chinese intellectuals and legal professionals had also filed complaints to the State Council and Anti-Trust Commission, claiming MIIT violated anti-trust laws in forcing the Green Dam upon Chinese Internet users (Samples #41 and #82). Demanding a legal and transparent process in promoting this censor-ware project was also found in another blog (Sample #42). One article (Sample #128) stated that government officials need to change their mentality to service the public. Some articles were found on Google's search results, but the contents have been removed (Sample #100). For example, two university professors specialized in media laws have questioned whether the government's Green Dam project violated Chinese laws and regulations governing consumer protection, anti-trust, anti-competitive behavior, and contractual practices in the marketplace. They further questioned the legality and process of selecting blacklisted words or sites as embedded in the program (Sample #82). They raised concerns if the protection of minors can only be done by impacting on the rights of other adults (Sample #82).

Among many discussions of the Green Dam project, Chinese Internet users have voluntarily translated foreign media sources (such as those from *Voice of America*, *BBC*, and *the Wall Street Journal*) to refute government's claims on the intentions of the project. A Chinese version of [Wolchok et al. \(2009\)](#) report on the Green Dam's technical problems and limitations can be found online, which supported many Internet users' criticisms of government's in-competence and corruption claims. Many Internet users in China have indicated that they were fully aware of the political ramifications behind this project and vehemently challenged whether the Chinese government has the rights to control the daily life of Chinese people. Through the sharing and commenting of these non-government information, some Chinese Internet users touched on a fundamental issue in Chinese politics; that is, the lack of check-and-balance in the political decision-making process in China. Several bloggers or writers whose articles were published in Hong-Kong's media have criticized the totalitarian control of Chinese government and demanded more civic participation in the policy-making process.

The Internet has posed both as an economic booster and a threat to the stability of Chinese Communist regime and the harmony of Chinese society. In several cases that involved high profile incidents, sharp criticisms by a few Internet users were spread through millions of Chinese Internet users at a short period of time. An article from *China Youth Daily* (2009, cited in [Sound of Hope, 2009](#)) observed that Chinese Internet users have shown their political influence in government decision-process in 2009. Chinese government had to modify its policies or address public outcry on several occasions. One newspaper article (2009, cited in [Sound of Hope, 2009](#)) observed that Chinese society is "on the brink of collapsing, rebellion, and oppression". The Green Dam censor-ware project can be viewed as government's response to the role that the Internet has played in challenging the dynamic core of Chinese society ([Fig. 1](#)); that is, to maintain peace and harmony through legitimizing CCP government in China. From the discussions above, it seems that "the promiscuity method" (to use [Cherian George's](#) term, cited in [Paltemaa and Vuori, 2009, p. 14](#)) of controlling the Internet and its users has faced ever-increasing challenges in a post-totalitarian China. The employment of surveillance technologies, regulatory regimes, and human Internet police has proven less effective and successful with rising awareness of civil rights.

4.6. Theme 6: Shaping Internet users' support of government's policy

Government-controlled mass media in China, on the other hand, have shown strong support of government decisions, by reciting government's justifications, stating that Green Dam is capable of protecting youths and minors from harmful Internet contents (Samples #53, #90, #92, and #109). Often, these articles intended to display that Chinese citizens are fully supportive of Green Dam. For example, an article published in *Science and Technology Daily*, described anxious parents lined up to ask about the Green Dam software. They were eagerly demanding the installation of the software to protect their children and control their undesirable Internet usage behaviors (Sample #92). For example, an article published in the government-controlled Xinhua net (Sample #53) has explained why Chinese citizens should support the national installation of Green Dam that was said to protect minors and teenagers from pornography on the Internet.

On the other hand, there were far more Internet users posted articles that demonstrated a high level distrust of arguments made by Chinese government-controlled media and apparatus (Samples #38 and #80). For example, one article (Sample

#38) revealed that the Publicity Department of the CCP's Central Committee, a regulatory regime to control mass media in China, has issued notices to all media organizations to avoid publishing articles or comments criticizing Green Dam. Instead, media were expected to promote the positive effects of this government-sponsored censor-ware project. Media organizations were also required to closely monitor any comments posted on their websites. Criticisms should be removed immediately. Other articles (e.g., Sample #80) have also raised questions about the role of the Publicity Department. Several articles have actually been removed from Google's search results when they touched on issues that the Chinese government believed to be politically sensitive (Samples #100 and #111).

These postings and discussions clearly confirmed the intense dynamics among government regulatory agencies, reactions from over 300 million Internet users, the Internet technology, and the technology policy-making process in China. While technology is no longer functioning as an integral part of transforming Chinese society (like in Mao's totalitarian era), technology (like the Internet) is expected to serve as "a protective belt" (Paltemaa and Vuori, 2009, p. 7) to sustain the legitimacy of CCP regime to providing economic prosperity, peace, and harmony. However, the government's objectives sometimes were in direct conflict with the rights of many Chinese Internet users. In a post-totalitarian China where ideology is now replaced by economic development, coercion of its citizen's obedience is now done in a less overt manner. To promote Green Dam, the government and its apparatus have used justifications like protecting minors and youths from pornographic and harmful contents and images on the Internet. Nevertheless, tests of the software functions have revealed that the censor-ware mainly filtered politically sensitive words, phrases, or websites (like Falun Gong and foreign media). Some tests have further shown the Green Dam project has failed to filter contents successfully (Faris et al., 2009; Wolchok et al., 2009). Furthermore, the parental-control function of the program was also found to be inadequate due to numerous technical problems before and after installation (Faris et al., 2009). These widely-circulated arguments easily available on the Internet have discredited government's claims about the needs and benefits of Green Dam. Viewing from this perspective, the Green Dam project was conceptualized and employed as a protective belt of the regime, but justified as a software program to protect youths and minors. Nevertheless, heated discussions about the strengths and weaknesses of the censor-ware have unrevealed problems underneath its deployment.

5. Conclusions

Presently, China has implemented multi-leveled regulatory regime and mechanisms to control the Internet (Cannici, 2009). These have involved high-tech filtering mechanisms, business licensing of Internet café operators, Internet policemen, and severe punishments for those violate government laws (Cannici, 2009). Nevertheless, without some lofty objectives in government's promotions of the Green Dam project, many Internet users have voiced their criticisms about the implementation of this censor-ware in their home computers to monitor their Internet usage activities (Yuan, 2009). Their oppositions grew stronger when articles on the corruption of government procurement process, the lack of effective filtering functionality of pornographic contents, and security risks embedded in the poorly-designed program. Although Green Dam was planned as a client/end-user monitoring software to deal with the ineffectiveness of the *Golden Shield's* network-level filtering mechanism, many Chinese Internet users have openly criticized the project infringed on individual rights of privacy (Yuan, 2009). As such, government's legitimacy to deploy this technology cannot sustain mounting public criticisms.

The aborted Green Dam censor-ware project presented a major case to demonstrate the emerging civic participation in affecting the Internet policy-making process in China. The discourses collected from both government-controlled media, less-regulated Internet bloggers, and articles have been summarized observations above. Decades of rapid economic development and fast deployment of Internet technology have led to mounting tensions among a variety of strata in the Chinese society. There are growing restlessness in China as a result of growing income gap, corrupt government officials, and lack of human rights and check-and-balance in the political system (The Economist Intelligence Unit Limited, 2009). As a result, China's Premier, Jing-Tao Hu, has emphasized "A Harmonious Society" in recent years. Escalating dis-harmony has also found in the collision of values when China enters the world (Einhorn et al., 2010; Hamilton et al., 2009). In early 2010, Google decided to withdraw from China, complaining China's cyber-spying and Internet censorship practices (McGregor, 2010; Neuharth, 2010).

Interestingly, intense public discussions of the Green Dam project, on the contrary, led to rising civic participation in criticizing the lack of transparency in the policy-making process in China. Ironically, the aborted deployment of Green Dam as "a protective belt" of the Chinese government to monitor its citizens have turned out to be a circumstance that enables many Internet users to scrutinize problems in the political decision-making and civic participation in China. In recent years, public policy researchers in China have noted that the increasingly important role that Internet users play in shaping Chinese public opinions and policy-making process (Chang, 2009; Liu, 2009; Lu, 2006).

It is apparent that the postponement of this large-scale censorship project by the Chinese government is an apparent example of how emerging net-based civil society has affected Chinese politics. As one well-known Chinese Internet researcher at Harvard University's Berkman Center for Internet and Society pointed out that the rhetoric of postponing Green Dam is a face-saving strategy for the Chinese government because the plan "has lost legitimacy" (Issac Mao, cited in Chao and Dean, 2009, p. A. 10).

The recurring themes identified above have exhibited an emerging civil society in China and further shows the enduring government control over mass media and Internet in discouraging the possibility of public discussions of government policy. While technologies like the Internet have functioned as a "protective belt" (Paltemaa and Vuori, 2009) to the CCP's monopoly of power, the post-Tiananmen Chinese government and its integration into the global economy has shown some signs of

policy-making changes in response to growing netizen society in China. The resistance rhetoric as voiced by many Internet users and organization of disobedience by Chinese Internet users are likely to play an important role in shaping how the Internet technology will be used in China.

5.1. Limitations

Admittedly, there could be a huge number of factors leading to the comprehensiveness and interpretation of these discourses. First, one major problem for this research was the availability of Internet articles, postings, and comments that the researcher began to collect around December 2009. Many discourses may have been deleted and removed from the Chinese websites, due to government's censorship measures that were conducted daily. For example, the website to protest against the Green Dam-Youth Escort software was terminated and no discussion discourses can be retrieved (<http://www.lssw365.org/index.php?page=14>). Moreover, CCP's Publicity Department has been said to request all Internet operators and mass media to suppress the discussions and criticisms of Green Dam project. Subsequently, any postings against this government-initiated plan usually were removed shortly, while pro-government discourses were left untouched. This creates a problem of sampling representative discourses for analysis. Secondly, the extent of Chinese Internet users' protests against the Green Dam cannot be accurately observed by merely examining the discourses produced and available online. There were recruitment articles, reporting that Chinese activists physically "demonstrated" in Beijing to protest against the Green Dam project (Sample \$100). Finally, the awareness of the public cannot be solely attributed to the Internet discourses as reported in this study. It is likely that the Internet acted as a facilitator and worked closely with the mass media and Chinese citizens' face-to-face interactions. All of these exerted pressure on the Chinese government to reconsider the feasibility and ramifications of the Green Dam censor-ware project because the Chinese top officials have been placed so much emphasis on maintaining a harmonious society in China. Finally, decisions and ramifications of technology adoption should be attributed multi-faceted factors. The present study is limited to examine the politics of technology and technology policy-making in China.

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