

How Snowden's Revelations Have Influenced Youngsters' Attitude and Behaviour in The People's Republic of China and Taiwan

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Abstract

Purpose – This study investigates how Snowden's revelations are viewed by young people in the PRC and Taiwan through questionnaire surveys of and follow-up interviews with university students in the respective countries, taking the histories and current status of state surveillance in these countries and the current complicated and delicate cross-strait relationships into account.

Design/methodology/approach – Questionnaire surveys of 315 PRC and 111 Taiwanese university students (the majority studying in those places but a few studying abroad), and semi-structured follow-up interviews with sixteen master's course students from the PRC and one from Taiwan (all studying at Meiji University in Japan) were conducted, in addition to reviews of the literature on privacy and state surveillance in the PRC and Taiwan. The outcomes of the survey were statistically analysed and qualitative analyses of the interview results were also performed.

Findings – Youngsters living in the PRC had greater interest in and more knowledge about Snowden's revelations than those in Taiwan, and the revelations were positively evaluated in both countries as serving the public interest. However, PRC students indicated they were less likely to emulate Snowden than those from Taiwan.

Originality/value – This study is the first attempt to investigate the social impact of Snowden's revelations on PRC and Taiwanese youngsters' attitudes toward privacy and state surveillance as part of cross-cultural analyses between eight countries.

Keywords Edward Snowden, privacy, state surveillance, social impact, the PRC, Taiwan

Paper type Research paper

1. Introduction

In June 2013, The Guardian in the UK and The Washington Post in the US began publishing internal electronic documents from the US' signals intelligence (SIGINT) organisation the National Security Agency (NSA), provided to them by Edward Snowden who had obtained the documents while employed as a systems administrator at the NSA for contractor Booz Allen Hamilton. As they have done previously, the NSA and other parts of the US government generally will not confirm or deny the validity of the documents, however on 21st June 2013, the US Department of Justice charged Snowden with violating the Espionage Act. The activities detailed in the documents included activity undertaken by the NSA and its main SIGINT partner the UK's Government Communications Headquarters (GCHQ), and with the SIGINT agencies of three former British colonies (Canada, Australia and New Zealand), as well as joint activities with similar agencies in other countries such as Germany's Bundesnachrichtendienst (BND).

In 2014, the Pew Research Center (Madden, 2014) undertook the first of a number of surveys of US citizens' attitudes to Snowden and the documents he revealed. In particular, they asked questions such as whether respondents believed that Snowden's revelations had served or harmed the public good, whether Snowden should be prosecuted or not. Inspired by these surveys, a group of academics at Meiji University in Tokyo developed a pilot survey deployed in Japan and Spain using students as the primary research population (for reasons of resource constraints) and conducted follow-up interviews. The results of this pilot survey are presented in Murata, Adams and Lara Palma (2017). Having revised the survey after analysis it was deployed with the cooperation of local academics in Mexico, New Zealand, Spain and Sweden (in English), and in translation in Japan and Germany. With the aid of graduate students studying in Tokyo, it was also translated into Chinese and deployed in Taiwan (using traditional Chinese characters) and the People's Republic of China (using simplified Chinese characters). The choice of countries was a combination of deliberation and pragmatism. The following countries had suitable resources available: New Zealand was chosen as a Five Eyes member; Germany, Spain and Sweden provide an EU perspective; Mexico provides a US neighbouring perspective as well as a Spanish-influenced culture outside Spain; and Japan, China and Taiwan provide a South East Asian viewpoint. This paper presents the results of the survey in the People's Republic of China (PRC) and the Republic of China (Taiwan).

Analysis of the survey and interview results has been done with reference to the histories of state surveillance in both places and the current complicated and delicate cross-strait relationships (the island of Taiwan is separated from mainland PRC territory by an area of sea called the Straits of Taiwan, and PRC-Taiwan relations are usually referred to as "cross-strait" in English-language press and government reports from/about the region).

1.1 Roadmap

This paper focusses on the local content of Snowden's revelations in the rest of this introduction section. In Section 2 an overview is given of the general cultural and historical context of

government surveillance. Section 3 gives an overview of the survey and of respondent's demographic information, while section 4 provides the detailed survey results. Section 5 presents the political and cultural impacts of Snowden as perceived by the authors, while the final section gives some conclusions and identifies avenues for future research.

1.2 Snowden's Revelations and China

On 13th June 2013, eight days after Edward Snowden's first revelations appeared, the South China Morning Post published an article including Snowden's claims that the Prism Programme included people and institutions in the Hong Kong Special Administrative Region (HKSAR) and the PRC and that the NSA had been hacking into computers in the HKSAR and on the mainland since 2009 (Lam, 2013). The US government had previously strongly criticised the PRC for conducting hacking attacks and surveillance outside the PRC's borders (McGreal and Johnson, 2010). Subsequent revelations made by Snowden included the NSA's spying on PRC companies including Huawei, the world's second largest supplier of networking equipment (Shieber, 2014) and the deployment of undercover NSA operatives in global communications companies based in the PRC (as well as Germany, Korea and even America) to gain access to their data flowing through their systems (Maass and Poitras, 2014). These aroused or fuelled suspicions about the NSA's involvement in industrial as well as political espionage.

Schiavenza (2013) claimed that Snowden's presence in Hong Kong when his revelations started appearing benefitted "China, a country whose record on issues like state surveillance seems to contradict the very principles Snowden supports." Snowden said "People who think I made a mistake in picking Hong Kong as a location misunderstand my intentions. I am not here to hide from justice, I am here to reveal criminality" and "The reality is that I have acted at great personal risk to help the public of the world, regardless of whether that public is American, European, or Asian" (Lam, 2013). Schiavenza (2013) also noted that "According to a poll, China's population opposes Snowden's extradition by a significant margin, and the American has emerged as something of a folk hero in the country". The attitudes of young people in the PRC and Taiwan are of strong interest, too, given that the PRC is now the world's second largest economy, and Taiwan and the US are strong military and economic allies. Despite increasing economic ties between the PRC and Taiwan, the political status of Taiwan as an independent country or a rebel-held province remains contentious in both countries, making the attitudes of their youth to current international politics important.

2. State Surveillance in Communist and Nascent Democratic China

2.1 State Surveillance in the PRC

Since December 1987 when Deng Xiaoping's administration adopted the so-called "reform and opening-up" policies, the government of the PRC has attempted to replace much of its planned

economy with a market economy but to hold on firmly to their single-party political system. In the early 21st century, thanks partly to their entry into the World Trade Organisation, the PRC has become the “workshop of the world”, having raised its share of worldwide manufacturing output from 3% in 1990 to 25% in 2015 (The Economist, 2015) including dominant positions in certain markets (80% of air conditioners, 70% of mobile phones and 60% of shoes). This growth in manufacturing output has also produced rapid growth in its domestic market (though with recent reductions in the rate of growth). On the other hand, uneven levels of economic development have led to serious internal economic disparities between urban and rural residents and between the Han Chinese (who comprise 92% of the total population of the PRC) and ethnic minorities. In addition, this rapid economic growth without political and legal reforms and the rule of man, not rule of law, (or “rule by law” instead of “rule of law” as Li put it (English translation in Tamanaha, 2004, p. 3)) have aggravated the PRC’s “traditional” corruption among bureaucrats (He, 2013, pp. 105-120). Whether due to a reduced rate of economic growth (He quoted in Dreyer (2015, p. 366)) and/or due to economic growth and change (Wu, 2015), the PRC faces significant political unrest.

To repress domestic resentment and suppress pro-democracy and dissident movements, especially in Hong Kong, and national liberation or separatist movements in Taiwan, Tibet and the Xinjiang Uighur Autonomous Region, mass state surveillance systems have been created and are operated mainly by the Ministry of State Security and the Ministry of Public Security (Kashihara, 2013, pp. 32-69; p. 181). Reflecting the historic fact that religious bodies have played a key role in previous dynastic collapses in China, participants in (learners of) the Falun Gong have also been subject to state surveillance and suppression (Li, 2015, pp. 59-68).

The widespread use of the Internet in the PRC in recent years has added a new dimension to internal state surveillance. The PRC government began broad operation of their Internet monitoring and censorship systems known as the Great Firewall of China (Walton, 2001; Kashihara, 2013, pp. 67-69) in 2003. It is alleged that two million government agents constantly monitor the Internet in the PRC. However, online services like Weibo have been used to identify, shame and attack corrupt officials (using the “human flesh search engine” model) demonstrating the power of the Internet to also function as a weapon of the weak (Ako, 2014, pp. 186-208; Kashihara, 2013, pp. 65-67). In July 2006, Amnesty International UK (2006) reported that Yahoo!, Microsoft and Google all cooperated with PRC government Internet censorship, although Google subsequently withdrew its PRC-based operations in 2010 (Carlson, 2010). The suppression of freedom of expression and information in the PRC had been regularly criticised by the US government (for example Clinton (2010)).

2.2 State Surveillance in Taiwan

After losing the Chinese Civil War, the Kuomintang announced their relocation from Mainland China to Taiwan on 7th December 1949. They maintained a single-party regime there for 38 years, claiming that they were the legitimate government of a unitary China. This was based on an executive order “Temporary Provisions Effective during the Period of Communist Rebellion”, which superseded the Constitution, in May 1948, and on the subsequent introduction of martial law in May 1949. Military assistance from the US in the wake of the Korean War, which broke out in June 1950, stabilised the Kuomintang Party centring on Chiang Kai-shek and his son Chiang Ching-kuo as the Taiwanese government and holder of China's UN Security Council seat until 1971. To maintain their political grip, the Kuomintang government set up a National Security Council and an associated executive agency, the National Security Bureau (NSB), in February 1967. The NSB threw its mantle over police and secret security and intelligence agencies and kept a close watch on all Taiwanese political activities in the name of national security, as indicated by its nickname of Taiwan’s KGB or TKGB (Ito, 1993, pp. 163-186).

The Ministry of National Defense has two secret service agencies: the Military Intelligence Bureau and the Communications Development Office. The former collects military and strategic intelligence in person (human intelligence or HUMINT). The latter dedicates themselves to communication interception (signals intelligence or SIGINT) activities targetting the Chinese People’s Liberation Army and the Chinese People’s Armed Police Force using equipment (and probably expertise in its operation) provided by the US, with collected intelligence provided to its US counterpart(s) on request. The Taiwan Relations Act, an act of the US Congress enacted in April 1979 which is the basis of Taiwan’s effective military alliance with the US, enables such cooperative ties. Internally, though, the Taiwanese Ministry of Justice's Investigation Bureau is responsible for counter intelligence activities.

In September 1986, the Democratic Progressive Party (DPP) was illicitly formed but eventually the Kuomintang accepted it as a legitimate opposition party, leading to the end of the single-party regime and the beginning of democratisation in Taiwan. Martial law was ended in July 1987 by a presidential order issued by Chiang Ching-kuo. The Temporary Provisions Effective during the Period of Communist Rebellion order was abrogated in May 1991 under President Lee Teng-hui, who took the presidency in January 1988 and pressed on with peaceful democratization. Massive economic growth centred on the export industry since the 1960s had already pushed Taiwan into a position of economic power in Asia (Ito, 1993, pp. 207-218; Ijiri, 2013, pp. 9-33). However, Taiwan’s increased economic dependence on the PRC especially since the conclusion of the Economic Cooperation Framework Agreement with the PRC in June 2010 has made the Taiwanese government’s steering of the cross-strait relationships more difficult.

3. Overview of the Surveys

The questionnaire surveys of PRC and Taiwanese students were conducted using online questionnaire websites in December and October 2014, respectively. 315 (of 324) valid responses were received from PRC students (the majority studying at PRC universities and a few studying abroad: Japan (11), Hong Kong (1), the UK (4) and Australia (1)) and 111 responses from Taiwanese students (the majority studying at Taiwanese universities and a few studying abroad: Japan (9), the PRC (2), Hong Kong (2), Australia (1) and New Zealand (1)). The questionnaires for these countries were developed in collaboration with seven PRC and one Taiwanese master's course students at the Graduate School of Commerce, Meiji University. The male-female ratio and the age distribution of the respondents in the PRC and Taiwan are shown in Tables 1 and 2, respectively.

Table 1. Attributes of PRC Respondents (number (%))

Gender	Male				Female			
	100 (31.7%)				215 (68.3%)			
Age	18	19	20	21	22	23	24	25+
	34 (10.8%)	29 (9.2%)	35 (11.1%)	33 (10.5%)	37 (11.7%)	23 (7.3%)	28 (8.9%)	96 (30.5%)

Table 2. Attributes of Taiwanese Respondents (number (%))

Gender	Male				Female			
	45 (40.5%)				66 (59.5%)			
Age	18	19	20	21	22	23	24	25+
	1 (0.9%)	0 (0.0%)	9 (8.1%)	6 (5.4%)	9 (8.1%)	3 (2.7%)	35 (31.5%)	48 (43.2%)

The respondents based in the PRC and Taiwan were recruited for their participation in the survey through personal connections with students from those countries studying at Meiji University. As part of the follow-up research to the analysis of the survey results, eight master's course students from the PRC studying at Meiji University who were not part of the respondent cohort were also interviewed in person in July 2015. Seven of them had previously heard about Snowden's revelations. Among another nine master's course students (eight from the PRC and one from Taiwan) who were part of the respondent cohort, two from the PRC answered follow-up questions in person and other six by email, also in July 2015.

3.1 Analytical Approaches

Much of the data from the surveys consists of Likert Scale responses, usually on a four option scale. For all such questions, respondents could skip any question they did not wish to answer, either giving an explicit “I do not wish to answer this question” response, or by simply not selecting an answer. For those questions requesting an evaluation or opinion in response, a “no opinion” box was also shown separately (to the right hand side of the “opinion-exposing” answers to avoid the well-known problem of median answers). The answers varied depending on the question, including zero-to-positive indications from “none” to “a lot” or negative/positive evaluations “disagree a lot” through to “agree a lot”.

These likert scale responses are then analysed using continuous statistical approaches to answer questions about their relationship to respondents' attributes or other answers. While not a universally accepted approach (Kuzon, Urbancheck and McGabe, 1996) it is quite common and if done appropriately is accepted by many as a robust approach (Labowitz, 1967; Norman, 2010). In particular the use of likert scale responses in this paper are primarily used for explanatory purposes and to show relationships between attributes/responses, and are not used as numerical input data for further analyses.

The following abbreviations for statistical terms are used in presenting quantitative analyses: SD: Standard Deviation; M: Mean; SE: Standard Error; D: (average) Difference; CI: Confidence Interval; t: t-test result.

4. Survey Results and Discussions

4.1 Circumstances surrounding Snowden’s Revelations

4.1.1 Attitudes towards Privacy

The results of the survey demonstrated that both PRC and Taiwanese respondents were aware of the importance of their right to privacy (Q10). As shown in Table 3, 94.1% of PRC respondents (255 of 271) and 97.2% of Taiwanese (103 of 106) considered their right to privacy was “very important” (55.0% in the PRC; 50.0% in Taiwan) or “important” (39.1%; 47.2%). Also, the majority of respondents claimed to have good understanding of the right to privacy in the both countries (Q13). In Taiwan, more than eight out of ten respondents (81.2%; 82 of 101) answered that they understood it well (“understand very well”: 8.9% (9 of 101); “understand”: 72.3% (73 of 101)), while for respondents from the PRC 64.4% (163 of 253) claimed good understanding (“understand very well”: 5.9% (15 of 253); “understand”: 58.5% (148 of 253)). However, in follow-up interviews, many said that they had not learned about the right to privacy at schools, while others pointed out that they had little awareness of privacy because they were kept under Internet surveillance by the state in the PRC (except in Hong Kong).

After transforming these four point scale responses to Q10 and Q13 into two categories (Table 4), a

Chi-squared test was conducted to examine the relationship between the perceived importance of and the level of understanding of the right to privacy in the PRC. The result of the test indicated there was a statistically significant positive relationship between these two variables in the country (Chi-squared (1) = 15.549, $p < .01$; Phi coefficient = .248, $p < .01$). This means that those PRC respondents who felt that the right to privacy was important tended to claim a good understanding of the right and vice versa. Unfortunately, in terms of Taiwanese responses to Q10, the sample size was too small and unbalanced to perform a useful Chi-squared test, as shown in Table 3.

Table 3. Awareness and Understanding of the Right to Privacy

	Q10. Is your right to privacy important?		Q13. How well do you understand what the right to privacy is?	
Answer	Frequency (%)		Frequency (%)	
	PRC	Taiwan	PRC	Taiwan
Very Important	149 (55.0%)	53 (50.0%)	15 (5.9%)	9 (8.9%)
Important	106 (39.1%)	50 (47.2%)	148 (58.5%)	73 (72.3%)
Not So Important	15 (5.5%)	3 (2.8%)	89 (35.2%)	18 (17.8%)
Not Important At All	1 (0.4%)	0 (0.0%)	1 (0.4%)	1 (1.0%)
Total	271	106	253	101

Table 4: Crosstab of Responses to Q10 and Q13 in the PRC

		Q13. How well do you understand what the right privacy is?		
		“Understand very well” or “Understand”	“Hardly understand” or “Not understand at all”	Total
Q10. Is your right to privacy important?	“Very important” or “Important”	160	77	237
	“Not so important” or “Not important at all”	3	13	16
	Total	163	90	253

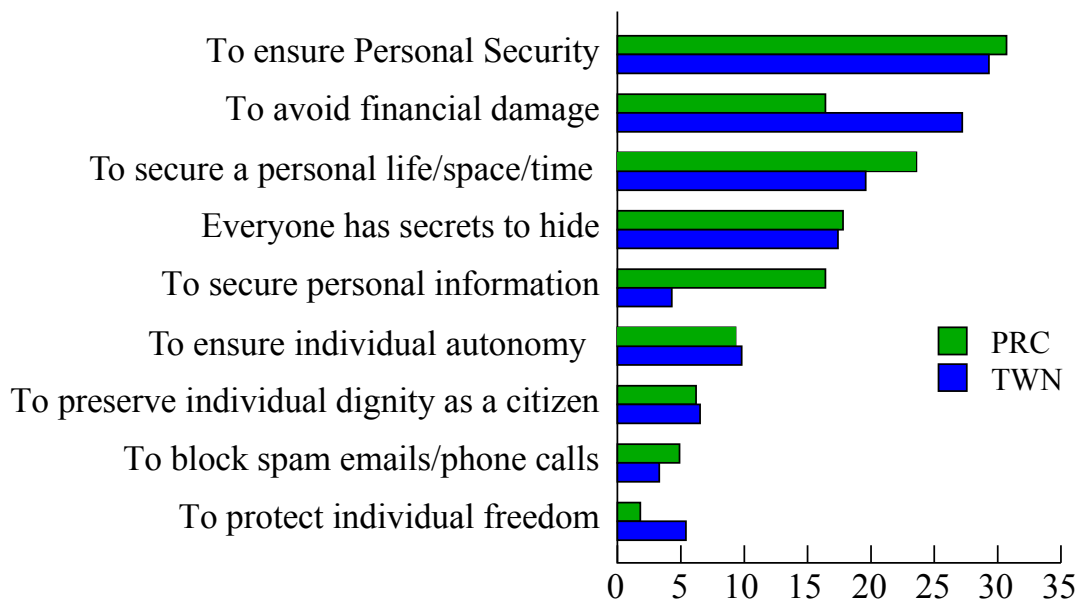


Figure 1: Why Is the Right to Privacy Important?

The free-text responses to “Please describe why your right to privacy is important” (Q11) are summarised in Figure 1. Both in the PRC and Taiwan, around 30% of those respondents who considered their right to privacy was very important or important (30.7% (69 of 225) in the PRC and 29.3% (27 of 92) in Taiwan) mentioned that the right was important to ensure personal security. More than one out of four Taiwanese respondents (27.2%; 25 of 92) pointed out the connection between privacy protection and the avoidance of financial damages, but only 16.4% of PRC respondents (37 of 225) did.

On the other hand, the outcomes of text analyses of free-text responses to “Please describe what the right to privacy is” (Q14) show a large majority of the PRC respondents who claimed that they understood the right (74.2%; 98 of 132), and half of the Taiwanese respondents who also claimed that (50.0%; 38 of 76), considered that personal information protection was the core of the right (Figure 2).

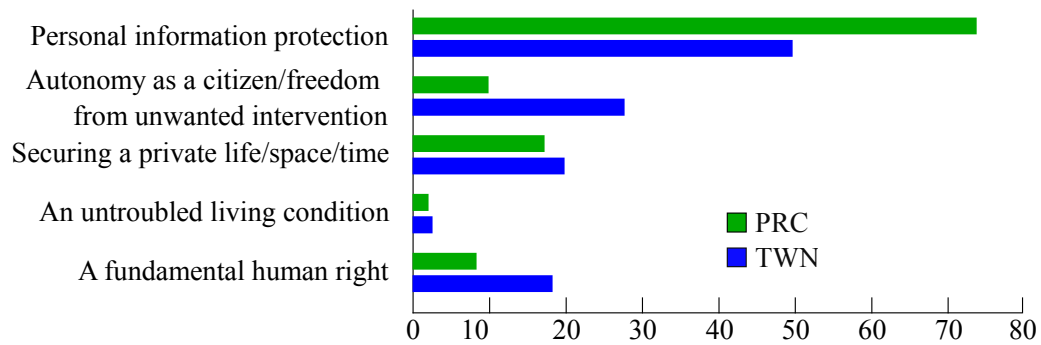


Figure 2: What Is the Right to Privacy?

More than 80% of PRC respondents (83.2%; 257 of 309) felt that their online activities involved taking risks with their privacy (Q6) “strongly (20.4%)” or “to an extent (62.8%)”, whereas nearly 70% (69.9%; 216 of 309) perceived a risk of privacy invasion associated with non-Internet activities (Q7). This result indicates that the use of the Internet is seen as only one of the major privacy threats in the PRC. However, the results of a paired samples t-test to examine the statistical significance of the difference between mean scores (3: strongly; 2: to an extent; 1: not much; 0: not at all) of responses to Q6 ($M = 2.02$, $SE = .037$) and Q7 ($M = 1.82$, $SE = .037$) show that the perceived risk of privacy invasion associated with Internet activity is statistically significantly higher than the perceived risk in the offline context, at a 1% significance level ($D = .20$, 95% CI [.117, .285], $t(308) = 4.811$, $p < .01$).

Furthermore, PRC respondents perceived a higher risk of privacy invasion associated with non-Internet activities compared to respondents in the other Asian countries studied: specifically, the percentage of respondents who reported feeling at risk (69.9%) was significantly higher than ones in Taiwan (53.2%; 59 of 111) and Japan (52.0%; 931 of 1792). Many of the interviewees mentioned that frequent forgery of personal identification cards (which PRC citizens over the age of 16 are required to always carry) and the resultant banking- and credit-card frauds were seen as a major threat to privacy in the PRC.

The percentages of Taiwanese respondents’ perceived risks of a privacy invasion associated with Internet and non-Internet activities were less than ones of the PRC counterpart. More than seven out of ten Taiwanese respondents (71.2%; 79 of 111) answered that their use of the Internet involved taking risks with their privacy “strongly” (2.7%; 3 of 111) or “to an extent” (68.5%; 76 of 111), while more than 50% (53.2%; 59 of 111) felt the risk in the non-Internet context “strongly” (2.7%; 3 of 111) or “to an extent” (50.5%; 56 of 111). The average scores of Taiwanese responses to Q6 and Q7 were 1.72 ($SE = .05$) and 1.52 ($SE = .06$), respectively. The difference between these averages was 0.198 (95% CI [.072, .324]) and the results of the t-test indicate this difference is statistically

significant at 1% significance level ($t(110) = 3.242, p < .01$). According to the results, it can be seen that Taiwanese youngsters regarded Internet-based activities as significant privacy risks.

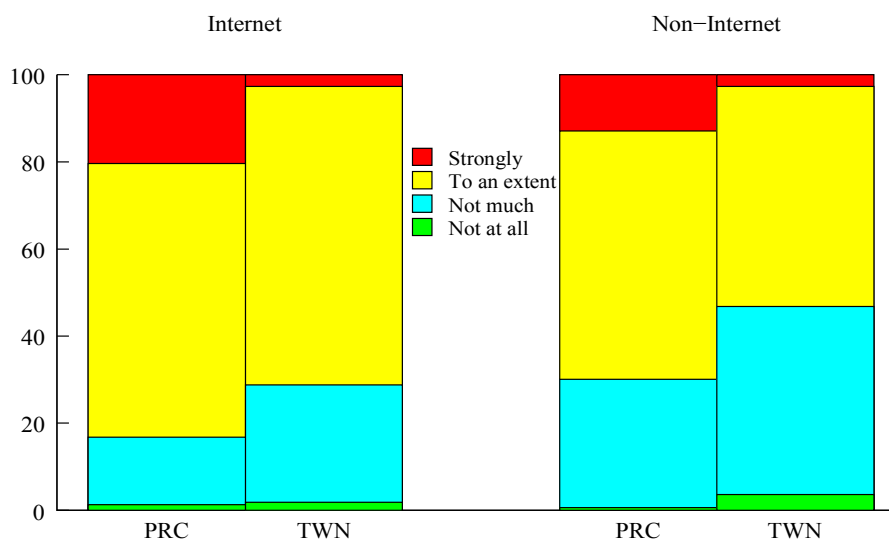


Figure 3: Do you feel that you are taking risks with your privacy? (%)

Tables 5 and 6 show the information about what kinds of organisations were/weren't viewed as threats to respondents' privacy in the PRC and Taiwan, respectively. Internet companies and telecom companies/Internet providers tended to be viewed as a threat to privacy by both PRC and Taiwanese respondents. Computer software companies, system integrators and other for-profit companies were also among the top-ranked in the two countries. There were also significant differences of opinion, however, with PRC respondents seeming not to regard government agencies (including law enforcement agencies and secret service agencies) as a threat to privacy, whereas Taiwanese respondents considered those government agencies riskier in terms of an invasion of their privacy.

In follow-up interviews, almost all of the interviewees suggested that in the PRC everyone supposed his/her personal information was held by police agencies, but not used by them for purposes outside their remit (whether those purposes are legitimate or not was regarded as a separate issue to do with general human rights rather than privacy per se), while for-profit companies would not hesitate to misuse personal information in any way for reaping profits. Ordinary Chinese, the interviewees said, did not need to worry about police. It was also pointed out during the interviews that educational institutions could be considered as a threat to privacy because it was not unusual in the PRC for high schools to sell the contact information of their students to three-year occupational colleges so that they could directly send college enrolment information to students due to intense competition between the colleges.

Table 5. Ranked means (0: low; 3: high) of 15 groups as perceived privacy threat (PRC)

Q8. How much do you feel that the following groups threaten your privacy?		
Group	Mean	SD
Internet Companies	2.48	0.681
Telecom companies/Internet Providers	2.40	0.737
Other for-profit companies	2.03	0.801
Computer software companies	1.90	0.822
System integrators	1.89	0.846
Educational institutions	1.87	0.815
Computer hardware companies	1.78	0.847
Individuals who you don't know	1.68	0.812
Individuals who you know but not well	1.68	0.636
Health-care organisations	1.59	0.820
Other not-for-profit organisations	1.49	0.783
Other government agencies	1.37	0.866
Secret service government agencies	1.37	0.931
Law enforcement government agencies	1.32	0.900
Individuals who you know well	1.32	0.774

Table 6. Ranked means (0: low; 3: high) of 15 groups as perceived privacy threat (Taiwan)

Q8. How much do you feel that the following groups threaten your privacy?		
Group	Mean	SD
Internet Companies	2.35	0.601
Telecom companies/Internet Providers	2.11	0.648
System integrators	2.01	0.688
Other for-profit companies	1.98	0.714
Secret service government agencies	1.82	0.775
Computer software companies	1.76	0.696
Individuals who you don't know	1.69	0.813
Other government agencies	1.67	0.775
Law enforcement government agencies	1.67	0.834
Computer hardware companies	1.64	0.684
Educational institutions	1.59	0.739
Health-care organisations	1.58	0.704
Other not-for-profit organisations	1.51	0.677
Individuals who you know but not well	1.48	0.638
Individuals who you know well	1.19	0.738

Respondents were also asked to rate the privacy risks associated with various technologies. Table 7 and 8 show the ranked lists with means and SDs in the PRC and Taiwan. The concerns around online activities such as online shopping, online payments, online auctions and social media services, as well as the concern about smart phones and PCs reflect the same patterns as shown in the “Internet versus non-Internet” activity and the groups which are perceived as posing greater privacy risks. The Chinese researchers involved in specialising the survey for the PRC stressed that in their experience many in the PRC are concerned about the privacy issue surrounding “mobile push services” whereby adverts are pushed by mobile telcos or Internet Service Providers based on browsing habits. The average score of 2.09 for this bore out the researchers’ anecdotal experience.

Table 7. Ranked means (0: low; 3: high) of 18 technologies' perceived privacy threat (PRC)

Q8. How much do you feel that the following technologies threaten your privacy?		
Technology	Mean	SD
Online shopping	2.36	0.698
Online payments	2.31	0.683
Social media services	2.29	0.752
Smart phone	2.23	0.732
Online auction	2.19	0.757
Mobile push services	2.09	0.894
PC	2.01	0.773
Online games	1.90	0.794
GPS	1.88	0.747
All	1.72	0.921
CCTV	1.67	0.772
Automated Road Tolling	1.34	0.724
RFID	1.33	0.822
Personal body monitor	1.27	0.836
Home vid. game	1.12	0.844
Smart card	1.08	0.757
Home Automation	1.05	0.797
Portable vid. game	1.03	0.818

Table 8. Ranked means (0: low; 3: high) of 17 technologies' perceived privacy threat (Taiwan)

Q8. How much do you feel that the following technologies threaten your privacy?		
Technology	Mean	SD
Online payments	2.29	0.631
Social media services	2.17	0.577
Online shopping	2.14	0.668
Smart phone	2.10	0.600
Online auction	2.07	0.680
Mobile push services	1.96	0.689
GPS	1.89	0.681
PC	1.88	0.672
Online games	1.83	0.742
CCTV	1.72	0.662
All	1.61	0.852
Automated Road Tolling	1.30	0.705
RFID	1.23	0.750
Smart card	1.14	0.713
Home Automation	1.09	0.735
Personal body monitor	1.03	0.732
Home vid. game	0.92	0.675
Portable vid. game	0.84	0.665

4.1.2 Recognition of and Interest in Snowden's Revelations

Whereas more than three out of four PRC respondents had heard about Snowden's revelations before the questionnaire survey (76.4%; 188 of 246), Taiwanese respondents who had heard about the revelations were a bare minority (46.5%; 47 of 101), perhaps reflecting Snowden's presence in Hong Kong SAR when he started his revelations and that the affair was highly publicised in the PRC. Interviewees from the PRC said that TV, newspapers and Internet news sites repeatedly reported the Snowden affair as America's failure for at least three months after his first revelations.

Of those respondents who had heard about the revelations, 53.3% (99 of 186) in the PRC and 48.9% (23 of 47) in Taiwan claimed to know “a lot” (1.1% in the PRC; 2.1% in Taiwan) or “a fair amount” (52.2%; 46.8%) about the contents of the revelations. Likewise, regarding their knowledge of the US government’s reactions to Snowden and Snowden’s current status, 47.3% (90 of 187) and 28.3% (53 of 187) of PRC respondents answered that they knew “a lot” or “a fair amount” respectively, but only 42.6% (20 of 47) and 12.7% (6 of 47) of Taiwanese respondents claimed similar levels of knowledge. Meanwhile, 42.2% of PRC respondents (79 of 187) had talked about the revelations with others and 45.7% of them (86 of 188) had searched for information. In Taiwan, only 27.7% (13 of 47) of respondents had discussed the revelations with others while just 30.4% (14 of 46) had searched for information.

These survey results seem to indicate that in general youngsters living in the PRC are interested in Snowden’s revelations and know them well. Taiwanese youngsters’ degree of interest in and knowledge of the revelations are below that of those in the PRC. Given that respondents in both places reported primarily gaining their knowledge about this topic from traditional media sources, it is plausible that coverage of story embarrassing to the US was much greater in PRC media (where the government regards the US as a major rival) than in Taiwan (where the government regards the US as a strong ally).

4.1.3 Evaluation of Snowden’s Activities

When asked to evaluate Snowden’s actions (Q28: Have Snowden’s revelations served the public interest or harmed it?), around one out of four respondents, more specifically 25.7% (59 of 230) in the PRC and 26.5% (26 of 98) in Taiwan, avoided making a clear judgement answering it with “no option” or “prefer not to answer”. Amongst those respondents who offered a judgement, 84.2% (144 of 171) of PRC respondents and 79.2% (57 of 72) of Taiwanese youngsters indicated Snowden’s revelations served the public interest “a lot” (15.8% in the PRC; 7.0% in Taiwan) or “to an extent” (68.4%; 72.2%). Taking the respondents who answered Q28 with “no option” or “prefer not to answer” into account, 62.6% of respondents in the PRC (144 of 230) and 58.2% in Taiwan (57 of 98) clearly gave a positive evaluation to the Snowden revelations in terms of public interest. Many of the follow-up interviewees mentioned that the press coverage of the Snowden affair in the PRC was favourable to him, condemning the hypocrisy of prior US government criticisms on the PRC government’s control of information. Responses to the open-ended question “Why do you think Snowden determined to make those revelations?” (Q27) demonstrate that more than a half of Taiwanese respondents (51.9%; 40 of 77) and nearly 40% of PRC respondents (37.5%; 69 of 184) considered Snowden decided to make the disclosure based on his criticism against the surveillance and privacy invasion by the government agencies (Figure 4), with very few attributing baser motives

(self-protection, general anti-American sentiment or being an agent of a foreign power).

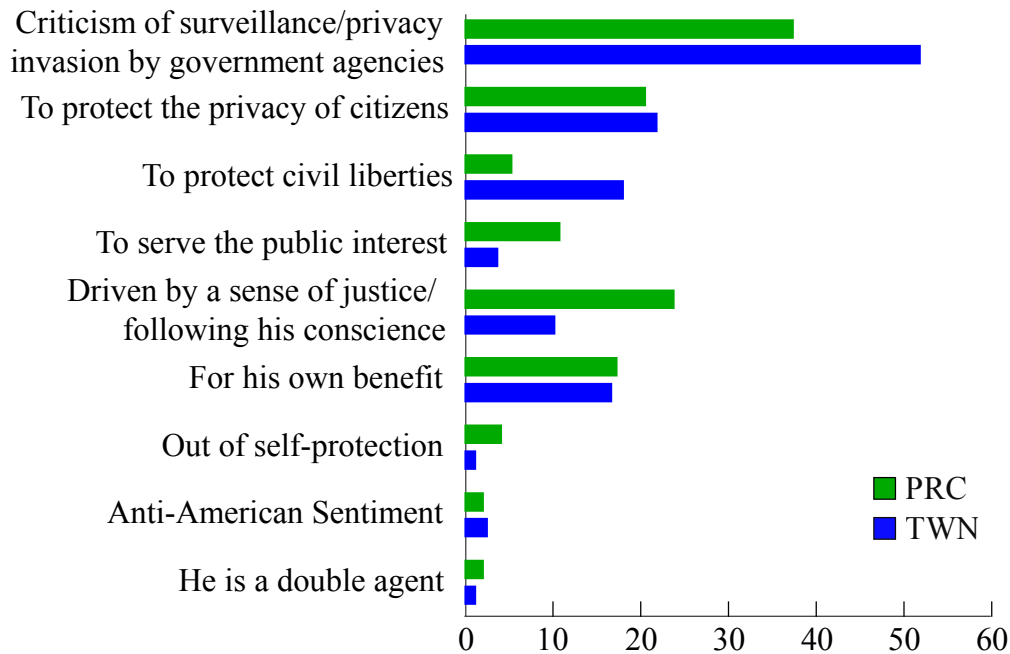


Figure 4: Why Did Snowden Determine to Make the Revelations?

4.2 Empirical Consideration about Influence of Snowden’s Revelations

4.2.1 Social Changes Caused by the Revelations

The effects of Snowden’s revelations were examined through analysing the responses to the open-ended question Q36 (What social changes do you think have happened because of Snowden’s revelations?). About 40% of PRC and Taiwanese respondents (41.0% (93 of 227) and 38.9% (37 of 95), respectively) were able to cite an instance of social change led by Snowden’s revelations, whereas the ratio of the respondents who judged the revelations had not created any social change was less than 5% in the PRC (4.0%; 9 of 227) and only 2.1% (2 of 95) in Taiwan. However, attention is drawn to the fact that 36.1% of PRC respondents (82 of 227) and 42.1% of Taiwanese (40 of 95) offered no opinion about changes caused by the revelations.

Amongst those who mentioned some sort of social changes caused by the revelations, 49.5% (46 of 93) of PRC respondents and 45.9% (17 of 37) of Taiwanese respondents considered people’s awareness of privacy had been enhanced and 37.6% (35 of 93) (PRC) and 32.4 % (12 of 37) (Taiwan) of respondents, felt the trust in the American government had been eroded. Whereas 48.6% (18 of 37) of respondents in Taiwan believed people had become more aware of and/or interested in state surveillance, only 26.9% (25 of 93) in the PRC did (Figure 5).

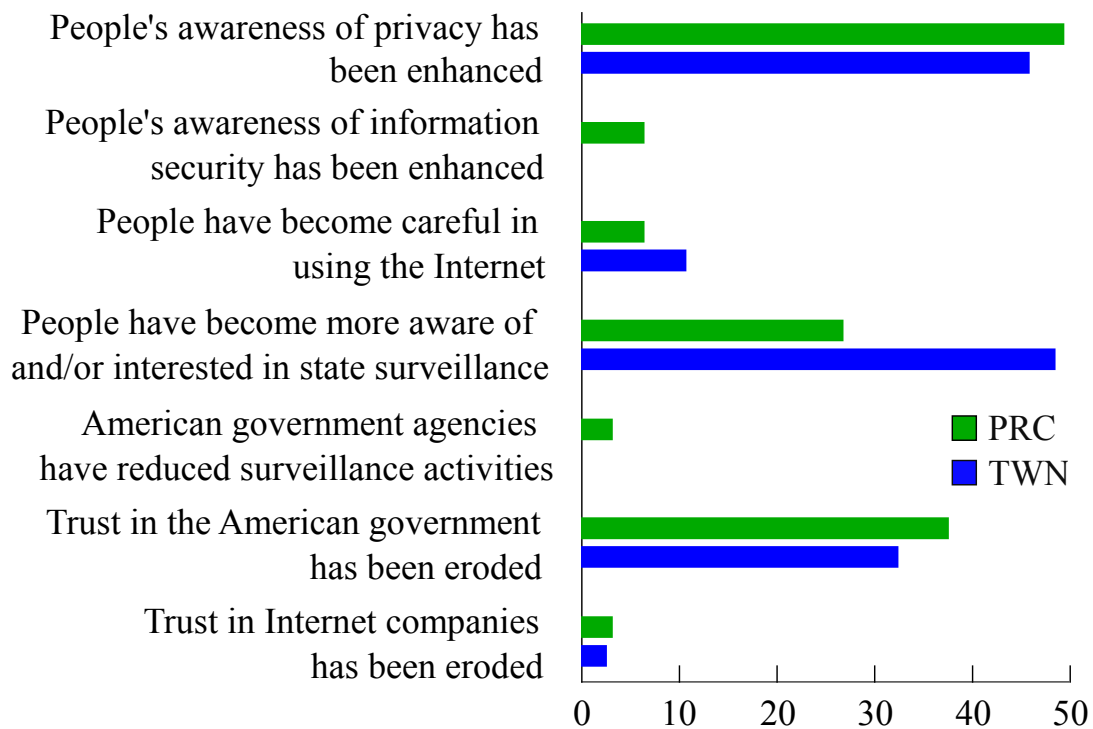


Figure 5: What Social Changes Have Happened Because of Snowden’s Revelations? (%)

4.2.2 Influence over Perceived Risk of Privacy Invasion

In order to evaluate the possible impact of knowledge of Snowden’s revelations on perceived risk of privacy invasion, respondents in each country were divided into two groups; the group of respondents who had heard about Snowden’s revelations before the questionnaire survey (“Heard” group) and of those who had not (“Not heard” group). The differences in the degree of perceived risk of invasion of privacy between the groups were inspected using their ranked means of responses (3: strongly/very much; 2: to an extent; 1: not much; 0: not at all) to Q6 (Do you feel that your use of the Internet involves taking risks with your privacy?), Q8-m (How much do you feel that law enforcement government agencies threaten your privacy?), Q8-n (How much do you feel that secret service government agencies threaten your privacy?) and Q8-o (How much do you feel that other government agencies threaten your privacy?) and subjected to t-tests.

If knowledge of Snowden’s revelations increased respondents’ perception of the risks of privacy invasion, then the ranked means of the “Heard” group would be higher than those of the “Not heard” group. However, a t-test conducted with regard to responses to Q6 in the PRC demonstrated that,

contrary to the researchers' expectations and the feelings of the respondents (see Figure 5), there was no statistically significant difference ($D = -.093$, 95% CI $[-.257, .074]$; $t(244) = -.932$, $p > .1$) between the mean of the "Heard" group ($M = 2.01$, $SE = .051$) and that of the "Not heard" group ($M = 2.10$, $SE = .068$). The same t-test applied to the Taiwanese dataset showed a similar result: there was no statistically significant difference ($D = -.060$, 95% CI $[-.269, .144]$; $t(78.35) = -.526$, $p > .1$) between mean perceived privacy risk of the "Heard" group ($M = 1.68$, $SE = .097$) and the "Not heard" group ($M = 1.74$, $SE = .060$). These indicate that respondents' perceptions of online privacy risk were not affected by Snowden's revelations in either group.

Concerning respondents' perceptions of the three types of government agencies as threats to their privacy, there were again no statistically significant differences in the perceptions between the two groups in either the PRC and Taiwan as follows:

Law Enforcement Government Agencies

PRC

Heard: $M=1.30$, $SE=.070$; Not Heard: $M=1.32$, $SE=.131$;

$D=-.026$, 95% CI $[-.307, .281]$; $t(217) = -.176$; $p > .1$

Taiwan

Heard: $M=1.69$, $SE=.134$; Not Heard: $M=1.67$, $SE=.120$;

$D=.022$, 95% CI $[-.316, .375]$; $t(91) = .124$; $p > .1$

Secret Service Government Agencies

PRC

Heard: $M=1.41$, $SE=.074$; Not Heard: $M=1.25$, $SE=.129$;

$D=.164$, 95% CI $[-.121, .451]$; $t(217) = 1.096$; $p > .1$

Taiwan

Heard: $M=1.91$, $SE=.126$; Not Heard: $M=1.79$, $SE=.107$;

$D=.119$, 95% CI $[-.199, .422]$; $t(91) = .724$; $p > .1$

Other Government Agencies

PRC

Heard: $M=1.37$, $SE=.068$; Not Heard: $M=1.32$, $SE=.126$;

$D=.053$, 95% CI $[-.217, .328]$; $t(217) = .377$; $p > .1$

Taiwan

Heard: $M=1.73$, $SE=.121$; Not Heard: $M=1.63$, $SE=.114$;

$D=.108$, 95% CI $[-.189, .450]$; $t(91) = .654$; $p > .1$

This indicates that the degree of perceived privacy risk from government agencies was also not influenced by whether they had heard about Snowden's revelations or not. A majority of follow-up

interviewees had not changed their way of using the Internet, although all the respondents said that their awareness of privacy had been enhanced because of hearing about Snowden's revelations. Only three interviewees had deleted some of their posts and refrained from making new posts on Chinese instant message service Tencent QQ, the dominant instant messaging service in China, in response to hearing about Snowden's revelations

4.2.3 Changes in Online Communication Due to Snowden's Revelations

Amongst the respondents who had heard about Snowden's revelations, 45.1% of PRC respondents (73 of 162) and 52.2% of Taiwanese respondents (24 of 46) answered Q24 (Have you changed your way of communicating online using systems such as social media (e.g., Twitter, Facebook), Messenger, YouTube, blogging, Skype, email and instant messaging since you heard about Snowden's revelations?) with "have not changed at all". In other words, 54.9% and 47.8% of PRC and Taiwanese respondents of the "Heard" group, respectively, believed they had made some change to their ways of communicating online. Even though it is substantially difficult to correctly judge the meanings of these percentages, nevertheless a significant number of PRC and Taiwanese youngsters who had got word of Snowden's revelations reported making a change in their ways of communicating online, although interviewees could not generally indicate specific changes they had made. These percentages were close to those from the parallel studies in the European countries Spain, Germany and Sweden.

4.2.4 The Potential Influence of Snowden's Revelations over Societies

Whether respondents would follow Snowden's lead or not when hypothetically placed in a similar situation is considered to be another indicator of the potential influence of Snowden's revelations, because such intention can be seen as predictors of acceptance of and sympathy with Snowden's behaviour. These intentions were measured by Q30 (If you were an American citizen and were faced with a similar situation to Snowden, do you think you would do what he did?) and Q33 (If you were faced with a similar situation to Snowden in your country, i.e. you found out that an intelligence agency of your country was conducting similar operations to those of the NSA and GCHQ, would you, as a citizen of The PRC/Taiwan, do what he did?).

Interestingly, whereas a large majority of respondents evaluated Snowden's revelations as having served the public interest, at least to an extent, in both countries (84.2% (144 of 171) in the PRC and 79.2% (57 of 72) in Taiwan), the PRC respondents seemed very hesitant to follow Snowden's lead. 39.2% (69 of 176) and 50.9% (28 of 55) of respondents answered Q30 (US hypothetical) with "yes" in the PRC and Taiwan, respectively. In addition, very few PRC respondents answered Q33 (local hypothetical) with "yes" (25.8%; 47 of 182), while in contrast a similar bare majority of Taiwanese

respondents did (56.4%; 31 of 55).

In terms both of Q30 and Q33, the degree of PRC youngsters' willingness to emulate Snowden was below that of their Taiwanese counterparts (a significant number of Taiwanese respondents preferred not to answer Q30 (42 of 97) and/or Q33 (41 of 96) with these non-responses treated as missing values in the above analysis). Moreover, amongst the eight countries where the surveys of this study were conducted, only in the PRC did the number of respondents who would follow Snowden's lead in the US exceed the case of their own country (Figure 6). Almost all PRC interviewees agreed with this and provided similar explanations. One of them said "I'll soon evaporate, if I follow Snowden's lead". In the free-text responses to the question about why they would not follow Snowden's lead in the PRC (Q35) more than 35% of them (36.5%; 42 of 115) considered that emulating Snowden would put not just them but also their family, friends and acquaintances at a great risk, including threats to their lives. In addition, more than 20% (20.9%; 24 of 115) believed state surveillance should be accepted to ensure societal security and benefits in the PRC considering the current situation of the country (Figure 7).

Would You Follow Snowden?

Figure 6: Percentages of "yes" to Q30/Q33 in Eight Countries

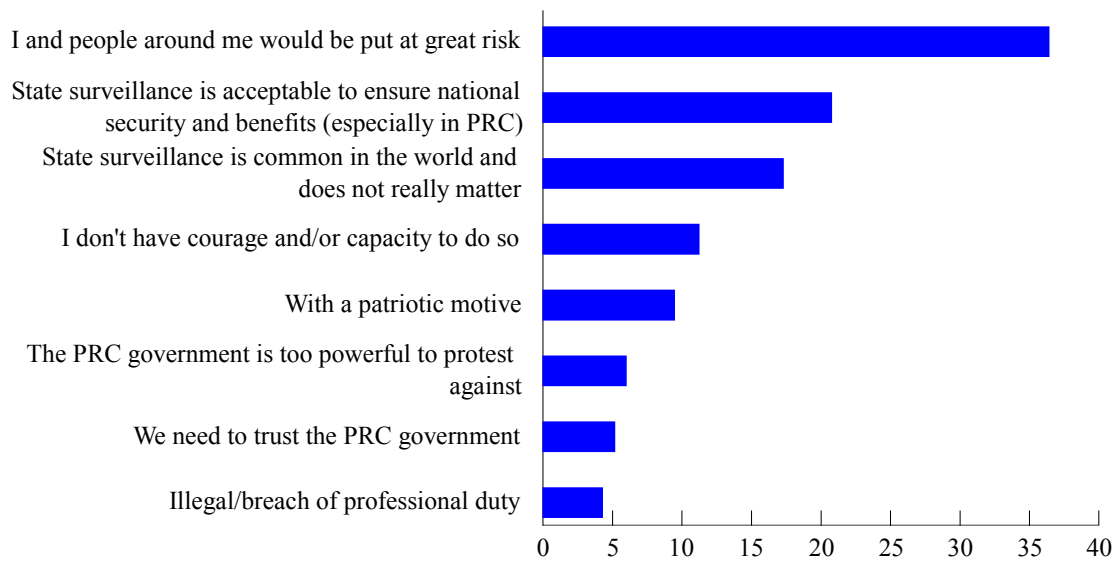


Figure 7: Why PRC Youngsters Would Not Follow Snowden's Lead in Their Country?

5. State Surveillance Following Snowden

The seemingly inconsistent economic and political policies, market freedom but political repression, adopted in the PRC since the start of the “reform and opening-up” process have created astonishing economic growth on the one hand, but at the same time have exacerbate economic disparity between the haves and the have-nots in the country. In addition to this, rampant and aggravating corruption among central and local officials, despite Xi Jinping’s initiative for cleaning up corruption with the proclamation of “strike tigers and flies at the same time”, and repeated corporate scandals have led to mounting complaints about the government and vigorous movement for civil rights, political liberty and democratisation. In response to these demands, the PRC government has further heightened state information control and strengthened state surveillance both in the physical and online arenas in recent years. According to Shiroyama (2016), the current PRC administration place intense pressure on the Guangdong Nanfang Daily Media Group for their embrace of Western values such as human rights and freedom of speech (p. 97) and exercise censorship (pp. 331-344) of the group’s outputs; universities in Beijing and Shanghai have received formal notification banning the use of seven banned words/phrases including universal values, freedom of speech, civil society, civil rights and independence of the judiciary during a lecture in 2013 (p. 139); more than three hundred human-rights lawyers have been detained since July 2015 and negative campaigns against them have been engaged in by the State-controlled media led by the Ministry of Public Security (pp. 251-253); and five staff of the Causeway Bay Books in Hong Kong, which sell books criticising the PRC’s communist regime and leaders, have disappeared (possibly abducted by public security bureau officials) between October and December 2015, demonstrating the PRC government’s firm will to

suppress pro-democracy forces even in Hong Kong, which is granted a high degree of autonomy under the One Country Two Systems formula (pp. 269-273). The use of Wikipedia is banned and access to social media sites such as Facebook and Twitter are strictly limited, while communications using PRC-based social media such as Weibo and WeChat are believed to be monitored by the Chinese police authority (Jiang, 2016). However, as the Chinese proverbs state “Whenever there is a rule, there is a way to get around it” or “Where there are policies from above, there are counter-policies from below”, variety kinds of “back doors” have allegedly been provided for Chinese citizens.

On the other side of the straits, Taiwanese former president Ma Ying-jeou’s steering of the cross-strait relationships was difficult and full of domestic criticism as symbolised by the sunflower student movement in spring 2014 in opposition to the Cross-Strait Service Trade Agreement. His pro-PRC policies were not supported by most Taiwanese, and consequently the Kuomintang lost the presidency in the January 2016 election. The DPP led by sitting president Tsai Ing-wen also won a majority in the simultaneous Legislative Yuan election. Because the new ruling party advocates the independence of Taiwan, political and economic relations between the two countries have again become delicate, and thus the PRC is likely to strengthen their intelligence activities against movements to undermine Beijing’s one-China policy in Taiwan.

6. Conclusions and Future Research

Though both the two states investigated in this study have a country name including “China”, significant differences in the social impact of Snowden’s revelations were found. Simple tabulations of responses to the questionnaire used in this survey seemingly show that Snowden had more social impact in the PRC than in Taiwan. However, detailed statistical analysis demonstrates that Taiwanese respondents were more influenced by Snowden’s revelations than PRC respondents especially when actions as opposed attitudes are considered.

The coverage of Snowden's revelations were very heavy in the PRC, not surprising considering its government's control of the media, antipathy to the US government, interest in normalising its own surveillance/censorship activities of its residents and the fact that Snowden was in Hong Kong when his revelations first came out. Given Taiwan's recent emergence into democracy, the press there are still relatively aligned with government interests and the dependence on US military aid and support militates against heavy criticism of US government activities there.

The greater concern about for-profit invasion of privacy in the PRC is interesting but the follow-up interviews show that although PRC respondents were concerned about government use of data, in recent years the wholesale misuses by the new PRC private sector has outweighed government actions. The fact that government surveillance leads to physical reprisal against only a modest number of dissidents in the PRC, whereas the individual problems of privacy invasions by for-profit

companies are felt by far more people, also worries people. Those who have spend their whole lives under an authoritarian regime have clearly needed to get used to having no privacy from their government. The nascent democracy in Taiwan, however, is more recent and probably seen as more fragile by the Taiwanese respondents, leading them to be more concerned over unnecessary government surveillance. In both countries, though, there was common feeling with young people in many other countries including the US, that Snowden did more good than harm.

The surge of interest in democracy and the communist government's suppression of it in the PRC and the change of regime in Taiwan have made research on state surveillance in these countries further interesting and significant.

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