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## Privacy

### Consumers' Online Privacy Concerns

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*This article examines the online privacy concerns of consumers in Sydney, Seoul, Singapore and New York*

#### Introduction

Despite increased use of the Internet, concerns regarding online privacy – particularly online businesses' practice of collecting and using personal information without consumers' express consent – do not appear to be receding. One problem is that consumers generally view a lack of online privacy as a potential threat and unless there are some basic protections in place, some scholars and privacy advocates claim many people may not be willing to take the risk of shopping online.<sup>1</sup>

Many scholars in the United States tend to frame online privacy as an issue of individual control over one's identifying information. Indeed, some scholars have recently concluded that the self-control model of individual informational privacy, which Schwartz<sup>2</sup> has referred to as "privacy-control," has become the dominant paradigm in the United States. But this privacy-control paradigm can be viewed as a deeply flawed basis for public policy decisions in part because it puts the individual at the centre of decision-making about personal information use. According to some observers, however, an information society cannot truly exist and function if individuals have *exclusive* rights to control *all* their personal identifying information. Thus, it seems logical to suggest that public policy debates about online privacy should balance societal and economic marketplace needs for free flowing of commercial information with individual privacy.<sup>3</sup>

There is a large body of research on online privacy and e-commerce but it concentrates almost exclusively on online users in Western nations. The research cuts across disciplines such as communications, law and policy, business, marketing, and management. Communication scholars have tried to create typologies of online consumers to better understand their attitudes toward perceived privacy risks in the online environment. Researchers have also tried to measure the extent of consumers' privacy concerns and the perceived risks that may influence online purchasing behaviour. In the law and policy field, scholars have tried to develop and recommend appropriate regulatory measures that can promote e-commerce without sacrificing informational privacy. Finally, in business, researchers have tried to identify what factors contribute to consumers' attitudes about privacy. Despite the sheer volume of



research, there is very little research on Asian online consumers and their concerns about online privacy.

Many countries in Asia are full participants of the information revolution. Korea is the number one country in the world in terms of broadband connectivity, while India is a leading producer of software. Singapore, Hong Kong, Japan and Taiwan, to name the most important ones, are at the same level or way ahead of many Western countries in terms of Internet diffusion, wireless infrastructure, and IT connectivity. But while e-commerce is flourishing in some Western countries, Asia seems to be lagging behind with less than 10 percent of the projected hypergrowth between 2000 and 2004 coming from business to consumer e-commerce.<sup>4</sup> In some Asian countries the issue may actually be due to poor infrastructure or the lack of adequate regulatory initiatives, but the truth is that scholars know very little about the attitudes and concerns that Asian online users have about online privacy and their impact on e-commerce. Thus, this study is an attempt to shed some light on the attitudes and behaviour of the heretofore neglected Asian online consumers and compare their privacy concerns with United States and other “western” consumers.

## Research Questions

This study attempted to answer the following questions:

- What factors affect privacy concerns among online consumers in Sydney, Singapore, Seoul and New York?
- What are the *attitudes* of online consumers in Sydney, Singapore, Seoul and New York about providing personal information online and how do they feel about the information gathering practices of most online vendors/commercial websites?
- What types of *protective behaviours* do online consumers in Sydney, Singapore, Seoul and New York engage in? And,
- What are the *attitudes* of online consumers in Sydney, Singapore, Seoul and New York about the need for laws protecting personal information?

## Methodology

An online survey was carried out amongst Internet users in four cities – New York (United States), Seoul (South Korea), Singapore and Sydney (Australia). Seoul and Singapore were selected because they have among the highest percentage of Internet users in the region. These two Asian cities were then counter-balanced by the selection of two “western” cities – Sydney and New York – to explore whether there were any major differences in online privacy concerns and perceptions between Asian and Western online consumers.

The survey was in the form of an online, self-administered questionnaire comprising 47 questions, most of which contained 7-point *Likert-scale* items.<sup>5</sup> The questions were first pilot-tested on university students using the thinking-aloud process. The survey was then pre-tested on respondents in four cities (except for New York).<sup>6</sup> The same English language survey was used for New York, Singapore and Sydney (save minor variations in the questions on demographic variables). The survey was translated into Korean for administration in Seoul and was back-translated to test for validity.

To ensure consistency of survey implementation, a research company with branches in each of the four cities was hired to conduct all the surveys. Survey respondents were selected

from the research company’s panel database (which in its entirety comprises 35 million Internet users in over 40 countries worldwide). Potential respondents were randomly selected from the company’s panel database for each city. Selected respondents were e-mailed an invitation letter describing the objective of the study, the study length and the incentive to be provided for participation. E-mail invitations were sent out continuously until the required sample size was attained. Reminder e-mails were also sent out halfway into fieldwork so as to help drive up response rates.

The total number of respondents for each city was 300 online consumers. However, after eliminating unreliable answers, the final sample size per city was: Sydney: 280, Singapore: 277, Seoul: 196 and New York: 264. Seoul had the largest number of respondents who seemed to answer questions without reading them carefully. The survey was simultaneously administered in all four cities between September and October 2003.

## Data Analysis

This study examined both *attitudes* and *behaviours* of online consumers in the four cities. While there are many scholarly works examining the privacy concerns of online consumers in the United States, there is little or no recent data about attitudes and behaviours of online consumers in Sydney, Singapore and Seoul. Thus, the findings of the survey are important for those seeking to gain a better understanding of these markets.

## Factors Affecting Privacy Concerns

Consumers were asked to answer questions about various factors that might have an impact on their privacy concerns, such as:

- length of time consumers have engaged in online shopping;
- whether consumers chose to receive online promotions;
- whether consumers received unsolicited promotions (spam);
- whether consumers had been victims of online fraud;
- consumers’ exposure to stories about online vendors or commercial websites violating the privacy of their customers (*i.e.*, via the Internet, TV, newspaper, relatives or friends and co-workers or classmates).

A majority of consumers from the four cities studied – 91.8 percent in Sydney, 80.5 percent in Singapore, 83.7 percent in Seoul and 96.2 percent in New York – had engaged in online shopping in the previous year. However, there was no statistically significant difference between Internet shopper and non-Internet shopper groups in terms of their concerns about privacy. Spam was found to be a problem that affected most respondents regardless of the city of residence. Ninety-three percent of New Yorkers said they received spam very frequently or frequently, followed by 87.4 percent in Singapore, 80.6 percent in Seoul and 77.1 percent in Sydney.

The issue of spam is relevant because after doing a multiple regression analysis, it was found that in New York and Singapore there was a statistically significant relationship between receiving spam and concerns about online privacy. Online fraud, on the other hand, was neither a significant problem nor had any statistically significant relationship with

concerns about privacy. The exception was Singapore, where despite a very low rate of online fraud there was a statistically significant relationship between fraud and concerns about privacy.

A factor that significantly contributed to online consumers' concerns about privacy was their exposure to stories about e-commerce vendors or websites that violated the privacy of online consumers. In Sydney, exposure to stories had a statistically significant relationship with concerns about online privacy. In New York, the relationship was also found to be statistically significant. In Seoul, however, the relationship was only marginally significant and in Singapore the relationship was not significant at all.

When a two-tailed correlation analysis was performed, it was found that some communication sources had more impact than others. For example, in Sydney and New York, consumers were most influenced by newspaper and TV stories. New York consumers were also significantly influenced by Internet stories as well as by stories or experiences related by classmates or co-workers. In Seoul, the relationship was only marginally significant in terms of stories by classmates or co-workers and in Singapore there was no significance.

### Attitudes about Information Gathering Practices Online

Although regression analyses were not run on the attitudinal data, the initial findings provide a few insights. Consumers were asked to evaluate several statements on a scale from one to seven, where one meant *strongly agree* and seven meant *strongly disagree*. When asked to agree or disagree with the statement "Websites or e-commerce vendors will provide better services if they have access to our personal information", consumers clearly did not believe this to be true. Only 10.4 percent of Sydney's respondents strongly agreed or agreed with the statement, while 18.1 percent in Singapore, 13.3 percent in Seoul and 7.2 percent in New York strongly agreed or agreed.

When asked to evaluate the statement "Protecting personal information online is more important than receiving convenient services", 67.5 percent of Sydney's respondents strongly agreed or agreed while 78 percent in Singapore, 64.3 percent in Seoul and 60.2 percent in New York strongly agreed or agreed. Likewise, the statement "Online tracking only benefits websites/e-commerce vendors" elicited agreement from 15.4 percent of Sydney's consumers, while 20.2 percent in Singapore, 36.2 in Seoul and 52.8 in New York strongly agreed or agreed.

Scholars in the United States have found that most online consumers strongly believe that they should have control over their personal information. To discover if this was true for Asia, the sample group of consumers was asked to evaluate the statement "I should have greater control over which websites get information about me". Eighty-eight percent of Sydney's respondents strongly agreed or agreed while 84.5 percent in Singapore, 53.6 percent in Seoul, and 83.7 percent in New York strongly agreed or agreed. Thus, the idea that consumers wish to have more control over their personal information holds true in the Asia-Pacific region as well as in the United States.

The last attitudinal statement was "I feel comfortable providing my personal information online". This statement elicited an interesting (and contradictory) response from Seoul. Only 9.2

percent of Korean consumers strongly agreed or agreed with this statement even though they ranked the lowest in terms of wanting control over their information. Fourteen percent in Sydney, 12.3 percent in Singapore and 16.3 percent in New York strongly agreed or agreed.

### Privacy Protecting Behaviours

Respondents were also asked how likely or unlikely (1=very likely; 7=not likely) they were to engage in specific protective behaviours. For example, when asked how likely they were to check a website or e-commerce vendor's privacy policy, 45 percent of Sydney's consumers said they were very likely or likely while 52 percent in Singapore, 30.6 percent in Seoul and 41.7 percent in New York said they were very likely or likely. Sixty-five percent of Sydney's respondents said they were very likely or likely to opt out of e-mail solicitations while 64.6 percent in Singapore, 44.4 percent in Seoul and 70.5 percent in New York said they were. The numbers were slightly higher when consumers were asked whether they were likely to opt out or prevent third parties from using personal information for marketing purposes. Here, 72.5 percent of consumers in Sydney responded they were very likely or likely, while 76.2 percent in Singapore, 33.2 percent in Seoul and 78.8 percent in Seoul said they were very likely or likely. Consumers were also very likely or likely to make sure that vendors' servers were secure (*i.e.*, https) before they made an online purchase with Sydney at 73.6%, Singapore at 79.8%, Seoul at 24.0 percent and New York at 72.0%.

It is interesting to note how Seoul's consumers were the least likely to engage in simple protective measures. This pattern is also evident in the use of software programs that allow consumers to protect their privacy. Here, while Seoul's respondents continued to rank the lowest, Singapore's respondents ranked the highest. For example, when respondents were asked how likely they were to use software programs that protect their anonymity, 37.5 percent of Sydney's said they were very likely or likely while 43.3 percent in Singapore, 24.5 percent in Seoul and 39.0 percent in New York said they were.<sup>7</sup> When asked if they would be likely to use software programs that would block cookies, 34.6 percent in Sydney, 43.0 percent in Singapore, 10.2 percent in Seoul and 39.0 percent in New York said they were very likely or likely to do so. Finally, when asked how likely they were to erase their cookies after every online session, 21.4 percent in Sydney, 50.9 percent in Singapore, 20.4 percent in Seoul and 29.9 percent in New York responded very likely or likely.

We ran ANOVA tests<sup>8</sup> on the protective behaviours and found that Internet users in different cities have different preferences for privacy protection methods. These differences are significant. For example, while Sydney's consumers were more likely to erase their cookies after each online session, Seoul's consumers sought at least one trust mark on online websites before shopping. Overall, however, Singapore's and New York's consumers were the most likely to engage in protective behaviours. Moreover, after conducting a regression analysis, it was found that protective behaviours are mostly influenced by concerns about privacy with most of the demographic and online experience variables having no statistically significant influence on protective behaviour. However, in Sydney the length of Internet use was a significant factor affecting protecting behaviour. In Singapore, on the other hand, age was negatively associated with protective behaviour, meaning that younger people were more likely to engage in protective

behaviour. In the case of Seoul, gender was found to be a significant factor with females being more protective than males. This contradicts the findings of a scholar, who found that in the United States females seldom engaged in protective behaviours even when they exhibited high levels of concern.<sup>9</sup>

## Attitudes to Laws and Policies Protecting Online Privacy

The final set of questions involved attitudes and expectations regarding policy and regulation. The sample of consumers were asked whether there should be a law protecting the privacy of online consumers and they overwhelmingly agreed that there should be some legal protection – Sydney 82.1%, Singapore 88.8%, Seoul 75 percent and New York 85.2%. When asked if they would be more likely to shop online if e-commerce vendors were required to seek customers' permission before sharing their personal information with other companies, consumers, again, strongly supported such a measure – Sydney 66.8%, Singapore 72.6%, Seoul 52.0%, and New York 72.3%. Finally, consumers were asked if they would feel more comfortable shopping online if websites and e-commerce vendors were required to inform them about security breaches that compromised their personal data and the results were similar: Sydney 76.1%, Singapore 74.4%, Seoul 58.2 percent and New York 75.8%.

As in the behavioural protective measures, Seoul's consumers ranked consistently lower in their desire to receive legal protection for online privacy and Singapore's ranked the highest.

## Conclusion

One of the most interesting findings of this study relates to the relationship between consumers' concerns about privacy and the potential impact on e-commerce. Researchers and privacy advocates in the United States have argued that consumers that are most concerned about privacy threats are least likely to engage in e-commerce. However, the study showed that despite expressing strong concerns about online privacy, over 80 percent of online consumers in Singapore and Seoul and over 90 percent of Internet users in Sydney and New York have, nonetheless, engaged in online shopping.

Needless to say that this does not mean that regulators and e-commerce vendors should not take consumers' concerns seriously. There is always the possibility that if marketers' and online vendors' data gathering practices continue to become more intrusive or appear to be unchecked, the concerns may eventually translate into an unwillingness to engage in online shopping. However, that is not the case at this point.

It was expected that personal experiences involving fraud or violations of privacy would have a significant effect upon consumers' concerns about privacy. However, the survey showed that the factors having an impact on increased privacy concerns were spam and exposure to messages about incidents involving violations of privacy.

In terms of attitudes about providing personal information online, consumers did not believe that by providing personal information to websites and online vendors they would receive better services. Moreover, as others studies have found, consumers were very uncomfortable with their lack of control over how online marketers and vendors may subsequently use their information – *i.e.*, secondary uses. As the practice of using information for secondary or derivative purposes

becomes more widespread – and the media continue to report abuses – regulators would be wise to address the issue before consumers perceive that data gathering practices are out of control and represent a major privacy threat.

Another area where a significant relationship was anticipated, was between expressed attitudes and protective behaviours. For example, a majority of consumers said that protecting personal information online was more important than receiving convenient services and that they were not comfortable providing personal information online. But there seems to be a disconnect between these attitudes and some of the protective behaviours – especially those involving privacy enabling technologies. While a large number of consumers checked privacy policies of online vendors, opted out of e-mail solicitations or made sure that vendors' servers were secure, the numbers went down significantly when it came to using technological means to protect privacy, with various degrees of active protective practices among the consumers of the four cities studied.

The behaviour of Seoul's consumers was the most puzzling, with high levels of concern and extremely low levels of protective behaviour (both simple protective practices and privacy enabling technologies). Thus, there are plans to re-administer the survey in that city. Should the findings be similar to those presented here, consumers will be interviewed so as to try and identify the cause of the aforementioned disconnect between attitudes and behaviour.

Finally, despite the fact that many consumers are taking active steps to protect their privacy, a majority felt that government should pass laws protecting their privacy, that consumers should have control over how their information is used by third parties, and that companies should inform consumers about security breaches that put personal information at risk.

- 1 See, Lyon, D. (2001). *Surveillance Society: Monitoring Everyday Life*. Buckingham, Open University Press; Merkow M.S. & Breithaupt, J. (2002). *The E-Privacy Imperative*. New York, American Management Association.
- 2 See, Schwartz, Paul, *Internet Privacy and the State*, 32 Connecticut L. Rev. 815, 820, n. 21 (Spring, 2000).
- 3 See, Luc, Hatlestad, *Online Privacy Matters*, *Red Herring*, January 18, 2001, [www.redherring.com](http://www.redherring.com) (Accessed on February 26, 2002).
- 4 See, Meehan, M. (April 21, 2000). *Forrester: E-commerce to explode in Asia, Europe, South America*, Computerworld. Available at [www.computerworld.com/news/2000/story/0,11280,43948,00.html](http://www.computerworld.com/news/2000/story/0,11280,43948,00.html).
- 5 A Likert scale measures the extent to which a person agrees or disagrees with a question.
- 6 Although the survey included online consumers from Bangalore India, those results were not used in this article.
- 7 It is not clear whether online consumers truly engage in these privacy protective practices. In our instrument, we mentioned anonymising software and encryption technology as examples. At the Asia Pacific Economic Co-operation E-Commerce Steering Group meeting in Santiago Chile, Mr. Joseph Alhadeff, Vice President for Global Public Policy and Chief Privacy Officer for Oracle said that these numbers appeared too high. He claimed that if people were truly using anonymising software, companies providing these products would not have gone out of business. Mr. Alhadeff's comments are well taken and consequently, we pass this caveat to the readers of this study.
- 8 Analysis of Variance or ANOVA allows researchers to test whether or not the difference between groups of means is statistically significant.
- 9 See, Sheehan, K. B. (1999). *An investigation of gender differences in online privacy concerns and resultant behaviours*, *Journal of Interactive Marketing*, 13 (4), 24-39.

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