

Poster: Online Privacy Perception In Central Asia

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1. INTRODUCTION

While researchers have studied the attitudes and online privacy behavior within many developed countries, most developing nations have not seen the same level of investigation. In particular, we are interested in the online privacy concerns of post-Soviet, authoritarian societies, as compared to more developed, open societies. This poster describes an in-progress exploratory study of the attitudes towards online privacy in the Central Asian countries of Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan. We are using survey data from a multi-year project on information and communication technologies in the region and a survey of online privacy policies in each country to explore privacy attitudes in the region. We hope this study will provide insight to designers of web sites and other technology with a worldwide reach.

2. BACKGROUND

As nations, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan are recent entities. All four countries were former republics of the Soviet Union, declared independent when the Soviet Union dissolved in late 1991. All four countries share some key characteristics. They have relatively new and weak national identities. The strongest group ties within each country share histories and traditions dating back to the pre-Soviet era. Politically, all four countries are now under various forms of authoritarian rule. [1-4]

3. METHODS

In this exploratory study, we are using mixed methods to examine the privacy attitudes and concerns of Internet users in each of the four post-Soviet countries we studied. Our goal is to investigate the adoption of online privacy practices as well as the adaptation of existing online privacy practices within the four countries.

3.1 Survey Data

For three successive years (2006-2008), a survey created by researchers from the University of Washington was administered to 1,000 respondents each in Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan ($N = 12,000$). The survey was part of a multi-year, multi-phase project on patterns of ICT adoption and adaptation in Central Asia. Given the low rate of current Internet penetration in Central Asia, the surveys also focused on pre-existing patterns of information use, information seeking behavior, and levels of trust in various producers and sources of information.

The original survey contained over 300 variables and was administered in Russian and other regional/national languages to residents throughout the country. The survey was administered by the BRIF Research Group located in Kazakhstan, who translated

the survey instrument from English to other languages. The University of Washington team back-translated the completed Russian translation. From the original survey, we are examining a selection of questions that relate to privacy awareness and concerns, trends in Internet use, and sources of trusted information.

The original survey sample was based on census information on age, gender, ethnicity, and geographic location released by the government of each country. The survey was administered in urban and rural areas from several regions of each country, and the survey sample size was 1,000 respondents per country, aged 15 and older. The sample included 50 sampling locations, and 12-29 respondents were interviewed in each location.

3.2 Web Site Privacy Policy Review

The web site privacy policy review is designed to investigate to investigate attitudes toward privacy obligations among web site creators. We are using multiple methods to select the web sites for analysis, which will be described below.

While we await formal translations of the web sites and privacy policies of interest, we are using Google's Translate feature to provide machine-based translations of the privacy policies. As such, our discussion here represents a preliminary analysis only.

3.2.1 Unique sites hosted within the country

To obtain a selection of 50 unique sites per country that were hosted within the country, we are using Google's proprietary algorithms to select sites using a general query for host domain, e.g. a query "site:*.kz" for sites hosted within Kazakhstan. Duplicate results are eliminated and the search continued until 50 unique sites have been obtained.

3.2.2 Top 50 most visited sites

To obtain a selection of the top 50 most visited sites within each country, we have obtained data from Alexa.com ranking site popularity among users located in each country. Of the four countries, Alexa.com only covers Kazakhstan and Kyrgyzstan. We continue to investigate reliable, publicly available web site use data from Uzbekistan and Tajikistan.

4. PRELIMINARY RESULTS

4.1 Survey Data

While full statistical analysis will appear in the final paper, this poster represents some preliminary trends already emerging from our analysis.

Internet use is slowly increasing in Central Asia, from 9% of those surveyed across all four countries to 12% over the course of three years. Diffusion rates differ by country, from the highest

percentage of 19% in Kyrgyzstan to the lowest percentage of 7% in Uzbekistan in 2008. The primary predictors of Internet use in Central Asia are, in order, age, education, income and gender. Younger individuals, individuals with a higher education, individuals with a higher income and men are more likely to be Internet users.

Over the course of the three-year study, while adoption rates are still low, frequent Internet users were found increasingly likely to buy products online (3% in 2006 to 9% in 2008), bank online (2% in 2006 to 6% in 2008), and participate in online auctions (2% in 2006 to 5% in 2008). Each of these consumer activities includes privacy risks, since a monetary transaction and often a shipping address is involved.

Those who indicated they didn't use the Internet were asked why, in a question that allowed for multiple responses. While "privacy concerns" was one of the choices given, it accounted for barely 1% of the respondents in 2008. Respondents more commonly answered that they didn't use the Internet because of lack of knowledge (48%) lack of interest (42%), lack of access (43%).

Previous studies have shown a significant correlation between the level of privacy concern levels and the level of distrust in companies or government [5]. To determine whether this correlation also exists in Central Asia, we analyzed responses to the following survey questions. Using a 5-point Likert scale, respondents were asked to agree or disagree with the statement "The government monitors Internet activity." Over the three years of the study, the general trend was for Internet users and non-users alike to agree less to the statement as the Internet became more diffused. However, respondents who had *discontinued* using the Internet agreed with the statement more over the three years, indicating that this might be a growing reason why users discontinued using the Internet.

Similarly, for the statement "People cannot access some sites because of government censorship," there was an upward trend among those who had *never* used the Internet to agree with this statement, where no clear trend emerged from those who used or had previously used the Internet.

This finding suggests that while the respondents did not rate "privacy concerns" highly as a reason not to use the Internet, specific examples of privacy concerns were seen as potential barriers to Internet use.

4.2 Web Site Privacy Policy Survey

4.2.1 Unique sites hosted within the country

In the initial survey of web site policies using machine translation software, we surveyed 200 sites from the domains *.kz, *.kg, *.uz and *.tj, finding only two sites with privacy policies: uchi.kz (an educational site) and www.uz (a portal site).

This suggests that web designers in these four countries are not familiar with privacy policies or do not yet see privacy policies as a necessity.

4.2.2 Top 50 most visited sites

Of the 100 sites we surveyed that were most commonly accessed by users in Kazakhstan and Kyrgyzstan, 34 included privacy

policies. Almost all of these were US-based sites such as Google or Yahoo. Two were Russian: ucoz.ru and livejournal.com, though LiveJournal was originally a US-based site. Only one, namba.kg, was a Kyrgyzstan site. Note that namba.kg was not one of the site selected for analysis in the results described in section 4.2.1.

Since this represents a small sample size, it is difficult to draw conclusions from the privacy policies themselves. More interesting is the lack of privacy policies: while Central Asian Internet users may be familiar with privacy policies from their use of USA-based sites, these written policies do not appear to be seen as a requirement by users in the four countries we studied.

This is an interesting contrast to the developing nation of India [6] where 29% of a set of commercial web sites were already posting privacy policies in 2001. Kumaraguru & Cranor speculated that Indian web sites were beginning to post privacy policy statements in response to the increasing global expectation for them, but, so far, this has not occurred in the Central Asian countries we studied.

5. CONCLUSION

Online privacy awareness is still in its infancy in the Central Asian countries. However, we argue that it would be a mistake to assume that Central Asian Internet users are not concerned about privacy issues. If asked about a specific privacy concern, such as potential government monitoring, there is evidence to suggest that the fear of monitoring could be a potential barrier to Internet adoption and use. Our further investigation will research the awareness level of privacy policies and how much the policies have been read, as well as specific concerns that Central Asian Internet users and potential users might have relating to online privacy.

6. ACKNOWLEDGMENTS

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