Methodological and Conceptual Concerns in the Study of Privacy
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When we started this project two years ago, we had ambitious plans for the
international survey. Due mainly to cost, but also to unwieldy length of the various
drafts of the questionnaire, the survey was eventually reduced in size. Yet, our core
concerns remained in place. The attached diagram summarizes in a schematic fashion
the various facets of our projected inquiry at the time.

[Diagram I]

Our survey is not the first survey dealing with privacy cross-culturally.
There are other surveys, but I must say that most of these comparative surveys were
directed at studying consumers' attitudes, and as such they did not address in a
systematic fashion other issues of political and social nature in the aftermath of 9/11
that dealt with privacy. While limited in scope, such consumer-driven surveys
pioneered in the study of privacy. In several of these studies, subjects were recruited
through the web by means of purposeful sampling. As well, subjects came mainly
from organizations, such as workers, managers, etc. Our data collection was based on
telephone and face-to-face interviews depending on the country in question. In the
case of China data was collected from urban centres in seven provinces. The rest were
telephone interviews and carried out through computer assisted selection. In the case
of Mexico and Brazil, due to low rates of telephone diffusion, the interviews were
carried out face-to-face. In selecting subjects for interviews, the sample compositions
were limited to 18 years and above, and represented the main demographic variables
such as age, gender, and education.

Summary of Data Collection Procedures

	Methodology	Field dates	Total Completes	Quotas
Canada	Telephone (CATI)	June 26th-July 21st, 2006	1001	Region Age Gender
US	Telephone (CATI)	June 27th-July 28th, 2006	1000	Region Age Gender
Spain	Telephone (CATI)	June 30th-July 11th, 2006	1000	Region Age Gender
France	Telephone (CATI)	June 27th-July 8th, 2006	1002	Region Age Gender
Hungary	Telephone (CATI)	June 27th –July 9th, 2006	1000	Region Age Gender

Mexico	Door-to-Door (pen and paper)	July 25th –Aug 5th, 2006	1080	Region Age Gender
Brazil	Door to Door (pen & paper)	July 4th -July 7th, 2006	1000	Region Age Gender
China	Telephone (CATI)	August 5th – September 30th (extended to October 12th)	2002	Region (seven provinces) Age, Gender

Refusals and Comparability in Meaning

Refusal rates and comparability in meanings of questionnaire items that related to abstract concepts in particular privacy were flagged out at the outset as potential problems that we had to deal with.

To tackle this problem, we explored this issue in focus group interviews, and we used back translation of questions to make sure that the translation did not result in inappropriate terminology that did not capture the original intent of the questions. A complementary approach to capturing problems related to incomparability in meanings was suggested by a recent article in APSR by a group of researchers from Harvard, Stanford and the WHO. Andrey will be giving you a presentation using this methodology to demonstrate the problem.

With regard to refusals, the point was made that people would refuse to participate because of privacy concerns. In a way, we had on our hand a privacy survey within the overall privacy survey. We asked IPSOS and Guo in China to collect data for us on refusals. Of particular concern to us were not so much the refusal rates per se, but the reasons people who were successfully contacted said they are not interested to take part in the survey. Among those who were successfully contacted and refused to answer the survey, the majority citd lack of time and interst., Very few cited privacy concerns.

	Brazil	Canada	China	France	Hungary	Mexico	Spain	USA
Total Contacts	3,830	20,599	17,546	16,992	34,122	3,204	20,928	36,081
Response rate[1]	26.1%	4.8%	11.6%	5.8%	2.9%	31.2%	4.7%	2.7%
Total contacts with qualified respondents	1,046	5,998	2,038		1,136	1,431	8,235	1,728
Total disqualified	2,001	2,487	36	15,990	10,334	111	0	2,152
Total Refusals	783	11,356	15,508	4,729	18,080	1,662	12,693	22,953
Refusal rate[2]	20.4%	55.1%	88.3%	27.8%	52.9%	51.8%	60.6%	63.6%
Total refusal reasons recorded	783	2,726	7,505	1,216	2,939	1,662	264	2,310
Percentage of refusals asked[3][4]	100%	24%	48.3%	25.7%	16.2%	100%	2%	10%

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[1] Taken by dividing the total sample size by the total contacts.

[2] Taken by dividing the total number of refusals with the total number of contacts.

Reasons for refusal[5]								
Don't Have Time	403	29	4329	322	1247	1245[6]	99	17
I am not interested	380	44	911	582	917		121	44
Hung up the phone			1655					
Unfamiliar with the topic			242	16	65		8	
Privacy concerns			61	15	28	28	4	3
Not match the sample requirements			255					
Language			38					
Too old					153	36		
Can't hear properly					26			
Illness					69			
It's the Weekend					12	12		
I'm not in tune for it					9	70		
Not willing to answer to research company					8			
Not willing to answer on phone					6			
Don't want to talk about the government						271		
Other		2653	14	278	399		23	2246
Don't know/not sure				3			9	

Cultural Values and Attitudes to Privacy

I will now discuss one aspect of the cross-cultural dimension of this research. Any cross-national study of attitudes and opinions has to start with culture as a variable. The presentation is basically conceptual, although I provide one example from the survey. By triangulating the data, the purpose is to outline in a met-theoretical fashion the relevance of studies on culture and regulation to our concerns in the international survey. But as every anthropologist and social scientist who investigated culture knows the concept is not easy to grapple with. I recall that as an undergraduate I had to read Alfred Kroeber and Clyde Kluckhohn on the definition of culture. They listed more than 200 definitions of what constitutes culture. I am not going to settle the issue of what culture is here. My approach is more simple and straight forward. I shall focus on what is considered to be deep beliefs or values of a society and use those as indicators of culture.

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[3] Dividing the total number of responses in the table below by the total number of refusals.

[4] Note from Ipsos: In France and Mexico 25% of refusals were asked. Brazil, Hungary and Spain asked 100% of refusals.

[5] Responses to question D: "It would be helpful for us if you could briefly explain why you are not interested in participating in this interview."
   1. Don't have the time
   2. I am not interested
   3. Unfamiliar with the topic
   4. Privacy concerns
   5. Other (specify)
   6. Don't know/Not sure (not read)

[6] Mexico combined counts for "don not have time" and "not interested".

Even here, I shall go one step further and make use of what others have concluded about cross-cultural value differences. I start off by referring to the work of Gert Hofstede and his classification of culture according to four main indicators. Hofstede's work has been used in cross-national comparisons of individual concerns about privacy (see Milberg et al., 1995; Bellman et al., 2004; Hofstede, available at: http://www.geert-hofstede.com/geert_hofstede_resources.shtml), although most of these studies originated in the business research community.

The second approach is wider in scope, and I am not aware that it has been used in a direct fashion in the study of privacy. I am referring to the World Values international surveys that are routinely carried out in various countries using the same instrument, and are coordinated by the University of Michigan. This approach relies on locating relevant items in the World Values surveys that would give us indicators of the (political) cultural framework of a society as delineated through questions dealing with authority, equality, tolerance, trust, risk, etc. (available at: http://www.worldvaluessurvey.org/), and relate these cross-national values to attitudes about privacy

A third perspective that is directly related to our concerns examines the extent to which privacy is institutionally regulated through legislation in the various countries under discussion, and relate the regimes governing privacy in each country to the findings of our public opinion survey. The assumption here is that experience with and awareness of privacy legislations play an important role in shaping peoples' attitudes to privacy, and in being shaped by these attitudes. Take for example the recent use by Privacy International of 13 institutional measures to rank countries on a scale from 1 to 5 according to whether the country in question has endemic surveillance (score 1.1 to 1.5) or protects human rights of its citizens (score 4.1 to 5.0). (Available at http://www.privacyinternational.org/article.shtml?cmd[347]=x-347-545269)

Figure I
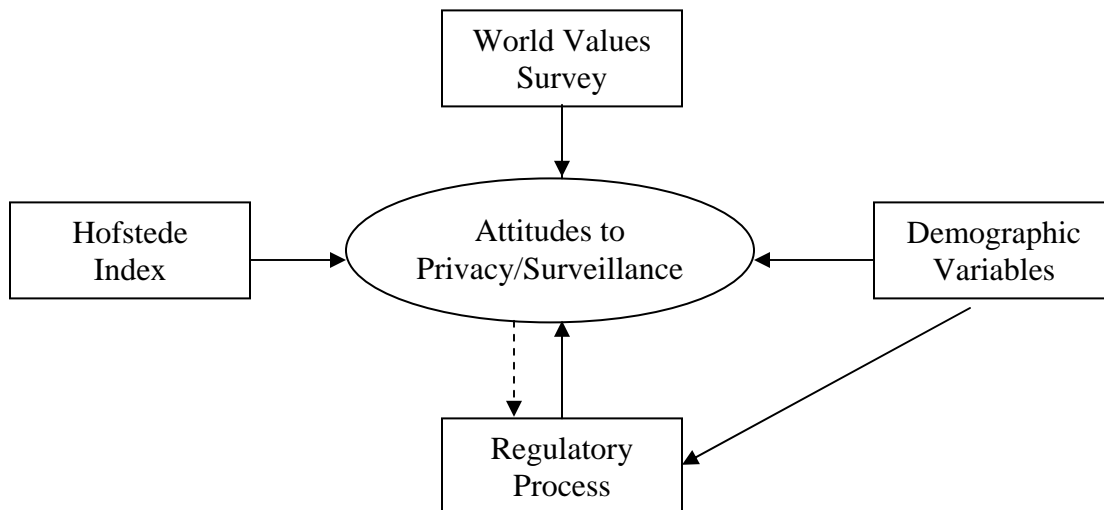
Another distinguishing feature of our approach to privacy is that it analyzes on a country basis the relationship between attitudes to privacy and demographic variables

such as age, gender and education, to see if within-country differences using these variables are confirmed cross-nationally. Very few studies on privacy have carried out cross-national comparisons using age, gender and education as variables.

The Example

I have used question 17 as an example in merging cultural values with responses to the question. To remind you, question 17 dealt with the extent to which respondents thought that laws enacted after 9/11 to protect national security were intrusive.

Here are the scores from Hofstede's cultural values inventory as they relate to our sample.

Index	Brazil	Canada	China	France	Hungary	Mexico	Spain	USA
UAI	76	48	40	86	83	82	86	46
IDV	38	80	15	74	55	30	51	91
PDI	69	39	80	68	45	81	57	40
MAS	49	52	55	43	79	69	42	62

UAI = Uncertainty Avoidance Index
IDV = Individualism Index
PDI = Power Distance Index
MAS =- Masculinity Index

Countries with high UAI exhibit low level of tolerance to ambiguity; are low risk takers
Countries with high IDV exhibit lose societal bonds; are more self-reliant
Countries with high PDI exhibit acceptance of unequal balance of power in society
Countries with high MAS exhibit assertiveness in contrast to caring values

Using the above country scores, we are able to divide our sample into three groups:

IDV Index

| Low Range (1-40)	Medium Range (41-80)	High Range (81-120)
China (score 15)	Hungary (score 55)	USA (score 91)
Brazil (score 38)	Spain (score 51)	Canada (score 80)
Mexico (score 30)		France (score 74)

Each respondent gets a score that varies from 1 to 4 on question 17. We exclude the "Not Sure" from the analysis. We calculate the mean score for every respondent on this question, and do a means test to see if the differences between the three ranges are statistically significant. Low scores denote perceptions that the laws are highly intrusive and high scores that they are not intrusive at all. If the relationship between responses to this question and the imported score values from the Hofstede Index are to be confirmed theoretically, we expect an inverse relationship between IDV scores and responses to question 17. Individuals who fall in the low range on Hofstede's index, namely that they

are not competitive and self-reliant, will tend to welcome laws and don't feel that laws are intrusive.

The Table below presents the means of the three groups to the answers of question 17. The graph shows the relationship between the scores for each group on the Hofstede index and the responses to question 17. We can see that there is an inverse relationship between the cultural values scores and the responses to question 17.

IDV Index

IDVgroups	Mean	N	Std. Deviation	Std. Error of Mean
1.00	2.6654	3692	.83395	.01372
2.00	2.4435	3247	.87616	.01538
3.00	2.2367	838	.86276	.02981
Total	2.5266	7777	.86705	.00983
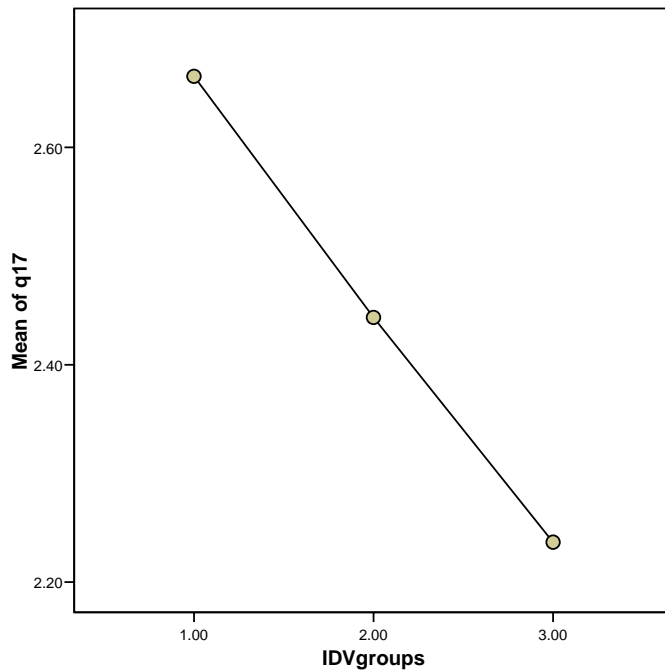
If we do pair-wise comparisons (e.g. group 1 vs. 2, 1 vs. 3, 2 vs. 3) the differences remain statistically significant.

Measures of Association

	Eta	Eta Squared
q17. The government of [INSERT COUNTRY OF INTERVIEW] has enacted laws aimed at protecting national security. To what extent do you * IDVgroups	.167	.028

ANOVA

q17. The government of [INSERT COUNTRY OF INTERVIEW] has enacted laws aimed at protecting national security. To what extent do you

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	163.906	2	81.953	112.115	.000
Within Groups	5681.831	7773	.731		
Total	5845.737	7775			

References
Bellman, Steven, Eric Johnson, Stephen J. Korbin and Gerald L. Lohse, "International Differences in Information Privacy Concerns: A Global Survey of Consumers," The Information Society, 20: 313-324, 2004.

Milberg, Sandra J., Sandra J. Burke, H. Jeff Smith, and Ernest A. Kallman, "Values, Personal Information, Privacy and Regulatory Approaches," Communications of the ACM, 38 (2): 65-75, 1995.

Appendix

Independent Samples Test (IDV 1 vs. 2)

		Levene's Test for Equality of Variances		t-test for Equality of Means					
									95
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	
q17. The government of [INSERT COUNTRY OF INTERVIEW] has enacted laws aimed at protecting national security. To what extent do you	Equal variances assumed	16.714	.000	10.799	6937	.000	.22187	.02054	
	Equal variances not assumed			10.765	6725.195	.000	.22187	.02061	

Independent Samples Test (IDV Index 1 vs. 3)

		Levene's Test for Equality of Variances		t-test for Equality of Means					
									95
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	
q17. The government of [INSERT COUNTRY OF INTERVIEW] has enacted laws aimed at protecting national security. To what extent do you	Equal variances assumed	2.048	.152	13.343	4528	.000	.42865	.03212	
	Equal variances not assumed			13.061	1216.366	.000	.42865	.03282	

Independent Samples Test (IDV Index 2 vs. 3)

		Levene's Test for Equality of Variances		t-test for Equality of Means					
									95
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	
q17. The government of [INSERT COUNTRY OF INTERVIEW] has enacted laws aimed at protecting national security. To what extent do you	Equal variances assumed	14.466	.000	6.109	4083	.000	.20677	.03385	
	Equal variances not assumed			6.164	1316.812	.000	.20677	.03354	

Heuristic Model Relating Values and Structural Variables to Attitudes to Privacy

Countries
1. Brazil
2. Canada
3. China
4. France
5. Hungary
6. [Japan]*
7. Mexico
8. Spain
9. USA
*Underway

Values
PDI
UAI
IND   Hofstede
MAS

Trust
   Generalized Trust
   System Trust   World
Security   Values
Risk /Uncertainty   Survey
Justice
   Procedural
   Substantive

Demography
   Age
   Gender
   Region
   Etc.

**Att
Privac
C**

Level of Development
   GNP (Wealth)
   Level of competence
   (R&D)
   Sectoral Distribution
   Tertiary Education

Experience with
and Knowledge
about
Technology and
Profiling

Cost of Internet
Cost of ICT

Diffus

Telecom Regulation
Legislation

Globalization
   Ownership of telecom
   Contract enforcement
   Regulation/Privatization