

CULTURE, LAW AND INFORMATION PRIVACY

Sophie Cockcroft,

University of Queensland, BRISBANE

Abstract

There has been much interest in the relationship between culture and attitudes to information privacy in recent years. Attempts have been made to triangulate for the cultural impact on legislation, but models generally use a relatively crude division of legislative codes. This work examines the various regimes for managing information privacy and data protection. A fine grained breakdown of key legislative attributes is presented. These key attributes are candidates for codification in law, but are taken up at variable rates. The effect that national culture (as defined by the GLOBE variables) has on the rate and pattern of adoption of these information privacy elements is analysed using binary logistic regression to provide evidence of the existence or otherwise of a cultural predicate of legislative approach.

Keywords: National Culture, Privacy, Legislation.

1 INTRODUCTION

Culture as a demographic indicator has been used in a number of privacy studies. Most recently (Bellman et al. 2004b) used national regulation as a means of revealing concern for information privacy (CFIP). They hypothesised three explanations for differences in privacy concerns: culture, internet experience and political desires using the Hofstede (2001) dimensions to describe culture. Only culture and internet experience turned out to be significant. i.e., it is nature and experience rather than government intervention that determines an individual's attitude to information privacy.

When examining government intervention in information privacy, an interesting pattern emerges; typically, governments legislate on new issues with the aim firstly of covering government information and powers (secrecy). Later, legislation is extended to private sector commercial and non-government enterprises and finally health, and other sectors, which initially takes the form of codes of practice. Finally 'policy convergence' occurs, as nations identify similarities in their legislation. Progress is often slow as governments are unenthusiastic to constrain their actions. Information and Communication Technologies (ICTs) are often pivotal in driving policy convergence as organisations wish to trade globally without borders. Enforceable legislation often lags behind the rapid progress of ICTs. This is true in the case of privacy legislation.

Many authors have identified a relationship between national culture and attitude to information privacy (Bellman et al. 2004a; Culnan et al. 2003; Milberg et al. 2000; Rose 2006; Smith et al. 1996), this may not be reflected in the relationship between culture and legislative approach. In order to explore the relationship between attitudes to information privacy and

culture, it is important to control for the influence of legislative approach ie do people respond according to their culture, or according to the legislative regimen under which they live in order to explore this, we need to ask the question, is legislative approach culturally determined?. If it is not, then we should study culture and privacy independently of legislation, which presents problems in operationalising the results of our research in the sense that we may not get government “buy-in”, in addition if legislative approach is not culturally determined, the fact that governments act independently of the attitudes of their citizens in the field of information privacy will be confirmed. If however, legislation is determined by culture then our assumptions about legislation being an artefact of culture hold true. We would expect this to be true in a democracy.

Thus, the central hypothesis of this work is that elements of legislation *are* culturally determined.

This study is clearly on the borderline between information systems and law. It is of interest to the Information systems community because legislative regime impacts the way e-commerce is conducted globally. It is also of interest to IT policy makers because it enables them to act beyond the confines of their legislative framework. This work enables us to determine at a finer level of granularity which elements of information privacy legislation are likely to be culturally determined.

Table 1 illustrates research questions that are currently under investigation in the IS literature. As described many researchers are exploring how culture affects attitudes to information privacy, these studies have frequently looked at information privacy at a fine grained level such as attitudes to secondary use, collection etc (Alexander 1998; Milberg et al. 1995). When studying the effect of culture on legislative approach at a coarser level of granularity is normally asumed, for example many studies have used the classifications for data protection put forward in (Milberg et al. 1995) ie registration, licencing, voluntary control, self help, or data commissioner as a measure of legislative approach. Bellman’s study is distinguished from many other studies by the fact that it uses national regulation as the dependant variables (Bellman et al. 2004a).

The central box, appearing in bold in Figure 1 places the current work in the context of a broader research agenda. The chief originality if that it takes a closer look at which elements are incorporated in the laws of a country, and whether these are culturally determined.

Research Question	Citation	Independent variable	Dependent variables	Key finding
Does Legislative approach affect concern for information privacy?	(Bellman et al. 2004b)	CFIP	Culture, internet experience, political desires	Culture and Internet Experience.
	(Milberg et al. 2000)	Regulatory preferences	Regulatory approach (none, self-help, voluntary, data commissioner registration, licencing),	The stronger the regulation the greater the concern.
	(Dinev et al. 2006)	Privacy Concern	Misuse, secondary use, lack of control, unauthorized access	Individuals in Italy had lower privacy concerns than individuals in the U.S.
Which elements are of concern to a countries' citizens?	Rose, 2006	CFIP	Collection, errors, access, secondary use	Access and secondary use are of greater concern
	(Earp et al. 2005)	Privacy dimensions	Content of privacy policies, User concerns	Users are concerned in order by transfer, notice/awareness/ storage – User privacy values do not align with website privacy statements
Does National Culture affect which elements are included in the law?	(Milberg et al. 2000)		National Culture, legislative approach	A country's cultural values are associated positively but marginally with its regulatory approach
Does national culture affect concern for information privacy	(Milberg et al. 2000)	CFIP	National Culture, legislative approach	A country's cultural values are associated strongly with the privacy concerns that are exhibited by its populace,

Table 1 Research questions in the IS literature, the broader agenda

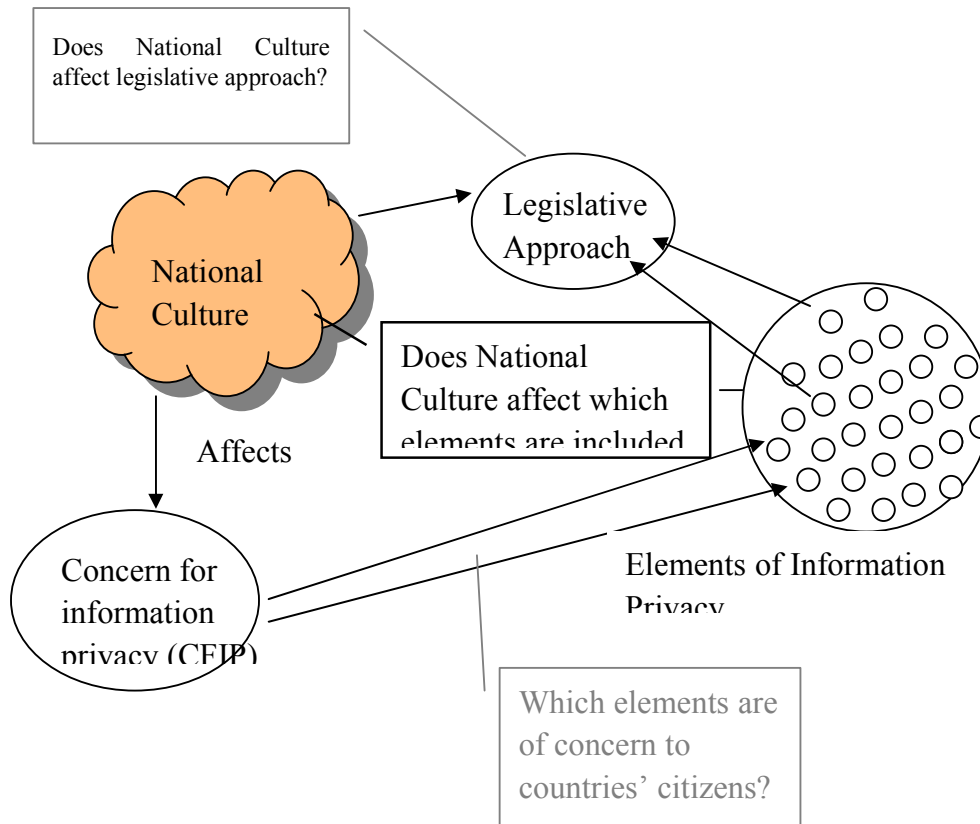


Figure 1 Culture law and privacy research questions

2 AN INFORMATION SYSTEMS FOCUSED TAXONOMY OF PRIVACY

This study focuses on Data Processing aspects of Information Privacy, but privacy is a much broader issue. Solove (2006) described “privacy” as an emotive word like “freedom”. He asserted that “Privacy means so many different things to so many different people that it has lost any precise legal connotation that it might once have had”. Arising from this concern, he developed a taxonomy, which is summarized in Table 2.

Issue	Sub-Issue	Description
Collection	Surveillance	Watching, listening to, or recording of an individual's activities.
	Interrogation	Various forms of questioning or probing for information.
Processing	Aggregation	The combination of various pieces of data
	Insecurity	Carelessness in protecting stored information from leaks and improper access.
	Secondary Use	Information collected for one purpose for a different purpose without the data subject's consent
	Exclusion	Failure to allow the data subject to know about the data that others have about her and participate in its handling and use
Dissemination	Breach of confidentiality	Breaking a promise to keep a person's information confidential
	Disclosure	Involves the revelation of truthful information about a person that impacts the way others judge her character
	Exposure	Revealing another's nudity, grief, or bodily functions.
	Increased accessibility	Increased accessibility is amplifying the accessibility
	Blackmail	The threat to disclose personal information.
	Appropriation	Use of the data subject's identity to serve the aims and interests
	Distortion	Dissemination of false or misleading information about individuals
Invasion (need not involve personal information)	Intrusion	invasive acts that disturb one's tranquillity or solitude
	Decisional Interference	involves the government's incursion into the data subject's decisions regarding her private affairs.

Table 2 Broad taxonomy of privacy

In order to focus this study on Information Systems (IS) issues, we concentrate on processing, and the breach of confidentiality and disclosure sub-issues from Table 2. When identifying which elements to include in the study, it emerged that the EU directive is the most comprehensive. A little history emphasises this point. In 1980, the Organization for Economic Cooperation and Development (OECD), an international organization, issued the Guidelines on the Protection of Privacy and Transborder Flows of Personal Data. These are seen as the current best-practice global standard for privacy protection (Earp et al. 2005). Before this in 1973 the Fair Information Practice (FIP) principles (U.S. Department of Health 1973) formed the basis for establishing and evaluating U.S. privacy laws and practices in the US, these guidelines are not legally binding, but are recognized by all OECD members including the EU. The most comprehensive directive is the EU directive (EU Directive 1995) which is a superset of the OECD guidelines. The U.S. FIPs on the other hand are a subset of the OECD

guidelines. For the purposes of this study a subset of the EU directive were taken as a gold standard against which the data processing laws of each nation in the study was measured, articles 7 through to 26 of the directive were selected for study because they focus specifically on the information systems issue of data processing. Using the data processing aspects of this directive does not in fact introduce bias into the study (ie European countries all comply) because there are still countries in the EU which struggle, or choose not to comply with certain aspects of the directive (Statewatch 2005). Newer members of the EU for example have particular compliance issues, these were explored in (Rahmani-Afoosi 2005)

3 NATIONAL CULTURE, THE GLOBE VARIABLES

The validity of National Culture measures to date has been criticized for accuracy and relevance, particularly with regard to cultural boundaries. However, these and other criticisms of the use of cultural factors by (Myers et al. 2002) have been overcome by the GLOBE project (House et al. 2004). GLOBE re-examines national culture in a new way mitigating many of the concerns of earlier approaches. This study is a move away from the Hofstede (2001) national cultural dimensions in favour of those developed in the GLOBE project (many of which are developed from the foundations developed by Hofstede).

4 METHODOLOGY

Articles 7 to 26 of the EU directive – those concerning data processing were studied. A country was judged to incorporate a legislative element only if it can be found in the written law or constitution of the country. Country legislative summaries are presented at privacyinternational.org and privacyexchange.com. There are 59 countries in the globe study, and 100 countries have detailed descriptions of their legislative regime on the above mentioned websites. Where a country appeared in both data sets it was included in the current study, this resulted in a total of 53 countries under review. Of those, on further inspection, only 26 countries had a full report in privacy international. In addition the GLOBE study distinguishes between, for example, black and white South Africa, whereas privacy international does not. This reduced the data points available for the current study to 22. The countries included in the study are illustrated below.

Australia	Austria
Brazil	Canada(English-speaking)
England	Finland
France	Germany(former West)
New Zealand	Sweden
Thailand	US
Singapore	Greece
Spain	Ireland
Italy	Japan
Malaysia	Netherlands

Table 3

Elements of information privacy were distilled from the information systems and comparative law literature as described above. A binary logistic regression was carried out to determine whether national culture (as described by the GLOBE variables) is a valid predictor of

legislative approach based on the elements identified for example does culture predict the inclusion of specific laws on rights of access secondary use. Details of the countries and legislative elements under consideration are given in the results section

Each legislative element was independently studied as a dependant variable with the globe culture variables being the independent variable. The dependent variable is discrete (0,1) not continuous. A forward stepwise selection method for variables was used, with entry testing based on the significance of the score statistic, and removal testing based on the probability of a likelihood-ratio statistic based on conditional parameter estimates.

Binary logistic regression was chosen in preference to discriminant analysis because logistic regression allows discrete outcome, such as group membership to be predicted, from a set of variables that may be continuous, discrete, dichotomous, or a mix of any of these. In addition logistic regression is more appropriate where the dependent variable is dichotomous, as in this study. Discriminant analysis can only be used with continuous independent variables. The use of binary logistic regression is of assistance with a small sample size such as the one used here because there is no requirement for the data to be normally distributed, linearly related or have equal variance.

5 RESULTS

For a few of the legislative elements culture did not represent a significant predictor, and for those that did three cultural attributes emerged; Group Collectivism, Assertiveness and Gender Egalitarianism. Group collectivism had a negative effect, and the other two had a positive effect. The full results are summarised in Table 4. There were a number of elements which emerged with no significant cultural predictors:- Section III *special categories of data* generally relating to health, political, philosophical or sexual preferences and freedom of expression did not appear to be culturally determined in this sample. Other legislative elements for which significant cultural predictors were not found were Articles 14 and 15 *the data subject's right to object* and Article 24 of the judicial remedies, *sanctions*. The presence or otherwise of legislative elements relating to notification were uniform across the countries studied, e.g. if a country had a law analogous to article 18, it also had 19 through 21. Thus these are studied at a coarser level of granularity – simply “notification”. This was also true of articles 25 and 26 relating to transborder flow of information and articles 10 and 11 relating to information to be given to the data subject.

Legislative Element	Article		B	S.E.	Wald	Sig.	Exp(B)	95.0% C.I. for EXP(B)		Model Chi_Squares	Sig.	Percentage Correct
								Lower	Upper			
SECTION II- criteria for making data processing legitimate	7	GroupCollectivism	-2.684	1.320	4.131	0.042	0.068	0.005	0.909	7.740	0.005	90.900
		Constant	14.610	6.923	4.463	0.035	2214081.048					
SECTION IV - INFORMATION TO BE GIVEN TO THE DATA SUBJECT	10 & 11	GroupCollectivism	-1.481	0.791	3.509	0.061	0.227	0.048	1.071	4.417	0.036	81.800
		Constant	7.867	3.923	4.021	0.046	2609.112					
SECTION V- THE DATA SUBJECT'S RIGHT OF ACCESS TO DATA	12	Assertiveness	4.640	1.980	5.492	0.019	103.595	2.137	5021.860	8.713	0.030	86.400
		Constant	-17.910	7.886	5.168	0.023	0.000					
SECTION VI - EXEMPTIONS AND RESTRICTIONS	13	GroupCollectivism	-1.631	0.825	3.912	0.048	0.196	0.039	0.985	5.132	0.023	77.300
		Constant	8.606	4.108	4.389	0.036	5462.931					
SECTION VI - THE DATA SUBJECT'S RIGHT TO OBJECT	15	GroupCollectivism	-2.583	1.277	4.092	0.043	0.076	0.006	0.923	7.424	0.006	90.900
		Constant	14.083	6.682	4.442	0.035	1306369.612					
SECTION VII - CONFIDENTIALITY AND SECURITY OF PROCESSING	16	GroupCollectivism	-2.583	1.277	4.092	0.043	0.076	0.006	0.923	7.424	0.006	90.900
		Constant	14.083	6.682	4.442	0.035	1306369.612					
	17	Assertiveness	2.902	1.587	3.343	0.067	18.210	0.812	408.541	4.080	0.430	72.700
		Constant	-10.712	6.317	2.876	0.090	0.000					
SECTION IX - NOTIFICATION	18-21	GroupCollectivism	-2.583	1.277	4.092	0.043	0.076	0.006	0.923	7.424	0.006	90.900
		Constant	14.083	6.682	4.442	0.035	1306369.612					
CHAPTER III - JUDICIAL REMEDIES, LIABILITY AND SANCTIONS	22	GroupCollectivism	-1.715	0.791	4.702	0.030	0.180	0.038	0.848	6.240	0.012	72.700
		Constant	8.491	3.834	4.904	0.027	4872.259					
	23	GroupCollectivism	-1.576	0.761	4.291	0.038	0.207	0.047	0.919	5.483	0.019	72.700
		Constant	7.827	3.684	4.514	0.034	2507.600					
CHAPTER IV - TRANSFER OF PERSONAL DATA TO THIRD COUNTRIES	26	GenderEgalitarianism	4.734	2.341	4.090	0.043	113.732	1.157	11179.451	5.683	0.017	81.800
		Constant	-16.871	8.130	4.307	0.038	0.000					

Table 4 Results

6 DISCUSSION

Sample size will always be an issue when conducting comparative studies of nation states, due to the limited amount of data available. Based on the limited evidence available it would seem that nations laws do reflect their cultures driven mainly by the cultural attributes group collectivism, assertiveness and gender egalitarianism.

6.1 Assertiveness

Assertiveness in a culture makes it more likely than would be expected that privacy elements in this study, rights of access and security of processing, are included in the legislation of countries with a high value for assertiveness. Support is weaker than for the other two GLOBE variables. However it is a positive relationship, the more assertive the culture the more likely these elements are to be in the legislature.

6.2 Group Collectivism

This dimension refers to the extent to which members of a society take pride in membership in small groups such as their family and close circle of friends, and the organizations in which they are employed. In countries with high group collectivism scores, being a member of a family and of a close group of friends is important and there is an inclination to put friends and family before society's rules and procedures. This focus and tendency to share may lead people to be less concerned about privacy and this has led to less rigorous codification of these elements in law – such countries include the Asian countries Singapore, Malaysia and Japan.. The specific elements that appear here are those relating to the rights of the individual (e.g. to be notified, to object and to seek recourse in a higher authority). The influence of Group Collectivism makes them less likely to be included.

6.3 Gender Egalitarianism:

In societies where the differences in gender are high, gender inequality will be apparent. Men tend to focus on hierarchy and independence, while women focus on intimacy and solidarity, thus women would be more concerned over privacy issues. In the sample data this interesting outcome could be due to the very high interest in Scandinavian countries in privacy issues particularly those of transborder flow. These countries also have a high score for gender egalitarianism.

7 CONCLUSION

This small pilot study has revealed what was previously assumed, ie that legislation is typically in concert with cultural values of a nation the two dominant variables being assertiveness and group collectivism. There were many GLOBE variables that did not appear to have a significant effect on legislative regime. Two possible explanations are put forward for this. First, these are not important in determining laws relating to privacy – but may well be significant in other areas of the law. Second, policy convergence has outweighed

democracy in privacy in particular so many aspects of many countries cultures are not reflected in the law. There are clearly other factors that will affect how quickly, completely or if at all, a country adopts legislation suggestions would include: GDP, political persuasion, and length of democracy. Use of these variables in a similar study is suggested as an area for further research.

References

- Alexander, P. "Attitudes Toward Information Privacy: Differences Among and Between Faculty and Students," The AIS Americas Conference, Baltimore, Maryland, August 14-16, 1998, 1998, pp. 3-6.
- Bellman, S., Johnson, E.J., Kobrin, S.J., and Lohse, G.L. "International differences in information privacy concern: Implications for the globalization of electronic commerce," in: *Advances in Consumer Research, Volume Xxi*, 2004a, pp. 362-363.
- Bellman, S., Johnson, E.J., Kobrin, S.J., and Lohse, G.L. "International differences in information privacy concerns: A global survey of consumers," *Information Society* (20:5), Nov-Dec 2004b, pp 313-324.
- Culnan, M.J., and Bies, R.J. "Consumer privacy: Balancing economic and justice considerations," *Journal of Social Issues* (59:2) 2003, pp 323-342.
- Dinev, T., and Hart, P. "An extended privacy calculus model for E-commerce transactions," *Information Systems Research* (17:1), Mar 2006, pp 61-80.
- Earp, J.B., Anton, A.I., Aiman-Smith, L., and Stufflebeam, W.H. "Examining Internet privacy policies within the context of user privacy values," *Ieee Transactions on Engineering Management* (52:2), May 2005, pp 227-237.
- EU Directive "Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data," *Official Journal of the European Communities*, 23 November 1995 1995, p 31.
- Hofstede, G.H. *Culture's Consequences : comparing values, behaviors, institutions, and organizations across nations*. (2nd. ed.) Sage Publications, Thousand Oaks, California: London, 2001.
- House, R.J., Hanges, P.J., Javidan, M., Dorfman, P.W., and Gupta, V. *Culture, Leadership. and Organizations* Sage Publications Inc., Thousand Oaks, CA, 2004.
- Milberg, S., Burke, S., Smith, J., and Kallman, E. "Values, personal information, privacy and regulatory approaches," *Communications of the ACM* (38:12), September 1995 1995, pp 65-74.
- Milberg, S.J., Smith, H.J., and Burke, S.J. "Information privacy: Corporate management and national regulation," *Organization Science* (11:1), Jan-Feb 2000, pp 35-57.
- Myers, M.D., and Tan, F.B. "Beyond Models of National Culture in Information Systems Research," *Journal of Global Information Management* (10:1) 2002, pp 24-32.
- Rahmani-Afoosi, V.a.T., H. "A case-study on the protection of personal data in the Newly Joined Member States of the European Union," Data Protection in eEurope, Redefining Europe: Federalism and the Union of European Democracies,, Prague, Czech Republic, 29 April - 2 May, 2005.
- Rose, E.A. "An examination of the concern for information privacy in the New Zealand regulatory context," *Information & Management* (43:3), Apr 2006, pp 322-335.
- Smith, H.J., Milburg, S.J., and Burke, S.J. "Information privacy: Measuring individuals' concerns about organizational practices," *Mis Quarterly* (20:2), Jun 1996, pp 167-196.
- Solove, D. "A Taxonomy of Privacy," *University of Pennsylvania Law Review* (2006:January) 2006, pp 1-81.
- Statewatch "<http://www.statewatch.org/news/2005/oct/com-1st-rep-data-prot-03-technical.pdf>," Analysis and impact study on the implementation of Directive EC 95/46 in Member, 2005.
- U.S. Department of Health, E.a.W. "The Code of Fair Information Practices," 1973.