PRIVACY AND THE INTERNET: DIFFERENCES IN PERSPECTIVES

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Abstract

This study examined results of a World Wide Web survey that used the framework of domain theory of moral development to examine attitudes of Internet users assuming perspectives of victims, aggressors and bystanders toward privacy issues. The effect of a monetary incentive was tested on two perspectives; effects of three moderating variables, employment status, newsgroup/mailing list membership and culture, were also tested. In the process of examining interactions, an evaluation determined if changes in attitudes indicated movement along a morality continuum.

Results show that victims are more concerned than aggressors, and bystanders take a moralizing stance regardless of domain. Results of the monetary incentive test suggest that privacy is for sale. Employed respondents are more concerned than non-employed respondents; membership has little effect. Effects of culture do not support the hypotheses. Implications are that moral judgements are a function of perspective and domain, allowing flexibility along a morality continuum due to situational deviations.

Preface

This study is part of the Privacy Project Survey conducted by Dr. Urs. E. Gattiker. The project began at the University of Lethbridge, Lethbridge, Alberta, and continued while Dr. Gattiker was at the University of Cape Town in South Africa. Survey distribution was conducted in 1996 while the project team was at the University of the Federal Armed Forces at Hamburg, Germany. The support of these institutions is acknowledged, as well as the support of Texas A & M University, Corpus Christi for survey distribution.

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Table of Contents

List of Tables

Introduction

There are many sides to privacy on the Internet, such as anonymity issues of concealing identities while searching for information, and keeping files intact from intruders. The privacy issue that is examined in this study is the attitudes of people when they are on different sides of privacy-invasion events that occur on the Internet.

According to Fishbein and Ajzen (1975), attitudes are the predispositions and learned behaviours of individuals directed toward some object, person or group. Attitudes of respondents are important indicators of computer-usage decisions (Loch & Conger, 1996). There are three main purposes for this study. First, attitudes of respondents are examined to determine differences in perspectives regarding privacy invasions in situations requiring a moral judgement. One analysis examines the perspectives of a victim and an aggressor; a separate analysis examines the perspective of a bystander. The second purpose is to examine the effect of an offer of a monetary incentive in exchange for a privacy invasion on the perspectives of (1) victims and aggressors[1], and (2) overall attitudes of respondents. The third purpose of this study is to determine if three moderating variables, employment status, newsgroup/mailing list membership, and culture, have an effect on attitudes toward invasions of privacy. In the process of examining interactions, an additional evaluation is conducted to determine if changes in attitudes indicate movement along a morality continuum.

Implicit in an invasion act is that an ethical dilemma exists requiring a moral judgement about an event. Consequences of the judgement are beneficial or harmful for others (Jones, 1991). Domain theory (Turiel, Killen & Helwig, 1987; Haidt, Koller & Dias, 1993) is used as a framework to present two situations involving ethical dilemmas with e-mail technology in order to examine variations in attitudes of Internet users in the domains of moral judgement. Nisan's

[1]At the time of the survey, data were not available to examine the effect of a monetary incentive on the perspective of the bystander.

(1991) concept of limited morality is also applied in this study. The concept of limited morality is that individuals allow themselves a certain amount of deviation in their moral judgements according to characteristics of situations.

There are research and practical implications for this study. From a research perspective, the study of the behaviour of Internet users is relatively new, and each information technology innovation introduces a novel situation to be explored (Loch & Conger, 1996). From a practical perspective, Internet users need to be aware of and to promote ethical Internet use to all stakeholders to protect the integrity of the Internet.

Literature Review

Communication and information-based systems have contributed to the growth of an immense web of digital relationships between people, as well as government and non-government entities who keep records of personal aspects of individual lives. These relationships cause people to alternate between being consumers and suppliers of information about some aspect of their personal lives (Rubin, 1988). Individuals are vulnerable to other individuals, governments, businesses, or any entity collecting personal information for secondary use, resulting in intrusions into lives that take away the anonymity and obscurity that was formerly taken for granted.

Privacy Defined

> *Privacy is the ability to control personal transactions, including social interactions; expressions of thoughts, ideas and emotions; determination of one's autonomy and personal space; and disclosure and use of personal information.*

The above definition is constructed for this study to reflect a general expectation of privacy. Justices Brandeis and Warren first identified and articulated the right of privacy in 1890, however, they relied on legal precedent in English common law from a period that covered 500 years (Rubin, 1988). Brandeis and Warren found that privacy was "the right of determining to what extent one's thoughts, sentiments, and emotions shall be communicated to others" (Rubin, p. 17). This early definition of the right to privacy was a result of the threat of new technology at the time: still photography and telephones. Legal precedent grew from protection of the physical person to protection of intangible aspects of the person, including emotional well-being and reputation. Rubin goes on to describe the case of Millar v. Taylor in 1769 that provided the first indication that an individual had the right to control the communication of thoughts and emotions to others.

New technology that allowed for electronic surveillance was responsible for further challenges to the right of privacy in the 1920s (Rubin, 1988). It is a concern that has still not been resolved today, because it is not clear if privacy can be a right. The right of privacy is a conundrum, because it is impossible to legislate its protection without violating the principle. As van Swaay (1995) states, protecting privacy requires a certain amount of vigilance, which in itself becomes a violation of the principle that it is trying to protect.

The definition of privacy does not include the notion of ownership. The concept of ownership of personal transactions is not clear, and van Swaay (1995) argues that the capability to control something does not immediately confer ownership. The problem arises when information about an individual is in a broad sense "created" by another entity through collection and interpretation of many observations that are meaningless by themselves (van Swaay). Violations of privacy occur when personal transactions are accessed and controlled beyond the realm for which the information was originally collected, or used for purposes not approved by the original owner of the information. For example, unsolicited advertising can occur because addresses are accessed and used without the knowledge or consent of the address owner. An individual who has no knowledge that stored personal information exists elsewhere can have no control over it. Neither can an individual have complete control over information that has been voluntarily disclosed.

Compromises to absolute privacy are necessary for individuals to interact with each other. Compromises differ according to specific environments or circumstances for which personal transactions occur. For example, surfing the Web is not a private and anonymous action. A visit to a Web site is an opportunity for that site to collect information such as where the visitor is located and the type of computer the visitor has. Anonymous remailers and encryption software can provide anonymity and some assurance that the originators of e-mail messages cannot be immediately identified (Froomkin, 1995), however every electronic transaction leaves a record that

with some effort can be traced back to the originator. Consequently, the very nature of the Internet compromises the control of personal information after its initial "voluntary" disclosure. The issue then becomes a matter of control of personal information beyond its initial disclosure. The definition of privacy is therefore modified for the Internet environment, as follows:

> *Privacy on the Internet is the ability to control the secondary disclosure and use of personal information obtained through interpersonal Internet transactions, such that secondary disclosure and use of personal information is restricted to use only in combination with the expressed consent of that person.*

This study examines attitudes of Internet users regarding events where control of privacy has been lost because e-mail addresses were used for purposes other than what was intended by the address owners.

Theoretical Framework

Determining attitudes regarding the concept of privacy on the Internet is not easy. Turiel, Killen and Helwig (1987) found that there are differences between the attitudes of subjects toward abstract concepts and their application. Similarly, Katz and Tassone (1990) reported that people are less concerned about privacy when there are competing issues to evaluate, than if privacy is the only issue presented.

Based on studies that used scenarios to examine moral judgements (Haidt, Koller & Dias, 1993; Miller, Bersoff & Harwood, 1990), two novel stimuli, or scenarios, were used in the current study to place privacy-invasion issues into context. Previous research describes the conceptual appropriateness of this approach (Nucci, 1981; Turiel, 1983). Gattiker and Kelley (1995) used scenarios in their study of morality, the Internet and computer-mediated behaviours in order that their participants could respond to concrete and specific matters. Harrington (1996) found that scenarios have the advantage of placing respondents in decision-making roles about realistic and sensitive issues, but without the confound of experimenter approval. McClosky and

Brill (1983) demonstrated that it is easy for individuals to support abstract statements regarding civil liberties. In contrast, context-specific or applied reports of civil liberties are more difficult to grasp unless the individual has had some experience, interest or knowledge about the subject. Finally, as Internet-related behaviour is new and can be termed "unconventional," subtleties about interactions between Internet users may be difficult to grasp unless they are context specific. For these reasons, this study used scenarios to present privacy issues to Internet users.

Three perspectives on privacy issues are described next, followed by a description of domain theory which is used as the framework within which the privacy-invasion scenarios are presented. Finally, limited morality is integrated with perspectives and domains of moral judgement to demonstrate how situational deviations can lead to attitudinal changes.

Perspectives

The response to a moral conflict will depend upon the perspective, or strength of association an individual has to an event where a moral decision is required. Katz and Tassone (1990) describe the difference between a privacy loss and privacy invasion. When an individual voluntarily reveals something that is of a personal nature, a passive privacy loss occurs. In contrast, an active privacy loss occurs when a negative environmental incident or condition is taken against an individual and results in a privacy invasion. This description, however, does not account for a bystander, someone who is neither passively nor actively involved in an event. It is proposed that the perspective an individual has regarding an event can occur in three ways: an individual can be a victim *or* an aggressor, where in both cases the association is direct, or the individual can be a bystander, where the association with an event is indirect or at arm's length.

The ***victim*** is the individual whose privacy is being invaded. This person is a passive participant in the invasion act, as Katz and Tassone (1990) describe, and reactions from this perspective to privacy-related questions will indicate a high degree of apprehension. The victim

will respond with more concern to privacy-related questions as an indication of the harm that is perceived.

The *aggressor* takes an active part in invading another individual's privacy. Reactions to privacy-related questions from this perspective will be generous and lenient and the invasion act will be rationalized. Kim and Hunter (1993) state that an individual completely controls a particular behaviour if that individual is free to choose to perform the behaviour or not. However, in the case of an employee who is given specific tasks to perform, there may be limited latitude for the employee to impose personal interpretations of the morality of the tasks.

The *bystander* is an individual who is not directly affected by an act of privacy invasion. Harm to the unaffected third party is experienced only as harm to the greater society. Responses to privacy-related questions from an observer will be mixed, as events will be abstract rather than concrete concepts.

The concept of computer-induced deindividuation (Loch & Conger, 1996) becomes relevant here, as it is a significant factor in determining the moral choices and behaviour of individuals using Internet technology. Research has already demonstrated that communication via computers is different than face-to-face communication. Individuals become more critical (Kiesler, Zubrow, Moses & Geller, 1985), inhibitions are lowered, there is less responsiveness to the attitudes and opinions of others, and self-awareness versus public awareness may change (Matheson & Zanna, 1989). The loss of awareness is a consequence of the distance between users that is imposed by the Internet, where it is no longer possible to see firsthand the effects of one's actions.

Questions in the survey used for this study ask participants to take the perspectives of victim, aggressor and bystander in privacy-invasion situations that are in two domains of moral judgement.

Domain Theory

The two scenarios in the survey are based on Nucci's (1981) and Turiel's (1983) domain theory of moral development that provides a basis for understanding changes in social judgements and actions (Turiel, Killen & Helwig, 1987). Domain theory postulates that social events are categorized into three realms of knowledge requiring the coordination of judgements between issues that are personal, conventional or moral, according to the interpersonal consequences of the events. The three domains are distinct but have complex relationships with moral and nonmoral components (Turiel, et al.). The distinction between domains is a function of culture which dictates the form and content of morality. Western cultures are primarily rights-based, anchoring norms on welfare, rights and justice; they make a clear distinction between domains, whereas Asian consensual duty-based cultures may not make that distinction (Turiel, et. al.; Nisan, 1987).

The distinction between domains is also a function of harm, with the consequences being hurt, injury or damage, or moral wrong or evil (Webster's, 1980). The domain of an event will determine the degree of harm, however, herein lies the difficulty of categorizing an event into the conventional or moral domain. What may be a hurtful event to one may be a moral wrong to another. To add to the problem, events that occur on the Internet may be difficult to categorize. Harm as a result of computer interactions may not be easy to recognize because recipients are abstract and not easily identified (Conger, Loft & Helft, 1995). For purposes of this study, harmful events in the conventional domain are narrowly defined as actions that do not violate the interests of others, "beyond the interest of not being offended" (Haidt, Koller & Dias, 1993, p. 613). Harmful acts in the moral domain are those actions which violate the interests of others, with material and psychological consequences (Haidt, et al.). Table 1 provides a description of the three domains.

Table 1: Domains of Judgement
A Western Social and Interactional Approach to the Domain Theory of Moral Development

	Moral Domain	Conventional Domain	Personal Domain
	Natural law	*Normative law*	*Personal law*
Learning Condition	Learned through observation of consequences of sanctions Culture dependent	Learned through exposure to group consensus Context dependent	Learned through experience and exposure to others Culture and preference dependent
Material Conditions	*Objective obligations:* Justice, harm, rights, welfare, allocation of resources, unconditional, obligatory and impersonal	*Actions that are right or wrong by virtue of social consensus:* Social uniformities and regularities, conditional upon context	*Actions that are acceptable by virtue of personal judgement:* Set of actions that define private aspects of life
Description	Intrinsically harmful acts perceived directly or inferred from direct perceptions	Behavioural uniformities that function within a socially defined system	Behaviours that function within the system defined by the self
Judgements	Dichotomous: right or wrong	Social context dependent	Self-censure
Transgressions	Break and enter home invasion	Eavesdropping	Physical or emotional harm to oneself.
Consequences	Legal sanctions	Social sanctions	Personal sanctions

Note. This table was expanded upon from those developed by Turiel (1983, p. 224) and Shweder, Mahapatra and Miller (1987, p. 24).

The **personal domain** is based upon personal preferences and tastes, and is outside the realm of "societal regulation and moral concern" (Nucci, 1981, p. 114). For example, meat may be part of a normal diet for some, but may be disgusting for others. A computer-related example is the use of encryption devices to send and receive e-mail messages.

The **conventional domain** encompasses acts that are harmless in and of themselves, but that have interpersonal consequences in specific social situations. Right or wrong is a matter of extrinsic social consensus (Shweder, Mahapatra & Miller, 1987). Judgements about acts are dependent upon the social context and transgressions have no harmful consequences for anyone.

Eavesdropping on a private conversation is an event in the conventional domain. Sending unsolicited e-mail advertising is classified in this study as an event in the conventional domain. These actions are judged right or wrong according to their social contexts.

The **moral domain** refers to the intrinsic moral events that are objective obligations regarding justice, harm, rights, welfare and allocation of resources. Judgements about moral events are dichotomous (Nisan, 1991); they are viewed as universally right or wrong, good or bad. Implicit in a harmful act is that there is a victim who is the recipient of that harm and experiences material and psychological consequences. Events in the moral domain are break-and-enter home invasions, theft, or murder.

Limited morality, a component of the moral balance model described below, is applied within the framework of domain theory to determine how attitudes of survey respondents deviate with changes in domains.

Moral Balance Model

The dilemma of moral decision-making is the discrepancy between moral judgement and moral choice (Nisan, 1991). Nisan's study of moral balance showed that a moral decision is determined by two things: an objective judgement of the morality of an action and an evaluation of the moral standing of the individual involved. Determining that an act is morally right does not ensure that an individual will follow with moral action, and the decision to act morally is not a guarantee that the moral action will be successful.

Nisan's (1991) moral balance model proposes that there are three ways in which individuals deal with the conflicts of moral situations. First, the concept of moral standard is where people calculate a personal moral balance based on all their morally relevant actions within a given time period, and do not descend below a minimum standard. Good acts, such as honesty in business, raise the balance, and bad acts such as a privacy invasion, lower it. The second

concept is that individuals create a balanced identity so that in a conflict between morality and personal value, the option chosen is the one that enables individuals to maintain an acceptable balance of all parts of their identity.

Finally, the concept of limited morality is where individuals allow themselves to deviate from what they judge to be moral behavior, even though they attempt to make moral judgements and are uncomfortable with their deviations. Limited morality is a function of the deviations, or flexibility, that individuals allow themselves along a continuum that has preset parameters. On one extreme are the norms of behaviour approximating ideals that individuals establish for themselves. On the other is the limit of transgressions beyond which individuals will not allow themselves to pass. Individuals knowingly allow their behaviour to deviate within these parameters according to the specifics of situations. The severity of the transgression is determined by the degree of consequential harm. To illustrate, murder is at one end of the continuum and an act of charity is at the other end.

A study by Turiel, Killen and Helwig (1987) reported on variations in behaviours, attitudes, and social practices, all of which are indications of moral relativism. For example, most people respond to general questions about inflicting harm by agreeing that it is categorically wrong to engage in such activity. However, Turiel, et. al. state that it is not possible to assume that people will always avoid inflicting harm. The reality of life is that there are strongly competing forces that make moral choices difficult. Neibuhr (1960) states that limiting factors to moral reasoning are the egoistic impulses that are so powerful that they take advantage of any justification. Duties of employment may be one such justification. Others may be the social pressure of community interests, rewards, familiarity with technology, and proximity to events.

Integration of Domains, Moral Identity, and Perspectives

This study applies Nisan's (1991) limited morality to two domains of moral judgement. Although behaviour is expected to conform within a defined system, it is proposed that the judgements of individuals will illustrate the flexibility of movement along a morality continuum according to domain and perspective. Events that fall within the conventional domain are context dependent (ref. Table 1) and judgements are made within the context of a social group (Turiel, 1983). As the consequences of transgressions in the conventional domain are not as severe as they are in the moral domain, there will be more movement between perspectives along the morality continuum. In contrast, events that fall within the moral domain have judgements of right or wrong, with legal sanctions resulting from transgressions. Preset parameters are more restrictive than in the conventional domain and consequently, there will be less deviation between perspectives along the morality continuum. The matrix in Table 2 illustrates the integration of perspectives with domain theory and limited morality. Attitudes toward privacy-related issues are a function of the domain of the event, the perspective of the individual, and the deviations allowed along the continuum of limited morality. Attitudes of victims will indicate the greatest amount of concern in both domains, as the perception of harm is greater for the victim than for any other perspective. Attitudes of aggressors will indicate the least amount of concern. Bystanders, as illustrated, will be in the middle, to reflect that harm is not perceived first hand but is an abstraction.

Table 2: Interactions Between Perspective, Domain and Morality

Perspective	Conventional Domain	Moral Domain
Victim (passive participant; direct association)	moderately high concern	very high concern
Bystander (observer; indirect association)	medium concern	medium concern
Aggressor	low concern	moderate concern
Limited Morality Continuum	more deviation	less deviation

Note. Interactions illustrate that concern is a function of domain and perspective. Victims will perceive the most concern, and aggressors will perceive the least concern. Perceptions of bystanders will be mixed. Deviations along the morality continuum are domain and perspective dependent.

There are two parts to the study reported in this paper. Part 1 examines responses of survey participants to a situation in the conventional domain (unsolicited e-mail advertising) and a situation in the moral domain (e-mail wiretapping). Interactions between domains and the perspectives of victim and aggressor are analysed, followed by an analysis of the perspective of the bystander. The offer of a monetary incentive in the conventional domain (unsolicited e-mail advertising) is then analysed to determine its effect on victims and aggressors, followed by an analysis of the overall attitudes of respondents toward the incentive. Part 2 examines three moderating variables, employment status, newsgroup/mailing list membership, and culture to determine their effect on the main hypotheses.

Part 1 - Interactions of Domains and Perspectives on Attitudes

The domain theory of moral judgement provides the framework within which two scenarios are presented to Internet users to examine their attitudes toward specific aspects of Internet privacy. An individual's judgement about a privacy invasion event is contingent upon the perspective the individual has toward the event and the perception of harm that will occur. The degree of harm is a function of the domain.

The first scenario, unsolicited e-mail advertising, is a situation in the conventional domain, where behaviours are constrained by social norms adopted by Internet users. The second scenario, e-mail tapping, represents a situation in the moral domain where civil liberty rights are challenged. This event requires a moral judgement of the rightness or wrongness of e-mail tapping on the Internet.

Questions after each scenario ask survey participants to take the three perspectives toward privacy-related issues. Comparisons are made between the perspectives of victims and aggressors, however, as a different scale was used to measure bystander attitudes, this perspective is analysed separately.

Victim and Aggressor Perspectives

Victims will be sensitive to privacy invasions regardless of the domain the event falls into, as they will experience a privacy loss. A perception of annoyance or bother will shift to a perception of harm as the privacy invasion event changes from the conventional domain to the moral domain (ref. Table 2). Katz and Tassone (1990) suggest that the perception of privacy loss due to personal information use is generally increasing, and there is a marked disapproval of wiretapping. Consequently, the e-mail tapping event in the moral domain will trigger a response of greater concern than the unsolicited e-mail advertising event in the conventional domain.

The aggressor (i.e., the employee in this study) will be influenced by deindividuation (Loch & Conger, 1996), the feeling of being removed from others by virtue of Internet technology. Consequently, employees may register low levels of concern or harm regardless of domain, as they cannot witness firsthand the effects of their actions. On the other hand, employees are in a conflict of interest situation. If they want to stay employed, their choices of behaviour are constrained by obligations of their employment, and they may be obliged to perform actions to which they are personally opposed. Consequently, employees may be forced to move further along the continuum of moral identity to accommodate deviations from their judgements of acceptable behaviour than if they were operating of their own volition. To examine the attitudes of respondents taking the victim and aggressor perspectives, the following hypothesis is presented:

> ***Hypothesis 1.*** *A victim perspective of privacy-related issues on the Internet will elicit more concern than an aggressor perspective in both the conventional and moral domains.*

When survey participants take the victim perspective, they are expected to be more concerned in both the e-mail advertising and the e-mail tapping scenarios than when they take the aggressor perspective. Participants taking the employee's (aggressor) perspective are expected to show less concern in the e-mail advertising scenario than the e-mail tapping scenario. In general, survey participants are expected to be more concerned by the e-mail tapping scenario than the advertising scenario.

Bystander Perspective

Bystanders are in a complex moral judgement situation. Even though bystanders are asked to consider context specific scenarios, bystanders are neither directly nor indirectly involved, and events may become abstract for them, subject to distance decay or deindividuation. According to Latané and Darley (1970), rules of public behaviour constrain an individual's reaction to an event. Not only are individuals expected to respect each other's privacy, but they are also expected to

behave in ways that conform to social norms. In a situation where individuals can see each other, the responsibility for action is shared by all those present, with the result that individual onlookers are less likely to provide assistance. Responsibility for action is diffused if there is more than one bystander (Latané and Darley). However, if the behaviour of other bystanders cannot be observed, such as with communication occurring via the Internet, individuals tend to rationalize their inaction by persuading themselves that somebody else will take action (Latané and Darley).

Research on Internet behaviour has not yet addressed the perspective of the bystander. With technology advancing so rapidly, it is important to determine what attitudes of individuals are concerning privacy invasions in order to understand perceptions of harm to the Internet society in general, particularly between domains of moral judgement. Nucci (1981) found that events classed in the moral domain were characterized as most wrong when contrasted with issues in the conventional domain. Turiel, Killen and Helwig (1987) state that domains are related in multifaceted ways, sometimes making distinctions between domains difficult. The Internet may make the distinction between domains more unclear, resulting in the domain of moral events perceived as narrower than the domain of conventional events. As the bystander perspective is not directly involved in the situations presented in this study, attitudes of respondents are expected to reflect that ethical events in the conventional domain are constrained by rules of Internet behaviour, while ethical events in the moral domain are constrained by rights of civil liberties. To test the attitudes of survey respondents taking the bystander perspective, the following hypothesis is presented:

> ***Hypothesis 2.*** *A bystander perspective of privacy-related issues on the Internet will elicit a moralizing stance toward ethical dilemmas in the moral domain and a permissive stance toward ethical dilemmas in the conventional domain.*

Respondents assuming the bystander perspective are expected to take a permissive stance in the scenario in the conventional domain, to indicate that the unsolicited e-mail advertising is a social convention. Respondents are expected to take a moralizing stance in the e-mail tapping

scenario in the moral domain, to indicate that it is a violation of civil liberties and requires a judgement of right or wrong.

Monetary Incentive

Tolchinsky, McCuddy, Adams, Gaster, Woodman and Fromkin (1981) in describing the work of Fusilier and Hoyer (1980) state that the consequence of privacy invasion will determine how the affected individual will perceive what has occurred. For example, individuals who experience a positive outcome such as a job offer will perceive less privacy invasion than those who do not experience a positive outcome. An employee may feel justified in engaging in an act of privacy invasion when there is a positive outcome expectancy, in that the "victim" has the option of a positive consequence in the form of financial compensation. In addition, knowing that the recipient of an e-mail message may be financially rewarded for compromising his/her privacy can be described as a vicarious reward for the employee. However, in a study of how monetary incentives affected moral judgements of university students, Carpendale and Krebs (1995) found that, contrary to expectations, students tended to make judgements as if they were accountable for the personal welfare of others, consequently depriving themselves of monetary rewards.

Culnan's (1993) study of consumer attitudes found that those individuals who are less sensitive about secondary information use have more positive attitudes toward shopping by mail, and have developed coping strategies for dealing with the ensuing loss of privacy. Direct marketing firms argue that the use of personal information to send direct mail to an individual does not result in substantial harm (Culnan, 1993). However, the offer of a reward in return for an invasion of privacy creates an environmental stress situation, where it is necessary to make decisions about how the resources and behaviours of others will affect the self (Burke, 1991). Even though individuals, presumably controlling their own intentions, act voluntarily and as free

agents, they are faced with making decisions based on the ethical dilemmas that surround them (Goolsby & Hunt, 1992).

Previous research has not examined the effect of a monetary incentive in exchange for a privacy invasion. It is postulated that the offer of a monetary incentive to the recipient of an unsolicited e-mail message will influence both the attitudes of recipients and the attitudes of employees who send the messages, such that more victims and aggressors will accept the invasion if there is a payment to the recipient than if there is no payment.

Table 3 presents a modified matrix illustrating interactions between attitudes, incentive, and morality. The Evaluation probe does not distinguish between perspectives, but is an initial measure of permissiveness of the event (Haidt, Koller & Dias, 1993). The Concern probes compare responses to the victim and aggressor perspectives. The probes serve as manipulation checks on the offensiveness of the scenarios (Haidt, Koller & Dias). Data were not available for the bystander perspective as the incentive question was not included with the Universal probe, consequently this perspective is not addressed.

Table 3: Interactions Between Probes, Incentive Condition and Morality

Probe	Incentive: Absent	Incentive: Present
Initial Evaluation	more wrong	less wrong
Aggressor (active participant; invader)	low concern	very low concern
Victim (passive participant; recipient of action)	moderate concern	low concern
Limited Morality Continuum	less movement between perspectives	more movement between perspectives

Note. Interactions illustrate that ratings of events are functions of the incentive condition and perspective. Deviations along the morality continuum are situation dependent.

Victim and Aggressor Perspectives. The advertising scenario presented in this study depicts a privacy invasion event in the conventional domain, where respondents are first asked for their attitudes regarding unsolicited e-mail advertising without an incentive, and then with an incentive. The attitudes of respondents taking the perspectives of victim and aggressor are tested with the Concern probes. Victims will reflect the perception of privacy loss that Katz and Tassone (1990) report in their study. Responses to the aggressor perspective are influenced by deindividuation (Loch & Conger, 1996) and will illustrate attitudes of less concern toward unsolicited e-mail advertising than the victim perspective; aggressors may also perceive the incentive as a positive outcome for the victim. To examine the attitudes of the victim and aggressor perspectives and the effect of a monetary incentive, the following hypothesis is presented:

> ***Hypothesis 3.*** *The offer of money as an incentive to read e-mail messages will significantly change the characterizations of privacy-related issues on the Internet in the conventional domain, in that responses to both the victim and aggressor probes will show less concern with the incentive than without the incentive.*

Respondents answering the victim probe are expected to be more concerned before the incentive is offered than after it is offered. This is also expected to occur with the aggressor probe, but the difference is expected to be greater, with much less concern demonstrated when an incentive is included than when it is not. The incentive is expected to engender movement along the morality continuum between incentive conditions and also between perspectives.

Overall Evaluation of Incentive. To test for overall attitudes of permissiveness that respondents have for the monetary incentive, the following hypothesis is presented:

> ***Hypothesis 4.*** *The offer of money as an incentive to read e-mail messages will significantly change the characterizations of privacy-related issues on the Internet in the conventional domain, in that responses to the evaluation probe will be more permissive with the incentive than without the incentive.*

It is expected that before the offer of the monetary incentive, respondents will be less tolerant of unsolicited e-mail advertising and consequently will demonstrate less movement along the morality continuum. When the incentive is offered, respondents are expected to be more tolerant of events in the scenario, consequently demonstrating more movement along the morality continuum between incentive conditions.

Part 2 - Effect of Moderating Variables

There are many variables that influence the attitudes of Internet users toward privacy-related issues. The three variables analysed to determine their effects on the main hypotheses in this study are employment status, newsgroup/mailing list membership, and culture.

Employment Status

Rawls (1971) describes one stage of moral development, the morality of association (p. 467), suggesting that individuals follow common sense rules of moral conduct that have been adopted by the society around them. There are ideals of behaviour that form the basis of these rules, which themselves are modified or adjusted to allow individuals to fit a particular position or circumstance in society, such as an employment situation. Employees are an essential stakeholder group of an organization and are influenced by the social norms, constraints, and moral conduct of the organizations to which they belong (Nicholson, 1994; Nylen, 1995). Respondents that are not employed may not experience as much influence from organizational social norms as employed respondents. However, Marx (1995) states that the line between work and home is no longer clear, as technology has changed traditional views of what public and private places are. To examine the effect of employment status on attitudes of Internet users toward privacy-related issues, the following hypotheses are presented:

Moderating Variable 1. Employed respondents will be more concerned in their responses to privacy-related issues on the Internet in both the conventional and moral domains than non-employed respondents. Specifically,

1.1 Employment will increase concern more with the victim perspective than with the aggressor perspective.

1.2 For the bystander perspective, more employed respondents will take a moralizing stance than non-employed respondents.

1.3 Employed respondents will be more concerned about the incentive than non-employed respondents when responding to the victim and aggressor probes.

1.4 Employed respondents will show less approval of the overall evaluation of the incentive than non-employed respondents.

It is expected that respondents who are employed will be more concerned in their responses to the Concern probes than respondents who are not employed. Respondents are expected to be more concerned with the victim probes than with the aggressor probes; this is expected to occur with the employed group, and to a lesser degree with the non-employed group. A greater proportion of respondents who are employed will take a moralizing stance in response to the bystander probes than the proportion of respondents who are not employed. Employed respondents are expected to show less approval of the incentive to read unsolicited e-mail advertising than respondents who are not employed. Finally, the effect of employment is expected to result in respondents showing less approval of the overall Evaluation probe of unsolicited e-mail advertising than non-employed respondents.

Newsgroup/Mailing List Membership

Technological competence may provide information about the effect of familiarity with Internet communications on perceptions of privacy issues. According to Gattiker and Willoughby (1992), technological competence is instrumental in providing a frame of reference for decisions that individuals make about technology-related tasks. Technological competence is tacit knowledge that is demonstrated only by its usage.

Strack and Förster (1995) found that reports of one's own recollective experience are determined not only by specific memory systems or processes, but also by one's attempts to infer the prior presentation of a stimulus. Some research has found that the amount of time an individual spends with a technology will influence how it is perceived (Ostberg, 1980). However, Gattiker, Gutek and Berger (1988) found that the actual time spent with a particular technology may not change perceptions of it.

Internet competence is difficult to measure, as individuals vary in their Internet interests and usage. Electronic forums may help to develop more sensitivity about privacy through the exposure of Internet users to privacy issues on the World Wide Web (WWW). Experience with a technology changes perceptions of the technology (Mason, 1995) and users may become less tolerant of some Internet behaviours, such as sending unsolicited e-mail advertisements or e-mail tapping. It is postulated that mailing list and newsgroup membership will effect attitudes of individuals toward privacy-related issues on the Internet. Therefore, the following hypotheses are presented:

> ***Moderating Variable 2.*** *Respondents who are members of newsgroups and mailing lists will be less tolerant in their responses to privacy-related issues on the Internet in both the conventional and moral domains than respondents who are not members. Specifically,*
>
> *2.1 Membership will cause more concern with the victim perspective than with the aggressor perspective.*
>
> *2.2 For the bystander perspective, more members will take a moralizing stance than non-members.*
>
> *2.3 Members will be more concerned about the incentive than non-members when responding to the victim and aggressor probes.*
>
> *2.4 Members will show less approval of the overall evaluation of the incentive than non-members.*

It is expected that respondents who are members of newsgroups/mailing lists will be more concerned in their responses to the Concern probes than respondents who are not members. Respondents are expected to be more concerned with the victim probes than the aggressor probes; this is expected to occur with the member group, and to a lesser degree with the non-member

group. A greater proportion of respondents who have newsgroup/mailing list memberships will take a moralizing stance in response to the bystander probe than respondents who do not have memberships. Respondents who are members are expected to indicate less approval of the incentive to read unsolicited e-mail than non-members. Finally, the effect of membership is expected to result in respondents showing less approval of the overall Evaluation probe than non-members.

Culture

Hofstede (1980) defines culture as the "interactive aggregate of common characteristics that influence a human group's response to its environment" (p. 25). Culture influences the process of problem identification and the motivation behind decision making (Tse, Lee, Vertinsky & Wehrung, 1988). Edwards (1987) examined children and their moral values and suggested that there are basic cultural differences in how rules and infractions of social interaction develop and occur (p. 148).

Business ethics may be an indication of cultural differences. Research has shown that Americans show a high interest and concern with business ethics and ethics violations because their expectations of conduct within the American business system are higher than in other countries (Vogel, 1992; Honeycutt, Siguaw & Hunt, 1995). Due to the distinctive structure of the American system, unethical behaviour is likely to be exposed and punished. An examination of a country's moral compass must take into account the historical development of the nation. Capitalism and the ethics of business have traditionally been viewed with cynicism in Europe, due to the "legacy of aristocratic and pre-capitalist values" (Vogel, p. 43). In contrast, Americans, with their Protestant heritage of hard work and moral behaviour, tend to believe that there should be no conflict between good business and ethics. In addition, Americans are more likely to

assume that the ethical rules and standards developed in the U.S.A. are universally applicable (Vogel, p. 44).

A study by Nyaw and Ng (1994) of business students in Canada and several Asian countries revealed that Canadians students were less likely to engage in unethical behaviour than students from Taiwan, Hong Kong and Japan. Canadians have traditionally been seen to be more conservative than Americans and more likely to maintain traditional values (Lipsett, as described in Baer, Grabb & Johnson, 1990). However, it may be that differences between Canadians and Americans are more subtle than previous research has indicated (Baer, et al.). For example, in a study of dispositions of U.S. and Canadian employees toward computer technology, Gattiker and Nelligan (1988) found "similar dispositions toward computer-mediated work" (p. 85).

Becker and Fritzsche's (1987) study of ethical behaviours of managers in the U.S.A., France and Germany reported that the ethical problem faced by managers determined their behaviour. In general, Becker and Fritzsche found that managers in the U.S.A. were concerned with ethical and legal questions. In contrast, French and German managers demonstrated more concern about maintaining a successful business presence. Okleshen and Hoyt's (1996) study of business students found that students from the U.S.A. were significantly less tolerant of fraud than their counterparts in New Zealand. However, in a study comparing the ethics of business students in the U.S.A., New Zealand and Denmark, Lysonski and Gaidis (1991) found there were few differences between ethical behaviour of students from the three countries. Students in general showed a tendency to engage in some types of unethical activity. In light of the above observations of cultural differences, the following hypotheses are presented:

> ***Moderating Variable 3.*** *Respondents from Germany will indicate less concern in their characterizations of privacy-related issues on the Internet in both the conventional and moral domains than respondents from Canada or the U.S.A. Specifically,*

3.1 Respondents from Germany will be less concerned with the victim perspective and with the aggressor perspective than respondents from Canada and the U.S.A.

3.2 For the bystander perspective, fewer German respondents will take a moralizing stance than respondents from Canada or the U.S.A.

3.3 German respondents will be less concerned about the incentive than Canadian or American respondents when responding to the victim and aggressor probes.

3.4 German respondents will show more approval of the overall evaluation of the incentive than Canadian or American respondents.

It is expected that respondents from Germany will be less concerned in their responses than respondents from Canada or the U.S.A. In addition, respondents from Germany are expected to be less concerned with the victim perspective than with the aggressor perspective. For the bystander perspective, a smaller proportion of respondents from Germany are expected to take a moralizing stance compared to respondents from Canada or the U.S.A. This is expected to occur in the advertising scenario, and more so in the e-mail tapping scenario. German respondents are expected to show more approval of the incentive to read unsolicited e-mail advertising than respondents from Canada or the U.S.A. Finally, respondents from Germany will show more approval of the overall Evaluation probe of the incentive than respondents from Canada or the U.S.A.

Method

Sample

To obtain the sample, a survey was placed on the WWW. The WWW sample was used to reduce the amount of variation regarding the moral categorization of computer-related behaviours, to minimize the introduction of confounding variables, and to improve the preciseness of the results (Mansfield, 1987; Gattiker & Kelley, 1996).

The survey was advertised on various Usenet news groups that discuss computer privacy and security issues. In addition, the survey was advertised on several mailing lists. To increase the number of female respondents, the survey was advertised on mailing lists that are read predominantly by women (e.g., WISENET - Women in Science and Engineering, and Systers - a women-only mailing list for computer scientists). The survey was located on servers in two different countries, Germany (Hamburg) and the United States (Corpus Christi, Texas) to allow for redundancy as well as a quicker response time for page access for Internet users in different geographic regions. Data were collected from March 15 through May 31, 1996.

Use of the WWW for data collection is still controversial. The arguments in support of using the WWW for surveys are that distribution is inexpensive, the survey is easy to administer, and time for administration is decreased. Additionally, participants must be interested in the subject matter and must also have experience with the medium. For the present survey, Internet knowledge and literacy were requirements. The situations described in the survey were designed to be context-related for respondents and appropriate for Internet-related issues. A conventional mail-out survey may have provided responses from participants with limited or no Internet and e-mail experience, resulting in an increased risk to the validity of the findings (Krippendorff, 1980; McClosky & Brill, 1983). WWW technology allows surveys to be adaptive (Pitkow & Recker, 1995), where the answers to certain questions determine the next question or set of questions that respondents will be asked, thus eliminating the need to read through questions not relevant to the

survey participant. This technology was used in the current survey (e.g., a positive response to the question of newsgroup membership displayed a box where participants could indicate the number of memberships; a negative response resulted in the display of the next question). The focus in this study is on questions that were not optional.

The arguments against using the WWW to distribute surveys, according to Pitkow and Recker (1995), are that WWW surveys suffer from sampling problems due to self-selection. Random sampling is the accepted method of selecting survey participants to ensure equal representation of a population. WWW surveys do not yet have accepted methods for random sampling. Instead, WWW participants are self-selecting, in that they select themselves by choosing to complete a WWW survey. The current survey had several steps that had to be completed before respondents could submit the survey. This may have resulted in an even greater degree of self-selection, which suggests that only those individuals that had a strong commitment about participating in a privacy survey would have submitted the survey. Another problem was that the response rate could not be calculated as the number of Internet users who were notified about the survey through mailing lists and newsgroups could not be determined. Consequently, the ratio of respondents to non-respondents is not available and external validity is threatened. A final disadvantage is that even though logs were kept of the number of survey accesses, it was not possible to determine the total number of accesses to the WWW survey. The reason for this is that more than one individual may have had the opportunity to examine the survey at the time of one access. Pitkow and Recker report that these confounds only limit the generalizability of the results to the WWW population, however it may be more appropriate to limit the generalizability of the results to only the respondents, as there is no way of determining if the respondents are representative of Internet users in general. Respondents to the present survey may have been only those Internet users with a strong interest in Internet privacy. The problems of self-selection and total number of accesses are not unique to the WWW, however it is

acknowledged that there is more difficulty in determining the extent of these problems because they cannot be measured.

Survey Instrument

The survey was developed through an iterative process of pre-tests, evaluations, and pilot-tests, following the procedures outlined by Sudmann and Bradburn (1982). Prior to making the final survey available on the WWW sites, the survey was revised according to responses received during the preliminary testing process[2]. The survey was composed of several sections. An introductory page provided instructions to participants, and gave respondents the option of completing the survey on the WWW with a WWW browser, or downloading an ASCII version to fill in on a word processor. The introductory page also assured participants that all responses would remain confidential. The survey questions were in separate categories with two preliminary demographic questions, e-mail usage at work, e-mail usage at home, mailing list usage, two stimulus scenarios, current issues on the Internet, and finally more demographic questions. A 'thank-you' page was displayed to participants who submitted a survey. The survey and results are presented in Appendix A.

Novel Stimuli

Each scenario was an ethical dilemma regarding privacy and the Internet (Appendix B). Situation 1, Electronic Advertising, described a novice e-mail user and member of a Listserver who received advertisements via e-mail. The advertising scenario was classified as a dilemma in

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2Pilot tests included distribution to: (1) mailing list members of the Graduate School of Business Administration Alumni, University of Cape Town, South Africa, (2) participants of two Internet workshops, and (3) electronic newsletters in South Africa. For final testing, the survey was distributed by hand, surface mail and e-mail to 20 individuals in Alberta, the United States, and Germany. As a result of the pilot testing, one scenario was dropped (Caller Number Identification), as it was found that this technology was not applicable in all countries. Additional refinements to the remaining survey questions were also made.

the conventional domain. Situation 2, Privacy and Security Issues, described an administrator of an international mailing list who discovered that a U.S. security agency was tapping the administrator's e-mail to monitor incoming and outgoing electronic messages on the mailing list. This scenario was classified as an ethical dilemma in the moral domain.

To determine the attitudes of survey participants, a series of probe questions was asked after each scenario, based on the domains of moral development (Table 1). Four probe questions were analysed in this study. The Evaluation probe "What do you think of (description of the act)", used as an initial measure of how respondents evaluated the scenario, asked respondents to code responses as *very wrong, a little wrong* or *perfectly okay*. The Concern probes were measures of the offensiveness of the scenarios, and had two parts resulting in participants answering each scenario from two perspectives: victim and aggressor. With the victim probe, respondents were asked to imagine the event happening to them (Imagine you received electronic advertising; Imagine you were monitored). The aggressor probe asked respondents to imagine that they were actively involved in the event (Imagine you were an employee sending electronic advertisements; Imagine you were an employee monitoring e-mail). Respondents were asked to code their responses as *feel concerned, not care,* or *think this is good* for both probes.

The Universal probe, used to assess the responses of individuals taking the perspective of a bystander, established if an action is seen as universally wrong. Respondents were asked to consider customary practices in two foreign countries. The practices described were summaries of the events described in the corresponding scenarios. In country A the practice was common, and in country B legislation existed such that the customary practice was controlled. Respondents were then asked if practices in both countries were acceptable, or if one or both of them were wrong. A response indicating that customs in both countries were acceptable represented a perception of the practice as a social custom with a permissive stance taken. A response indicating that the practice in at least one country was bad was an reflection of a moralizing stance.

Sample Characteristics

A total of 1575 accesses to the introductory page describing the survey were registered (811 in Texas and 764 in Hamburg); 1034 of those accesses went on to browse through the survey questions (563 in Texas and 471 in Hamburg). Most surveys (456) were returned via the WWW pages (295 in Texas and 161 in Hamburg). After eliminating duplicates and incomplete surveys and adding 15 surveys that were submitted by e-mail, fax, or postal mail, 471 surveys were received, indicating a response rate of about 45% based on the number of individuals that looked at the introductory page (1071) and then moved on to the survey. The total percent of accesses was 29.9% (456 of 1575 accesses) which was considered satisfactory. The response rate was lower from the survey located in Germany (34%) than in Texas (52%).

All respondents indicated that they had Internet access at home (359 or 82.2%) or at their place of employment (409 or 96.7%). The majority of the sample resided in the U.S. (255 or 55.3%), Germany (95 or 20.6%), Canada (42 or 9.1%) and 17 other countries with amounts lower than 3.5%. A data extraction program was written to automatically code all point and click responses from surveys returned via the WWW. Content analysis was used to code text responses. An extensive list of classes for text response questions for the two scenarios was established during the phases of instrument development, and refined with the final survey instrument. The language of the survey was English, and the majority of text responses were submitted in English, however, seven (1.5%) surveys were submitted with German text responses. These responses were translated by an official translator. All surveys received by fax, surface mail or e-mail were coded by hand. After removing cases with missing data, 327 surveys from Canada, Germany and the U.S.A. provided usable data for the analyses. Table 4 presents a summary of demographics of the sample.

Table 4 - Sample Demographics

Characteristic		Mean	Range	S.D.	N	Percentage of Sample
Age		33.78	15-70 years	-	326	99.6
Gender:	Women	-	-	-	131	40.1
	Men				196	59.9
Years of Education		16.96	3-27 years	-	324	99.0
Employed		-	-	-	285	87.2
Hours of work		39.77	6-112	14.38	285	87.2
Newsgroup/Mailing List Memberships		-	-	-	272	83.2
Country Sample*		-	-	-	327	
Canada					34	10.4
Germany					75	22.9
USA					218	66.7

*Other countries of current residence: Austria (1), Australia (10), Finland (2), France (2), Hong Kong (1), Israel (2), Japan (1), Mexico (1), New Zealand (3), Netherlands (1), Poland (2), South Africa (10), Sweden (4), Switzerland (4), United Kingdom (15), Hungary (5), Norway (2), Missing (10). The sub-samples from these countries were considered too small to analyse. Total sample size = 471.

Analysis of Data

The Concern probe was used for Hypothesis 1; the probe had two parts, resulting in participants answering from two perspectives for each scenario, victim and aggressor. The probes served as measures of how offensive the scenarios were, and also worked as manipulation checks to determine if the scenarios were perceived as equally concerning by all groups (Haidt, Koller & Dias, 1993). Respondents coded their responses as *feel bothered, not care,* or *think this is good*. See Appendix B for a complete description of the scenarios and Probes. Categorical variables were created for Scenario (e-mail advertising, e-mail tapping), Perspective (victim, aggressor), and Concern (feel bothered, not care, think this is good).

The Universal probe was used for Hypothesis 2 to assess the responses of individuals taking the perspective of a bystander. The probe established if an action was seen as universally wrong. Summaries of the events described in the advertising and e-mail tapping scenarios were

presented in the corresponding scenarios as common practices in two foreign countries. In country A the practice was common, and in country B legislation existed such that the customary practice was controlled by legislation. Respondents were asked if practices in both countries were acceptable, or if one or both were wrong. A response indicating that customs in both countries were acceptable represented a permissive stance and a perception that practice was seen as a social custom. A response indicating that the practice in at least one country was bad was a reflection of a moralizing stance. A variable was created for the rating of level of Concern (Both A&B Okay, Country A/B Wrong) to represent responses indicating that the customary practices in the fictional countries were perceived as social conventions (Both A&B Okay) or to indicate that a moralizing stance was taken (Country A/B Wrong).

The Concern probe used for Hypothesis 1 was also used for Hypothesis 3 for an analysis of responses to the first scenario, unsolicited e-mail advertising in the conventional domain. Each part of the Concern probe was used in combination with a question of how respondents felt if a monetary incentive were offered. Respondents were asked to code their attitudes for each part of the probe as *feel bothered, not care* or *think this is good.*

The Evaluation probe was used for Hypothesis 4, to determine overall attitudes of respondents toward unsolicited e-mail advertising and the effect of a monetary incentive. The Evaluation probe served as an initial measure of permissiveness of unsolicited e-mail advertising. The probe was followed by a question about what respondents thought if 50 cents were offered to the e-mail recipient in the scenario. For the both the Evaluation probe and its monetary incentive question, respondents were asked to code their responses as *very wrong, a little wrong,* or *perfectly okay.* Finally, the moderating variables were classified as Employment Status (employed, not employed), Membership (member of newsgroup/mailing list, not a member), and Country (Canada, Germany, U.S.A.). Responses to the variables that were used for creating the moderating variables Employment Status and Membership were collapsed into two categories each.

This method has obvious limitations, but it was chosen as the focus for this study was employed versus non-employed and member versus non-member respondents. This categorization eliminated the problem of outliers and resulted in sufficient cell frequencies in the loglinear contingency tables.

All observations were independent, in that no case affected any other case. Contingency tables were created to perform loglinear analyses for each hypothesis. Additional contingency tables were created for each moderating variable to determine their effects. No more than 20% of cells in the contingency tables had frequencies of less than 5, and no outliers were present (Tabachnick & Fidell, 1989; Knoke & Burke, 1980). The number of variables included in each model was limited, to ensure that cell frequencies were adequate, and to aid in interpretation of the results. All variables used in the analysis were independent; cell frequency was the dependent variable influenced by one or more categorical variables and their associations (Tabachnick & Fidell).

Results: Part 1 - Interactions of Domain and Perspective on Attitudes

SPSS Loglinear was used to perform frequency analyses to develop models of interactions and to examine associations between the categorical variables used in this study. It was assumed that for each analysis, all other variables were constant. For a multi way loglinear analysis, contingency tables are formed that contain lower-order and higher-order associations between variables. A linear model of expected cell frequencies is developed to analyse the "effect" or association of the variable on cell frequencies that is the basis of loglinear analysis. The Likelihood ratio statistic, G^2, represents the degree of increase in fit associated with the contribution of each effect to the model. Partial associations test the significance of individual terms in the model. Associations that do not differ from zero (i.e., have a non-significant G^2) can be omitted from the model without the loss of too much predictive accuracy.

The number of cases in a cell of a contingency table is a function of the values of the row and column variables and their interactions. The natural logarithm of the ratio of obtained to expected frequency is multiplied by the obtained frequency for each cell. These values are summed over cells; the sum is doubled to produce G^2 (Tabachnick & Fidell, 1989, p. 242). Differences between G^2 statistics allow assessments of individual effects. As the G^2 statistic has a χ^2 distribution, the χ^2 tables are used to evaluate significance. The more the G^2 statistic diverges from zero, the greater the contribution of that effect (Tabachnick & Fidell).

Individual classification tables were created in this study for each hypothesis to compute the models used to evaluate all possible effects of individual variables and combinations of variables. The analysis of each model represented one statistical test; the G^2 statistic was utilized to determine significant higher-order and partial effects of each test.

Victim and Aggressor Perspectives

Hypothesis 1 stated that the perspective of a victim with regard to privacy-related issues on the Internet would elicit more concern than the perspective of an aggressor in both the unsolicited e-mail advertising scenario and the e-mail tapping scenario. The responses of interest for Hypothesis 1 were attitudes of feel concerned versus others, consequently the response category *think it is good* was combined with the category *not care* for the Concern probes resulting in a dichotomous variable. The first was *feel bothered* and the second was *not bothered,* which represented *not care* plus *think it is good.* Analyses performed before and after collapsing the categories indicated that the same significant interactions were present under both situations. Consequently, there was no important loss of information, and a more robust analysis was possible (i.e., there were fewer cells with low cell frequencies).

A 2x2x2 loglinear frequency analysis (scenario X perspective X concern) was performed to determine relationships and significant associations between the variables. Table 5 shows a summary of frequencies.

Table 5 - Frequencies: Scenario X Perspective X Concern

	Scenario 1		Scenario 2	
Concern	**Victim**	**Aggressor**	**Victim**	**Aggressor**
Feel Bothered	250	211	300	205
Not Bothered	77	116	27	122

Note: Values represent frequencies of responses to categorical variables.

The loglinear model computed for each analysis was saturated. It included all possible effects of individual variables and combinations of variables. For example, a significant three-way effect would appear in this analysis as scenario X perspective X concern, indicating that there is a joint influence of scenario and perspective on the level of concern felt by the respondent (i.e., there is an effect of two variables in combination, over and above the individual effects). Partial associations indicate which of the individual effects are significant. An effect of scenario on the

level of concern would appear in this analysis as a two-way interaction of scenario X concern, indicating that the scenario affected how concerned the respondents were. Similarly, an effect of perspective on the level of concern would appear as an interaction of perspective X concern, indicating that the perspective taken by respondents influenced the level of concern felt by the respondent.

The analysis indicated that there was a significant higher-order interaction of scenario, perspective, and level of concern (G^2 (1) = 21.728, $p < .01$). In the advertising scenario, 76% of respondents were concerned by the victim probe, compared to 65% of respondents who were concerned by the aggressor probe. In the e-mail tapping scenario, 92% of respondents felt concerned by the victim probe, compared to 63% who felt concerned by the aggressor probe. There were also two significant two-way interaction effects. The first, scenario X concern (G^2 (1) = 8.125, $p < .01$), provides the smallest contribution. Respondents were marginally more concerned by the e-mail tapping scenario (77%) than the advertising scenario (70%). The other significant two-way interaction effect, perspective X concern, contributes the most effect with G^2 (1) = 73.027, $p < .01$. Respondents were significantly more concerned when asked to take the victim perspective (84%) than when asked to take the aggressor perspective (64%). Based on the strength of the association between perspective and concern, Hypothesis 1 is supported in that respondents showed more concern with the victim perspective than the aggressor perspective in the advertising scenario, and even more so in the e-mail tapping scenario.

Bystander Perspective

Hypothesis 2 stated that respondents would take a moralizing stance in the moral domain and a permissive stance in the conventional domain when taking the bystander perspective. A 2x2 (scenario X concern) loglinear frequency analysis was performed. Table 6 summarizes the frequencies.

Table 6 - Bystander Frequencies: Scenario X Concern

Concern	Scenario 1 E-mail Advertising	Scenario 2 E-mail Tapping
Both A&B OK	140	55
Country A/B Wrong	187	272

Note: Values represent frequencies of responses to categorical variables.

The analysis for the bystander perspective showed a significant interaction of scenario and how wrong respondents felt the customary practices were in each of the fictional countries (G^2 (1) = 54.156, $p < .01$). However, respondents taking the bystander perspective took a moralizing stance in *both* scenarios, although there was a significantly higher proportion in the e-mail tapping scenario (83%) than in the advertising scenario (57%). Based on these results, Hypothesis 2 is not supported, that respondents assuming the bystander perspective would take a permissive stance for the e-mail advertising scenario and a moralizing stance only for the e-mail tapping scenario.

Victim and Aggressor Probes and Incentive

For Hypothesis 3, the victim and aggressor probes were analysed with and without the monetary incentive for the e-mail advertising scenario. The variables used were Incentive (absent, present), Concern (feel bothered, not care, think this is good), and Perspective (victim, aggressor). A 2x2x3 frequency analysis (incentive X perspective X concern) was performed. Table 7 summarizes the frequencies.

Table 7 - Frequencies: Incentive X Perspective X Concern

	Victim		Aggressor	
Concern	**No Incentive**	**Incentive**	**No Incentive**	**Incentive**
Feel Bothered	250	170	211	152
Not Care	73	73	84	106
Think it's Good	4	84	32	69

Note: Values represent frequencies of responses to categorical variables.

The analysis showed that there was a significant higher-order effect of incentive X perspective X concern (G^2 (2) = 26.268, $p < .01$), indicating a joint influence of the incentive and perspective on the level of concern the respondents felt by the unsolicited advertising scenario. Without the incentive, 76% of respondents answering the victim probe were concerned, compared to 52% with the incentive. Only 2% thought unsolicited e-mail advertising was good without the incentive, compared to 26% with the incentive. For the aggressor probe, 65% of respondents were concerned before the incentive, compared to 46% who were concerned with the incentive. Ten percent thought e-mail advertising was good when the incentive was absent, compared to 21% with the incentive present.

There were also two significant partial interaction effects. The first, the two-way effect of incentive X concern, contributed the most to the interaction with G^2 (2) = 104.575, $p < .01$. Respondents were more concerned when the incentive was absent (70%) than when it was present (49%). Fewer respondents indicated approval before the incentive (6%) than after the incentive was offered (23%). The second significant partial interaction effect but had a much smaller contribution (G^2 (2) = 11.196, $p < .01$). The two-way interaction of perspective X concern indicated that a greater proportion of respondents felt concerned by the victim probe (64%) than the aggressor probe (56%), however the proportion of respondents that approved of the e-mail advertising scenario was similar for both the victim (13%) and the aggressor (15%) perspectives.

A third two-way interaction of incentive X perspective was not significant (ref. Table 9), indicating that the incentive by itself did not have much influence on perspective.

Hypothesis 3 stated that responses to the concern probes would indicate less concern with the incentive than without the incentive. Based on the strength of the contribution of the partial association of incentive X concern, Hypothesis 3 is supported. In addition, the three-way interaction of incentive X perspective X concern shows the effect is much stronger for victims than for aggressors. The partial interaction of perspective X concern provides additional information that effect is greater for victims than it is for aggressors.

Overall Evaluation Probe and Incentive

For Hypothesis 4, responses to the Evaluation probe were expected to demonstrate more permissiveness with the incentive than without the incentive. A 2x3 frequency analysis (incentive X concern) was performed on the Evaluation probe. Table 8 summarizes the frequencies.

Table 8 - Frequencies: Evaluation Probe X Incentive

Concern	No Incentive	With Incentive
Very Wrong	149	108
Little Wrong	111	85
Perfectly OK	67	134

Note: Values represent frequencies of responses to categorical variables.

The analysis showed a significant effect of incentive X concern (G^2 (2) = 32.795, $p < .01$). When the incentive was absent, 46% of respondents disapproved of unsolicited e-mail advertising. With the incentive, the proportion of respondents who responded *very wrong* decreased to 33%, and the proportion who thought it was *perfectly okay* increased from 20% to 41%. Hypothesis 4 is therefore supported, as respondents were more tolerant of unsolicited e-mail advertising with the monetary incentive than without the incentive.

Table 9 summarizes the results for Part 1. Hypothesis 1 predicted that victims would be more concerned about the privacy issues than aggressors, and this concern would be greater in the moral domain than the conventional domain. This Hypothesis was supported. Hypothesis 2 predicted that bystanders would take a moralizing stance toward the e-mail tapping event in the moral domain and a permissive stance toward the unsolicited e-mail advertising scenario in the conventional domain. Hypothesis 2 was not supported as respondents took a moralizing stance toward both scenarios.

Hypothesis 3 predicted that the offer of a monetary incentive in the conventional domain would significantly change attitudes of victims and aggressors toward unsolicited e-mail advertising. This Hypothesis was supported. Hypothesis 4 was also supported, as the overall evaluation of the incentive also had a significant effect on attitudes of respondents.

Table 9 - Summary of Findings of Interactions of Domains and Perspectives on Attitudes

Hypotheses	Significant Interactions of G^2 (df)
1: supported *A victim perspective of privacy-related issues on the Internet will elicit more concern than an aggressor perspective in both the conventional and moral domains.*	Scenario X perspective X concern (G^2 (1) = 21.728, $p < .01$) Perspective X concern (G^2 (1) = 73.027, $p < .01$) Scenario X concern (G^2 (1) = 8.125, $p < .01$) Scenario X perspective (G^2 (1) = 0.443, $p > .05$)
2: not supported* *A bystander perspective of privacy-related issues on the Internet elicit a moralizing stance toward ethical dilemmas in the moral domain and a permissive stance toward ethical dilemmas in the conventional domain.*	Scenario X concern (G^2 (1) = 54.156, $p < .01$)
3: supported *The offer of money as an incentive to read e-mail messages will significantly change the characterizations of privacy-related issues on the Internet in the conventional domain, in that responses to both the victim and aggressor probes will show less concern with the incentive than without the incentive.*	Incentive X perspective X concern (G^2 (2) = 26.268, $p < .01$) Incentive X concern (G^2 (2) = 104.575, $p < .01$) Perspective X concern (G^2 (2) = 11.196, $p < .01$) Incentive X perspective (G^2 (1) = 0.370, $p > .05$)
4: supported *The offer of money as an incentive to read e-mail messages will significantly change the characterizations of privacy-related issues on the Internet in the conventional domain, in that responses to the evaluation probe will be more permissive with the incentive than without the incentive.*	Incentive X concern (G^2 (2) = 32.795, $p < .01$)

*This hypothesis is not supported as respondents took a moralizing stance for Scenarios 1 & 2, instead of just Scenario 2. The G^2 statistic does, however, correctly reflect the direction of the hypothesis.

Results: Part 2 - Effects of Moderating Variables

The results for Part 2 are discussed in terms of the moderating variables and their specific interactions with each of the main hypotheses. The effect of the first moderating variable, employment status, was expected to be greater on the concern of employed respondents than non-employed respondents with regard to privacy-related issues on the Internet in both the conventional and moral domains. Similarly, the effect of the second moderating variable, newsgroup/mailing list membership, was expected to be greater on concern levels of members than non-members. Results of the third moderating variable, culture, were expected to show that respondents from Germany would indicate less concern than respondents from Canada or the U.S.A.

Effect of Moderating Variable 1, Employment Status.

Hypothesis 1.1: Victim and Aggressor Perspectives

Hypothesis 1.1 stated that employment would increase concern more with the victim perspective than with the aggressor perspective. To determine the effect of employment status on attitudes of respondents, a dichotomous variable was created to categorize respondents as *employed* or *non-employed*. A 2x2x2x2 analysis (scenario X perspective X concern X employment status) was performed. Table 10a summarizes the frequencies.

Table 10a - Frequencies:
Concern as a Function of Scenario, Perspective and Employment Status

Concern	Scenario 1 E-mail Advertising		Scenario 2 E-mail Tapping	
	Victim	Aggressor	Victim	Aggressor
Not employed (n = 42)				
Feel Bothered	27	20	36	23
Not Bothered	15	22	6	19
Employed (n = 285)				
Feel Bothered	223	191	264	182
Not Bothered	62	94	21	103

Note: Values represent frequencies of responses to categorical variables.

A significant fourth-order effect in this analysis would appear as scenario X perspective X concern X employment status, indicating a joint influence of scenario, perspective and employment status on the level of concern felt by the respondent. A significant partial effect of employment would appear as a three-way interaction of perspective X concern X employment. The analysis showed that employment status did not have a significant effect on perspective in the fourth-order or partial effects (ref. Table 10e). Employment did, however, have a significant effect in the two-way interaction of concern X employment status. Respondents who were employed were more concerned (75%) than respondents were not employed (63%; G^2 (1) = 11.616, $p < .01$). As the results show that there is a reliable association only between employment status and concern, but no statistically significant higher-order or partial association of perspective and employment status, Hypothesis 1.1 is not supported.

Hypothesis 1.2: Bystander Perspective

Hypothesis 1.2 stated that more employed respondents would take a moralizing stance than non-employed respondents for the bystander perspective. A 2x2x2 (scenario X concern X

employment status) frequency analysis was performed on the Universal probe for Hypothesis 1.2. Table 10b summarizes the frequencies.

Table 10b - Frequencies: Concern as a Function of Scenario and Employment Status

	Scenario 1		Scenario 2	
Concern	**Not Employed**	**Employed**	**Not Employed**	**Employed**
Both A&B OK	20	120	6	49
Country A/B Wrong	22	165	36	236

Note: Values represent frequencies of responses to categorical variables.

There were no significant effects between the employment status variable and how wrong respondents felt about the e-mail advertising scenario compared to the e-mail tapping scenario (ref. Table 10e). Employment status did not affect how respondents taking the bystander perspective reacted to the two scenarios. Hypothesis 1.2 is therefore not supported for the effect of the employment status variable on the bystander perspective.

Hypothesis 1.3: Victim and Aggressor Perspectives with Incentive

Hypothesis 1.3 stated employed respondents would be more concerned about the incentive than non-employed respondents when responding to the victim and aggressor probes. A 2x2x3x2 frequency analysis (incentive X perspective X concern X employment status) was performed to determine the effect of the monetary incentive on the victim and aggressor probes. The categories were not collapsed as for the main Hypothesis 1 in order to observe any changes in the three levels of concern between the incentive conditions. Table 10c summarizes the frequencies.

Table 10c - Frequencies:
Concern as a Function of Incentive, Perspective and Employment Status

	Victim		Aggressor	
Concern	**No Incentive**	**Incentive**	**No Incentive**	**Incentive**
	Not Employed (n = 42)			
Feel Bothered	27	20	20	16
Not Care	15	9	19	15
Think it's Good	0	13	3	11
	Employed (n = 285)			
Feel Bothered	223	150	191	136
Not Care	58	64	65	91
Think it's Good	4	71	29	58

Note: Values represent frequencies of responses to categorical variables.

There were no significant associations between employment status and the incentive in the third-order or fourth order effects (ref. Table 10e), indicating that there was a lack of a joint influence of incentive, perspective and employment status on the level of concern of respondents. There was, however, a significant two-way effect of concern X employment status (G^2 = (2) 9.759, $p < .01$). The non-employed group showed less concern toward unsolicited e-mail advertising (49%) than the employed group (61%). Both groups showed similar levels of approval of the incentive (16% for the non-employed group; 14% for the employed group). Although there is a reliable association between the level of concern and employment status, Hypothesis 1.3 is not supported as there is no significant higher-order or partial effects of employment status with perspective and incentive.

Hypothesis 1.4: Overall Evaluation of Incentive

Hypothesis 1.4 stated that employed respondents would show less approval of the overall evaluation of the incentive than non-employed respondents. A 2x3x2 frequency analysis (incentive

X concern X employment status) frequency analysis was performed to determine effects of employment status. A summary of frequencies is presented in Table 10d.

Table 10d - Frequencies:
Concern as a Function of Incentive and Employment Status

	No Incentive		Incentive	
Concern	**Not Employed**	**Employed**	**Not Employed**	**Employed**
Very Wrong	16	133	15	93
Little Wrong	19	92	9	76
Perfectly OK	7	60	18	116

Note: Values represent frequencies of responses to categorical variables.

The analysis indicated that there was no higher-order effect of incentive X concern X employment status, nor were there any partial effects with employment status and the incentive (ref. Table 10e). Hypothesis 1.4 is therefore not supported for effect of the employment status variable on the Evaluation probe. Table 10e summarizes the results of the effect of the employment status variable on Hypotheses 1.1 through 1.4.

Table 10e: Summary of Findings for the Effect of Employment Status

Hypotheses	Interactions G^2 (df)
1.1: not supported *Employment status will increase concern more with the victim perspective than with the aggressor perspective.*	Concern X employment (G^2 (1) = 11.616, $p < .01$) Scenario X perspective X concern X employment (G^2 (1) = 0.374, $p > .05$) Perspective X concern X employment (G^2 (1) = 0.036, $p > .05$) Scenario X Perspective X employment (G^2 (1) = 0.039, $p > .05$) Perspective X employment (G^2 (1) = 0.687, $p > .05$)
1.2: not supported *For the bystander perspective, more employed respondents will take a moralizing stance than non-employed respondents.*	Scenario X concern X employment (G^2 (1) = 0.617, $p > .05$) Scenario X employment (G^2 (1) = 0.005, $p > .05$) Concern X employment (G^2 (1) = 0.064, $p > .05$)
1.3: not supported *Employed respondents will be more concerned about the incentive than non-employed respondents when responding to the victim and aggressor probes.*	Concern X employment (G^2 (2) = 9.759, $p < .01$) Incentive X perspective X concern X employment (G^2 (2) = 0.701, $p > .05$) Incentive X perspective X employment (G^2 (1) = 0.001, $p > .05$) Incentive X perspective (G^2 (1) = 0.374, $p > .05$)
1.4: not supported *Employed respondents will show less approval of the overall evaluation of the incentive than non-employed respondents.*	Incentive X concern X employment (G^2 (2) = 2.672, $p > .05$) Concern X employment (G^2 (2) = 0.527, $p > .05$) Incentive X employment (G^2 (1) = 0.001, $p > .05$)

Effect of Moderating Variable 2, Newsgroup/Mailing List Membership

Hypothesis 2.1: Victim and Aggressor Perspectives

Hypothesis 2.1 stated that newsgroup/mailing list membership would cause more concern with the victim perspective than with the aggressor perspective. A dichotomous variable was created to represent membership status (membership, no membership), and a 2x2x2x2 frequency analysis (scenario X perspective X concern X membership) was performed. Table 11a shows a summary of frequencies.

Table 11a - Frequencies:
Concern as a Function of Scenario, Perspective and Membership

	Scenario 1 E-mail Advertising		Scenario 2 E-mail Tapping	
Concern	**Victim**	**Aggressor**	**Victim**	**Aggressor**
	Non-members (n = 55)			
Feel Bothered	38	37	48	26
Not Bothered	17	18	7	29
	Members (n = 272)			
Feel Bothered	212	174	252	179
Not Bothered	60	98	20	93

Note: Values represent frequencies of responses to categorical variables.

A significant higher-order effect in this analysis would appear as scenario X perspective X concern X membership, indicating a joint influence of scenario, perspective and membership on the level of concern felt by the respondent. A significant partial effect of membership would appear as a three-way interaction of perspective X concern X membership. The analysis showed no significant association between perspective and membership status in the second-order, third-order or fourth-order effects (ref. Table 11e). There was a significant two-way interaction of membership X concern. Members showed more concern (75%) than non-members regardless of perspective (68%; G^2 (1) = 5.293, $p < .05$). Although membership had a reliable association with

concern, Hypothesis 2.1 is not supported as there was no evidence of a statistically significant association between membership and the victim and aggressor perspectives.

Hypothesis 2.2: Bystander Perspective

Hypothesis 2.2 stated that for the bystander perspective, more members would take a moralizing stance than non-members. A 2x2x2 (scenario X concern X membership status) frequency analysis was performed with membership and the bystander variables. Frequencies are summarizes in Table 11b.

Table 11b - Frequencies: Concern as a Function of Scenario and Membership

	Scenario 1 E-mail Advertising		Scenario 2 E-mail Tapping	
Concern	**Non-Members**	**Members**	**Non-Members**	**Members**
Both A&B OK	26	114	12	43
Country A/B Wrong	29	158	43	229

Note: Values represent frequencies of responses to categorical variables.

There was no significant effect of scenario X concern X membership status. There were also no significant partial associations. Membership status did not affect how respondents taking the bystander perspective reacted to the advertising scenario compared to the e-mail tapping scenario. Based on these findings, Hypothesis 2.2 is not supported for the effect of the membership variable on the bystander perspective.

Hypothesis 2.3: Victim and Aggressor Perspectives and Incentive

Hypothesis 2.3 stated that members would be more concerned about the incentive than non-members when responding to the victim and aggressor probes. A 2x2x2x3 frequency analysis

was performed (incentive X perspective X concern by membership) for the Concern probes and the incentive. Table 11c shows a summary of the frequencies.

Table 11c - Frequencies:
Concern as a Function of Incentive, Perspective and Membership

	Victim		Aggressor	
Concern	**No Incentive**	**Incentive**	**No Incentive**	**Incentive**
	Non-Members (n = 55)			
Feel Bothered	38	23	37	24
Not Care	16	18	15	20
Think it's Good	1	14	3	11
	Members (n = 272)			
Feel Bothered	212	147	174	128
Not Care	57	55	69	86
Think it's Good	3	70	29	58

Note: Values represent frequencies of responses to categorical variables.

The analysis showed no significant associations at any level with the membership status variable (ref. Table 11e). Hypothesis 2.3 is therefore not supported for the effect of the membership variable on the victim and aggressor perspectives and the incentive.

Hypothesis 2.4: Overall Evaluation of Incentive

Hypothesis 2.4 stated that members of newsgroups/mailing lists would show less approval of the overall evaluation of the incentive than non-members. A 2x2x3 frequency analysis (incentive X concern X membership status) was performed on the Evaluation probe and the membership variable. Table 11d shows a summary of the frequencies.

Table 11d - Frequencies:
Concern as a Function of Incentive and Membership

Concern	No Incentive		Incentive	
Very Wrong	26	123	17	91
Little Wrong	17	94	14	71
Perfectly OK	12	55	24	110

Note: Values represent frequencies of responses to categorical variables.

The analysis showed no significant effect of membership on incentive X concern, nor were there any significant partial effects (ref. Table 11e). Based on these results, Hypothesis 2.4 is not supported for the effect of the membership variable on the Evaluation probe and the incentive. Table 11e summarizes the effects of the newsgroup/mailing list membership variable on Hypotheses 2.1 through 2.4.

Table 11e: Summary of Findings for the Effect of Newsgroup/Mailing List Membership

Hypotheses	Interactions G^2 (df)
2.1: not supported *Membership will cause more concern with the victim perspective than with the aggressor perspective.*	Concern X membership (G^2 (1) = 5.293, $p < .05$) Scenario X perspective X concern X membership (G^2 (1) = 1.145, $p > .05$) Perspective X concern X membership (G^2 (1) = 0.708, $p > .05$) Scenario X perspective X membership (G^2 (1) = 0.607, $p > .05$) Perspective X membership (G^2 (1) = 0.302, $p > .05$)
2.2: not supported *For the bystander perspective, more members will take a moralizing stance than non-members.*	Scenario X concern X membership (G^2 (1) = 0.143, $p > .05$) Scenario X membership (G^2 (1) = 0.125, $p > .05$) Concern X membership (G^2 (1) = 1.508, $p > .05$)
2.3: not supported *Members will be more concerned about the incentive than non-members when responding to the victim and aggressor probes.*	Incentive X perspective X concern X membership (G^2 (2) = 0.613, $p > .05$) Incentive X perspective X membership (G^2 (1) = 0.008, $p > .05$) Incentive X perspective (G^2 (1) = 0.370, $p > .05$) Concern X membership (G^2 (2) = 4.349, $p > .05$)
2.4: not supported *Members will show less approval of the overall evaluation of the incentive than non-members.*	Incentive X concern X membership (G^2 (1) = 0.168, $p > .05$) Concern X membership (G^2 (2) = 0.325, $p > .05$) Incentive X membership (G^2 (1) = 0.012, $p > .05$)

Effect of Moderating Variable 3, Culture

Hypothesis 3.1: Victim and Aggressor Perspectives

Hypothesis 3.1 stated that respondents from Germany would be less concerned with the victim perspective and with the aggressor perspective than respondents from Canada or the U.S.A. A 2x2x2x3 frequency analysis was performed (scenario X perspective X concern X culture) with all effects included to determine the effect of culture on the victim and aggressor perspectives. Table 12a summarizes the frequencies.

Table 12a - Frequencies:
Concern as a Function of Scenario, Perspective and Culture

Concern	Scenario 1 E-mail Advertising		Scenario 2 E-mail Tapping	
	Victim	Aggressor	Victim	Aggressor
		Canada (n = 34)		
Feel Bothered	23	23	31	21
Not Bothered	11	11	3	13
		Germany (n = 75)		
Feel Bothered	62	48	69	39
Not Bothered	13	27	6	36
		U.S.A. (n = 218)		
Feel Bothered	165	140	200	145
Not Bothered	53	78	18	73

Note: Values represent frequencies of responses to categorical variables.

A significant fourth-order effect in this analysis would indicate a joint influence of perspective, scenario and culture on the level of concern felt by the respondents. A partial significant effect of culture would appear as a three-way interaction of perspective and culture on the level of concern. The results show that there were no significant higher-order or lower order associations with culture in this analysis (ref. Table 12e). Respondents from Germany did not differ significantly in their characterizations of the scenarios than respondents from the U.S.A. or

Canada. Based on these results, Hypothesis 3.1 is not supported for the effect of culture on the victim and aggressor perspectives.

Hypothesis 3.2: Bystander Perspective

Hypothesis 3.2 stated that for the bystander perspective, fewer respondents from Germany would take a moralizing stance than respondents from Canada or the U.S.A. A 2x2x3 frequency analysis (scenario X concern X culture) was performed. Table 12b shows a summary of frequencies for the bystander perspective.

Table 12b - Frequencies:
Concern as a Function of Scenario and Culture

Concern	Scenario 1 E-mail Advertising	Scenario 2 E-mail Tapping
	Canada (n = 34)	
Both A&B OK	16	3
Country A/B Wrong	18	31
	Germany (n = 75)	
Both A&B OK	15	9
Country A/B Wrong	60	66
	U.S.A. (n = 218)	
Both A&B OK	109	43
Country A/B Wrong	109	175

Note: Values represent frequencies of responses to categorical variables.

The results show that there was no significant effect of scenario X concern X culture, indicating that respondents from all countries did not differ significantly in their ratings of the two scenarios (ref. Table 12e). However, the analysis showed a significant partial association of concern X culture. A higher proportion of respondents from Germany took a moralizing stance (84%) than from Canada (72%) or the U.S.A. (65%; G^2 (2) = 22.372, $p < .01$). These results indicate that not only did respondents take a moralizing stance for both scenarios, but that

Germans moralized more than Americans or Canadians. Although there was a significant partial association of concern and culture, a smaller proportion of respondents from Germany was expected to take a moralizing stance than from either Canada or the U.S.A. Based on these results, Hypothesis 3.2 is not supported for the effect of the culture variable on the bystander perspective.

Hypothesis 3.3: Victim and Aggressor Perspectives with Incentive

Hypothesis 3.3 stated that respondents from Germany would be less concerned about the incentive than respondents from Canada or the U.S.A. when responding to the victim and aggressor probes and the incentive. A 2x2x3x3 frequency analysis was performed (incentive X perspective X concern X culture) to determine the effect of culture on the Concern probes and the incentive. Table 12c shows a summary of frequencies.

Table 12c - Frequencies:
Concern as a Function of Incentive, Perspective and Culture

Concern	Victim		Aggressor	
	No Incentive	Incentive	No Incentive	Incentive
	Canada (n = 34)			
Feel Bothered	23	14	23	13
Not Bothered	10	10	9	15
Think it's Good	1	10	2	6
	Germany (n = 75)			
Feel Bothered	62	49	48	42
Not Care	12	18	22	24
Think it's Good	1	8	5	9
	U.S.A. (n = 218)			
Feel Bothered	165	107	140	97
Not Care	51	45	53	67
Think it's Good	2	66	25	54

Note: Values represent frequencies of responses to categorical variables.

The analysis showed that there were no significant fourth-order or third-order effects of incentive with perspective, concern and culture (ref. Table 12e). The culture variable was, however, significant in the two-way interaction of concern X culture (G^2 (4) = 22.370, $p < .01$), showing that respondents were concerned regardless of the incentive or the perspective. Respondents from Germany showed the most concern (67%) compared to the U.S.A. (58%) and Canada (54%). Respondents from Canada showed the most approval of unsolicited e-mail advertising (14%) compared to the U.S.A. (11%) and Germany (8%). Although the analysis showed a reliable association between concern and culture, but no significant higher-order or partial association that included the incentive with perspective and concern, Hypothesis 3.3 is not supported for the effect of the culture variable on the victim and aggressor perspectives and the incentive condition.

Hypothesis 3.4: Overall Evaluation of Incentive

Hypothesis 3.4 stated that German respondents would show more approval of the overall evaluation of the incentive than Canadian or American respondents. A 2x3x3 frequency analysis (incentive X concern X culture) was performed to determine the effect of culture on the Evaluation probe. Table 12d shows a summary of frequencies.

Table 12d - Frequencies:
Concern as a Function of Incentive and Culture

Concern	No Incentive	Incentive
	Canada (n = 34)	
Very Wrong	13	11
Little Wrong	10	7
Perfectly OK	11	16
	Germany (n = 75)	
Very Wrong	47	39
Little Wrong	25	22
Perfectly OK	3	14
	U.S.A. (n = 218)	
Very Wrong	89	58
Little Wrong	76	56
Perfectly OK	53	104

Note: Values represent frequencies of responses to categorical variables.

There was no significant effect of incentive X concern X culture, however, there was a significant two-way interaction between culture X concern (G^2 (4) = 47.101, $p<.01$), showing that there were differences in attitudes of respondents from Canada, Germany and the U.S.A. Respondents from Germany showed the least permissiveness with the level of concern *very wrong* (57%) compared to Canada (35%) and the U.S.A. (34%). The results for the category *perfectly okay* were complementary, with Canada showing more acceptance (40%) than U.S.A. (36%) and Germany (11%). Although there was a significant partial association of culture and the level of permissiveness, a smaller proportion of respondents from Germany were expected to take a moralizing stance than from either Canada or the U.S.A. with and without the incentive. Based on these results, Hypothesis 3.4 is not supported for the effect of the culture variable on the Evaluation probe. A summary of findings for the culture variable is shown in Table 12e.

Table 12e: Summary of Findings for the Effect of Culture

Hypotheses	Interactions G^2 (df)
3.1: not supported *Respondents from Germany will be less concerned with the victim perspective and with the aggressor perspective than respondents from Canada and the U.S.A.*	Scenario X perspective X concern X culture (G^2 (2) = 0.566, $p > .05$) Perspective X concern X culture (G^2 (2) = 3.190, $p > .05$) Scenario X perspective X culture (G^2 (2) = 0.184, $p > .05$) Perspective X culture (G^2 (2) = 0.038, $p > .05$) Concern X culture (G^2 (2) = 0.698, $p > .05$)
3.2: not supported *For the bystander perspective, fewer German respondents will take a moralizing stance than respondents from Canada or the U.S.A.*	Scenario X concern X culture (G^2 (2) = 4.313, $p > .05$) Scenario X culture (G^2 (2) = 1.700, $p > .05$) Concern X concern (G^2 (2) = 22.372, $p < .01$)
3.3: not supported *German respondents will be less concerned about the incentive than Canadian or American respondents when responding to the victim and aggressor probes.*	Incentive X perspective X concern X culture (G^2 (4) = 3.013, $p > .05$) Incentive X perspective X culture (G^2 (2) = 0.215, $p > .05$) Incentive X perspective (G^2 (1) = 0.378, $p > .05$) Concern X culture (G^2 (4) = 22.370, $p < .01$)
3.4: not supported *German respondents will show more approval of the overall evaluation of the incentive than Canadian or American respondents.*	Incentive X concern X culture (G^2 (4) = 2.027, $p > .05$) Concern X culture (G^2 (4) = 47.101, $p < .01$) Incentive X culture (G^2 (2) = 1.969, $p > .05$)

Discussion

There were three main purposes for this study. The first was to determine how attitudes of victims, aggressors and bystanders differ toward Internet privacy invasions in the conventional and moral domains. The second purpose was to determine changes in attitudes of victims and aggressors and overall evaluations of respondents when a monetary incentive is offered in exchange for a privacy invasion in the conventional domain. The final purpose was to determine the effect of employment status, newsgroup/mailing list membership and culture on attitudes of respondents. In the process of examining interactions, an evaluation of differences in attitudes between perspectives was done to determine if movement along a morality continuum was indicated.

Part 1 - Interaction of Domain and Perspective on Attitudes.

Victim and Aggressor Perspectives

The analysis of the victim and aggressor perspectives in Hypothesis 1 indicates that there are significant interactions between the level of concern that respondents experience by both scenario and perspective (ref. Table 5 and Table 9). Several issues are raised by these findings. First, respondents clearly distinguish between scenarios. A larger proportion of respondents is concerned by the e-mail tapping scenario in the moral domain than the advertising scenario in the conventional domain. This supports Nisan's (1991) argument that issues in the moral domain regarding justice, rights and harm require dichotomous judgements of right and wrong. Events in the conventional domain may be less important, and hence have less potential for concern, than events in the moral domain (Turiel, Killen & Helwig, 1987). The e-mail tapping event in the moral domain may have triggered a response of greater concern as people basically disapprove of wiretapping and surveillance (Katz & Tassone, 1990). The notion of surveillance is connected to

a sense of malevolent activity, and populations fear that surveillance can too easily lead to excessive forms of social and political control (Agre, 1994; Raab & Bennett, 1994).

A second issue is that respondents taking the victim perspective show more concern than respondents taking the aggressor perspective (ref. Table 5). This occurs in the conventional domain, but more so in the moral domain. The findings regarding victims should not be surprising, as according to Katz and Tassone (1990) there has been a general increase over time in the perception of victimization due to privacy loss, particularly with respect to wiretapping. The concern indicated by respondents regarding e-mail tapping may be a reflection of this concern.

A third issue is that the aggressor perspective resulting in less concern than the victim perspective supports Nisan's (1991) theory of limited morality, where under certain circumstances, such as with employment, individuals will allow themselves to deviate somewhat from what is accepted behaviour. Employees may be in a conflict of interest situation. There may be a positive outcome expectancy on behalf of the victim, making it easier for employees to invade the victim's privacy. In addition, factors such as organizational culture may result in employees engaging in questionable ethical behaviour as they carry out their duties, despite their own personal objections or good intentions (Jones, 1991). The decision to go along with requirements of the job may be made easier by the psychological separation between the employee and the victim as the result of deindividuation. Computer users may be unable to identify with other stakeholders (Conger, Loch & Helft, 1995), resulting in an increase in the number of individuals who fail to grasp the consequences of invasive or harmful Internet behaviour.

A final issue is although the evidence indicates that respondents distinguish between the conventional and moral domains and show more concern in the moral domain, it is not clear that respondents interpret the e-mail tapping scenario as an absolute moral issue, that is, an issue that requires a categorical judgement of right or wrong. The explanation may be that the conventional and moral domains are related in multifaceted ways, and encompass moral and nonmoral elements,

making distinctions between domains difficult (Turiel, Killen & Helwig, 1987). Specific situational characteristics, available information, culture, and the way in which the information is presented will influence the domains of judgement (Turiel, et al.; Katz & Tassone, 1990; Haidt, Koller & Dias, 1993). Further study comparing judgements of conventional and moral domains is needed to determine what causes respondents to assess a privacy invasion event on the Internet as a distinctly moral issue as opposed to a conventional issue.

Bystander Perspective

Respondents answering the bystander perspective were expected to take a permissive stance regarding the e-mail advertising scenario, and were expected to take a moralizing stance regarding the e-mail tapping scenario. However, the results of a significant interaction between scenario and concern show that respondents take a moralizing stance in both the conventional and the moral domains, although more so in the moral domain (ref. Table 9).

Although survey participants are given context-specific scenarios to assess, it may be that the bystander perspective causes respondents to view both scenarios as abstract events, with no obvious personal connection. One of Katz and Tassone's (1990) conclusions in their longitudinal study of privacy concerns was that the way in which an issue is presented will influence the perception of a threat to privacy. In this study, the major issue in each of the domains is a privacy invasion. By taking a bystander perspective, respondents may view the privacy invasion in absolute terms of right and wrong, resulting in respondents taking a moralizing stance for both events. However, it must also be noted that the proportion of respondents taking a moralizing stance in the conventional domain is just over 50%, suggesting an ambiguous attitude toward the e-mail advertising scenario (ref. Table 6).

The consistent moralizing stance of respondents taking the bystander perspective may also be attributable to the problem of self-selection. Since most participants who responded to this

survey are likely to be those with strong interests in privacy-related Internet issues, they may already hold an inherent bias against any form of privacy invasion. The moralizing stance taken by respondents toward the two scenarios presented in this survey may be a reflection of this possible bias.

Victim and Aggressor Perspectives with Incentive

The findings of the victim and aggressor probes in combination with the offer of the incentive indicate that there is a joint influence of the incentive and perspective on the level of concern of respondents (ref. Table 9). The victim probe under both incentive conditions elicits more concern than the aggressor probe before and after the incentive is offered. The higher concern shown toward the victim probe may be due in part to concern about privacy and computers that is rising, along with an increase in the sense of privacy loss due to the potential for abuse of computerized personal information by both government and private industry (Katz & Tassone, 1990). What is of interest is the significant influence of the incentive on the level of concern, demonstrated by the drop in levels of concern by victims and aggressors when the incentive is offered (ref. Table 7).

The proportion of concern shown by the aggressor perspective, although smaller than the victim, is still quite large before the incentive at 65%, suggesting that Internet users are concerned about privacy regardless of perspective. This is supported by the moderate association between perspective and concern (ref. Table 9). However, the aggressor may have less concern in the scenario simply because the privacy invasion victimizes another individual. The aggressor still shows concern, but less than the victim. After the incentive is offered, the level of concern shown by the aggressor drops considerably to 46%, illustrating that privacy invasions may be considered acceptable if victims are compensated.

The strong association between incentive and levels of concern (ref. Table 9) is perhaps best illustrated by the changes in the proportions of respondents who approve of unsolicited e-mail when the incentive is offered. For both the victim and the aggressor perspectives, there is a significant increase in approval (ref. Table 7). The obvious reason is again that respondents feel a privacy invasion is acceptable if victims are compensated. What is surprising is the increase in approval by victims, from 2% to 26%. The results for the aggressor probe show a similar directional change with the proportion of respondents who approve doubling from 10% to 21% with the offer of an incentive. The findings of the Concern probes indicating disapproval of e-mail advertising prior to the incentive may be because there is disapproval of unsolicited e-mail advertising in general by the Internet community. However, the offer of an incentive creates a different environment for those involved in privacy invasions. There is a financial gain for the victim and a vicarious reward for the aggressor. More research is required to determine how much privacy Internet victims are willing to forego in return for a financial compensation. Additional research is also needed to determine why individuals are willing to be the aggressors in the privacy invasion act in an employment situation, and how far they are willing to go on behalf of their employers.

Overall Evaluation of Incentive

The Evaluation probe serves as an initial measure of permissiveness of unsolicited e-mail advertising. The analysis of the Evaluation probe shows a significant interaction between incentive and concern (ref. Table 9); most respondents think unsolicited e-mail advertising is either very wrong or at least a little wrong before the incentive is offered. With the incentive, the proportion in both categories decreases and there is a parallel increase in the proportion of those who approve of the practice (ref. Table 8).

At present, unsolicited e-mail advertising is unregulated (Walton, 1997). Internet etiquette discourages the practice through complaints to service providers, public denouncing of offenders, or flaming (flooding the offender's e-mail account with impolite messages). The results of the Evaluation probe indicating disapproval of e-mail advertising prior to the incentive may be an indication of the general disapproval of the practice that the Internet community has. By offering an incentive, however, the proportion of respondents who approve of the practice doubles, and although the proportion is still less than half, a significant number of respondents indicate a willingness to accept compensation in return for allowing an invasion of their privacy. More research is required to determine how much privacy invasion Internet users are willing to accept in return for a compensation. For example, it could be that the greater the reward, the more willingness there will be to allow a privacy invasion, the more information will be revealed, and the more people will be willing to take part in the transaction.

Part 2 - Effect of Moderating Variables

Employment Status

The analysis of effect of the employment status variable reveals that respondents who are employed show more concern than those who are not employed for Hypotheses 1.1 and 1.3 (ref. Table 10e). The significance of the associations between employment status and concern may be a reflection of the sensitivity that employees have toward Internet technology, especially with the prevalence of e-mail use in organizations (Thompson, DeTienne & Smart, 1995). It may also be a reflection of the morality of association discussed by Rawls (1971). Mason (1995) describes the tension that exists between the "individual and the larger collective -- the group, the organization, the society" (p. 37) in situations of ethical dilemmas. Ethicists maintain that individuals are not relieved of the responsibility of their actions regardless of the larger group, and all actions are attributable to the people that commit them (Mason). The relationship between the nature of the

corporation and its influence on the behaviour of its employees with regard to Internet privacy requires further study.

The association between different perspectives and employment status also requires further examination. In this study there is a lack of a statistically significant association at any level in Hypotheses 1.1, 1.2 and 1.3 (ref. Table 10e). There may be several reasons for the lack of effect. The difference in sizes of the non-employed versus employed groups could be great enough that the model does not adequately fit the data. Alternatively, the number of levels used in the analysis may be too large for the overall sample size. The lack of a significant association of the incentive with employment status at any level in Hypothesis 1.3 is also disappointing, particularly because of the strong association shown in the main hypothesis (Hypothesis 3, ref. Table 9) between incentive and concern, and perspective, incentive and concern. Finally, the lack of significant associations in Hypothesis 1.4 may also be due to the problem of the sample size (ref. Table 10e). A larger overall sample size may provide answers to some of the questions raised here.

Newsgroup/Mailing List Membership

It was expected that familiarity with newsgroups and mailings lists influences respondents to characterize privacy-related issues with more concern. The analysis shows a significant interaction between membership status and concern for the victim and aggressor perspectives in Hypothesis 2.1 (ref. Table 11e). Members of newsgroups/mailing lists indicate more concern to the privacy invasion events described in the scenarios than non-members. These findings may indicate that as respondents to this study are more familiar with Internet technology through their memberships with newsgroups and mailing lists, their sensitivity toward privacy invasion is higher than those without memberships. For the unsolicited e-mail scenario (ref. Table 11a), the findings may be an indication that in addition to being concerned by the violation of privacy, respondents may be aware of the hidden costs of receiving unsolicited advertising, in the time required to

download messages, the disk space used, or the time needed to read or sort through messages. For the e-mail tapping scenario, the findings suggest that respondents are aware of the greater potential for privacy abuses. Bacard (1997) states that e-mail is the most pro-surveillance technology ever invented. Computers make it simple for surveillance to occur because of their reliable memory, search capacity, tracking ability and the ease with which data can be transferred.

There is a disappointing lack of effect of the membership variable with the different perspectives. Further research is required for all the hypotheses (ref. Table 11e). Similar to the employment status variable, there may be several reasons for the lack of effect. The difference in sizes of the member versus non-member groups could be great enough that the model does not adequately fit the data. Again, the number of levels used in the analysis may be too large for the overall sample size. The lack of a significant association of the incentive with membership at any level in Hypothesis 2.3 is again disappointing. Finally, the lack of significant associations in Hypothesis 2.4 may also be due to the problem of the sample size (ref. Table 11e). A larger overall sample size may provide answers to some of the questions raised for both the employment status variable and the membership variable, particularly as there is a significant association between membership and concern. More research is needed to determine the effect of membership on attitudes of Internet users toward privacy issues.

Culture

The effect of the culture variable was expected to reveal that respondents from Germany are less concerned in their characterizations of privacy-related issues than respondents from the U.S.A. or Canada. The results for Hypothesis 3.1 show a lack of effect of culture with all other variables, including perspective, at all levels. For Hypothesis 3.2, the bystander perspective, there is a significant association of culture and concern, but no influence of scenario (ref. Table 12e). A further analysis indicates that none of the respondents, particularly those from Germany, make

a distinction between the conventional and moral domains, even though the three countries examined in this study are rights-based, as opposed to duty-based (ref. Table 12b). Differences may also be attributed to privacy laws that Türkheimer (1994) briefly describes for the three countries. Privacy laws in the U.S.A. are directed primarily against governmental intrusion. Canadian law protects individuals from governmental disclosure of information without specific requirements being met. German law, however, addresses personal rights, and tries to strike a balance between state interests and self determination of personal information. The results from German respondents in this study may reflect that German citizens are more sensitive toward perceived violations of personal rights. Further study is required to determine if these results would be consistent with other scenarios.

The results for Hypothesis 3.3 show that there is a lack of a significant association between culture and perspective at any level (ref. Table 12e). In addition, there is a lack of a significant association between culture and the incentive for Hypothesis 3.3. The only reliable effect is that of culture and concern. There are similar proportions of respondents that are concerned from both Canada and the U.S.A.; respondents from Germany show a reliably higher proportion of concern (ref. Table 12c). This indicates that respondents from all countries are concerned about the events in the unsolicited e-mail advertising scenario, regardless of the incentive (ref. Table 12e). The proportions of respondents that approve of the events in the scenario are again similar for Canada and the U.S.A. (ref. Table 12c), but contrary to expectations, the proportion for German respondents is lower. This suggests that German respondents view a privacy invasion as unacceptable regardless of whether or not there is an offer of compensation.

For the overall evaluation of the incentive in Hypothesis 3.4, there is again a strong association between culture and concern (ref. Table 12e). German respondents show the greatest

proportion of concern and the lowest proportion of acceptance under both incentive conditions, suggesting again that German respondents view any form of privacy invasion as unacceptable.

The prediction that respondents from Germany would indicate less concern than respondents from Canada and the U.S.A. is not met. Respondents from all countries distinguish between the moral and conventional domains, and in particular, that the e-mail tapping scenario is of more concern than the advertising scenario (ref. Tables 12b, 12c, 12d). The results from North American respondents support the findings of Gattiker and Nelligan (1988) who do not find any significant differences between Americans and Canadians regarding attitudes toward computerization of work. The results showing that respondents from Germany are not significantly different from Canada and the U.S.A. may reflect the similarities that exist between Western cultures that focus primarily on rights of individuals. In the Western individually oriented environment, the social order is separated from the natural moral order, creating a distinction between conventional and moral domains. In contrast, cultures in some Asian countries such as India are duty-based, and there is a fundamental relationship between the natural moral order and social roles and arrangements (Turiel, Killen & Helwig, 1987).

The lack of significant associations may again be due to problems of sample size. The differences in group sizes, particularly the large sample from the U.S.A. versus the small samples from Canada and Germany, and the number of levels required to analyse interactions of the three cultures with the target variables may not be appropriate for the available sample. A larger overall sample size may again provide solutions to some of these problems. More research is needed to determine the effect of culture on perspectives, incentives and attitudes of Internet users toward privacy issues.

Limitations

There are several limitations to this study. The sample was limited to three countries with small sample sizes from Germany and particularly from Canada. Another limitation is that the conventional and moral scenarios were imposed upon respondents. It is not known if the differences between responses to the scenarios were due to the scenarios and not due to the particular events described in the scenarios. The scenarios may have been too similar in content, or may have biased respondents with specific references to the U.S.A. More scenarios in both domains may have provided an answer to this question. With the current survey, more scenarios were not included due to considerations of on-line time constraints for potential respondents. A further limitation to this study was that it was not possible to make comparisons between all three perspectives of victim, aggressor and bystander for any of the hypotheses, as the measurements were not the same.

Another limitation was that the variable of employment status was limited to whether or not respondents were employed. This eliminated individuals who may have been previously employed. The dichotomous variable allowed outliers to be ignored, but it eliminated analysing possible differences in attitudes of respondents who work full-time hours versus those who work part-time hours. Similarly, the variable created to designate membership or non-membership of newsgroups/mailing lists eliminated any previous members; an analysis of attitudes of individuals with different numbers of memberships was also not possible. Additionally, the dichotomized variable did not allow for an analysis of possible differences between members of newsgroups versus mailing lists. The dichotomized variables were necessary in part because of the focus of the study, but also because of the limitations of the relatively small sample size for a loglinear analysis. A larger sample may have provided sufficient cell frequencies to analyse discrete groups. According to Tabachnick and Fidell (1989), the greater the number of variables and their levels, the greater is the need for a large overall sample size to provide adequate cell frequencies.

However, caution must also be exercised as the inclusion of too many variables can make interpretation of results difficult. Hence, the variables used in this study were limited in number and level.

Finally, the problem of self-selection for this Internet survey remains. The concern is the wider audience that had access to the survey and the fact that it was not possible to account for the size of that group. For respondents, software exists such that they can be tracked, however this option was not available at the time this survey was conducted. Despite these limitations, this study provided useful results.

Implications

Zalesny and Ford (1990) state that the way individuals perceive, encode, and translate their reality determines the consequences of their reactions to that reality, regardless of whether or not they created that reality, or participated in its creation. Perceptions will predispose individuals to certain attitudes and to react in certain ways.

Control is central to the issue of privacy. There is a cost to Internet users who do not have control over their privacy. The consequence of unsolicited e-mail advertising is that junk e-mail costs are shifted to the receiver, in the form of connect time, storage costs, and time to sort through unwanted messages. The consequence of e-mail tapping is a loss of control of personal space and use of personal information.

Implications for Decision Makers

Acceptable Internet Behaviour

People must recognize that their actions on the Internet affect others. Although ethical behaviour may be endorsed through codes of conduct that instruct society members about acceptable behaviour, it is the individual's own understanding of morality that will determine behaviour (Kjonstad & Willmott, 1995). Training in ethics may have no effect on individuals if there is a lack of understanding (Honeycutt, Siguaw & Hunt, 1995). The need for policies is still there, however, as Conger, Loch and Helft (1995) report that a lack of policies is interpreted as a license to act freely. As Internet technology advances, more decision-making will be taken out of the control of people and will be replaced with computer automation (Smith, Milberg & Burke, 1996). Consequently, an understanding of acceptable personal information use must be established, with more research conducted on attitudes and norms of Internet behaviour, particularly regarding the differences in perspectives that users may have.

The Employee Predicament

There is a need for organizations to recognize and adopt acceptable Internet behaviour. Mason (1995) states that there are real possibilities of "good" people forced to commit unethical acts on behalf of their employers; acts that the employees believed were wrong. This study provides evidence of such an ethical dilemma. Conger and Loch (1995) state that the normal evolution of a social norm begins with an action that may annoy or harm someone, but at a level that is not significant enough to draw much attention. It appears that by adding an incentive to a situation, the rules of good behaviour that have been considered universal and applicable to all (Lauden, 1995) are no longer clear because the incentive causes the consequences of behaviour to be viewed differently. Outcome expectancies change, and as Trevino and Youngblood (1990) found, outcome expectancies directly influence ethical behaviour. This is significant for Internet behaviour, particularly for employees who can be placed in a conflict of interest position.

Marketing

Many consumers already believe that they do not have any control over their personal information (Camp, 1994). McDonald (1976) reports that to a large extent, consumers do not realize that they have been victims of crimes. This may be even more relevant today with Internet consumers. Often, electronic transactions create permanent digital records, making it nearly impossible for consumers to make a transaction without leaving a "data shadow" (Crawford, 1994). The traditional one-to-many marketing environment is replaced on the WWW with a many-to-many model (Hoffman & Novak, 1996), where many organizations can reach many individuals. As more commerce goes online, there will be more threats to individual privacy and new types of personal profiles will be assembled based on online history (Copeland, 1997). Individuals and organizations must work together to protect personal information and its use.

Issues for Future Research

Domain Theory

The application in this study of perspectives to domain theory results in mixed support for the domain theory of moral development, as the results indicate that perspective influences the moral judgement an individual will make regarding an event. Respondents assuming the perspectives of victims and aggressors clearly distinguish between the conventional and moral domains, in that their levels of concern are higher in the moral domain than the conventional domain. However, the results of the bystander perspective do not support domain theory, as the majority of responses to the bystander perspective without exception take a moralizing stance. This may be an indication that categorizing events into domains of judgement is complex due to the moral and nonmoral components of the domains (Turiel, Killen & Helwig, 1987). It may also be an indication the perception of harm is difficult to recognize with computer-mediated actions (Conger, Loft & Helft, 1995) where distance separates communicators. The bystander perspective adds another dimension of distance as the bystander, or observer, may not perceive any harm from computer interactions due to depersonalization and deindividuation. Further research regarding the interaction of domains and perspective with Internet related events is required.

Limited Morality Theory

The results of this study support Nisan's (1991) theory of limited morality, in that individuals are flexible in their moral judgements to accommodate variations in circumstances. When respondents take the perspective of the aggressor, their levels of concern are almost without exception lower than when they take the perspective of a victim in both the conventional and moral domains. Lower levels of concern lead to more flexibility in moral judgements, particularly when compensation is offered in return for a privacy invasion. When the victim and aggressor perspectives are asked to rate their attitudes between the conditions of no incentive versus

incentive, there are significant changes between conditions. Without exception, the proportion of respondents who disapprove decreases when the incentive is offered, with a proportionate increase in approval, however it is important to note that the perspective of the victim responds to the incentive manipulation more than the perspective of the aggressor. This suggests that money may have a substantial influence on moral judgements of privacy invasion, particularly for the victim. Agre (1994) reports that individuals about whom information is being collected (and used) may adjust their behaviour according to what they believe the data will be used for. For the aggressor, it could also be that the incentive may have a similar effect on employees as a commission system, where an employee's behaviour is tempered or magnified by the organization's ethical environment (Kurland, 1995). This study provides some evidence that individuals may adjust their behaviour according to what their perceptions are of the consequences of data use for the victim. More information is needed on moral judgements of Internet events, particularly with regard to causes of deviations in behaviour along the morality continuum and integration of the other components of Nisan's (1991) moral balance model, moral standard and balanced identity.

Cultural Differences

The distinction, or lack of distinction, between moral and conventional norms is based on cultural views with regard to the nature of individuals, society, and the world (Nisan, 1987, p. 724). Privacy is in essence a cultural phenomenon (Agre, 1994). Cultural differences and decisions about privacy are important for enterprises (Zaheer, 1995; Janssens, Brett & Smith, 1995; Adler, Doktor & Redding, 1986) with the increasing focus on multinational organizations and the globalization of economies. However, business is not alone in the need to understand differences in decision making, attitudes and behaviours regarding privacy-related issues and information use in different cultures. The unfamiliar cultural, political and economic differences which Zaheer terms the "liability of foreignness" are issues for every individual and organization

engaging in information exchange over the Internet. As international boundaries do not stop Internet traffic (Detweiler, 1993), its regulation becomes more complicated. This study provides evidence that there are limited cross-cultural differences in attitudes between Internet users from the sample countries. Further research should address cross-cultural Internet differences between Western, Asian, and African countries, as well as intra-cultural differences, for example, between French and English Canada, or northern and southern Germany.

Privacy is for Sale

This study presents evidence that individuals may be willing to sell their privacy. The use of incentives is not new, and marketers already make use of coupons as compensation to consumers whose shopping habits have been scanned by supermarket cash registers (Milne & Gordon, 1994). Culnan (1993) describes the "Willingness to Tradeoff" index that measures how much information individuals are willing to trade for consumer benefits such as credit, insurance and employment. However, Culnan also states that it is necessary to examine attitudes within specific contexts as there is no uniformity of personal information use throughout industries. The implications for marketing are significant, if Internet users show a willingness to view their privacy as a commodity. Further research should look at the question of how much privacy individuals are willing to trade for money and why they are willing to trade.

Research should also address the question of privacy as a commodity and the impact on the perspectives of victims versus aggressors. This study shows that the victims are more willing to give up their privacy if they are compensated than are aggressors. This result is particularly interesting given the token amount of compensation that was offered in the hypothetical scenario. The implications for the aggressor should also be studied further to determine what motivates them to invade the privacy of others when there is compensation for the victim, and to determine how changes in the amount of compensation offered affect the aggressor.

Conclusion

This research presents the results of a WWW survey that sought to determine attitudinal differences of respondents assuming the perspectives of victims, aggressors, and bystanders in two scenarios depicting Internet privacy-related events in the conventional and moral domains of morality. The effect of a monetary incentive was tested on victims and aggressors. Three moderating variables, employment status, newsgroup/mailing list membership, and culture, were tested to determine their effect on all perspectives. Finally, attitudes were examined to determine indications of movement along a morality continuum.

In summary, there are five major findings that emerge from this study. First, perception of harm is a function of perspective and domain. Victims perceive more harm than aggressors in the conventional and moral domains. Privacy invasions in the moral domain are more threatening and have the potential for perceptions of greater harm than privacy invasions in the conventional domain. Attitudes of respondents assuming the aggressor perspective indicate that this perspective is less likely to recognize the harm that occurs as a result of Internet-related privacy invasions. The bystander, who has not been tested before with respect to Internet-related issues, takes a moralizing stance regardless of domain, suggesting that events are seen as abstract, and consequently require moral judgements of right or wrong.

Second, there are mixed results from the measurements used to test effects of the moderating variables. There is a consistent lack of significant associations between the moderating variables and the variables of each of the main hypotheses. The most frequent significant association includes the two-way interaction of the moderating variable with the level of concern. The newsgroup/mailing list membership variable has one significant association, indicating that membership has the least influence of attitudes of respondents. The employment status variable has a moderate effect, with two significant associations. The culture variable has the most effect,

and although the results did not support the hypotheses, the G^2 statistics for the culture variable correctly reflect the direction of the hypotheses.

Third, moral judgement is a function of perspective and domain, but is subject to situational specifics. Moral judgements of victims are less flexible than those of aggressors, except in situations of compensation, where victims show a greater response than aggressors to the incentive manipulation. In general, individuals are more flexible in the conventional domain than the moral domain, indicating that conventional events have less importance and there is less need for conformity to rules of right and wrong than with moral events.

Fourth, the flexibility of movement along the moral identity continuum is a function of perspective and situation. A situation with a positive outcome expectancy will cause more flexibility of movement; the victim will be more sensitive to manipulation than the aggressor and consequently will have more movement along the continuum than the aggressor.

Fifth, privacy is a commodity. Individuals are willing to trade it off in return for a financial compensation. One question that remains is how much privacy individuals are willing to trade off in return for money or the greater speed, efficiency, and cost-savings that new technologies provide. Another question that remains is the influence of privacy as a commodity on the different perspectives.

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Appendix A: Survey

A1: Privacy Survey Introduction - introductory pages to the survey as they appeared on the WWW during the course of the survey.

A2: Thank-you page displayed to respondents who completed the survey.

A3: Privacy Survey and results - the results to each question are shown as currently posted on the WWW at URL <http://www.home.uleth.ca/man-cts/results.htm>

PRIVACY AND SECURITY ON THE INTERNET/INFORMATION HIGHWAY

America Online, CompuServe, credit card companies such as Visa and Mastercard, and the German state of Bavaria have something in common -- they are all concerned about privacy of personal information and electronic media. In this study we are interested in your opinions about privacy and security of personal information on the Internet/Information Highway.

The purpose of this survey is to provide us with information about various issues related to privacy of information, data security and commerce. Your answers to these questions will help us to shed more light on these issues and, in turn, help policy makers address the concerns of end-users. The survey runs from March 15 through May 15, 1996.

If you want to start on the survey right away, please click HERE. If the loading process takes too long, you may want to use our alternate server in Texas.

The survey itself consists of four different parts, which are explained in more detail below. On the survey form, you can click on the respective answers that seem the most appropriate for you. In some cases, you will be asked to type the information into a text field.

If you are unable to fill out the survey, please consider downloading the ASCII-version (in Netscape use the *Save as* option in the *File* menu) and filling it in using a word processor. You can then return the survey (in ASCII format, please) using e-mail. **Note:** The ASCII version of the survey was produced under UNIX.

All responses will remain strictly confidential and only aggregate data will be used, thereby making the identification of your answers in the final report **impossible.**

Some of the questions may evoke limited or emotional responses based on your cultural experiences with the issue. Please remember that there are **no right or wrong** answers to the questions asked. We are only interested in your opinions about the matters we are investigating.

Thank you for sharing your knowledge and expertise with us!

After you have filled out the form, please return the survey by using the submit button at the bottom of this form or, if you'd like, you can also print out the survey and circle the respective answers and submit it by "snail mail" or fax to:

Prof. Urs E. Gattiker
University of the German Federal Armed Forces at Hamburg
FB WOW
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22039 Hamburg
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Tel: (+49) (40) 6541-2889
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PLEASE RETURN THE SURVEY BY: May 15, 1996

If you are interested in receiving the results of the survey, there will be a place, after the survey has been completed, to request the results. We will send mail to all respondents who filled out the request form as soon as the data is available.

THE PRIVACY PROJECT

In the following survey, you will find a set of general questions which ask about your communications experience.

After the initial questions, there will be two brief scenarios which describe hypothetical situations. After each scenario, a set of questions is asked relating to the scenarios. Again, please mark the most appropriate answers and add any comments where boxes are provided.

At the end of the two scenarios, there will be another section with brief questions about your opinions on some current Internet and privacy issues. The survey concludes with a set of questions about your background.

Please mark one button (or more, where applicable) per question or enter an appropriate value (e.g., number of years) in the text boxes provided.

To submit the data you entered into the survey form, please click on the **SUBMIT** button at the end of the survey. If at any time you feel like starting over again, press the **RESET** button which is also at the end of the survey.

To start filling out the survey, please click HERE. Again, if they survey takes too long to load, feel free to try the alternative server in Texas.

THE PRIVACY PROJECT SURVEY

The first section of this survey asks about your experience/familiarity with e-mail. Please answer these questions to the best of your knowledge. Your responses to each question should be based on your personal profile and experience.

Note: To verify that the complete survey has been loaded, please look to see whether the *Submit* button is present at the very end of the page.

Appendix A2: Thank-you Page

Do you want to know more?

Thank you for submitting the survey! We really appreciate your contribution. Please tell your friends and colleagues about it.

IF YOU WISH TO RECEIVE A SUMMARY OF THE RESULTS, please enter your e-mail or snail mail address in the field below. **Note:** You will not receive a separate confirmation.

If you would like to send comments about our pages or the survey itself, you can send mail to martina@unibw-hamburg.de

If you are interested in the kind of research we are doing and would like to see some of our papers, please click HERE and you'll be linked to a site at the University of Lethbridge in Canada, where a collection of papers (in WP format) and abstracts is stored. **Note:** this server can be slow.

Other Privacy Pages

> The Privacy Pages A page listing important privacy resources, geared towards the U.S. but also useful for Internet users from other countries.

To find out more about privacy on the Internet (or other topics), you can use the direct link below to the Yahoo search engines.

Appendix A3: Results

THE PRIVACY PROJECT SURVEY: Results

These are the results of the privacy survey performed from March 15, 1996 until the end of May, 1996. Statistics are provided for each question.

Detailed reports on individual topics are forthcoming. For questions and comments, please send mail to us.

The total number of filled out surveys used is 471.

Preliminary Questions

Are you currently a student?

No: 322 (68.4%)
Yes: 142 (30.1%)
No answer: 7 (1.5%)

Are you currently employed?

No: 65 (13.8%)
Yes: 394 (83.7%). I work 40 (median value) hours per week.
No answer: 12 (2.5%)

I. E-mail at work

1a. If you have a telephone at work, can you make long distance/trunk calls without going through the company's operator?

No: 75 (15.9%)
Yes: 359 (76.2%)
There is no telephone: 17 (3.6%)
No answer: 20 (4.2%)

1b. Does the organization where you work have a policy for making private telephone calls?

No: 179 (38.0%)
Yes: 250 (53.1%)
There is no telephone: 15 (3.2%)
No answer: 27 (5.7%)

1c. Does the organization where you work have an e-mail system?

No: 28 (5.9%) (Please continue with question 2a)
Yes: 420 (89.2%)
No answer: 23 (4.9%)

1d. Does the organization where you work have a policy on private use of e-mail?

No: 275 (58.4%)
Yes: 141 (29.9%)
No answer: 55 (11.7%)

1e. Do you use the e-mail system at work?

No: 9 (1.9%)
Yes: 414 (87.9%)
No answer: 48 (10.2%)

If yes, how many months have you used e-mail at work? 36 months (median value).

1f. What type of e-mail access do you have at work?

Internal only: 14 (3.0%)
Internet access: 409 (86.8%)
No answer: 48 (10.2%)

1g. Does organization where you work have a **formal code of conduct/ethics** for using the Internet/Information Highway?

No: 250 (53.1%)(please continue with question 1i)
Yes: 167 (35.5%)
No answer: 54 (11.5%)

1h. Answer this question only if you answered "Yes" to the previous question: I have read the code of conduct/ethics for using the Internet/Information Highway within the last four months.

No: 87 (18.5%)
Yes: 82 (17.4%)
No answer: 302 (64.1%)

1i. At work, how many minutes *on average* do you spend per week on all of your e-mail?
150 minutes (median value).

1j. At work, how many minutes *on average* do you spend per week on personal e-mail (not work or study related)?
30 minutes (median value).

1k. *On average* how many e-mail messages do you:

- receive per week : 60 (median value)
- send per week : 20 (median value)

1l. Does your employer reserve the explicit right to monitor e-mail on the computer system at work?

No: 182 (38.6%)
Yes: 94 (20.0%)
Not sure: 146 (31.0%)
No answer: 49 (10.4%)

2. E-mail at home

2a. Do you have a telephone at home?

No: 11 (2.3%)
Yes: 453 (96.2%)
No answer: 7 (1.5%)

If yes, how many minutes *on average* do you talk on the telephone per week?
60 minutes (median value).

2b. Do you have access to a Personal Computer (PC) at home?

No: 33 (7.0%)
Yes: 434 (92.1%)
No answer: 4 (.8%)

If you answered no, please continue at question 3a.

2c. Do you have Internet access from your home?

No: 78 (16.6%)
Yes: 359 (76.2%)
No answer: 34 (7.2%)

If you answered no, please continue at question 3a.

2d. What type of electronic mail service do you have? (mark all that apply)

1. through work (e.g., dial-in access): 204 respondents (43.3%)
   If yes, I have used it for: 24 months (median value)
2. for profit vendor (e.g., Aztec, Genie, EUnet, CompuServe, America Online): 190 respondents (40.3%)
   If yes, I have used it for: 16 months (median value)
3. non-profit (e.g., university, freenet, community network) 143 respondents (30.4%)
   If yes, I have used it for: 20 months (median value)

If you marked more than one Internet access provider in the list above, please mark the one that you use the most for your personal mail:

Through work: 69 (14.6%)
Through profit provider: 89 (18.9%)
Through non-profit provider: 51 (10.8%)
No answer: 262 (55.6%)

2e. At home, how many minutes *on average* do you spend per week on e-mail

- off-line (i.e., while not connected to the Internet through the telephone): 20 minutes (median value)
- on-line (i.e., while connected through the telephone to a dial-in point): 30 minutes (median value)

Considering off-line and on-line, how many minutes of e-mail at home is for work-related purposes: 10 minutes (median value)

2f. On average, how many e-mail messages do you

- receive per week in total: 50 (median value)
  Of these 10 (median value) are work-related.
- send per week in total: 20 (median value)
  Of these 5 (median value) are work-related.

2g. How much do you pay per month:

- to an Internet access provider for Internet access only (e.g., e-mail, ftp, telnet, world wide web)?
  Amount: *15 US Dollars median value (Currencies not provided in US Dollars were converted using purchasing power parities.)*
- to an Internet access provider for storage space (e.g., to store your e-mail messages)?
  Amount: nothing (median value)
- to a telephone service provider in form of telecommunication charges for accessing the Internet?
  Amount: nothing (median value)

2h. If you have e-mail through a for profit provider (e.g., CompuServe, America Online, etc.), does it explicitly reserve the right to monitor e-mail on the system?

No: 145 (30.8%)
Yes: 38 (8.1%)
No answer: 288 (61.1%)

2i. If you have e-mail through a non-profit provider (e.g., university, freenet, etc.), does it explicitly reserve the right to monitor e-mail on the system?

No: 133 (28.2%)
Yes: 45 (9.6%)
No answer: 293 (62.2%)

2j. Regardless of the type of e-mail service you have, are you aware of a specific **code of conduct/ethics** that must be adhered to when using your Internet access provider's facilities?

No: 161 (34.2%)
Yes: 186 (39.5%)
No answer: 124 (26.3%)

2k. Answer this question only if you answered "Yes" to the previous question.
I have read the code of conduct/ethics for using the Internet/Information Highway within the last four months.

No: 119 (25.3%)
Yes: 81 (17.2%)
No answer: 271 (57.5%)

3. Mailing Lists

3a. Are you familiar with Electronic Mailing Lists (i.e., e-mail based discussion lists that you can subscribe and respond to via e-mail)?

No: 21 (4.5%)
Yes: 445 (94.5%)
No answer: 5 (1.1%)

3b. Do you subscribe to a moderated Electronic Newsletter (i.e., there is an individual who functions as an editor and puts the newsletter together) which appears at somewhat regular intervals (e.g., once a week)?

No: 132 (28.0%)
Before, but not now: 48 (10.2%)
Yes: 283 (60.1%), I currently subscribe to 3 Electronic Newsletters (median value)
No answer: 8 (1.7%)

If you answer No or Before, please continue at question 3d.

3c. On average, how many minutes per week do you spend on the computer to:

- read information received through Electronic Newsletters? 30 minutes (median value)
- contribute information to Electronic Newsletters? 0 minutes (median value)

3d. Do you subscribe to a non-moderated mailing list (i.e., an electronic mailing list without an individual who functions as an editor)?

No: 149 (31.6%)
Before, but not now: 39 (8.3%)
Yes: 271 (57.5%), I currently subscribe to 3 non-moderated mailing lists (median value)
No answer: 12 (2.5%)

If you answer No or Before, please continue at question 3f.

3e. On average, how many minutes per week do you spend on the computer to:

- read messages distributed by electronic mailing lists: 50 minutes (median value)
- respond to messages distributed by electronic mailing lists: 5 minutes (median value)

3f. On average, how many minutes per week do you spend to:

- read newspapers/news magazines: 120 minutes (median value)
- watch TV news/investigative reporting: 80 minutes (median value)

The two situations below are fictitious. Any similarity with a person, organization or country is purely coincidental.

SITUATION 1: Electronic Advertising

Your friend pays a fixed U.S.$20.00 fee each month for Internet access regardless of use. As an avid traveler s/he is also on the AdventureTravel list. Your friend is very concerned about his/her privacy but as a newcomer to the Internet is not aware that e-mail addresses are not concealed on the Listserver managing the electronic mailing list unless the user specifically requests this. Logging on to the system today reveals that two commercial messages are in the "in-box"; every time your friend reads such a message a 50 cent CREDIT is given to her/his account. Your friend can choose to delete unread advertising messages when logging out.

The first advertising message is from the CEO of Kelley's Cruises addressed to "Dear Fellow AdventureTravel netter..." informing him/her about the special for AdventureTravel netters. Your friend then inquires to the sender about how Kelley's Cruises got his/her e-mail address. Answer: Kelley's CEO is a fellow AdventureTravel netter. Since your friend's e-mail address was not concealed on the list, it and other e-mail addresses on the list were obtained using a simple command.

1a. How do you feel about using "not-concealed" e-mail addresses of electronic mailing list subscribers for an advertising campaign?

Perfectly okay: 93 (19.7%)
Little wrong: 155 (32.9%)
Very wrong: 221 (46.9%)
No answer: 2 (.4%)

How do you feel if users are paid 50 cents for reading each message?

Perfectly okay: 184 (39.1%)
Little wrong: 122 (25.9%)
Very wrong: 159 (33.8%)
No answer: 6 (1.3%)

1b. Is anyone harmed by what Kelley's Cruises did?

No: 185 (39.3%)
Yes: 279 (59.2%)
No answer: 7 (1.5%)

If yes, how? Most common answers:

- waste of user time/resources (109)
- violation/invasion of privacy (70)
- nuisance mail (36)

1c. Imagine that a retailer suddenly sends you electronic advertising based on your "not-concealed" e-mail address obtained from an electronic mailing list. Would you

Feel bothered: 351 (74.5%)
Not care: 111 (23.6%)
Think is good: 6 (1.3%)
No answer: 3 (.6%)

How would you feel if you were paid 50 cents for reading the message?

Feel bothered: 245 (52.0%)
Not care: 102 (21.7%)
Think is good: 116 (24.6%)
No answer: 8 (1.7%)

1d. Imagine that you are a Kelley's Cruises employee sending an individual advertisement on the Internet/Information Highway, based on the person's "not-concealed" e-mail address obtained through an electronic mailing list. Would you

Feel bothered: 300 (63.7%)
Not care: 118 (25.1%)
Think is good: 44 (9.3%)
No answer: 9 (1.9%)

How would you feel if the recipient were paid 50 cents for reading the message?

Feel bothered: 224 (47.6%)
Not care: 137 (29.1%)
Think is good: 99 (21.0%)
No answer: 11 (2.3%)

1e. Should Kelley's Cruises be stopped?

No: 191 (40.6%)
Yes: 270 (57.3%)
No answer: 10 (2.1%)

If yes, how? Most common answers:

- need a no advertising option (39)
- conceal e-mail address (26)
- warning followed by more severe action (26)
- remove Internet privileges (18)

1f. Should Kelley's Cruises be penalized?

No: 292 (62.0%)
Yes: 161 (34.2%)
No answer: 18 (3.8%)

If yes, how? Most common answers:

- denial of net privileges (21)
- penalty/fine (20)
- warning followed by more severe action (17)
- mailbomb (15)

1g. Should the government intervene?

No: 367 (77.9%)
Yes: 88 (18.7%)
No answer: 16 (3.4%)

If yes, how? Most common answers:

- new law/stronger law (34)
- keep government out (10)

Suppose you learn about two different countries. In country A, using membership lists from discussion lists and electronic mailing lists for commercial purposes, such as advertising, is a common practice (one can, however, choose not to read the message sent or else get a credit to one's account). In country B, *legislation exists such that consent to the use of personal information (including one's not concealed* e-mail address on a discussion list or electronic mailing list) must be manifest, free, enlightened and given for specific purposes by the individual to the firm or other user; while this consent is valid only for the length of time necessary to achieve the purposes for which it was requested (i.e., Kelley's CEO would have had to ask you if s/he could use your e-mail address BEFORE doing so).

1h. Which one of these customary practices [if either] is bad or wrong?

Neither wrong: 200 (42.5%)
Country B wrong: 36 (7.6%)
Country A wrong: 163 (34.6%)
Both customary practices wrong: 59 (12.5%)
No answer: 13 (2.8%)

1i. Do you personally know of anyone who has ever received advertising information through e-mail?

No: 109 (23.1%)
Yes: 352 (74.7%)
No answer: 10 (2.1%)

SITUATION 2: Privacy and Security Issues

Your friend lives in San Francisco, California, and is the administrator/moderator of an international mailing list called "Future Tech." Your friend runs this list from the PC at his residence over a designated telephone line. This list discusses high-tech issues, such as new product developments, marketing on the Internet/Information Highway, strategic and precision weapons, systems integration, defense electronics and new developments in commercial and military aerostructures. Your friend uses this network to communicate regularly with associates in locations around the globe. Your friend finds out that:

1. Stating national security reasons (e.g., possible product espionage), U.S. security agencies have obtained a **court order** to "tap" your friend's e-mail account, permitting the agencies to monitor both incoming and outgoing electronic messages between the system administrator (your friend) and mailing list members.
2. Having received **court authorization**, the U.S. security agencies have requested the telephone

company to give it real-time access to your friend's transaction information (i.e., obtaining "call setup information" for "live" monitoring of incoming and outgoing electronic messages on the mailing list).

Your friend knows from officials of the agencies that the information obtained from the wiretaps is being used to build data-bases on foreign members of the "Future Tech" network and on high-tech developments that have implications for "national security." Your friend's computer buddies have complained to their countries' respective representatives from Information/Privacy Protection agencies, claiming that the U.S. security agencies are collecting information originating outside U.S. borders where the U.S. court order may not apply. Hence, the privacy of foreign nationals is violated. Moreover, since your San Francisco friend has not been charged with any illegal activity by the California State court or the Federal court, his/her foreign buddies are complaining that the wire-tapping may violate privacy under U.S. laws.

2a. What do you think about the U.S. security agencies wire-tapping U.S. communication from/to abroad and building data-bases with information about foreign recipients/senders and about high-tech developments that have implications for "national security"?

Perfectly okay: 66 (14.0%)
Little wrong: 111 (23.6%)
Very wrong: 280 (59.4%)
No answer: 14 (3.0%)

2b. Is anyone harmed by what the U.S. security agencies are doing?

No: 72 (15.3%)
Yes: 376 (79.8%)
No answer: 23 (4.9%)

If yes, how? Most common answers:

- violation/invasion of privacy (173)
- potential abuse of personal data (36)

2c. Imagine that you actually experienced such a situation whereby your friend, who is located abroad, finds out that your electronic communications with him/her have been tapped by U.S. security agencies. Would you

Feel bothered: 425 (90.2%)
Not care: 33 (7.0%)
Think is good: 2 (.4%)
No answer: 11 (2.3%)

2d. Imagine that you are an employee of a U.S. security agency and it is your job to wiretap communication between a U.S. citizen and foreign nationals. Would you

Feel bothered: 287 (60.9%)
Not care: 75 (15.9%)
Think is good: 89 (18.9%)
No answer: 20 (4.2%)

2e. Should the U.S. security agencies be stopped?

No: 131 (27.8%)
Yes: 312 (66.2%)
No answer: 28 (5.9%)

If yes, how? Most common answers:

- legislation (72)
- do not know (40)

2f. Should the U.S. security agencies be penalized?

No: 202 (42.9%)
Yes: 221 (46.9%)
No answer: 48 (10.2%)

If yes, how? Most common answers:

- do not know (34)
- legislation (18)

2g. Should foreign government(s) intervene?

No: 182 (38.6%)
Yes: 249 (52.9%)
No answer: 40 (8.5%)

If yes, how? Most common answers:

- diplomatic represention, formal or official protest (91)
- international regulation (38)

Suppose you learn about two different countries. In country A, wire-tapping information of incoming/outgoing electronic messages and the building of data-bases on foreign nationals are common practices. In country B, legislation exists such that wire-tapping of incoming/outgoing electronic messages and the building of data-bases on foreign nationals require a court order from a local judge AND the country abroad. WITHOUT THE COURT ORDER, the representative of the Information/Privacy Protection agency must be informed and will automatically intervene on behalf of the foreign national to protect his/her privacy rights.

2h. Which one of these common practices [if either] is bad or wrong?

Neither wrong: 69 (14.6%)
Country B wrong: 18 (3.8%)
Country A wrong: 285 (60.5%)
Both customary practices okay: 78 (16.6%)
No answer: 21 (4.5%)

2i. Do you personally know of anyone whose e-mail has been monitored?

No: 360 (76.4%)
Yes: 90 (19.1%)
No answer: 21 (4.5%)

Current Issues on the Internet/Information Highway

The questions below ask you to state your opinions and beliefs about privacy and Internet issues. Please remember, there are no right or wrong answers.

1. strongly disagree
2. disagree
3. disagree somewhat
4. undecided
5. agree somewhat
6. agree
7. strongly agree

[Please mark one code number per question]

1. I believe that the exchange/matching of government maintained central records on health, employment and income/tax records is important for protecting the collective good/interest (e.g., against various frauds such as collecting more than one unemployment or social welfare check)

strongly disagree: 93 (19.7%)
disagree: 60 (12.7%)
disgree somewhat: 42 (8.9%)
undecided: 67 (14.2%)
agree somewhat: 77 (16.3%)
agree: 66 (14.0%)
strongly agree: 59 (12.5%)
no answer: 7 (1.5%)

2. As a user of the Internet/Information Highway I feel that it is my responsibility not to violate anyone's privacy on the Internet (i.e., their right to determine for themselves, where to, when, how and to what extent information about them is communicated to others)

strongly disagree: 9 (1.9%)
disagree: 5 (1.1%)
disgree somewhat: 3 (0.6%)
undecided: 9 (1.9%)
agree somewhat: 24 (5.1%)
agree: 92 (19.5%)
strongly agree: 324 (68.8%)
no answer: 5 (1.1%)

3. I feel that there is a need for Internet/Information Highway users to be taught how to use the Internet ethically

strongly disagree: 12 (2.5%)
disagree: 7 (1.5%)
disgree somewhat: 9 (1.9%)
undecided: 33 (7.0%)
agree somewhat: 59 (12.5%)
agree: 117 (24.8%)
strongly agree: 230 (48.8%)
no answer: 4 (0.8%)

4. I feel that, to facilitate law enforcement, the police should always have the right to collect personal data (such as gender, religion, sexual preference) in a central data bank about witnesses to a crime

strongly disagree: 259 (55.0%)
disagree: 92 (19.5%)
disgree somewhat: 40 (8.5%)
undecided: 23 (4.9%)
agree somewhat: 20 (4.2%)
agree: 18 (3.8%)
strongly agree: 14 (3.0%)
no answer: 5 (1.1%)

5. I believe that when I receive inappropriate electronic mail from a fellow worker (e.g., flaming, sexual harassment) my organization should have a procedure in place (e.g., Ethical Behavior Office) which will assist me in resolving this situation

strongly disagree: 25 (5.3%)
disagree: 28 (5.9%)
disgree somewhat: 17 (3.6%)
undecided: 52 (11.0%)
agree somewhat: 60 (12.7%)
agree: 116 (24.6%)
strongly agree: 168 (35.7%)
no answer: 5 (1.1%)

6. I feel that it is unacceptable for a supervisor to access employees' computer files and/or computer accounts at work without prior authorization

strongly disagree: 28 (5.9%)
disagree: 28 (5.9%)
disgree somewhat: 37 (7.9%)
undecided: 29 (6.2%)
agree somewhat: 37 (7.9%)
agree: 88 (18.7%)
strongly agree: 218 (46.3%)
no answer: 6 (1.3%)

7. I feel that an organization, for its own protection, should reserve the right to randomly monitor e-mail

traffic on its computer system (e.g., every 20th message)

strongly disagree: 189 (40.1%)
disagree: 67 (14.2%)
disgree somewhat: 51 (10.8%)
undecided: 54 (11.5%)
agree somewhat: 51 (10.9%)
agree: 34 (7.2%)
strongly agree: 21 (4.5%)
no answer: 4 (0.8%)

8. Based on the rapid growth of the Internet/Information Highway, I feel that it is necessary to restrict access to certain services on the network (e.g., restrict electronic mailing lists for physicians to medical doctors only, with no access permitted to anyone else, not even medical students)

strongly disagree: 190 (40.3%)
disagree: 58 (12.3%)
disgree somewhat: 41 (8.7%)
undecided: 57 (12.1%)
agree somewhat: 35 (7.4%)
agree: 45 (9.6%)
strongly agree: 41 (8.7%)
no answer: 4 (0.8%)

9. I feel that, to facilitate law enforcement, the police should always have the right to collect personal data (such as gender, religion, sexual preference) in a central data bank about alleged victims of a crime

strongly disagree: 245 (52.0%)
disagree: 85 (18.0%)
disgree somewhat: 34 (7.2%)
undecided: 36 (7.6%)
agree somewhat: 27 (5.7%)
agree: 24 (5.1%)
strongly agree: 12 (2.5%)
no answer: 8 (1.7%)

10. Software piracy violates the copyright laws in most countries, however, it remains a common practice. I feel that laws should be changed so that every user pays a reasonable "copyright fee" (e.g., for blank cassette tapes or when using a photocopier, a per tape/page copyright fee is paid) when purchasing the following items:

a) "diskettes"
strongly disagree: 245 (52.0%)
disagree: 55 (11.7%)
disgree somewhat: 35 (7.4%)
undecided: 47 (10.0%)
agree somewhat: 38 (8.1%)
agree: 24 (5.1%)
strongly agree: 19 (4.0%)
no answer: 8 (1.7%)

b) "hard disks"
strongly disagree: 282 (59.9%)
disagree: 52 (11.0%)
disgree somewhat: 24 (5.1%)
undecided: 44 (9.3%)
agree somewhat: 31 (6.6%)
agree: 14 (3.0%)
strongly agree: 13 (2.8%)
no answer: 11 (2.3%)

c) "CD-ROMs"
strongly disagree: 281 (59.7%)
disagree: 55 (11.7%)
disgree somewhat: 24 (5.1%)
undecided: 43 (9.1%)
agree somewhat: 28 (5.9%)
agree: 16 (3.4%)
strongly agree: 14 (3.0%)
no answer: 10 (2.1%)

d) "computers"
strongly disagree: 316 (67.1%)
disagree: 53 (11.3%)
disgree somewhat: 22 (4.7%)
undecided: 33 (7.0%)
agree somewhat: 15 (3.2%)
agree: 11 (2.3%)
strongly agree: 12 (2.5%)
no answer: 9 (1.9%)

11. I feel that the government should always have the right to gain access to financial data of individuals from financial institutions without a court order

strongly disagree: 362 (76.9%)
disagree: 53 (11.3%)
disgree somewhat: 20 (4.2%)
undecided: 8 (1.7%)
agree somewhat: 7 (1.5%)
agree: 8 (1.7%)
strongly agree: 8 (1.7%)
no answer: 5 (1.1%)

12. Many public agencies (universities/governments) subscribe to networks on the Internet/Information Highway and also sell public access (to private sector firms and individuals) to these networks. Because public agencies are publicly funded, I feel that private sector firms and individuals should purchase their Internet services through commercial providers to avoid inappropriate use of public funds

strongly disagree: 43 (9.1%)
disagree: 46 (9.8%)

disgree somewhat: 50 (10.6%)
undecided: 115 (24.4%)
agree somewhat: 68 (14.4%)
agree: 71 (15.1%)
strongly agree: 65 (13.8%)
no answer: 13 (2.8%)

13. I feel that, to facilitate law enforcement, the police should always have the right to collect personal data (such as gender, religion, sexual preference) in a central data bank about suspects of a crime

strongly disagree: 164 (34.8%)
disagree: 93 (19.7%)
disgree somewhat: 46 (9.8%)
undecided: 40 (8.5%)
agree somewhat: 42 (8.9%)
agree: 44 (9.3%)
strongly agree: 30 (6.4%)
no answer: 12 (2.5%)

14. I believe that every person using the Internet/Information Highway should have a certificate/license to do so (similar to a driver's license that must be obtained)

strongly disagree: 293 (62.2%)
disagree: 66 (14.0%)
disgree somewhat: 35 (7.4%)
undecided: 23 (4.9%)
agree somewhat: 23 (4.9%)
agree: 11 (2.3%)
strongly agree: 13 (2.8%)
no answer: 7 (1.5%)

15. Similar to keeping telephone expenses low by restricting private trunk/long distance calls, I feel that it is acceptable if an organization restricts private use of the Internet/Information Highway to minimize cost

strongly disagree: 55 (11.7%)
disagree: 39 (8.3%)
disgree somewhat: 41 (8.7%)
undecided: 40 (8.5%)
agree somewhat: 85 (18.0%)
agree: 125 (26.5%)
strongly agree: 80 (17.0%)
no answer: 6 (1.3%)

16. I feel that, to protect privacy, data-security/privacy-commissioners must have the right to check the accuracy of content in police data banks on behalf of citizens

strongly disagree: 33 (7.0%)
disagree: 16 (3.4%)
disgree somewhat: 12 (2.5%)
undecided: 46 (9.8%)

agree somewhat: 53 (11.3%)
agree: 98 (20.8%)
strongly agree: 197 (41.8%)
no answer: 16 (3.4%)

Your Background

1. Are you

Female: 183 (38.9%)
Male: 278 (59.0%)
No answer: 10 (2.1%)

2. What is your age?
Number of years: 32 years (median value)

3. How many years did you attend school (e.g., community college/vocational diploma = 12 to 14 years, plus undergraduate university degree = 15 to 16 years)?
Number of years: 16 years (median value)

4a. In which country do you currently reside?

Most common answers:

- United States (255)
- Germany (95)
- Canada (42)

The median residence time was 29 years.

4b. If you have lived in any other countries for an extended amount of time (> 1 year), please list them here:
Most common answers for the 2nd country of residence:

- Germany (21)
- United Kingdom (20)
- United States (19)

No answer by 337 respondents. The median residence time was 3 years.

The number of people having lived in a third country for longer than one year was only 49 (approximately 10%). This data is not listed here.

5a. What is the language that you use the most at work?
Most common responses:

- English (319)

- German (103)

5b. What is the language that you speak the most at home?
Most common responses:

- English (324)
- German (98)

5c. What language did/do you use the most at school? Most common responses:

- English (343)
- German (88)

6. What is the approximate size of the community you presently live in?
Number of people: 100,000 (median value)

7. What is the approximate size of the community you were raised in?
Number of people: 50,000 (median value)

8a. Do you rent your current residence?

No: 223 (47.3%)
Yes: 232 (49.3%)
No answer: 16 (3.4%)

8b. Do you own a house/apartment?

No: 225 (47.8%)
Yes: 227 (48.2%)
No answer: 19 (4,0%)

9a. What is your annual income?
Amount: approximately 37,500 US Dollars (median value)
(Currencies not provided in US Dollars were converted using purchasing power parities.)

9b. What is the annual income of your household (this includes your partner/your family if you share the same household)?
Amount: approximately 60,000 US Dollars (median value)
(Currencies not provided in US Dollars were converted using purchasing power parities.)

10. How did you find out about this survey?

- Usenet News: 129 (27.4%)
- Listserver/electronic mailing list: 142 (30.1%)
- electronic journal/newsletter: 16 (3.4%)
- used a world wide web search engine: 14 (3.0%)
- by cruising the world wide web: 28 (5.9%)
- e-mail from a friend/colleague: 57 (12.1%)
- other: 24 (5.1%)
- no answer: 61 (13.0%)

This study was performed jointly by:

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Appendix B - Scenarios

Scenario 1: Electronic Advertising

Your friend pays a fixed U.S.$20.00 fee each month for Internet access regardless of use. As an avid traveller s/he is also on the AdventureTravel list. Your friend is very concerned about his/her privacy but as a newcomer to the Internet is not aware that e-mail addresses are not concealed on the List server managing the electronic mailing list unless the user specifically requests this. Logging on to the system today reveals that two commercial messages are in the "in-box"; every time your friend reads such a message a 50 cent CREDIT is given to her/his account. Your friend can choose to delete unread advertising messages when logging out. The first advertising message is from the CEO of Kelley's Cruises addressed to "Dear Fellow AdventureTravel letter..." informing him/her about the special for AdventureTravel letters. Your friend then inquires to the sender about how Kelley's Cruises got his/her e-mail address. Answer: Kelley's CEO is a fellow AdventureTravel letter. Since your friend's e-mail address was not concealed on the list, it and other e-mail addresses on the list were obtained using a simple command.

Probe' Question	Text
Evaluation	How do you feel about using "not-concealed" e-mail addresses of electronic mailing list
Concern - victim	Imagine that a retailer suddenly sends you electronic advertising based on your "not-concealed" e-mail address obtained from an electronic mailing list. Would you feel bothered, not care, or think this is good? How would you feel if you were paid 50 cents for reading the message? Would you feel bothered, not care, or think this is good?
Concern - aggressor	Imagine that you are a Kelley's Cruises employee sending an individual advertisement on the Internet/Information Highway, based on the person's "not-concealed" e-mail address obtained through an electronic mailing list.Would you feel bothered, not care, or think this is good? How would you feel if the recipient were paid 50 cents for reading the message? Would you feel bothered, not care, or think this is good?
Universal - bystander	Suppose you learn about two different countries. In country A, using membership lists from discussion lists and electronic mailing lists for commercial purposes, such as advertising, is a common practice (one can, however, choose not to read the message sent or else get a credit to one's account). In country B, legislation exists such that consent to the use of personal information (including one's not concealed e-mail address on a discussion list or electronic mailing list) must be manifest, free, enlightened and given for specific purposes by the individual to the firm or other user; while this consent is valid only for the length of time necessary to achieve the purposes for which it was requested (i.e., Kelley's CEO would have had to ask you if s/he could use your e-mail address BEFORE doing so). Which one of these customary practices [if either] is bad or wrong? Both customary practices are, Country A's customary practice is wrong, Country B's customary practice is wrong, or neither one is wrong, both customary practices are acceptable.

Scenario 2: Privacy and Security Issues

Your friend lives in San Francisco, California, and is the administrator/moderator of an international mailing list called "Future Tech." Your friend runs this list from the PC at his residence over a designated telephone line. This list discusses high-tech issues, such as new product developments, marketing on the Internet/Information Highway, strategic and precision weapons, systems integration, defence electronics and new developments in commercial and military aerostructures. Your friend uses this network to communicate regularly with associates in locations around the globe. Your friend finds out that:

1. Stating national security reasons (e.g., possible product espionage), U.S. security agencies have obtained a court order to "tap" your friend's e-mail account, permitting the agencies to monitor both incoming and outgoing electronic messages between the system administrator (your friend) and mailing list members.

2. Having received court authorization, the U.S. security agencies have requested the telephone company to give it real-time access to your friend's transaction information (i.e., obtaining "call setup information" for "live" monitoring of incoming and outgoing electronic messages on the mailing list).

Your friend knows from officials of the agencies that the information obtained from the wiretaps is being used to build data-bases on foreign members of the "Future Tech" network and on high-tech developments that have implications for "national security." Your friend's computer buddies have complained to their countries' respective representatives from Information/Privacy Protection agencies, claiming that the U.S. security agencies are collecting information originating outside U.S. borders where the U.S. court order may not apply. Hence, the privacy of foreign nationals is violated. Moreover, since your San Francisco friend has not been charged with any illegal activity by the California State court or the Federal court, his/her foreign buddies are complaining that the wire-tapping may violate privacy under U.S. laws.

Probe Question	Text
Evaluation	What do you think about the U.S. security agencies wire-tapping U.,S. Communication from/to abroad and building data-bases with information about foreign recipients/senders ane about high-tech developments that have implications for "national security"? Is it very wrong, a little wrong, or perfectly okay?
Concern - victim	Imagine that you actually experienced such a situation whereby your friend, who is located abroad, finds out that your electronic communications with him/her have been tapped by U.S. security agencies. Would you feel bothered, not care, or think this is good?
Concern - aggressor	Imagine that you are an employee of a U.S. security agency and it is your job to wiretap communication between a U.S. citizen and foreign nationals. Would you feel bothered, not care, or think this is good?

Universal - bystander	Supposed you learn about two different countries. In country A, wire-tapping information of incoming/outgoing electronic messages and the building of data-bases on foreign nationals are common practices. In country B, legislation exists such that wire-tapping of incoming/outgoing electronic messages and the building of data-bases on foreign nationals require a court order from a local judge and the country abroad. Without the court order, the representative of the Information/Privacy Protection agency must be informed and will automatically intervene on behalf of the foreign national to protect his/her privacy rights. Which one of these common practices (if either) is bad or wrong? Both customary practices are wrong, Country A's customary practice is wrong, Country B's customary practice is wrong, both customary practices are acceptable.

Note 1 The probe questions used in the survey follow the work of Haidt, Koller and Dias (1993). The present study examines responses to the probes: a) Evaluation, c) Concern, and e) Universal. According to Haidt, et al., the Evaluation probe serves as an "initial measure of permissiveness" (p. 619). The Concern probe determines the offensiveness of the event in question. The Universal probe determines if a moralizing position is taken by the respondent. It establishes whether or not an act is seen as universally wrong, regardless of the customs and practices of the respondent, or whether it is seen as a "social convention that can be different in different places" (p. 617).