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A Conceptual Model of the Effect of Privacy, Ethical and Policy Concerns on Electronic Mail Usage

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ABSTRACT

Communication between individuals and firms has never been faster or easier thanks to powerful new information technologies such as electronic mail (E-mail). Over the past ten years, the effect of task, channel and demographic variables on e-mail usage within organizations has been extensively studied. Although E-mail offers firms increased control over widely dispersed operations, it also gives employers the keys to unlock a treasure chest of intercompany messages. This ability to monitor employee's electronic correspondence has opened a new chapter in the fight for ethical principles and privacy rights. This paper attempts to broaden the scope of variables used to predict e-mail usage by suggesting that individuals have inherent ethical philosophies and emerging attitudes toward privacy, which play important roles in the selection and use of communication media.

COMMUNICATION MEDIA THEORIES

E-mail usage has risen dramatically, but other forms of communication continue to compete with it as useful channels for information exchange -- face to face meetings, telephone calls, handwritten memos and letters (Trevino, Lengel & Daft, 1987; Schmitz & Fulk, 1991; Markus, 1994). Several theories relevant to the selection and use of communication media include: Information Richness theory, Critical Mass theory, and Social definition theories. Information Richness theory suggests that some forms of communication media transmit more information than others (Daft & Lengel, 1984, 1986; Daft, Lengel and Trevino, 1987) and people will select a communication forum which is appropriate for the message(s) they wish to convey. Critical Mass Theorists hold that communication is a social phenomenon and the decision to use one form or another depends more on a pattern of responsiveness or socially acceptable behavior, than the richness of the technology itself (Allen, 1988; Markus, 1987, 1990). Someone wishing to use a particular media, will do so only if the intended recipient is likely to use that medium. Social definition theories (including structuration theory, the social construction of technology, and institutionalization theory) argue that knowledge of appropriate use of communication media is gained through socialization, sponsorship or social control (Markus, 1994). In some firms, top management may apply extrinsic motivation (Jordan, 1986) by dictating the use of e-mail, while in others, poor training, complicated user interfaces or prevailing attitudes may discourage its use.

PREVIOUS RESEARCH VARIABLES

In predicting interorganizational e-mail usage Kettinger (1992) divided related variables into three main categories: Task, Channel Attributes and Situational/ Demographic variables. Task variables, such as uncertainty, complexity, analyzability, predictability and interdependence have generally bolstered claims that individuals will select a conveyance media which is appropriate for task at hand (Kettinger, 1992; Steinfield, 1986; Applegate, 1991; Rice, 1992). Channel Attribute variables including: perceived usefulness, perceived ease of use, perceived information richness; perceived accessibility and perceived information quality, have shown a positive relationship with system usage (Steinfield, 1986; Davis, 1989; Kettinger, 1992; Daft, Lengel & Trevino, 1987; Markus, 1989; Davis, et.al., 1989; Trevino, et., al, 1990; Rice, 1992, Zack, 1991,1992). Situation/Demographic variables studied by various researchers (Kerr and Hiltz, 1982; Steinfield, 1986; Rice & Case, 1983; Orlikowski & Yates, 1990; Eveland & Bikson, 1987; and Jarvenpaa, Rao & Huber, 1988) include: age, education, experience, scope and range. Findings in this area, for example, suggest a negative relationship between age and task and social use of e-mail systems. In addition, there is some evidence of a positive relationship between education and e-mail use.

On the whole, the effect of task, channel and demographic variables on e-mail usage within organizations has been extensively studied over the past ten years (see figure 1). Although most studies have shown significant results in indicating the direction of the relationship, the R² coefficients have been somewhat low, indicating a significant portion of the variance predicting system usage remains unexplained. As suggested by Kettinger and Grover (1995), there is a need to identify additional variables to enhance the predictive capability of e-mail usage models. This paper attempts to broaden the scope of variables by suggesting that individuals have inherent ethical philosophies and attitudes toward privacy, which play important roles in the selection and use of communication media. These concerns push researchers to look beyond perceptions of the technology and task situations to include the effect of beliefs concerning privacy, ethics and policy considerations in predicting e-mail use.

PRIVACY CONCERNS

In the information age, privacy has become an important issue. Certainly some amount of information exchange is necessary in order for a society to function in an efficient manner (Fried, 1984; Smith, 1993). But how much is too much? A study conducted in 1991 indicated that at least 79% of Americans are either "very concerned" or "somewhat concerned" about their privacy (Equifax, 1991). In another study, respondents overwhelmingly supported the principle that companies should ask their permission prior to releasing personal information (Woodman, et., al, 1982). This raises some serious questions regarding the differences between employee's concerns and management's response or lack of it. If management develops an e-mail policy based on a value system which is incongruent with an employees value system, e-mail system usage may be affected. Although employees may find the technical aspects of e-mail systems acceptable, such as ease-of-use (Steinfield, 1986; Davis, 1989), and the ability to overcome distance barriers (Steinfield, 1986; Orlikowski & Yates, 1990), they still may not use the system if they believe their messages will be read by someone other than the

intended recipient. Attitudes towards privacy can be derived by addressing individual perceptions of accessibility, accuracy and ownership (Zmud et.al., 1990). Instruments can be developed to measure attitudes on questions such as these: Who should have access to E-mail messages? How accurate is the data stored by the company and how is it maintained? Can messages be interpreted accurately by parties not involved in an E-mail conversation? Who should own the messages themselves?

ETHICAL PHILOSOPHIES

"Ethics is the study of what is good and bad, right and wrong, and just and unjust...It is a mass of principles, rules, values, and thoughts concerned with what conduct *ought* to be (Steiner & Steiner, 1991: 201)." The literature identifies ethical concerns as falling into three main categories: individual rights, universal principles and utilitarianism. Ethical concerns can be addressed by presenting the different theoretical perspectives and looking for alignment with an individual's value system. Rights theories (Locke), which focus on individual entitlements, such as personal rights and property rights suggest that people will make decisions to protect their legal and moral entitlements. Universal principles (Kant) or Justice theories suggest that people are guided by fairness, equity, and impartiality doctrines. Utilitarianism implies that actions and decisions should be based on that which produces the greatest good for the greatest number of people (Bentham, 1970). These theories identify ethical factors which influence decision-making and behavior and sometimes they offer conflicting tenets (Gatewood and Carroll, 1991; Velasquez, et.al. , 1983). So, not only will individuals experience internal ethical conflicts, but also individuals and companies will differ in their views of what is right or wrong, just and unjust. Management may impose an e-mail policy which favors organizational goals over individual rights. If so, they might expect company-provided services (e-mail networks) to be used for company business and therefore reserve the right to monitor employee use of company property. However, when workers know they are being monitored, this can result in an increase in absenteeism and stress-related disorders. In addition, this kind of atmosphere may hinder creativity, lower morale and reduce productivity [Clarke, 1988]. It is not unreasonable to expect e-mail usage to be also affected by overarching ethical beliefs, particularly when there are discrepancies between what employees view as an ideal e-mail policy and what exists in reality at their firm.

USER PERCEPTIONS AND THE LAW

There are many instances where individual perceptions of e-mail policy do not mirror management's view and may affect three usage decisions. For example, when an employee deletes a message from his or her electronic mailbox, there is an assumption that it has been destroyed. This assumption is false. During delivery of that message, backup copies were made and stored in several places along the network. Not only can these backups be used to prevent data loss in case the network goes down, but they also provide a convenient cache for management interested in monitoring employee messages. Marine Lieutenant Colonel Oliver North learned about this feature first-hand during the Iran-Contra trial. The contents of his purged e-mail messages were obtained from backup

tapes and proved to be a significant source of information used against him [Fryer & Furger, 1993]. Because users must enter a password to gain access to their electronic mailbox they may also have a perception that what is stored there is private property. That perception is often *erroneous*. E-mail messages typically belong to the owner or provider of the network on which the transmission took place and one's password is no guarantee of personal privacy. While it is unlawful to open other people's letters, it is not against the law for employers to open and read employee's electronic correspondence. Alana Shoars, an E-mail administrator for Epson in Los Angeles, California, was responsible for connecting new users to the system. One January morning in 1990, she arrived at work only to find her supervisor reading and printing out E-mail messages between other employees. When she complained, she was fired. From her perspective, employees were told their messages were private and management had violated that ethical trust (Rifkin, 1991).

THE MODEL

Based on classical theory as well as reported accounts in the practitioner literature, an individual's concerns for privacy and their ethical philosophy seems to indicate the kind of e-mail policy considered "ideal" (i.e. regarding access and ownership). The corporate aggregate of these individual perceptions may be in conflict with the actual e-mail policy put forth by management, thus, inhibiting e-mail usage. By considering individual ethical and privacy concerns and their congruence with established corporate e-mail policy, researchers might better explain e-mail usage and add to existing e-mail research. The proposed conceptual model (see figure 2) includes a fit between employees' ethical and privacy beliefs (i.e., their ideal policies) and the existing firm's e-mail policy. This attitude coupled with individual perceptions of the e-mail technology itself and task attributes should better predict e-mail usage.

Based on the model presented here, the following propositions are offered: (1) Heightened or reduced concerns for privacy will influence an individual's perception of an "ideal" e-mail policy; (2) Ethical beliefs which favor individual rights vs. universal rights will affect an individual's perception of an "ideal" e-mail policy; (3) Individual attitudes toward their philosophically derived "ideal" e-mail policy will effect their perceptions of a firm's existing e-mail policy; (4) If there is a fit between the individual's perception of an ideal e-mail policy and the existing e-mail policy, usage will increase.

CONCLUSION

This new conceptual model is offered in the hope that it will provide additional variables that influence attitudes and behavior related to e-mail policies and usage. It is up to academia to expand and test these concepts so that we can offer management some hard evidence on the implications of E-mail policy choice and e-mail use.

****** References available upon request.******

