Faculty Perceptions of Traditional and Electronic Communications Channels

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INTRODUCTION

Teaching involves the transfer of knowledge at two levels—group communication and personal communication. Personal communication between the faculty and the student is a valuable component of the learning experience which supplements in-class lectures. This paper examines the perceptions of the faculty of a small state university about their usage of personal communication in a face to face, e-mail, and telephone context.

The traditional approach to personal communication between faculty and students has been through face-to-face communication, usually in the form of office hours. Virtually all faculty at the college level hold scheduled Office Hours, which may be supplemented by appointments. However, the communications revolution which has occurred because of the wide spread availability of computers and e-mail has had some impact upon the personal communication between faculty and students. This survey examines the usage patterns of faculty.

BACKGROUND

Previous research into communication channels falls into two basic streams (Marcus, 1994). The first perspective focuses on the communication channel itself, as in Daft (1986). The second perspective focuses on the social context of the communication (Falk, 1987).

Beside these two streams other issues related to the communication channels have been considered as well. In a study of managers and executives, Carlson determined that executives selected communications media either by the ease of use or by the richness or social presence of the media (Carlson, 1998). In other research, Gefen and Straub found that women perceived e-mail as richer (Trevino, 1987) than their male counterparts (Gefen, 1997).

One shortcoming of these perspectives is that they focus on the selection process used by the sender of the communication, instead of the receivers of the communication (Sitkin, 1992). In faculty to student personal communications, the selection of a communication channel is usually made by the students as the senders of communication. However, the faculty has a significant input to the selection process because of the difference in status. Because of this difference, it is hoped that this research will widen the current body of communication research. The findings can be generalized to the relationship between customers and service agents of a company as well as the relationship between employees and managers.

In this study we are interested in the differences of faculty members' perception of alternative communication channels. Each communication channel can present different advantages that are unique to that channel. Similarly, each channel might have shortcomings that other channels do not have. This article follows from (Pena-Sanchez, 2005). Accuracy, convenience, timeliness and confidentiality are some of the important factors that differentiate the possible set of communication channels when compared against each other. Students might prefer one channel (i.e., e-mail) when convenience is more important, while preferring another channel (i.e., office hours) when accuracy of the communication's content is more important. The perceived importance of these factors when comparing the possible communication channels is the focus of this study.

DATA AND METHODOLOGY

A random sample of size $n = 49$ was used to test several hypotheses. The sample represents 32% of the entire faculty population ($N = 153$) of Texas A&M International University. The survey was pilot tested by a small group of Management of Information Systems and Decision Science faculty before its administration.

Given the limited number of observations, the discrete scale of the measurements, and the fact that data do not meet parametric *F*-test assumptions like normality and homocedasticity of the variances, the statistical techniques used consist of some nonparametric methods based on ranks such as the Spearman rank correlation coefficient test, and the Mann-Whitney test (Conover, 1980).

RESULTS OF THE SURVEY

The Cronbach's alpha coefficient estimates for internal consistency as an evaluation of the survey's reliability (Pena-Sanchez, 2005) was 0.7053 for the set of variables convenience, retention, and efficiency under e-mail communication, 0.7718 for the set confidentiality, confrontation, and emotional support using office hours as a communication channel, and 0.7540 for accuracy, reaching a consensus, and overall effectiveness when the communication channel was office hours and/or e-mail. These values are shown in Table 1.

$E(x)$ is the expected value or average for the variable x.

The next plot, Figure 1 explores the behavior between age and overall effectiveness using e-mail.

The survey results support the theory that communications media are selected by the richness required by the task (Fann, 1989; Reinsch, 1990; Rice, 1993).

Office hours are the preferred communications channel for tasks requiring rich communication media, especially confrontation and emotional support. On the other hand, the faculty considered e-mail to be superior for convenience, retention, and efficiency (see Table 3).

According to Table 2, there is no significant statistical relationship between age and communication media preference, except for confrontation criterion.

MANAGERIAL IMPLICATIONS TO INNOVATION AND LEARNING

Hilton (1999) foresees that in the future email can automate the human face and become part of Internet enhanced education. Only recently has e-mail has reached the critical mass where innovation can occur in both education and business. The nearly universal availability of email to both students and employees is changing communication preferences.

Managers and educators alike depend on effective communication. To provide additional insight into the preferences for communications channels, we will cluster the hypothesis by the preferred channel and see if broader conclusions for managerial implications to innovation and learning may be reached.

- **E-mail's strengths:** E-mail is preferred for convenience, retention, and efficiency, which indicates that e-mail is the preferred medium for communication that is unambiguous and asynchronous, especially if wide dissemination is desired. Unlike face to face communication, e-mail is asynchronous, allowing each party to communicate independently of the other party. It also creates documentation, and may be sent to many people

Table 1. Cronbach's alpha coefficient estimates for the indicated set of variables (cluster) and preferred media

Cluster	Preferred media	Cronbach's alpha correlation coefficient estimate
Convenience, retention, and Efficiency	e-mail	0.7053
Confrontation, confidentiality, and emotional support	office hours	0.7718
Accuracy, receiving work, reaching a consensus, and overall effectiveness	e-mail and office hours	0.7540

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