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## Communication in a Wired World: Understanding Receiver Perceptions

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#### Abstract

The ability to communicate effectively is a key skill for all employees. While extensive research exists regarding the characteristics of competent oral communicators, there has yet to be systematic research on the characteristics of competent electronic communicators. A new set of rules has emerged in this electronic arena, and whether those rules have transferred to the corporate environment or not remains to be seen. This paper discusses an exploratory study to identify the characteristics of email communication and the evaluations those characteristics engender. The study employs an on-line survey in which subjects are asked to read and respond to a series of four emails from the same general context. The messages are designed to be consistent with established "norms" of electronic communication, and semantic differential scales are used to assess the degree to which the different forms evoke personality evaluations in the receiver.

#### Introduction

The ability to communicate effectively is an important skill. A wealth of research exists to explain evaluations of communication competence (e.g., Pavitt 1989; Pavitt and Haight 1986; Wiemann 1977). However, that research is based in an oral tradition, in which hesitations, pauses, and inflections are key indicators of a communicator's competence (or lack thereof) (Hosman 1989). Very little communication research exists to evaluate written communication competence (beyond grammatical competence), and even less research addresses issues associated with communicating in a wired world, using electronic forms of communication such as electronic mail (email).

To complicate matters further, the rules of communication have changed over the years. As the use of computer-based communication has increased, a new forum for communication has evolved. This forum is "one whose rules are not like those of any other forum" (Sproull and Kiesler 1991, p. 39). Indeed, the rules of appropriate usage have evolved over time to the point that there are some agreed upon "rules of thumb" that are used to assess communication competence in this environment. However, very little systematic research has been conducted to assess the prevalence of these rules and their inroads into corporate communication.

This paper examines communication as it applies to today's wired world. It will focus on the prominently used type of wired communication – email. The purpose of the research is to learn more about how individuals in

the business world evaluate each other's communication, and each other, based on how they communicate electronically. The research is motivated by the following question: How is communication evaluated in an electronic environment? Prior research provides only limited insight into what we can expect. Thus, in this exploratory study, we attempt to identify some characteristics of email communication that may influence how the communication and communicator are perceived.

#### **Prior Research**

In order to understand communication evaluations in an electronic environment, we first examine prior research in non-electronic communication evaluation. This is followed by a discussion of the relevant literature in information systems, specifically dealing with email use in organizations.

#### Communication Competence

Communication competence measures effectiveness in communicating one's thoughts and feelings to another person (Wiemann 1977). Even though it may seem that the communicator shoulders the entire responsibility for the effectiveness of communication, research suggests that the receiver of the communication plays a vital role in assessing effectiveness (Pavitt and Haight 1985). In essence, the receiver comes to the conversation with biases and expectations that can alter the communication process. For this reason, the listener or recipient of communication is called the *perceiver*. The perceiver, consciously or subconsciously, places the communicator into a category based upon preconceived notions. For example, if someone perceives that only "geeks" use all lowercase in their messages and subsequently receives a message all in lowercase, the receiver will ascribe the characteristic of "geek" to the sender. Further, whatever it means to be a "geek" to the receiver could now be used to describe the sender of the email message. Pavitt and Haight (1985) summarize this by saying that "judgments about people as communicators are logically a subset of judgments about people in general" (p. 222).

Rosch (1978) depicts this categorization of people as a three-level hierarchical taxonomy consisting of super ordinate, basic, and subordinate levels. Each level in the taxonomy becomes a more specific categorization as we move from the super ordinate to the subordinate level. In general, people tend to categorize others within these levels. Further, the biases and expectations can become intensified or reduced depending upon the individual's

form of categorization. The more specific the categorization, the less biases and expectations play a role because the communicator stands on his or her own merit rather than preconceived notions made by the perceiver due to a more general categorization.

In evaluating communication and communicators, the receiver uses his or her own mental model of the characteristics of competent communicators and good communication (Pavitt 1989). The key is to identify those behaviors that people routinely associate with competent (or incompetent) communication. The higher the level in Rosch's (1978) taxonomy, the more biases and stereotypes are used to evaluate communication. Thus, in understanding evaluations of electronic communication, it is important to identify those high-level categories and their characteristics. What types of cues do people look at when determining communication competence, and corresponding sender characteristics?

#### Traits and Behaviors

Research demonstrates that certain behaviors routinely imply certain traits. In particular, a handshake, erect posture, vocal and facial pleasantness, and the use of facial expressions and gestures imply positive traits that lead to perceptions of competency (Burgoon and Walther 1990; Burgoon, Birk, and Pfau 1990; Streeck 1993). In face-to-face communication, behaviors are crucial to the perception of competence because they lead to implied traits. Burgoon, Birk, and Pfau (1990) found that greater vocal and facial pleasantness combined with more facial expressions were associated with perceived competence and composure. Greater vocal pleasantness, kinesic/proxemic immediacy (i.e., eye contact, posture, distance, body orientation, and facial pleasantness), and kinesic relaxation denoted perceived persuasiveness. Perceived sociability stemmed from more kinesic/ proxemic immediacy, dominance (loudness, tempo, pitch, facial expressiveness, and illustrator gestures), vocal pleasantness, and relaxation. Streeck's (1993) study on gestures in coordination with gaze and speech showed that gestures tend to add a new dimension to communication. They facilitate further comprehension of the communicator's words, and they foreshadow speech. Although all gestures do not warrant the same amount of attention, Streeck's research supports the notion that gestures can increase communication effectiveness.

The argument could be made that a rough equivalent of gesturing in an electronic environment is the use of emotive symbols. They are used to convey mood and further enrich the meaning of the message (Sproull and Kiesler 1991), as do gestures and facial expressions in face-to-face communication. But, the question remains, what impact does the use of emotive symbols have on how the communication and the sender are perceived? More generally, what email behaviors are associated with what traits?

#### **Email**

A wide variety of research has been conducted on the use of email in organizations. The studies have focused on richness (e.g., Ngwenyama and Lee 1997; Trevino, Lengel, and Daft 1987; Zmud, Lind and Young 1990), usage and volume (e.g., Feldman 1987; Sarbaugh-Thompson and Feldman 1998), and tie strength (Constant, Sproull, and Kiesler 1996; Feldman 1987) to name a few. Research to date regarding email communication has not addressed the issue of communication competence or receiver perceptions of sender characteristics.

Studies have examined the impact of email on organizational communication levels. One such study found an overall decrease in face-to-face communication associated with increased email usage (Sarbaugh-Thompson and Feldman 1998). In addition, the overall volume of communication in the organization declined at the expense of casual conversation, greetings, and interpersonal relationship development. In essence, email communication had a negative impact on the socialization in the organization. Other research has examined gender differences in attitudes toward email. One such study found that women view email as having higher social presence and greater usefulness (Gefen and Straub 1998). The same study found that men feel more at ease with the usage of email and technology in general. Taken together, these studies suggest that females in organizations are likely to experience email differently. This leads to the question of whether or not the gender of the receiver influences how email behaviors are interpreted.

#### Research Questions

Prior research suggests that there may be some oral communication practices that translate into the electronic arena. For example, the use of emotive symbols could be associated with gestures, while capital letters are used to denote shouting. Prior research also suggests that individuals ascribe traits to others based on their behaviors. In an electronic environment, the behaviors consist of the form and content of email messages. Finally, research to date has not examined the association between email message format and content and their associated traits. Based on the prior research, we posed three more specific questions for this particular study: RQ1a: What cues do people attend to in email messages? RO1b: What traits are ascribed to which behaviors (cues)? RO1c: How does gender of receiver influence evaluation of sender?

#### **Methodology and Current Project Status**

The pretest was conducted during January and February 2000. The goal of the pretest was to address question RQ1a, to identify the cues people attend to in email messages. The subjects were graduate students at a large, Midwestern, state university. They were asked to read a series of five email messages, list words that described the senders, and then complete a semantic

differential scale about the sender. The students were also asked to think aloud while completing the preliminary survey in order to identify the rationale for the decisions, as well as possible missing traits. The survey sessions were taped, and the response patterns were assessed to determine the most appropriate characteristics to include in the email messages and the semantic differential scale. In addition, and consistent with prior research (Cupach and Spitzberg 1983), the pretest suggested that history could play a significant role in how the communication was evaluated. Thus, the revised instrument attempted to eliminate history by asking the respondents to assume the position that they were members of a newly formed virtual team. The final instrument is available from the first author.

The data were collected during the spring semester. Approximately 100 subjects were contacted to participate in the study, which was administered on the web. Sixty-three complete responses were provided by undergraduate and graduate students, as well as business professionals. ANOVA will be used to assess differences in evaluations across the email messages.

#### **Potential Contribution and Future Directions**

This study has the potential to contribute to the larger body of research in communication competence and information systems. By examining electronic communication, we assess and extend the boundaries of competence research into the virtual arena. The results of this research can be used to help virtual team members convey a positive image to their team, to help organizations convey a positive electronic persona to their customers, and to understand the biases that are employed in electronic realms when evaluating others. The results of this study can be combined with research in media richness to understand the interaction between the medium, the message, and the evaluation. Future research can also examine ways in which virtual teams can increase the effectiveness and the efficiency of their electronic communication.

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