

# Information and Communication Technologies and Individual Communication Traits

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## ABSTRACT

Modern workplaces are highly distributed with a large number of employees working remotely. Organizations must depend on various modes of communication both internally and externally. Collaborative teams have a vast array of technologies to consider with new modes appearing every day. The team dynamics and overall success relies on the contributions and communication among individual members. This research explores the relationship between individual communication traits and the selection of communication modalities. Just as verbal communication styles vary from person to person, the findings of this research suggest that users select communication technologies that complement their unique communication traits. This research will help both organizations and individuals better optimize the use of communications technologies.

## KEYWORDS

Communication Modes, Computer-Mediated Communication, Information and Communications Technology, User-Centered Design, Virtual Teams

## INTRODUCTION

Effective communication is becoming increasingly critical and is at the core of group interaction and performance. Recent data suggests that as many as 44% of all employees worked completely remote during the pandemic and one-fourth of employees seeking to continue working remotely (Mlitz, 2021). Distributed employees rely heavily on various modes of communication (i.e., e-mail, messaging platforms such as Slack, Twitter, and video conferencing applications) to accomplish tasks. Researchers have found that workers are using an assortment of communication technologies to achieve differing communication goals (Watson-Manheim & Belanger, 2007). Moreover, emerging technologies enhance work patterns or shift the communication culture by design (K. E. Anderson, 2016). ICTs have become so interwoven in how organizations use technology that some researchers suggest that the use of computer technology has shifted emphasis from computing to communication (Frey, 1999). Yet, as workers in distributed environments employ diverse communication techniques to create more complex communication structures the effects on group dynamics and performance are unclear. Adding to the complexity, each individual brings a unique set of individual traits to the encounter.

Unified communications (UC) solutions integrate communications with business applications. For example, Salesforce integrates SMS, calls, and video conferencing, while Microsoft Teams includes, calls, calendaring, video conferencing, chat, and document management. Improvements are realized through more efficient work processes, greater information availability, and improved

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individual performance. Coincident with the increase in unified communications, the era of “mass personalization” yields applications that can be adapted to fit the unique needs of individual end-users. Employees can choose to chat real-time or respond via email after a meeting, hide their visibility during a meeting, and set messaging notification frequency among other features. The increase in the number of communications options along with the ability to select and customize communications applications “on the fly” opens an entirely new realm of possibilities for communications technologies to reflect the unique preferences and nuances of the individual.

Much of IS research on the choice of communication mode has centered on studying how the attributes of communication media affect media selection (C. Anderson & Robey, 2017; Fu et al., 2019; Karahanna et al., 2018). Recently, researchers have begun exploring the roles of gratification, norms (Beldad & Hegner, 2018; Vanduhe et al., 2020), and contextual factors such as the need for privacy and accountability (Ahmed et al., 2017). In addition, studies have found that the hierarchical position of the participants influences the type of communication tool. What emerges from the existing body of literature is that the choice of communication medium is a multifaceted product of contextual influences and user goals. Aside from exploring the role of personality (Chopik et al., 2017; Williams, 2019), little IS research has focused on how individual traits influence technology. However, today’s technology-infused work environment provides a mixture of technologies and capabilities that enable users to create uniquely individual communication choices. This research explores the role of individual communication traits in electronic communication, similar to individuals’ unique styles for communicating face-to-face.

The purpose of this research is to explore the relationship between individual communication traits and media choice. Specifically, the research question under investigation is: When knowledge workers have an array of communications technologies available, do communication traits of the individual influence technology choice? This research uses theories related to communication traits and media choice as the foundation for an empirical study. It is among the first to investigate the relationship between individual communicator traits and communications technology choice. Also, this study explores technology selection based on a broader, more universal set of technology capabilities rather than emphasizing particular technologies. Application-specific empirical studies quickly become obsolete as technologies become outdated and replaced. Media Synchronicity Theory provides a foundation to examine more salient technology traits and capabilities to provide a more substantial contribution to theory.

This research provides a bridge between two bodies of theory: Media Choice Theory and Communications Theory. The following section gives an overview of prominent theoretical and empirical developments within these two bodies.

## BACKGROUND

Early media selection theories center on a common question: Why is one medium of communication better suited for a particular task than another? At the origin of this line of inquiry are a series of theories and empirical studies that attempted to address this question by matching media traits to the task. Media Richness Theory suggests that media can be compared based on its richness and that rich media – those that allow for greater feedback, cues, language variety, and personal focus -- were better suited for equivocal tasks (Daft & Lengel, 1986). In addition, Media Richness Theory suggests that media can be ranked based on its relative richness, with face-to-face being the richest media and memos and letters being the leanest. The strength of Media Richness Theory has waned in recent years as researchers point out a single medium may be multi-trait and that any attempts to rank specific media are of questionable value.

Beyond Daft’s Media Richness Theory, a flurry of empirical studies are shifting emphasis toward exploring the role of context (Ishii et al., 2019). Specifically: How do circumstances surround a communication event influence media selection? These contextual factors are argued to be socially

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