# "Human" "Communication" and "Technology

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Research focused on how technology facilitates, reifies, and transforms human communication is interdisciplinary in nature. This is as it should be; technology touches upon so many different aspects of the human experience regardless of how the academy is structured. Computer science and engineering are key to the development of hardware and programs that facilitate social communication. Sociology and anthropology contribute to our understanding of the influence of technological adoption on societies and cultures. Psychology helps us to understand how cognitive processes effect our engagement with social technologies and vice versa. While these perspectives are important, the field of human communication is uniquely situated to understand how technology and human communication processes are deeply intertwined. Our field is deeply devoted to the study of how people engage in symbolic processes to co-create meaning. This "meaning" is translated into entertainment, news, relationships, organizational structures, cultural concepts, and policies. In addition, symbolic processes become our technologies. Technology can both be a communicative act as well as facilitate communicative acts. For example, a design choice on a website or the construction of an algorithm to a social feed are communicative acts in and of themselves. Yet, in addition, messages shared via that website or the posts that create the content shared through that algorithm are also communicative acts. Thus, constructed meanings are woven through social technologies.

This journal, *Human Communication & Technology* provides a specific home for communication technology scholars. Although there are many journals focused on technology, this journal provides the opportunity to publish research centered on the way human communication processes intertwined with technology creation and use. The remainder of this essay considers the importance of each of these components: the technology, the communication, and the human.

## **Technology**

First, let us consider the technologies that might be considered within the journal. With each new technology, there is often a concern raised that the technology will be just another fad, and soon gone the way of betamax or dot matrix printers. For scholars attempting to build a program of research, I recognize the concern. Technology often feels like a fast moving world, and research, properly done, is a long game. Scholars must move through the process of planning a study, seeking

human subjects approval, collecting data, analyzing the data, preparing manuscripts and then consider the review times of one or more journals before what researchers consider knowledge about communication technology becomes an entity in the world.

Yet, communication scholars must continue these efforts, because while specific forms of technology come and go, technologies facilitating social interaction have become ubiquitous (Hitlin, 2018). Humans are at their core social creatures. Human beings have adapted and adopted technology for communication purposes. Computers allowed us to store increasing amounts of information. Cell phones helped us move from place-to-place communication to person-to-person communication (Campbell & Park, 2008). Smartphones have allowed us to weave our technology use and our social communication throughout the interstices of our day (Dimmick, Feaster, & Hoplamazian, 2011). The internet allowed us to reach beyond our immediate networks (Rainie & Wellman, 2012). Social media has greatly expanded the number and diversity of people users come into contact with on a daily basis (Hampton, Sessions, & Her, 2011). Whereas previous research traditions may have examined the difference between online and offline, between "virtual" and real worlds, such distinctions are becoming moot as technology begins to blend into our daily lives. However, just because technology-enabled channels are becoming part of the background of our lives rather than novelty items, does not mean they are no longer of interest to study. Indeed, when technologies become normalized is when social technologies may have the greatest influence on the behavior and perceptions of the greatest number of users.

#### Communication

Much of the technology people use is for the purposes of human communication. Further, communication is the central process driving technological progress. Thus, communication scholars are uniquely situated, uniquely educated to inform and understand the effects of human communication. Researching the ways communication technologies accommodate, amplify, and alter communication processes becomes increasingly important for seeking understanding of the experience of human beings (see Fox & McEwan, 2019).

Understanding the use of technology in human communication goes beyond design, beyond code. Scholars in the field of human communication bring a unique theoretical tradition in creating understanding how technology works, how it should be designed, and how design and use interact. Imagine if social media platforms had been built by people who had read Communication Privacy Management theory? If those moderating the #gamergate controversy knew about muted groups? If the YouTube algorithm took into account it's role as a participatory culture (Burgess & Green, 2018). If #deletefacebook campaigns understood the deep driving need of humans to reduce uncertainty in their social environment. If large online message boards understood principles related to community formation.

Research in *Human Communication & Technology* can be grounded in the field of communication's theoretical traditions and understandings. Communication scholars have a unique and valuable perspective to understand how patterns of

social behavior influence how people engage with technology. The field of communication has its own rich theoretical traditions. These theories further understanding of how people manage and perceive privacy boundaries (Petronio, 2002), perform identity (Tracy & Trethewey, 2005), manage and maintain relationships (Canary & Dainton, 2002), seek out social information (Berger & Bradac, 1982) and interact with our fellow humans (Miller & Steinberg, 1973). It is communication theorists who understand the shifting role of audience in masspersonal channels (O'Sullivan & Carr, 2018). Our theories delineate the intricacies of personal relationships are facilitated through social technologies (Baym, 2015). Our theorists understand when channels may change the way interpersonal relationships are formed and when they do not (Walther, 1992). The theoretical traditions explaining processes and effects of human communication can contribute to a fuller, deeper understanding of the processes and effects of social technologies.

#### Human

Technology is the result of human choices and decisions. McLuhan noted, "All media are extensions of some human faculty – psychic or physical." Technology is not free from human influence. Technology is not agnostic to cognitive and cultural biases. Technology is not simply a conduit for information, or interpersonal messages, or other communication. The structure of technological platforms, applications artificial intelligence, algorithms, search engines, and code are in and of themselves *human* decisions. These are symbolic and rhetorical choices framing the communication choices within these systems but also represent the values of the designers and writers of the code themselves. Humans inherently have biases, rooted in communicative processes including culture, community, power, and status. The technology humans create represents calcified symbolic constructions of these biases. Sometimes these biases are prosocial (e.g. network building; Hampton et al., 2011), sometimes these biases reproduce our worst instincts (e.g. predictive policing or media manipulation; Ensign, Friedler, Neville, Scheidegger, & Venkatasubramanian, 2018; Marwick & Lewis, 2018).

### **Human Communication and Technology**

Recently, I was at an Augmented Reality event where one of the developers noted hardware is fairly easy, but understanding interaction is hard. Scholars of human communication do the hard part. Conversation is unpredictable, language processing is murky, measurement of communication, of perception, of interaction is difficult. The difficulty is why researchers may struggle with creating a coherent, reliable, and valid body of knowledge. Yet, those who study communication, continue to strive towards greater understanding of human communication and technology. Our work is not the flashy side of the tech industry, yet, our unique focus on the intersection of human/communication/technology has the potential to open the doors to greater understanding of the human condition and the human experience.

This advent of this journal creates a space for communication scholarship that speaks deeply to how human communication processes influence and are influ-

enced by communication technologies. Current work in this area allows us to have a greater sense of our technologically-enhanced social world. Future changes to technology, perhaps in the forms of augmented and virtual reality, perhaps in the form of human-machine communication, perhaps in channels not yet dreamed of, will benefit from the understanding of human behavior developed by systematic research programs examining human communication and technology.

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