

Human-Machine Communication: Rethinking Communication, Technology, and Ourselves [Book Review]

Kristjan Kikerpill

Institute of Social Studies, University of Tartu, Estonia
Correspondence: kristjan.kikerpill@ut.ee

Peer review: This article has been subject to a double-blind peer review process



JoCTEC is an **open access journal** meaning that all content is freely available without charge to the user or their institution. Users are allowed to read, download, copy, distribute, print, search, or link to the full texts of the articles, or use them for any other lawful purpose, without asking prior permission from the publisher or the author.

Open access is an ongoing publication practice that differs from the traditional manner academic journals are published and then received by the reading public. In Open Access publication model neither readers nor a reader's institution are charged for access to articles or other resources. We ask that users in turn give proper citation of the original publication or link to the full texts of these articles for any non-commercial purposes. A subscription to the journal in which these articles are published is not required.

Taken as a whole, *Human-Machine Communication: Rethinking Communication, Technology, and Ourselves* (edited by Andrea L. Guzman) is a thought-provoking introduction to the ideas and implications of communication between humans and machines. The book comprises a collection of articles grappling with the broader aspects of and consequences from treating non-human entities as subjects or targets of communication, and what this could mean for humanity.

In the introduction, Guzman does an excellent job of placing human-machine communication in the storied developments that have taken place in the field of communication studies. More specifically, Guzman expertly navigates the particularities of the study of human-machine communication as distinct from (and similar to) the study of human-to-human communication. The editor's introduction provides a succinct overview of what the reader can expect from the book while making the subject matter accessible to those less familiar with the underpinnings of communication studies.

In Chapter 1, Edwards investigates the ontological classification of social robots by presenting results from a study of people's reactions to the much-publicized demise of the 'hitchhiking robot' hitchBOT. In the study, participants deliberated on the kinship or otherness of a human, a chimpanzee and a humanoid robot (i.e. grouping two and excluding one), which provided interesting insights with respect to the connections

that can be perceived between a triad involving humans, animals, and machines. Our answers to questions like ‘what is it?’ and ‘what does it do?’ influence the way(s) we perceive, communicate, and interact with machines.

Chapter 2 by Sandry focuses on relating to robots (i.e. on the questions of likeness and ‘otherness’) and its implications for shaping human-machine communication. More specifically, Chapter 2 directs the reader to reflect on the possibility of finding value in robots as communicators while retaining an awareness of the differences between communicators, including the aspect of otherness.

In Chapter 3, Fritz discusses the intricacies present in the rhetorical framing of social robots, namely Jibo and Buddy. In particular, the chapter takes up the issue of robots as subjects or objects. While we may ‘hail’ a robot by a specific name, we are also required to pay money for obtaining such a robot, which inevitably leads us to consider the notion of paid-for ‘family members’.

Chapter 4 (Edwards et al.) analyses the topic of robots in pedagogy. In the specific study addressed in this chapter, the authors focus on the perceived effects from having a robot evaluate the delivery of students’ speeches without actually having the students speak in front of the robot evaluator. The authors analyze and discuss the difficulties of involving robotic entities into educational settings.

In Chapter 5, Lombard provides a good overview of the developments in the field of presence studies, focusing on the technology, relevant scholarship, and community across the past quarter-century. The author effectively reviews advances in presence-enabling technologies, which provides an important foundation for future scholarship as we move toward the increased (and diversified) use of mediated devices. Moving forward, Lombard expects even “more blurring of mediated and non-mediated, real and fake, authentic and artificial” (p. 111).

Chapter 6 presents the results from an engaging account by Lee and Liang on the topic of persuasive robots. In particular, the authors explore how certain strategies of persuasion, which are common in human-to-human communication, operate when a robot is the persuasive actor. Furthermore, the authors discuss our state of mindlessness with respect to technology, including eliciting automatic responses and what types of requests return people to a mindful state.

In Chapter 7, Lutz and Tamó use actor-network theory to

investigate the implications on privacy that emerge from the involvement of healthcare robots, which “often deal with sensitive information and with vulnerable population groups” (p. 145). The authors conclude that the way in which healthcare robots could endanger matters of physical, social, and informational privacy is by no means linear as these entities are inserted into existing and constantly evolving networks (as understood in actor-network theory).

Chapter 8 is a captivating account by Colbjørnsen on how people engage with algorithms in a cultural context. The chapter speaks to how algorithms can be viewed as replacing the cultural critics ‘of old’ in impacting our choices in content. The chapter also addresses the manner in which we personalize algorithms, such as when we state that someone else can mess with ‘our algorithm’ (i.e., Spotify; Netflix).

In Chapter 9, Spence and colleagues investigate perceptions of robots in the workplace. The chapter discusses how we go from relatively positive perceptions when relying on our own previous imaginations of ‘a robot’ to relatively negative perceptions when viewing a humanoid robot as the exemplar, within the context of workplace activities. Future research directions provided by Spence and colleagues are of note, including investigating the emotion of envy instead of fear in subsequent studies regarding how we may perceive robots.

In Chapter 10, Taipale and Fortunati provide an overview and analysis of the likeliest social groups willing go along with a wider adoption of robots into daily life. The authors emphasize the importance of simple yet clear functions of robots when considering involving the latter in real-life situations. Similar to how such simple functions were important for early communication technologies to establish a presence in our homes, the designers of new technologies must also take such notions into account. In other words, going from bulky mobile handsets to highly personalized smartphones did not occur in an instant, but was a gradual process; the same ought to be considered in designing and discussing robots.

Overall, but particularly due to Chapter 11 by Gunkel and Chapter 12 by Ess, the volume conjures up a plethora of thoughts about the relationship between humans and advanced machines. Where AI cannot account for its own actions – e.g. the case of AlphaGo where game moves that were later described as “beautiful” by human commentators could not be accounted for by the entity that made such moves – it still requires someone to fulfill that role. Beyond human exceptionalism as it may apply to ‘creativity’,

including its argued presence or absence in current applications of machine intelligence, remain questions of human protectionism. We may cheer for the possibility of soon having our own R2D2s or C3POs (uncanny valley permitting) with whom communication can be effective and, admittedly, at least somewhat entertaining. However, how would our thinking and open-mindedness change when faced with the possibility of R2D2 turning 'evil'? Curiously, and directly from the core of many arguments throughout Guzman's edited volume, advances in machine design and artificial intelligence direct, if not force, us to reflect more intensely on our own humanity. Thus, it is not only recommended but indeed required that we investigate and better understand how human-machine communication shapes our path forward. *Human-Machine Communication: Rethinking Communication, Technology, and Ourselves* is a resourceful and accessible starting point for such inquiries.

Kristjan Kikerpill, (MA in Information Technology Law) is a doctoral student at the Institute of Social Studies (University of Tartu, Estonia). His main areas of interest and research are deceptive communication, the mechanics of phishing and other cybercrimes, the social impact of deepfakes, and crime prevention in online environments.

References

Guzman, A. L. (2018). *Human-machine communication: Rethinking communication, technology, and ourselves*. New York: Peter Lang.

To cite this article:

Kikerpill, K. (2021). Human-machine communication: Rethinking communication, technology, and ourselves [Book Review]. *Journal of Communication Technology*, 4(3), 110-114. DOI: 10.51548/joctec-2021-020.