

A Response to “Technology and Non-Interpersonal Relationships”

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INTRODUCTION

I appreciate the opportunity to respond to “Technology and Non-Interpersonal Relationships.” Many of us have become dependent upon technology in both our personal and professional lives. The authors address a timely and relevant topic that is germane to a wide audience. The objective of my response is threefold. First, I acknowledge and provide further support for the importance of this research. This is followed by a review and commentary on the authors’ approach. Finally, I propose adoption of a framework as a future research opportunity for the authors to consider.

As advances in AI (artificial intelligence) enhance the capability of technological objects to mimic human intelligence and emotions, individuals will increasingly view these objects in much the same way they view their fellow human beings. Personification is defined as the attribution of a personal nature or human characteristics to something non-human. (Purington, Taft, Sannon, Bazarova, & Taylor, 2017). Technologies such as the Amazon Echo featuring social agent, Alexa, promote this personification of technological objects. However, the degree of personification will vary considerably depending upon an individual’s history and expectations regarding their relationships with humans (Purington et al., 2017). While personification of technological objects is a real risk, so is objectification of humans. Objectification entails treating a human being as an object or thing.

As people navigate between interactions with humans and interactions with human-like technologies, a very real risk is that they will begin personifying objects and objectifying humans. Once this occurs, it can seep into the very nature of our human relationships, having an impact on how we treat our fellow humans. Therefore, the authors’ exploration of how human relationships may be affected by our technological interactions is a timely and important one. And, as Christians, there should be no doubt

regarding the importance of how we treat others. This is a continuous message throughout the Bible. For example, Galatians 5:14 states, “For the whole law is fulfilled in one word: ‘You shall love your neighbor as yourself’” (English Standard Version). (See also, Romans 12:10, Luke 6:31, and Ephesians 5:21.)

In order to explore how an individual’s interaction with technological objects affects their human relationships, the authors pose two research questions. The first question seeks to understand how a human’s relationships with these objects are similar or different from their relationships with people. In doing so, the authors explore whether these interactions are transactional, interpersonal, or on a spectrum somewhere in between. The goal of the second question is to define criteria for healthy interactions with technology.

The authors utilize Martin Buber’s “I and Thou” framework to explain the similarities and differences between individuals’ interaction with humans and objects. In doing so, they also illustrate the fluid nature of our relationships with both objects and people. I-Thou interaction is characterized as being relational, whereas I-It interactions are considered to be more of an experience without a sense of mutuality between the It and the I. The authors make the point that our interactions with both humans and objects vary depending upon the context. For example, when an individual says “please” or “thank you” to a voice assistant, such as Alexa, the interaction reflects an I-Thou relationship. However, when an individual instructs Alexa to play music, the interaction reflects an I-It relationship.

It is also possible for humans to have I-It relationships with other humans. One example of this is when someone assigns a label to a specific group of people rather than viewing them as individuals with which to interact relationally. This is an example of “objectifying.” The authors provide solid rationale and support for I-It and I-Thou relationships being representative of a continuum

rather than a duality as identified by Buber. This suggests that these interactions do fall within a spectrum rather than being purely transactional or purely interpersonal. Because humans can have I-Thou and I-It type relationships with both objects and people, it is understandable that the lines between whether they view the other party as an object or a person could become blurred. This blurriness has the potential to lead to increasingly unhealthy relationships with objects as well as people. One example provided by the authors is the risk of idolizing the technological objects. For instance, when we ask Amazon's Alexa a question, due to the broad nature of information available as a resource to Alexa, it can appear that we are interacting with an all-knowing deity. On the other end of the spectrum, the authors present a scenario where the risk is that, as humans, we begin to feel as if we are "god like" due in part to our ability to create these technological objects that appear to be of superior intelligence and display human-like qualities.

PROPOSING A FRAMEWORK

Technologies falling within the realm of AI vary considerably as illustrated by the examples provided by Beavers, Daniels, Erisman, and Lee (2020). While there is support for a broad continuum regarding the types of interactions that occur between humans and technology, I propose that much of this may be attributable to the broad range of technologies and their diverse uses. For example, an interactive robot designed to perform service tasks is very different from a social media platform such as Facebook used to connect people. And a device such as the Amazon Echo differs from both the robot and the Facebook platform. Yet, these can all be classified under the broad umbrella of AI. In order to provide an organizational platform to address the authors' research questions, I suggest future development of a framework for classification. Utilizing a framework to categorize these various types of AI might prove beneficial in terms of both assessing the potential risks of each and prescribing ways in which to mitigate those risks.

There are various ways one could address categorization. One approach is to categorize based on the typical type of interaction an individual has with the technology. There is a relationship between the type of interaction an individual has with technology and the degree to which the technological object may be personified (Purington et al., 2017). For example, when Alexa is used for play-

ing music or other assistant functions, the extent of personification is relatively low (Purington et al., 2017). The degree to which personification occurs is also related to believability of a virtual agent. One major factor associated with believability is the ability of the virtual agent to exhibit appropriate verbal and nonverbal emotional behaviors (Demeure, Niewiadomski, & Pelachaud, 2011). In addition to the characteristics of the technology, there is support for the idea that characteristics of the individual human user also determine the degree of personification (Purington et al., 2017).

The Human-AI Collaboration Framework is a comprehensive framework used to differentiate various examples of Human-AI Collaboration. It considers 36 questions related to: 1) nature of the collaboration, 2) nature of the situation, 3) characteristics of the AI system, and 4) characteristics of the human interacting with the technology. The stated goal for development of the AI-Human Collaboration Framework is to develop a set of best practices which address issues related to "transparency and trust, responsibility for specific decisions, and appropriate levels of autonomy" (Partnership on AI, 2019). It is designed to determine factors such as the technology's degree of agency, whether the human is even aware she is interacting with a technological object, how human-like the technology appears, and the type of humans likely to be interacting with the technology. A framework that addresses these issues will aid in determining the specific type and severity of risk because it aids in understanding the nature of the collaboration as well as the potential consequences that could result if the risk is incurred.

A framework such as this can be useful to creators of the technology as well as users of the technology. Technology developers can make use of this framework to aid in designing technology that is "useful, safe and beneficial to the people using it" (Partnership on AI, 2019). For users of the technology, it could be utilized as a basis for classifying specific technologies and defining the risks along with mitigation strategies. These strategies would serve to inform user organizations how best to implement the technologies in a way that fosters healthy interactions.

This leads to the authors' second research question related to defining criteria for healthy interaction with technology. Beavers, Daniels, Erisman, and Lee (2020) point out the risk of "over-valuing the non-personal 'other' to the point that it becomes an idol." At the same time, we are charged to be good stewards of the resources God provides (Buktus, 2002). At its best, technology is a tool that can be utilized to improve conditions and

provide services that contribute to the betterment of the world and mankind. But, as with any tool, it can be used for evil and corruption. As Christians, we have the responsibility to be good stewards of technology in both the way it is developed as well as the way it is implemented. Just as IT governance came about as a way to ensure that organizations are using IT effectively and efficiently for enablement (De Haes & Van Grembergen, 2004), a mechanism needs to be developed for the purpose of overseeing the ethical development, implementation, and use of AI technologies.

In order to accomplish this, one must understand the nature of the interactions between humans and technology. The Human-AI Collaboration Framework provides a good basis for understanding those interactions. Because there is much variability in the nature of interactions across the broad spectrum of AI technologies, use of a framework to categorize these technologies based on the nature of the interaction will help to ensure that the appropriate mitigation strategies are employed. From this understanding, risks can be identified and a set of biblically based principles and standards created to guide development, implementation, and use of the various types of AI technologies. The authors provide a good first step toward this goal. I am grateful for the opportunity to respond to this important and timely research. Thank you to the authors for exploring some of the risks AI poses and providing practical guidance to organizations as they consider how best to implement these technologies.

REFERENCES

- Beavers, R., Daniels, D., Erisman, A., & Lee, D. (2020). Technology relationships: How our relationships with objects impact our relationships with others. *Journal of Biblical Integration in Business*, 23(1), 21-29.
- Buktus, R. A. (2002). The stewardship of creation. In: R. B. Kruschwitz (Ed.). *Moral Landscape of Creation* (pp. 17-23). Waco, Texas, USA: The Centre for Christian Ethics at Baylor University.
- De Haes, S. & Van Grembergen, W. (2004). IT governance and its mechanisms. *Information Systems Control Journal*, 1, 27-33
- Demeure, V., Niewiadomski, R., & Pelachaud, C. (2011). How is believability of a virtual agent related to warmth, competence, personification and embodiment? *Presence*, 20(5), 431-448.

Partnership on AI. (2019). Human-AI collaboration framework and case studies. Retrieved from <https://www.partnershiponai.org/human-ai-collaboration-framework-case-studies/>.

Purinton, A., Taft, J. G., Sannon, S., Bazarova, N., & Taylor, S. H. (2017). "Alexa is my new BFF": Social roles, user satisfaction, and personification of the Amazon Echo. Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors.

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