A Comprehensive Theory of Communication with Biological and Non-Biological Intelligence for a 21st Century Curriculum

Authors : Thomas Schalow

Abstract : It is commonly recognized that our present curriculum is not preparing students to function in the 21st century. This is particularly true in regard to communication needs across cultures - both human and non-human. In this paper, a comprehensive theory of communication-based on communication with non-human cultures and intelligences is presented to meet the following three imminent contingencies: communicating with sentient biological intelligences, communicating with extraterrestrial intelligences, and communicating with artificial super-intelligences. The paper begins with the argument that we need to become much more serious about communicating with the non-human, intelligent life forms that already exists around us here on Earth. We need to broaden our definition of communication and reach out to other sentient life forms in order to provide humanity with a better perspective of its place within our ecosystem. The paper next examines the science and philosophy behind CETI (communication with extraterrestrial intelligences) and how it could prove useful even in the absence of contact with alien life. However, CETI's assumptions and methodology need to be revised in accordance with the communication theory being proposed in this paper if we are truly serious about finding and communicating with life beyond Earth. The final theme explored in this paper is communication with non-biological super-intelligences. Humanity has never been truly compelled to converse with other species, and our failure to seriously consider such intercourse has left us largely unprepared to deal with communication in a future that will be mediated and controlled by computer algorithms. Fortunately, our experience dealing with other cultures can provide us with a framework for this communication. The basic concepts behind intercultural communication can be applied to the three types of communication envisioned in this paper if we are willing to recognize that we are in fact dealing with other cultures when we interact with other species, alien life, and artificial super-intelligence. The ideas considered in this paper will require a new mindset for humanity, but a new disposition will yield substantial gains. A curriculum that is truly ready for the 21st century needs to be aligned with this new theory of communication.

Keywords : artificial intelligence, CETI, communication, language