

EPISTEMOLOGY AND EDUCATION IN THE DIGITAL AGE – A POSTPHENOMENOLOGICAL VIEW

M. Marom, G. Wellner, I. Levin

Tel Aviv University (ISRAEL)

Abstract

Digital technologies rapidly conquer significant parts of our lives while altering our perceptions, our way of knowing the world, and thinking of it. Understanding these ontological and epistemological changes is a complex yet essential mission with crucial implications on the nature of learning and education in a digitized world.

A most dominant transformation associated with the digital turn is the shift from knowledge scarcity to knowledge becoming both abundant and accessible (Floridi, 2014). Digital technologies enable individuals to be exposed to a limitless volume of information on almost any given topic. This significant change embodies an epistemic change, whereas the mechanism to obtain knowledge is constituted by the act of “search”. The web-based search engine can be activated by a question or a phrase posed by an individual, which brings about a myriad of results of associated content for the individual to explore. This way of seeking information portrays the option of exposure to topics the individual did not look for explicitly and encountering answers to questions he/she did not know articulate. In turn, these revelations drawback on the initial search, yielding additional ones. Knowledge is constructed from encountering information one did not know to pre-define or look for. Such a situation is fundamentally different from the classic encyclopedic knowledge structure, where finding information requires a preliminary well-defined term, concept, or entity. The “entities” definitions determine the information retrieved, whereas, in the digital way of knowledge structuring, it may well work the other way around. In addition, the tremendous advancements of the last few years in AI technologies enhance the personalization of the information individuals are interacting with so that search results, for example, are adaptive to the “searcher”. As such, we could say that the digital turn introduces an epistemology of a relational type. Knowledge is obtained and constructed as part of a relational, interactive process and not as a result of pre-given entities specified by one authorized source of information, i.e., an encyclopedia or a teacher. In fact, the more we progress into the digital turn, the more evident becomes another transformation indicated by Floridi (2014), namely: the shift from the primacy of entities to the primacy of interactions and networks. Entities are defined by their interactions and not vice versa.

Research and learning are thus a relational practice, very different from the traditional modernist world view, which aims to discover the world “as it really is.” These transformations raise questions on fundamental concepts in education such as the act of teaching, a teacher, knowledge, student, and most importantly, the relations between them. To seek answers to these questions, we turn to the help of postphenomenology (Ihde, 1979), which considers relations between things as determining their perceived characteristics, rather than these characteristics being a “substantial prior”. This article portrays a postphenomenological approach to studying digital transformations in education. It proposes the reframing required in education’s most fundamental concepts (teacher, knowledge, etc.), based on the postphenomenological infrastructure. This framework could be the jumpstart to deeply examine and set the conceptual foundations to the shift required in education, cultivating members of the digital world.

Keywords: Relational epistemology, Postphenomenology, Digital transformations, Education in the digital turn.