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A sociomaterialist reaction to infrastructural theory: A comment on Westbury

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commentary

As an academic working in the area of educational technology and having a great interest in sociomaterialism, I found myself contemplating why I had never heard about infrastructural theory. As Westbury (Westbury, 2020) notes, infrastructural theory is under theorised in technology-enhanced learning. Although Westbury’s work focuses on knowledge infrastructure, infrastructure is all around us at multiple levels and in multiple forms whether that be digital, physical/material, discursive, or otherwise. I agree, therefore, that it is an area in need of more consideration.

As I was reading this paper, I was struck by the potential commensurability between infrastructural theory and sociomaterialist thought. Beyond the use of similar vocabulary (i.e., assemblages, relationality, contingency, heterogeneity, and agency), infrastructural theory and sociomaterialism also share an emphasis on the ontological: what is performed, enacted, and/or embodied at a given point in time or across time; they share an interest in multiplicity (i.e., given phenomenon(a) can be ontologically multiple forms or versions at the same time, for example, both digital and physical) rather than the more postmodernist perspective of plurality (i.e., a phenomenon(a) can be viewed from different perspectives; a more discursive and interpretive view). Referencing both LaTour (1993) and Mol (2003), Sorensen (2009) contends “postmodern perspectivalism creates a hyper-incommensurability between subject and object. Instead of plurality of interpretations . . . we [those who advocate for multiplicity] describe the multiple versions (forms) of objects” (p. 85).

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Sociomaterialism and infrastructural theory also share an underlying goal of raising awareness of that which is otherwise hidden, unnoticed, or seemingly mundane and unworthy of consideration. For both infrastructural theory and sociomaterialism, agency also plays a significant role, “instead of beginning with the question of whether technology does what humans want it to do, we should ask how materials participate in practice and what is thereby performed” (Sorensen, 2009, p. 28). As Westbury highlights, “[technology-enhanced learning] practices are complex constellations of people and technology” (2020, ¶ 4). Because of the complexity, some practices and actors may be unseen—this is, in my opinion, the reason why both infrastructural theory and sociomaterialist approaches are important: to bring awareness to the actors, performances, and conditions that may play a significant role in the emergence of phenomenon(a).

I had to pause, however, to reflect upon infrastructural inversion for investigating knowledge infrastructures in which “understanding the nature of infrastructural work involves unfolding the political, ethical, and social choices that have been made throughout its development” (Bowker et al., 2010, p. 99). This statement begs clarification with regard to who/what made the choices. Otherwise, we might ask to what extent knowledge infrastructures are truly contingent and the extent to which the social-material-technical actors have agency. At my current phase of my sociomaterialism journey, I view the material and digital as equally complicit in shaping and/or performing a phenomenon(a). For this reason, it is important to avoid any sentences that might be interpreted as implying only humans have agentic potential. Although there are arguments against symmetry, the idea that humans and non-humans should be treated in the same way analytically (Jones, 2015), I think there is value in examining all possible actors in an effort to achieve more complete analyses.

Throughout Westbury’s paper, multiple works came to mind that could complement infrastructural theory: Barad’s (2007) agential realism in terms of “what comes to matter”, Sorensen’s (2009) spatial imaginary of patterns of relations based on Mol and Law’s (1994) networks, fluids, and regions. Actor network theory also offer a means of examining infrastructures, as Westbury mentions. Future theoretical work could involve further examining the potential commensurability between infrastructural theory and the work of these (or other) sociomaterialist/posthumanist scholars.

For example, can infrastructural theory help us understand folding, mutable mobiles, immutable mobiles when examining patterns of relations? Or, for example, can agential realism help inform the concept of agency in infrastructural theory? It is an exciting theoretical area to consider.

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