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A Review of Material Agency in Information Systems

Associated Theories and Research Directions

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The topic of agency has been under constant scrutiny in the sociology of scientific knowledge and has received growing attention over the past decade notably by the time Sociomateriality gained momentum in Information Systems literature. Recent literature makes a case for non-human agency (Contesse et al. 2021), socio-material agency (Zhang et al. 2021) and agentic IS artifacts (Baird and Maruping 2021). To offer a toolkit for pinpointing what material side of agency is and how it drives action, Hassan (2016) proposes a typology which illustrates in what ways “materials” exert their capacity for action. To move beyond ontological differences (substantialist vs relationalist) and find common reference points for theorizing material agency, Hassan focuses on the theoretical sources that have informed our understanding of agency. We build on Hassan’s typology and argue that each of these types—derived from various theoretical sources—also underline various aspects of practice (e.g., power, network, performance, or commitment). For instance, understanding material agency from the viewpoint of Foucault’s theory of discourse highlights how, for example, *authority* forms a practice in cyber-bullying through a collection of material components such as mobile devices and communication networks. This is while understanding material agency from the viewpoint of Butler’s feminist theory emphasizes, for example, how *performativity* forms a practice in the way diseases are created and categorized differently depending on how description and examination is performed.

We argue that the typology is more telling if it accompanies and reveals the extent of their use in IS literature. As such, reviewing the extent to which any of these seven types are used in the IS literature can reveal what aspects of practice have been more at or out of focus in the IS studies of material agency. This is important, since a review and mapping of the status quo can contribute to producing new knowledge, rather than replicating or marginally extending the use of well-known categories. The corpus includes around 150 articles published between 2010 and 2020. The expected findings could help find out in what sense material agency has been predominantly understood, move beyond ontological differences and, focus on the creative and expansive theorizing of material agency in IS literature.

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