Understanding Socio-cognitive Sensemaking of Digital Innovations in Twitter

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Abstract

With digital innovations increasingly being introduced and adopted at a rapid rate, it becomes ever more challenging to make sense of these innovations for aspiring practitioners. The success of a digital innovation in terms of its adoption and diffusion depends on how well it is understood and this understanding is shared amongst interested parties. As such socio-cognitive sensemaking is seen as one of the key conceptual elements theorizing about digital innovation. In this paper, we examined the socio-cognitive sensemaking of digital innovations through the lens of organizing vision theory. We studied the career dynamics and innovation community of blockchain in Twitter by analyzing the discourse over a seven year period of time using a data science approach. In particular, we used structural topic modeling to extract topics and topic prevalence over time. Our findings revealed that the discourse about blockchain consists of references to personal use as well as organizational applications. Furthermore, the discourse community consists of a mix of personal actors and organizational actors with social bots as additional actors. Based on our findings, we propose that digital innovations can first obtain early momentum through the discourse around personal use and next through the discourse around organizational applications while being mutually enhancing. In addition, we propose that institutional bots can engage in institutional entrepreneurship activities to increase momentum for a digital innovation.

Keywords: Digital innovation, organizing vision, socio-cognitive sensemaking, Twitter, Blockchain, Structural Topic Model