When Digital Technologies Enable and Threaten Occupational Identity: The Delicate Balancing Act of Data Scientists

Emmanuelle Vaast and Alain Pinsonneault

Abstract

Occupations are increasingly embedded with and affected by digital technologies. These technologies both enable and threaten occupational identity and create two important tensions: they make the persistence of an occupation possible while also potentially rendering it obsolete and they bring about both similarity and distinctiveness of an occupation with regard to other occupations. Based on the critical case study of an online community dedicated to data science, we investigate longitudinally how data scientists address the two tensions of occupational identity associated with digital technologies and reach transient syntheses in terms of "optimal distinctiveness" and "persistent extinction." We propose that identity work associated with digital technologies follows a composite life-cycle and dialectical process. We explain that people constantly need to adjust and redefine their occupational identity (i.e., how they define who they are and what they do). We contribute to scholarship on digital technologies and identity work by illuminating how people deal in an ongoing manner with digital technologies that simultaneously enable and threaten their occupational identity.

Keywords: Occupational identity, data science, digital technologies, persistence/obsolescence, similarity/distinctiveness, process theorizing, composite process, identity work, qualitative research, data scientists