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Expertise and Information Technologies: A Multidisciplinary Review

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TREO Talk Paper

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Abstract

Information systems (IS) researchers have enhanced our understanding of information technologies' relationship with expertise, but our discipline is only one among those that have contributed insights about expertise. The appeal of expertise comes in part from its potential to contribute to beneficial outcomes for organizations, such as building innovation capabilities (van den Hooff and Kotlarsky 2016). Existing IS research addresses multiple facets of the expertise-IT relationship, including how engaging with technologies changes the nature of expertise, how organizations identify experts and capture their expertise, how managers coordinate the work of experts on projects, and how experts signal their expertise to others (e.g., Horne et al. 2019; Sedera and Dey 2013). These useful studies constitute a small part of a body of work encompassing multiple, varied disciplines. Examples of disciplines whose researchers have studied expertise include management, organizational studies, human resource management, communication studies, positive psychology, science and technology studies (STS), and human computer interaction (HCI). When investigating expertise, these disciplines' researchers draw upon differing definitions and categorizations of expertise (Gobet 2018). Advancing our understanding of the expertise-IT relationship topic can benefit from considering the contributions of multiple disciplines that have conceptualized and investigated expertise.

We are conducting a systematic literature review aimed at developing an understanding of the findings of expertise and technology research across multiple disciplines. The research questions that guide this study include:

1. What different concepts and types of expertise do the fields considered in this review use?

2. What is the state of research on how expertise relates to information technologies?

3. What factors (e.g., IT use task characteristics) influence how expertise and information technologies relate?

Our overarching goals for this study are to synthesize the insights from multiple disciplines to advance IS researchers' understanding of the expertise-IT relationship and build upon the resulting understanding by providing specific directions to guide future studies. In this presentation, we describe the progress of this ongoing project.

References

Gobet, F. 2018. "The Future of Expertise: The Need for a Multidisciplinary Approach," *Journal of Expertise* (1:2), pp. 1-7.

Horne, B.D., Nevo, D., and Adali, S. 2019. "Recognizing Experts on Social Media: A Heuristics-Based Approach," *The DATA BASE for Advances in Information Systems* (50:3), pp. 66-84.

Sedera, D., and Dey, S. 2013. "User Expertise in Contemporary Information Systems: Conceptualization, Measurement, and Application," *Information & Management* (50:8), pp. 621-637.

van den Hooff, B., and Kotlarsky, J. 2016. "Managing Dispersed and Dynamic Expertise in Fluid Organizational Forms," in *Expertise, Communication, and Organizing*, J.W. Treem and P.M. Leonardi (eds.), Oxford: Oxford University Press, pp. 232-250.