

12-12-2022

## Exploring and Understanding AI Implementation: A Meta-Synthesis of Qualitative Case Studies

Tanya Giannelia  
*HEC Montréal, tanya.giannelia@hec.ca*

Ann-Frances Cameron  
*HEC Montreal, Ann-Frances.Cameron@hec.ca*

Follow this and additional works at: [https://aisel.aisnet.org/treos\\_icis2022](https://aisel.aisnet.org/treos_icis2022)

---

### Recommended Citation

Giannelia, Tanya and Cameron, Ann-Frances, "Exploring and Understanding AI Implementation: A Meta-Synthesis of Qualitative Case Studies" (2022). *ICIS 2022 TREOs*. 69.  
[https://aisel.aisnet.org/treos\\_icis2022/69](https://aisel.aisnet.org/treos_icis2022/69)

This material is brought to you by the TREO Papers at AIS Electronic Library (AISeL). It has been accepted for inclusion in ICIS 2022 TREOs by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact [elibrary@aisnet.org](mailto:elibrary@aisnet.org).

## Exploring and Understanding AI Implementation

### A Meta-Synthesis of Qualitative Case Studies

Tanya Giannelia, [tanya.giannelia@hec.ca](mailto:tanya.giannelia@hec.ca); Ann-Frances Cameron, [ann-frances.cameron@hec.ca](mailto:ann-frances.cameron@hec.ca)

Recent advances in artificial intelligence (AI) and machine learning have made these systems increasingly accessible to a wide variety of organizations. As a result, organizations across industries have found a multitude of applications for AI-based systems. However, once implemented, these systems may not always provide the benefits initially anticipated. As AI systems are different from “traditional” information systems, extant research on system implementation may not apply for these systems. For example, AI systems are often opaque and their output is unknowable *a priori* (Zhang et al. 2021), meaning that their impact can only be fully appreciated until once the system is in use (Reis et al. 2020). This can make it difficult to plan for organizational and user impact, and in turn, to manage user and organizational responses to these systems once they are in use. This study seeks to answer the research question *How do organizations successfully navigate AI system implementation, from adoption through infusion?*

To answer this question, we propose a meta-synthesis of qualitative case studies (Hoon 2013) or case survey (Rivard and Lapointe 2012). A case survey seeks to synthesize evidence from previous qualitative case studies with the goal of contributing to theory. This method is useful for understanding and explaining complex interventions such as IS or AI implementation as it explicitly considers the context surrounding the intervention. (Hoon 2013; Paré et al. 2015). The literature search will use keyword, manual and snowball searches in sources including journal publications, conference proceedings and PhD publications within and outside of the basket of eight. The anticipated contribution will be a clearer understanding of which factors influence successful AI implementation, why they are important and how they contribute to success.

### References

- Hoon, C. 2013. "Meta-Synthesis of Qualitative Case Studies: An Approach to Theory Building," *Organizational Research Methods* (16:4), pp. 522-556.
- Paré, G., Trudel, M.-C., Jaana, M., and Kitsiou, S. 2015. "Synthesizing Information Systems Knowledge: A Typology of Literature Reviews," *Information & Management* (52:2), pp. 183-199.
- Reis, L., Maier, C., Mattke, J., Creutzenberg, M., and Weitzel, T. 2020. "Addressing User Resistance Would Have Prevented a Healthcare Ai Project Failure," *MIS Quarterly Executive* (19:4).
- Rivard, S., and Lapointe, L. 2012. "Information Technology Implementers' Responses to User Resistance: Nature and Effects," *MIS Quarterly* (36:3), pp. 897-920.
- Zhang, Z., Yoo, Y., Lyytinen, K., and Lindberg, A. 2021. "The Unknowability of Autonomous Tools and the Liminal Experience of Their Use," *Information Systems Research* (32:4), pp. 1192-1213.