UMEÅ UNIVERSITET

Digital Innovation Management
Investigating Digital Trace Data in Online Communities

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Akademisk avhandling

som med vederbörligt tillstånd av Rektor vid Umeå universitet för avläggande av filosofie doktorsexamen framläggs till offentligt försvar i MA121, MIT-huset,
fredagen den 27 September, kl. 14:00.
Avhandlingen kommer att försvaras på engelska.

Fakultetsopponent: Jan Recker, Alexander-von-Humboldt Fellow, Chaired Professor for Information Systems and Systems Development at the University of Cologne, and Adjunct Professor at the QUT Business School at Queensland University of Technology, Brisbane.

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Title

Digital Innovation Management: Investigating Digital Trace Data in Online Communities.

Abstract

Firms and individuals are interacting online on an unprecedented scale. These interactions may lead to new digital products, services and practices, all of which are manifestations of digital innovation. This process relies on records users leave on various digital platforms which carry information about their activities – digital trace data. The data is generated on a massive scale, yet is just data until it is confronted with meaning – its value remains latent. Digital trace data is agnostic about future use, it carries records of interactions with digital artifacts and is available to wide numbers of actors to reinterpret them as sources of innovation and value creation. Online communities where data is generated can be sources of innovation, but are also extremely vulnerable. Digital trace data are not finitely expendable but may be used and passed along to any other individuals, partners, customers, or suppliers. To remain competitive, firms increasingly need to manage dynamic interactions of online community members, confront digital trace data with meaning, and facilitate innovation that is decentralized and requires heterogeneous knowledge resources.

This dissertation explores how digital innovation can be leveraged in the context of online communities. It is based on four empirical investigations in the context of firms interacting with online communities that are rich with digital trace data. Collectively, these studies illustrate the potential utility of digital trace data generated by online communities for digital innovation, and suggest possible strategies for effective management of digital innovation for value creation. The dissertation contributes to both theoretically and empirically oriented discourses on the use of digital trace data. Specifically, it does so by providing propositions for dealing with digital trace data through platform design, community sociality, and narration for digital innovation.