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Title: Digital Innovation: Orchestrating Network Activities
Defended by **Jesper Lund** at the IT-Faculty at Gothenburg University

Abstract:

Digitization of analogue everyday artifacts, i.e. when physical products are equipped with digital capabilities, has a profound impact on today's society. Some examples of these digital innovations aimed at consumer markets are the "connected" car, the digitized television set, and in the near future, digitized IKEA furniture. Digital innovation provides endless opportunities for providing value adding products and services. However, in digital innovation there is a need to find new ways of organizing network activities, i.e. activities such as e.g. production and translation of knowledge and enrollment of actors. These activities need to embrace and build on the networked aspects and the complexity inherent to digital innovation. This requires network activities that can overcome challenges with the ambiguous and messy characteristics of digital innovation.

In this thesis, I propose that the theoretical perspective of network orchestration can enlighten fruitful ways to address challenges that are encountered when organizing network activities in digital innovation. Inspired by practical challenges with digital innovation, as well as contemporary calls for research within IS, this thesis investigates: How can network activities be orchestrated in digital innovation? Two cases of digital innovation aimed at consumer markets are studied. The first case concerns the digitization of the newspaper. The second case regards the digitization of door locks. Literature about digital innovation is used to understand the context of the studied phenomenon. Furthermore, theories about network orchestration as well as activities in innovation are used as a theoretical framework to help answer the research question. The thesis is based on an interpretative perspective where a multi-method approach has been applied to address the research question. The contribution is divided into two different parts. The first part presents four categories of empirically derived network activities that address sociotechnical challenges with organizing digital innovation. The second part is a proposed model detailing orchestration of network activities in digital innovation. The model is based around the four suggested categories of network activities: (1) Supporting flexible innovation networks, (2) Production and translation of layered architectural knowledge, (3) Addressing heterogeneous user communities, and (4) Harnessing generativity to leverage value. The categories of network activities can be viewed as building blocks for the orchestration process. By emphasizing both a proactive and a reactive way of orchestrating digital innovation, the model proposes a means for organizations to address the ambiguity and complexity of digital innovation.

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