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A First Perspective on Requirements of New-Generation Managers for Collaboration Technology to be Integrated into Management Support Systems

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ABSTRACT

Companies today are mostly populated by new-generation managers—consisting of digital natives and digital immigrants. New-generation managers have expanded their role in operations and have to make decisions faster than in the past. Management support systems (MSS) serve as managers' central, hands-on, day-to-day source of information. Thus, the present situation is favorable for redesigning MSS in two respects: On the one hand, new-generation managers' faster decision making is driving a new demand for self-service MSS. Unlike earlier MSS, self-service MSS accommodate individual user preferences and increasingly enable managers to operate MSS themselves. On the other hand, as companies become larger and more dispersed, face-to-face meetings and even telephone calls become less practical, but new collaboration technology is becoming increasingly important.

Subject to these considerations, we examine collaboration technology—technology assisting people working towards the same goals—suitable to be incorporated into MSS for new-generation managers' self service. Collaboration is furthermore specified in terms of the coordination, communication, and cooperation function it entails. In our analysis, we distinguish "analyst"- and "consumer"-type managers' business perspective and cover collaboration technology for different end-user devices (i.e., smartphones, tablets, and notebooks). In doing so, we answer the following two research questions: (1) What are managers' preferred collaboration activities? (2) Accommodating these preferences, what are guidelines for a MSS design facilitating collaboration technology for managers?

Based on the findings from a literature review, we derived nine types of collaboration technology to be of potential value for integration into MSS: (1) availability of other MSS users, (2) other MSS users' activities, (3) document sharing, (4) annotations, (5) direct messages to colleagues, (6) video conferencing, (7) real-time communication, (8) syndication/RSS, and (9) a search function. These were validated with twenty-five structured face-to-face manager interviews from their business perspective. This manager (expert) focus group from different companies should make our arguments more relevant than the state of the art.

Our findings outline that collaboration technology has attracted the attention of managers in a wide range. On the one hand, there are already fulfilled requirements such as video conferencing—therefore integration into MSS would not offer additional value in general. On the other hand, there are new capabilities such as syndication via RSS which have only just become relevant for managers. We propose four design guidelines A-D that should facilitate collaboration for managers suitable to be incorporated into MSS for their self service: (A) Coordination: In order to strengthen managerial team work, MSS should indicate the availability of other users and provide document sharing. (B) Communication: To make managers' communication more efficient, MSS should enable on-topic annotations and sending them "at the push of a button" to other users. (C) Cooperation: To accelerate information access, MSS should provide a comprehensive managerial self-service search function. (D) Devices: For managers' fast and simple mobile IS access, shared documents and textual annotations on notebooks should be delivered on tablets in the future as well.

For practice, our results constitute directly usable recommendations for both a checklist to improve existing collaboration technology or to design future MSS with incorporated collaboration technology. For research purposes, the design guidelines provide a rigorous starting point for future investigations on collaboration technology per se and for MSS designs specifically.