

Organizational Challenges for Enterprise Social Media at the Shop Floor

Completed Research

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Abstract

Shop floor workers are at the center of the digital transformation of manufactures. Information systems and knowledge work are becoming part of a former digitally disconnected workforce group. The change from routine task execution to knowledge provision is a challenging task for organizations and its shop floor workforce. To manage the complex transition information and communication technologies (ICT) like enterprise social media (ESM) can be the first step to empower the shop floor for its new organizational role. We present a case study in which we evaluate an ESM integration from the workers' perspective and develop shop floor ESM use cases. Based on the workers' perspective we derive and discuss organizational challenges that come with an ICT-enabled empowerment process. We contribute to ESM research by adding a new ESM user perspective and addressing ESMs' applicability at the shop floor.

Keywords

Enterprise social media, shop floor, empowerment process, organizational challenges, case study, use cases.

Introduction

Manufacturing organizations face a challenging and competitive environment with the digital advancements at the shop floor level. Production processes get more and more automatized and supported by information systems (IS) for greater efficiency and decision support. The growing knowledge economy also affects manufacturing jobs which seem to become less relevant, but shop floor workers still represent a large workforce group in manufacturing organizations that cannot fully digitalize their product portfolio or their manufacturing processes (Hollanders and Ter Weel 2002). For such organizations, advances in production automation help to react to the global trend of mass customization in production (Duray et al. 2000) but demand greater flexibility, problem solving and innovation capabilities from the shop floor workers (Guhr et al. 2018; Hopp et al. 2009; Kleindienst et al. 2016; Sauer 2014). The empowerment of shop floor workers is necessary to capitalize on such capabilities but requires supporting conditions (Hirzel et al. 2017). One of those empowerment conditions is the availability of IS in such areas to enable support for decision-making by access to organizational information and communication (Psoinos et al. 2000). Access to information and communication is challenging, considering that the shop floor workers' access to organizational information and communication technologies (ICT) are often restricted or not existing (Klewes et al. 2017; Lipiäinen et al. 2014; Psoinos et al. 2000). That intra-organizational divide puts further complexity to rethinking the shop floor role (Hopp et al. 2009; Kleindienst et al. 2016; Klewes et al. 2017; Lipiäinen et al. 2014; Sauer 2014). ICT enables a knowledge-driven transformation of current organizational practices by processing human information exchanges in a cooperative and empowering way (Campatelli et al. 2016; Dutta and Bilbao-Osorio 2012; Leyer et al. 2019). Further, the emergence of smart factories alters the traditional less empowered shop floor concept in a way that routine manufacturing jobs will be substituted by self-controlling technologies that require human-machine collaboration processes in problematic situations (Wang et al. 2016). Therefore digital information processing and problem-solving skills, accompanied by greater