

Report of the Workshop on Concepts and Methods of Identifying Digital Potentials in Information Management

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Abstract. Recently a discussion has been instigated in the scientific community on whether our understanding of information management (IM) is still up to date [1]. A workshop on the concepts and methods of an additional IM perspective which intends to identify possible technology applications (by putting the primary focus on the possibilities offered by information technology rather than on the support of existing organisational functions and task structures) was held at the WI Conference 2019. This paper summarizes the conceptual input of the workshop and provides an overview of the initial workshop contributions.

Keywords: Digitalization, Digital Transformation, Information Management,

1 Workshop Topic

The changing understanding of information management (IM) towards a more enabling and proactive instead of a supportive and reactive organisational function is creating pressure for practitioners to deliver value from IT use in organisational contexts [2]. The rise of the now omnipresent terms of digital transformation (DT) and digitalization have contributed to this increasing pressure and have also caused increased expectations regarding the IT function's contribution to organisational success. Practitioners are expected to instigate, plan, and execute DT projects which do not primarily focus on cost reduction and productivity increases, but also contribute to new innovative business model transformation. As a consequence of this development, the scientific community is expected to advance existing and to develop new models, frameworks and methods which describe and explain technology driven changes in organisational value creation. These concepts should enable practitioners to rethink and refine existing organisational value creation structures by more directly considering the opportunities provided by digital technologies.

Following the aspect of increasing market dynamics, a fast organisational reaction capability to technological innovations has been identified as a major success factor for organisations [3]. This organisational agility requires organisations to not only be aware

of technological possibilities and advancements, but also to identify their potentials for the organisation [4]. Understanding how these potentials can be identified and exploited by organisations is therefore a necessity for a modern and successful IM.

Existing IM perspectives, methods and frameworks have a traditional focus on the organisational integration of information technology by following defined business strategies [5]. Although early works identified the potential of a proactive and enabling IM [6], these works remained largely unconsidered in practice. In essence, despite opposing calls in the academic literature [7, 8], IM in practice often concentrated on fulfilment of a supportive role. Whilst such an approach enables organisations to implement and operate new IT systems once their potential is identified, they give little guidance on how different application scenarios of new technology can be identified.

Whilst the tasks of this classical support role of IM will not lose relevance in the future (because reliable systems are the foundation of successful business processes [9]), there is a growing need for organisations to identify new technology potentials [10]. The question by which mechanisms, structures, processes and capabilities organisations can efficiently identify potentials has not been a primary focus of the IM field, but is central if IM should fulfil a proactive and enabling role [10]. An additional perspective on IM which integrates organisations into a digital world, instead of integrating digital technologies into organisations, provides value to both academia and practice.

To contribute to this recent development, a workshop was held at the WI conference 2019. Specifically, this workshop focussed on the identification of digital potentials as a primary aspect of future IM, both from a conceptual and methodological perspective. The initial contributions to this workshop put the focus on three main methodological and structural aspects of the identification of digital potentials.

2 Overview of Workshop Contributions

The first contribution by Florian Rittmeier presents a research proposal and design for the development of an assistance system enabling organisations to identify digitalization potentials within existing business process structures. The author proposes a system supporting organisations specifically in the phases of process discovery, analysis and redesign. By specifying key process characteristics relevant for a later potential analysis, the proposed system provides support within the phase of process discovery. The proposed system would further support process analysis by identifying deficiencies within the process model based on formalized process weakness patterns. Based on the identified weakness patterns, a formalized set of recommendations is presented to further support the phase of business process reengineering. By combining weakness patterns and relevant recommendations into opportunity patterns the author intends to enable organisations to identify and restructure their processes in a more efficient and effective way that is less dependent on the experience and interpretation of individual process analysts. We understand the attempt of creating a formalized pattern set of digitalization opportunities within

business processes as a promising approach which provides a valuable contribution to this workshop regarding methodological aspects.

The second contribution authored by Barbara Krumay, David Rueckel and Sabrina Schwarzgruber discusses aspects of assessing and evaluating technology potentials in agile environments. As the authors put forward, traditional assessment methods tend to limit the dimensions used to assess the value of IT-investments to certain short-term monetary aspects. The authors argue that in agile environments with fast changing organisational goals and structures more flexible assessment methods including additional levels of analysis are required. Real options are identified by the authors as a promising methodology to focus assessments on additionally created technology potentials. Furthermore, the authors discuss the possible value of impact assessments as a method for identifying and assessing additional potentials resulting from certain IT-investments. Impact assessments are used in a variety of disciplines as a methodology for identifying possible consequences of certain events. Whilst currently predominantly applied in environmental, social and legal contexts, the authors argue for an adaptation and adoption of such instruments in a technology context. We understand the approach of utilizing impact assessments and real options for the identification, evaluation and assessment of technology potentials as a valuable contribution to this workshop to complement existing methods.

The final contribution from Friedrich Holotiuk discusses the role of digital innovation labs (DILs) in enabling organisational ambidexterity. Ambidexterity describes managing the trade-off between exploration and exploitation activities and is traditionally conceptualized in the two different types of structural and contextual ambidexterity. Structural ambidexterity means managing the trade-offs by implementing “dual structures” with units focussing on either exploration or exploitation. Contextual ambidexterity refers to balancing exploration and exploitation tasks within existing units, teams or individuals. DILs are organisational units bundling necessary capabilities for the development of digital innovation. The author conducted an intensive single case study on an existing DIL and provides structured insights into this organisational design and its possible contribution towards enabling organisational ambidexterity. Based on the results of the case study the author concludes that existing ambidexterity concepts do not fully describe the type of ambidexterity enabled through digital innovation labs. This organisational concept allows the full focus of certain employees on either exploration or exploitation tasks based on a temporal aspect. We follow the conclusion of the author who identifies DILs as a promising organisational design for the identification of technology potentials within organisations.

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