DIGITAL HUMAN RESOURCE MANAGEMENT

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ABSTRACT

The digital human resource management and related concepts such as the digitization of human resource management, the digitalization of human resource management, the digital transformation of human resource management, and the digital disruption of human resource management are gaining prominence in scholarly discussion. Frequently, however, the use of these concepts is implicit, heterogeneous, and proliferating. These concepts, thus, lack the "conceptual clarity" necessary in research. Therefore, this article aims at a conceptual clarification of digital human resource management and of related concepts of the digitization of human resource management, the digitalization of human resource management, the digital transformation of human resource management, and the digital disruption of human resource management.

Keywords: *Digital Disruption Of Human Resource Management, Digital Human Resource Management, Digital Human Resource Strategy, Digitalization Of Human Resource Management, Digital Transformation Of Human Resource Management, Digitization Of Human Resource Management, E-HRM, Electronic Human Resource Management*

INTRODUCTION

Growing Needs To Clarify Digital Human Resource Management

Concepts such as “digitization,” “digitalization,” “digital transformation,” or “digital disruption” currently rank among the most prominent and discussed terms. Roughly speaking, such concepts denote an ever-increasing use of technology and corresponding substantial changes in numerous domains of business and society. This notion is also true for the domain of human resource management (HRM). In HRM, the concept of digital Currently, however, these concepts are frequently used in an implicit, heterogeneous, and proliferating manner. First, authors frequently use the concepts in an implicit manner; that is, they do not offer explicit definitions but rather assume that readers understand the intended meaning (e.g. Bajer, 2017; Larkin, 2017). Second, authors use the concepts in a heterogeneous manner; that is, they use concepts with multiple and some- times contradictory understandings.

HRM Clarity of concepts, however, is important for different interrelated reasons. First, conceptual clarity is important to preventing a mere proliferation of concepts (Suddaby,2010). It must be ensured that digital HRM (and related concepts) not merely represent “new designations for old phenomena.” Otherwise, new concepts are just used as synonyms of established concepts and most notably of the prominent concept of electronic (e-) HRM (e.g. Bondaroukeal.,2016; Stroh meier,2007). Second, conceptual clarity necessary to avoid confusion and misunderstanding. It must be ensured that human resource (HR) researchers share a common understanding that facilitates mutual communication on digital HRM. Third, conceptual clarity is necessary to avoid research deficiencies The use of ill-defined concepts must be avoided, as they do not allow for precise o and lead to disparate results of research on digital HRM.

It is against this backdrop that this article aims at a conceptual clarification of digital HRM and related concepts. To do so, the article develops a terminology and typology of digital HRM. Developing a terminology constitutes an initial clarification step that offers precise and parsimonious definitions of concepts and relationships between them, in turn offering a basic understanding Developing a typology constitutes clarification step that offers precise and parsimonious ideal-types that order and classify phenomena related to digital HRM, further deepening their understanding.

Conceptual Clarification—Toward An Understanding Of Digital HRM

As a basis for developing a terminology and typology of digital HRM, in the following, existing literature on the general digitalization of organizations is referenced (see, for example, the reviews of Gebayew et al., 2018; Hanelt et al., 2018; Hausberg et al., 2018; Henriette et al., 2015; Ismail et al., 2017; Kahre et al., 2017; Kuusisto, 2017; Morakanyane et al., 2017; Reis et al., 2018; Vesti et al., 2017, 2018; Vial, 2019). This seems appropriate for several reasons: First, digitalization constitutes a general organizational phenomenon, relevant not only for HRM but for all organizational domains (e.g. Gebayew et al., 2018; Hanelt et al., 2018). It is, thus appropriate to conceptualize digital HRM in accord- ance with the general digitalization of organizations. Second, there are mutual dependen- cies of the digitalization of the organization and digitalization of HRM (e.g. Amladi, 2017; Bondarouk et al., 2017). It is thus appropriate to conceptualize the digitalization of HRM together with the general digitalization of organization to consider such dependencies. Third, the general digitalization literature is more developed than the literature ondigital HRM. concepts refer to outcomes of activities. It is evident that digitization, digitalization, digital transformation, and the digital disruption of organizations describe activities and thus are process-related concepts.

“Digital” describes a specific state of an organization, and thus digital organization is a result-related concept. As an obvious relationship between process- and result-related concepts, the former imply the latter. For example, the digitalization of a library involves a process that leads to the creation of a digital library as a result.A second clarification given by general research refers to the distinction of technical and socio-technical concepts (Brennen and Kreiss, 2014; Hanelt et al., 2018). Technical concepts denote mere technical phenomena. Socio-technical concepts are broader and denote both technical and human phenomena. Following suggestions made in the litera- ture, digitization can be understood as a simply technical concept (Brennen and Kreiss, 2014; De Clerck, 2017). Digitization in turn refers to the technical conversion of analo- gous information into binary digits (thus, the designation of digitization) with the aim of an automated processing of this information (Brennen and Kreiss, 2014; De Clerck, 2017).

Converting analogue books in a library into digital files or converting analogue customer record cards into digital customer data constitute examples of digitization. Conversely, digitalization, digital transformation, and digital disruption integrate techni- cal and human phenomena and thus constitute broader socio-technical concepts (Brennen and Kreiss, 2014; De Clerck, 2017; Hanelt et al., 2018). For example, the digitalization of a library would consider human tasks and purposes. The conversion of books into digital books might be purposeful to shorten wait times for particularly popular books. The conversion of analogue customer data into digital customer data might be purposeful to streamline the library’s lending processes. The digitalization of a domain thus might be understood as the purposeful digitization of the domain. As an obvious relationship between technical and socio-technical concepts, the latter include but extend beyond the former. For example, the socio-technical digitalization of a library involves its mere technical digitization but goes beyond this level in considering human purposes and tasks when digitizing.

A third clarification implicit in general research refers to the distinction of voluntary and involuntary concepts. Voluntary concepts describe processes and results that are desired and therefore actively encouraged by organizations. Involuntary concepts describe processes and results that are undesired and thus are not actively encouraged but instead passively suffered by organizations. Following the literature, the digital disrup- tion of an organization must be understood as an involuntary phenomenon (e.g. Baiyere and Salmela, 2013; Christensen et al., 2015; Møller et al., 2017). Since digital disruption ultimately results in a marginalization or even complete displacement of an organization (e.g. Baiyere and Salmela, 2013; Christensen et al., 2015; Møller et al., 2017), it is cer- tainly highly undesirable. Moreover, disruption emerges based on the activities of exter- nal organizations that wish to reap the benefits of digitalization while accepting that it may disrupt other organizations. Digital disruption is thus a passive phenomenon. For example, when a global Internet company decides to offer all books funded by advertis- ing revenues worldwide to all Internet users for free, this decision most likely implies a digital disruption of all pay-based libraries. Conversely, the digitization, digitalization, Strohmeier 349and digital transformation of organizations and the result of a digital organization denotevoluntary phenomena. Digital disruption in turn does not produce a digital organization, but a marginalized or even completely displaced organization. It thus fundamentally differs from voluntary concepts.

Voluntary and involuntary phenomena, however, are related in that the former, when performed by external organizations in a specific way, imply the latter.A fourth clarification implicit in general research refers to the distinction of strategicand generic concepts. Strategic concepts distinctly address the strategic level of an organization. Generic concepts are broader and address the operational and possibly stra- tegic level of organizations. Following the literature, the digital disruption (Møller et al., 2017; Vesti et al., 2017) and transformation (e.g. Hanelt et al., 2018; Ismail et al., 2017) of organizations denote strategic phenomena. Digital disruption poses a strategic threat as elaborated above. Digital transformation denotes a strategic opportunity based on the potential for digital technologies

to create innovative business opportunities as expressed by “digital business strategies” (Bharadwaj et al., 2013). Digital transformation thus involves a fundamental strategic change of the entire organization due to the business potential of digital technologies (e.g. Hanelt et al., 2018; Hausberg et al., 2018; Ismail et al., 2017). A library that fully dispenses with analogue books, library buildings, librar- ians, and so on and instead exclusively offers digitized books via the Internet serves as a simple example of digital transformation. Further concepts such as digitalization are broader and can but must not refer to the strategic level.

The above example of the digital transformation of a library thus also serves as an example of digitalization. Contrarily, mere operational changes such as implementing a digital lending system at a library would not count as digital transformation but as digitalization. The strategic concept of digital transformation can thus be understood as a subset of the generic concept of digitalization. The above clarifications allow for the development of parsimonious definitions for the respective concepts. With respect to clearly differing organizational results, however, two distinct concept clusters emerge (see Figure 1).

A first cluster covers concepts grouped around the result of a digital organization:

- The digitization of organizations denotes the technical process of converting analogue organizational information into digital organizational information for automated processing.
- The digitalization of organizations denotes the socio-technical process of exploiting digitization potentials for operational and/or strategic organizationalpurposes.
- The digital transformation of organizations denotes the socio-technical digitalization sub-process of exploiting digitization potentials for strategic organizational purposes.
- Digital organization denotes the socio-technical result outcome of the digitalization of organizations.

A second cluster refers to disruption producing a marginalized organization:

RESULTS AND DISCUSSION

Toward A Consideration Of Digital HRM

The above conceptual clarification provides definitions, delineations, and corresponding ideal-types of digital HRM and related concepts. Based on this clarification, digital HRM can be understood as a conceptual advancement of previous understandings of technol- ogy-based HRM. In particular, the innovative strategic integration of digital technologies based on “digital HR strategies” evidently entails both great promises and great chal- lenges. Thus, future scholarly consideration of digital HRM requires guidance regarding core tasks to be performed. Based on the above results, core interrelated tasks refer to the theoretical explanation, empirical investigation, and socio-technical design of digital HRM. Given that each of these responsibilities is voluminous and multifaceted, some rough outlines are delineated in the following. Theoretical explanations of digital HRM Theoretical explanations are necessary for a deeper understanding of basic regularities underlying both the process of digitalizing HRM and the result of digital HRM. Beyond this necessity, theoretical explanations also form a mandatory basis for empirical and design research in digital HRM. Since the conceptualization of digital HRM mainly focuses on the macro-level, it

is compatible to a broader set of macro- or organization level theories. Given that a broad range of aspects is to be covered, it is to be expected that a broader set of different theories will be necessary.

In seeking suitable approaches, the research on digital organizations proposes a set of already employed theories (see the overview given by Hanelt et al., 2018). Since an anthology of theories suitable for explain- ing (certain aspects of) digital HRM is far beyond the scope of this article, the neo-config- urational approach (e.g. Park and El Sawy, 2013) and resource-based view (e.g. Bharadwaj et al., 2013) are briefly mentioned as possible approaches. The neo-configurational approach theorizes digital HRM as a limited set of organizational configurations that emerge within a certain context and comprise of different elements. The elements on their part conjuncturally cause certain organizational outcomes. Thus, the approach allows for a systematic understanding of the emergence of different types of (non-) digital HRM and the causation of relevant consequences. Against this background, the emergence and out- comes of different types of “digital HR strategy” can be also explained by the approach (Misangyi et al., 2017). The resource-based view theorizes that certain resources can pro- vide sustainable competitive advantages when they are valuable, rare, inimitable, and exploited. Against this theoretical backdrop, both humans and digital technologies can be understood as resources of an organization with the potential for a competitive advantage. In particular, digital HR strategies can be understood as (ideas on) the fusion of human and technological resources aiming at producing corporate advantages (Barney, 1991). As briefly indicated, there are diverse recognized theoretical approaches that are directly suit- able for explaining and founding digital HRM.

Socio-technical designs of digital HRM

Socio-technical designs are necessary for an appropriate and practical realization of digi- tal HRM. This is realized by developing innovative solutions for digital HRM. Based on the above elaboration, it is obvious that such solutions have a complex socio-technical nature, that is, comprised of interrelated managerial (e.g. van Aaken, 2004) and technical Strohmeier 361 (e.g. Hevner et al., 2004) components. Rather than waiting for innovations in digitalHRM to emerge in practice and investigating them ex post facto, research should accom- pany and even guide practice by (developing, evaluating, and then) providing appropriate solutions. While design generally refers to all digital ideal-types, it is obvious that the strategic integration of digital technologies constitutes the core challenge of design research. Again, developing different scenarios of a strategic integration of digital tech- nologies is beyond the scope of this article, but a brief example can be drafted. As men- tioned, the ideas of HRA and ERM show basic features of and potential for a digital HR strategy.

Design thus involves further developing concepts of HRA and ERM toward the creation of a fully digital HR strategy. Another design task involves developing, evaluat- ing, and providing related technical artifacts that can realize HRA and ERM. For ERM, this realization, for instance, refers to the development of prototypes of ERM systems, which offer the collaborative, operational, and analytical functionalities that realize the concept (Strohmeier, 2013). Therefore, a starting point for design research could involve elaborating on the managerial and technical realization of such concepts. While it consti- tutes only an initial suggestion for design research, it uncovers the complexities and challenges of the third task in considering digital HRM.

Conclusion—taking the next stepAgainst the backdrop of increased yet unclear consideration in research, this article pro-vides a conceptual clarification of digital HRM and related concepts. Based on generalresearch on digital organizations, a terminology and typology of digital HRM could bedeveloped. The results suggest a perspective that is not fundamentally different from previous perspectives on technology-based HRM but that incorporates and develops the previous perspective further. A core advancement of this article lies in its introduction of the idea of a strategic integration of digital technologies

("digital HR strategy") and in its corresponding further development of the concept of the digital transformation of HRM. Moreover, the integration of the digitalization of HRM with the digitalization of organi- zations marks a conceptual step forward. Digital HRM thus constitutes a further evolu- tionary step in conceptualizing technology-based HRM. As the digitalization of HRM accelerates, the need for corresponding research efforts increases. This article provides a conceptual basis for such research and is intended to support the next step of research on technology-based HRM. To develop the typology, an implicit categorization inherent in the digitalization lit-erature over time is employed. The general literature discusses digitalization in different phases with different subsequently growing levels of digitalization (e.g. Bharadwaj et al., 2013; Coltman et al., 2015; Henderson and Venkatraman, 1993; Kahre et al., 2017).

In this discussion, the intensity of digitalization is determined by whether it supports only operational purposes or additionally different types of strategic purposes. To develop the typology, organizational operations and strategies are employed as description dimensions, which can show the values "digitalized" or "not digitalized." The application of Clarity of concepts, however, is important for different interrelated reasons. First, conceptual clarity is important to preventing a mere proliferation of concepts (Suddaby, 2010). It must be ensured that digital HRM (and related concepts) not merely represent "new designations for old phenomena." Otherwise, new concepts are just used as nyms of established concepts and most notably of the prominent concept of electronic (e-) HRM (et al., 2016; Strohmeier, 2007).

Second, conceptual clarity is necessary to avoid confusion and misunderstanding It must be ensured that human resource (HR) researchers share a common understanding that facilitates mutual communication on digital HRM. Third, conceptual clarity is necessary to avoid research deficiencies . The use of ill-defined concepts must be avoided, as they do not allow for precise and lead to disparate results of research on digital HRM. It is against this backdrop that this article aims at a conceptual clarification of digital HRM and related concepts. To do so, the article develops a terminology and typology of digital HRM. Developing a terminology constitutes an initial clarification step that offers precise and parsimonious definitions of concepts and relationships between them, in turn offering a basic understanding). Developing a typology constitutes a subsequent clarification step that offers precise and parsimonious ideal-types that order and classify phenomena related to digital HRM, further deepening their understanding 347(e.g. Doty and Glick, 1994). Together, the proposed terminology and typology the concept of digital HRM and related concepts and provide a conceptual basis for future work on the clarification—toward an understanding.

REFERENSI

Aguinis H and Lawal SO (2013): a review and research webside

Human Resource Management Review 23(1): 6–1 HR's guide to the digital transformation: ten digital economy use cases for trans-forming human resources in manufacturing.

Strategic HR Review 16(2): 66–70.H (2013) Disruptive innovation & information technology—charting a path. In: Proceedings of the 24th A conference on information systems (ACIS), Melbourne, VIC, Australia, 4–6 December 2013, pp. 1–11. Melbourne, , transformation of

HR. Strategic HR Review .web searching , Library Reference.