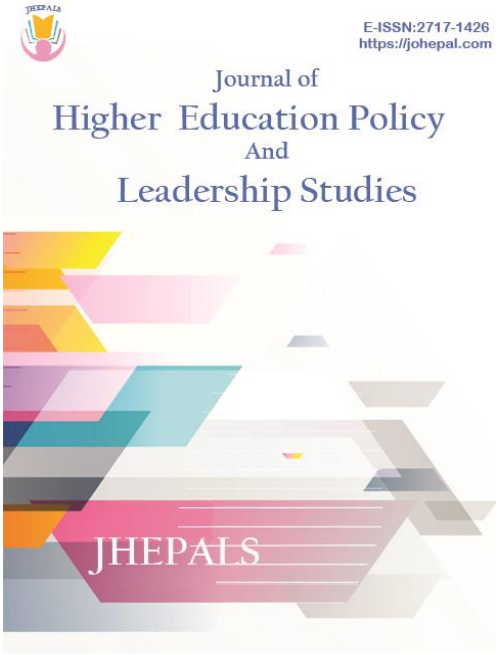
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Digital Leadership in Higher Education

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Abstract

The issue "digital leadership" in higher education (HE) is challenging in two ways: Firstly, it is unclear whether we talk about the concepts of "digital leadership" or rather those of "leadership in the digital age". Secondly, it is an urgent topic: An increasing number of higher education institutions (HEIs) are involved in permanent change processes. This leads to their managers struggling to build and implement a coherent strategy for the institutions' digital transformation processes that is also externally visible. Despite managers occupying a key role for successful change processes, surprisingly we have little research on digital transformation processes in HEIs. Whereas other research fields (e.g. management, military) can rely on a rich base of empirical research on the topic of leadership, there is a lack of research for "leadership in education". Furthermore, only a few attempts exist to date (and to the author's knowledge) that aim at identifying the dimensions of (good) HE-leadership in the light of the increasing digital pressure for change. The aim of this paper is to conduct a status quo analysis thereby undertaking a first attempt to provide a systematization of potential fields of action. HEIs should pay close attention to these fields to avoid switching back and forth between the various "trending" digital strategies. We present a possible framework for leading the digitalization in an HE context.

Keywords: Digital Leadership; Higher Education; Higher Education Institutions (HEIs); Institutions' Digital Transformation Processes; Leading the Digitalization in HE

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Introduction

The issue "digital leadership" in higher education (HE) is challenging in two ways: Firstly, it is unclear whether we talk about the concepts of "digital leadership" or rather those of "leadership in the digital age". Secondly, it is an urgent topic: An increasing number of higher education institutions (HEIs) are involved in permanent change processes. This leads to their managers struggling to build and implement a coherent strategy for the institutions' digital transformation processes that is also externally visible.

A tricky situation. It is true that strategic and managerial concepts in the context of HE have realized that only considering the individual HEIs as loosely connected subsystems of a wider system impairs the development of a clear strategy. However, the new picture of an entrepreneurial HEI that provides clear strategic management decisions is neither sufficiently elaborated on, nor are HEI members aware of it yet. Moreover, it is difficult to draw a clear line between retaining an independent science system while at the same time governmental incentives evoke needs. Although many HEIs have hit the road towards digitalization already, the approaches that serve as role models are still the pioneering ones characterized by versatile and brave pilot projects. Some of the major challenges for HEI management consist in including the HEI's personnel effectively and convincingly into change and transformational processes (Herbst, 2007). Despite managers occupying a key role for successful change processes, surprisingly little research on digital transformation processes in HEIs. Whereas other research fields (e.g. management, military) can rely on a rich base of empirical research on the topic of leadership, there is a lack of research for "leadership in education". Furthermore, only a few attempts exist to date (and to the author's knowledge) that aim at identifying the dimensions of (good) HE-leadership in the light of the increasing digital pressure for change.

The aim of this paper is to conduct a status quo analysis thereby undertaking a first attempt to provide a systematization of potential fields of action. HEIs should pay close attention to these fields to avoid switching back and forth between the various "trending" digital strategies. The remainder of this paper is organized as follows: Firstly, we want to shed some light on the term "digital leadership". Secondly, we argue that digital HEIs must establish an organizational culture and elaborate on a possible framework for leading the digitalization in an HE context. Thirdly, we present the transformational leadership concept as a model for "digital leadership".

Leadership of Digital Transformation Processes in HEIs – What is the Status Quo?

We understand leadership from a twofold perspective. On the one hand, leadership is a relational process (cf. Meindl, 1995; Northouse, 2016); on the other hand, it refers to the goal-oriented exertion of influence (cf. House, 2004; Rosenstiel, 2009; Spendlove, 2007) that serves to reach certain (organizational) goals. Leadership as a process involves individuals and their relationships within and outside of organizations.

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Digital Leadership

As such, we infer coordination, sense making and influence to be representations of leadership.[*] Berger and Luckmann (1967) describe leadership as socially constructed. Adding onto this description, Smircich and Morgan (1982) state that leadership results from employees' and managers' constructions and actions. The relationships and interactions of managers and employees shape leadership (cf. Meindl, 1995) and are a key element of organizational change (Wolverton, 1998). Parts of the literature (e.g. Waldman, 2010; Wilson, 1998; Yielder & Codling, 2004) investigate the characteristics of HEIs, their environment and the stakeholders or interest groups, which their managers need to deal with during phases of change. However, this work does not consider the special challenges that digital transformation brings along. There are two main positions:

1. HEI-managers have little influence on their HEI's transformation as they usually hold office for a limited time only (Bensimon, 1989; Birnbaum, 1992; Cohen & March, 1974).
2. HEI-managers make a difference for their HEI through their personal style, competences, their way of establishing relationships, trust building, communication practices as well as their individual way of integrating teams (Budros, 2002; Dee, et al., 2004; Eckel & Kezar, 2011).

Levin discriminates four categories of institutional change in HEIs (1998, p. 409): 1) change of the organizational paradigm, 2) change of the institutional mission or the organization's targets, 3) change of the organizational culture and 4) change of organizational processes. We want to stress that change processes directed at digital transformation require changes in all four areas. The contributions to the topic of digital leadership in HE vary largely in both ways, thematically and substantially, which demonstrates that the field of "digital leadership" is not yet fully developed nor is it clearly outlined:

1. Teachers as leaders: The target is to inform teachers on how to become "Digitals Scholars". Balwant (2016) provides an overview.
2. Course offerings: in this field the main focus is on integrating "digital content" into the HEI's already existing course portfolio, e. g. through degree programs in the area of data science or research in the field of big data.
3. Contributions to strategy development in HEIs discuss whether and how HEIs can incorporate digitalization into their strategies (e.g. Schmid & Baeßler, 2016).
4. Finally yet importantly, there are (a) few contributions that focus on how leadership of HEIs should be shaped in a digital world. Among them are recommendations on how to design managerial activities in networked, participative organizations (current state of research on "e-leadership" by Arnold & Sangra, 2018).

[*] Despite this paper's briefness, we want to define the meaning of HEI as organizations: HEIs are decentralized organizations of experts continuously involved in change processes. Chaffee (1984, p. 212) distinguishes between two functions of HEIs: The first function refers to the HEI as a single unit that pursues its own targets through coherent goal-oriented actions. The second one emphasizes the HEI's role as part of a broader network in which its members use their contacts to reach their individual goals. For Levinson (2010, 210) an HEI is a value-sharing group of scientists who come together in a place that is characterized by collegiality and serves to freely and easily exchange thoughts among peers.

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The four areas elaborated on above overlap to a certain extent. Approaches concerning changes of organizational processes (which is this paper's focus) are among the least developed in the area.

Action Framework for a New Organizational Culture aiming at Digital Transformation

A digital transformation process of HEIs shall result in new and/ or changed structures, procedures and rules for the HEI's core processes as well as in establishing commitment and acceptance for new, changed values and everyday practices (this includes actions in the fields of teaching, research, the third mission and administration). Moreover, the transformation process deals with creating new symbols and role models (cf. Figure 1). Due to the limited scope of this paper, we cannot further elaborate on the elements and dimensions above in more depth (for a detailed summary on the topic see Ehlers, 2008).

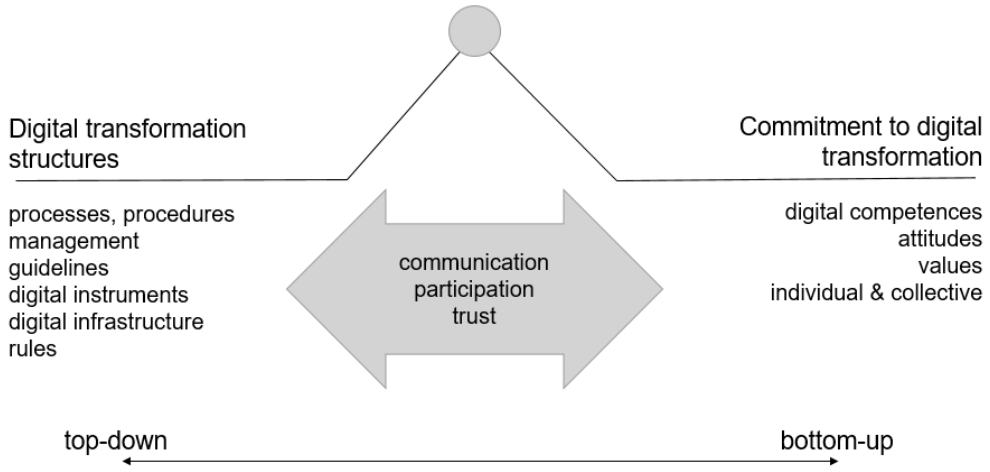


Figure 1: Higher Education Culture

The key point here is that we need to understand the digital transformation process as a far-reaching change process of organizational culture. As such, it entails structural aspects of change as well as changes on the value- and action level. Moreover, we need to pay attention to creating appropriate conversation- and participation structures, as the organization's members refer to these structures when loading the new rules, procedures and structures with collective and individual values.

To be able to digitally transform an HEI and establish a corresponding organizational culture that is characterized by new, changed, individual and collective values, it is essential to refine and develop the HEI's core dimensions and processes affected by the digital transformation. The following list provides a framework along the dimensions that are relevant for HEIs' digital transformation processes. It consists of three parts: Part 1 facilitates positioning an organization concerning its digital transformation. Part 2 describes the relevant dimensions for the creation of a

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vision and a corresponding strategy for the digital transformation. Finally, part 3 depicts the dimensions that support the emergence of a transformation culture.

Part 1: The HEI's Positioning

Leadership's action dimension

1. Usage extent of digital content and instruments for teaching purposes and for the digital student life cycle
2. The HEI has put in order binding structures and procedures to develop and use digital teaching content
3. HEI-wide exchange about digital teaching practice and the implementation of the digital student life cycle
4. Integrated digital learning architecture.

Part 2: Vision and Strategy for the Digital Transformation

Leadership's action dimension

1. HEI-wide common and shared vision for the digital transformation
2. Integration of digital transformation concepts into existing strategies and guidelines
3. Digitalization as part of the HEI's business activities and its business model
4. Allies and partnerships between digitally transforming HEIs
5. Perceived relevance of the digital architecture and the digital student life cycle in HEIs

Part 3: Implementation and Promotion of the HEI's Digital Transformation

Leadership's action dimension

1. HEI-wide integration of data protection rules, IPR, DRM and copyright rules
2. Appreciation, motivation and incentives for integrating digital media and instruments into teaching and learning processes as well as into the digital student life cycle
3. Use of digital content and instruments in teaching and learning processes
4. Forums, instruments and structures for HEI-wide exchange of experiences with integrating the digitalization into teaching and the digital student life cycle
5. Quality conceptions for digital transformation of student's experience in teaching, administration and research
6. Professionalization of teachers and employees for the digital transformation/ change management
7. Development of digital competences
8. Coaching and support for the development of digital practice in teaching and administration

Leading Change: Working as a Transformational Leader

In the previous section, we have explained the dimension's importance and provided a framework of action for HEI managers concerning their HEI's digital transformation. In this chapter, we want to investigate the most promising leadership style for a successful implementation of these dimensions. Our decision for an appropriate leadership model is based on the complex nature of the fields of action and communication demands involved in HEIs' digital transformation processes. Given that

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the manager of such a process needs to define and implement the digital transformation for his/her HEI, thereby including all the stakeholders and building a sustainable structure, we chose the transformational leadership approach (TFA) that will be presented shortly. The concept includes above all management competences such as knowledge management, sense making along with delegation and cooperation competences. TFA is considered a highly effective leadership style for most diverse fields – including the HEI context (Bryman, 2007; Peus, Braun, Weisweiler, & Frey, 2010). Moreover and in line with what Köhn (2010) suggests, we argue that TFA is especially suitable for such demands that require the organization's development from a stable into a flexible entity (p. 12).

Burns (1978), who is considered as the father of TFA, describes in his early work how leadership can serve to achieve a successful realization of organizational change in a dynamic context (Bass & Bass, 2008, Bass & Riggio, 2006, Goleman, Boyatzis, & McKee, 2012). Eisenbach, Watson and Pillai (1999) argue that TFA successfully supports change processes because of the transformational leader's role: (S)he is the creative force behind the process, calls attention to the results of change, demands common standards and is able to reduce resistance to change by taking care of his/ her employees' individual concerns. Following Northouse's definition, TFA is a process through which managers develop a connection to their employees that increases the motivation and morality level of both, the manager and the employee (Bass, 1985; Stempel, Rigotti, & Mohr, 2015). Furthermore, transformational managers focus on public interest and everyone's self-actualization. Spinosa refers to this as a posture of leading for "perfection of other's existence" (Dion, 2012, p. 19).

To conclude, we have seen that TFA offers a solid framework for action that allows for implementing the aspects of digital leadership. As TFA focusses on communication and participation especially – two aspects that are vital for transforming HEI culture in a digital world – the approach is well suited to guide digital transformation processes in HEIs.

Conclusion

This paper emphasizes the fact that there is no need to develop a new concept of leadership to foster HEIs' digital transformation. The literature review yielded TFA to be a proven leadership conception in the discussed context. However, we have seen that for leading digital transformation in an HE context, we need to pay attention to the HEI-specific fields of action. The main target is to develop a different HEI culture. Such culture encompasses new structures that are in line with the new and changed framework while at the same time focusing on the re-organization of values, daily routines and forms of communication. Digital transformation processes challenge HEIs as a professional way of management practice – in the sense of transformational leadership – is still developing.

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