

Agile Strategy Development – Handling different speeds in digital transformation with participatory methods

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Abstract

The digital transformation in Higher Education Institutions (HEI) has shown ambivalent trends: Long-term strategies are overestimated and a digital strategy document is outdated the day the Academic Senate has approved it. At the same time, there is a need for strategic planning and development of ICT infrastructures for teaching and learning, research and transfer as well as administration provide reliable, functioning systems which comply to standards of information security and regulations of privacy. We can observe “different speeds” of development across the organization and between HEIs. We identified three categories to explain the different speeds: (1) constitutive for HEI in general: depending on the variety of subject fields, differences between research, teaching and learning and administration, loosely coupled systems with high autonomy (2) relative to the observed HEI: every HEI copes differently according to its inner structures and processes (3) situative to external changes: most dominant is the reaction to COVID-19 pandemic, but also to different speeds in inter-university collaborations like the European University Networks (EUN).

One approach to cope with changing environments and to keep internal structures and processes up to date, is to follow agile principles. We will present the agile strategic development process at the University of Bremen, a mid-size (20,000 students) and full range HEI (except medicine) which is partner of the EUN of YUFE (“Young Universities for the Future of Europe”). The process design differs significantly from the typical top-down strategy development. We wanted to include all stakeholders of the University, particularly initiate a discussion between the pillars of academics and administration, with a special focus on students, leaving no one behind, and offer arenas of participation. As the main feature of agile strategy development is the strive for continuous improvement, we designed feedback cycles on the different levels.

1 Extended abstract

The digital transformation in Higher Education Institutions (HEI) has shown ambivalent trends: Long-term strategies are overestimated and a digital strategy document is outdated the day the Academic Senate has approved it. At the same time, there is a need for strategic planning and development of ICT infrastructures for teaching and learning, research and transfer as well as administration to provide reliable, functioning systems which comply to standards of information security and regulations of privacy. We can observe “different speeds” (Kerres & Getto, 2018) of development across the organization and between HEIs. Based on a systematic literature review, we identified three categories to explain the different speeds. The speed of transformation is: (1) constitutive for HEI in general, (2) relative to the observed HEI and (3) situative to external changes.

(1) HEI are usually constituted by a manifold of subject fields (organized in departments and/or faculties) with different levels of adoption of digital technologies. Secondly, the core areas teaching and learning, research and administration differ significantly regarding their reaction to change. While change is the dominant paradigm in research, teaching and learning had to react quickly to external influences as the COVID-19 pandemic or new funding schemes of the federal government. The restructuring of the administrative processes takes longer, the resistance to change is higher. And finally, the HEI’s governance can be characterised as what Weick (1976) described as “loosely coupled systems”, i.e. decentralized organisations with high autonomy of faculties and departments and their own ideosyncrasies.

(2) The different speeds also relate to the inner institutional specialities of each HEI. Digital transformation was traditionally underestimated by university leadership in Germany. The result are limited strategic capabilities, weak coordination, missing goals and objectives, fragmented structures and unconnected processes. In order to understand how HEI cope with change, we also need to search for institution-specific reasons.

(3) HEI react differently to unknown and unpredictable changes of the environment. During the COVID-19 pandemic, ad hoc decisions dominated over long-term planning. Established processes had to be abolished and re-invented. Another external trigger are international collaborations. With the new EU funding scheme of European University Initiative, the HEI network partners had to adjust their core processes to the most advanced partner. They set the speed of change along all aspects of HEI, particularly for teaching and learning, for credit point transfer and other administrative processes.

One approach to cope with ever changing environments and to keep internal structures and processes up to date, is to follow agile principles. Once invented in the software industry (agile manifesto), agility has become a core element in business (Lyngso, 2014) and regarded as the next frontier in strategy development (Denning, 2017).

The starting position at the University of Bremen met all three categories of the above characteristics of speed in order to develop a digital transformation strategy: As a full-range university with 20,000 students, the University offers a broad spectrum of subjects (excluding medicine). During a strategic development process, one strategic goal was defined to achieve holistic digitization, i.e., one that covers and links the dimensions of research, learning and teaching, and administration. For its size, the University consists of a high number of departments/faculties. They have a relatively high autonomy which coincides with a weak coordination performance. And the University is currently not only driven in its digital transformation by the COVID-19 pandemic but also by its European partner universities in the YUFE network (“Young Universities for the Future of Europe”).

Hence, at the University of Bremen, we designed a new agile process for our “digitalization strategy”. It is rooted on the institutional strategy 2018-2028, which was widely discussed and

negotiated in the institution including online consultation and approved by the Academic Senate. One core field is “digital transformation”. Its implementation and management is directed by the leadership of the University. The process design differs significantly from the typical top-down strategy development. We wanted to include all stakeholders of the University, particularly initiate a discussion between the pillars of academics and administration, with a special focus on students, leaving no one behind, and offer a variety of arenas of participation. As the main feature of agile strategy development is the strive for continuous improvement, we designed feedback cycles on the different levels.

The paper describes the experiences on the meta-level of the overall processes as well as the concrete results in implementing the strategy in co-creation with the stakeholders. It will present the core elements of the agile strategy development process, and its results. We will show empirical evidence of the participatory design of the action program and first insights to the change of governance.

References

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2 Author biographies

Dr. Achim Wiesner is head of the Staff Unit for Strategic Initiatives (Stabsstelle Strategische Projekte und Exzellenz – SPE) at the University of Bremen/Germany. The Unit provides impulses for strategic development and designs strategy and change processes – most recently in developing a strategy for digital transformation. 2010–2015 he was Head of the Unit "Research Services" at the University of Bremen. In this function, he played a critical role in drafting the successful proposal for the "Ambitious and agile" Institutional Strategy that was successful in the German Excellence Initiative. Prior to his work in science management, Achim Wiesner taught and researched as a political scientist at the universities of Hamburg, Duisburg-Essen and Bremen; he studied in Hamburg and Amsterdam. His PhD thesis was on negotiations and decision-making in higher education in the federal system of Germany. He was a founding member of the “Netzwerk Wissenschaftsmanagement” (the German Science Management Network). At the Center for Science and Research Management (Zentrum für Wissenschaftsmanagement in Speyer) he has been teaching "Strategy in Science and Research Institutions" since 2010.

Inga Brandes is head of university strategy and planning at Kiel University. Prior to this, she worked as science manager in the Staff Unit for Strategic Initiatives at the University of Bremen and in the Department of University Development at the FernUniversität in Hagen - Germany's only public distance-learning university.

Before that she worked as a historian and project manager in the CRC 600 "Strangers and Poor People" at the University of Trier and contributed to the development of the first subject-differentiated virtual research environment for the historical sciences: the Research Network and Database System (FuD). She has a longstanding interest in how to deal with the forces of digital transformation in science and at universities in pioneering and creative ways.

Dr. Andreas Breiter is professor for information management and educational technologies in the department of mathematics and informatics at the University of Bremen and director of the Institute for Information Management (ifib), a non-profit research center. He is currently Chief Digital Officer of the University of Bremen. From 2015-2020 he was Vice President for Research. His research interests lie primarily in the area of ICT and organizational change in educational institutions (from K-12 to higher and vocational education). This includes questions around technology acceptance, organizational development, ICT and media literacy, design of educational information systems, learning analytics and knowledge management. He studied Sociology, Computer Science and Law at the Goethe University in Frankfurt/Main and worked at the Fraunhofer Institute for Systems and Innovation Management in Karlsruhe. He received his PhD in Informatics from the University of Bremen in 2000.