Cultural Change in Digital Transformation within Higher Education

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1. SUMMARY

The role of information technology within higher education is changing radically with the progress of digital transformation. This implies significant changes in several areas. The focus has typically been in the business change, in the processes, and in the new technology. However, cultural aspects have recently been identified as the most important road blocker for organisations to take digital transformation forward. Recently, we have seen how significant external events, such as the Covid-19 pandemic, can accelerate and redirect change at the cultural level.

This paper investigates selected aspects of cultural change required by digital transformation and examines them in the context of the Higher Education sector. We will present a simple framework that allows institutions to find the best approach for addressing cultural change when implementing digital transformation.

2. THE NEED FOR A CULTURAL CHANGE

Digital technology is affecting all aspects of the organisation. The most obvious changes take place within technology and in the processes using them. Typically, automation and self-service are being applied to areas where manual processes have traditionally been in use. This work has usually focused on the back end of the business, leaving the forefront unchanged. When the use of technology extends to the customer-facing part of the business, this typically results in disruptions and radical changes in the business itself.

It has been observed that the above changes can only reach their full potential if also the culture of the organisation changes to support the new role of technology. In a study by McKinsey, cultural and behavioural challenges have been identified as the most significant challenge to meeting digital priorities (Goran et al, 2017). This evolution of digital transformation is illustrated in Figure 1.

Layer		Primary goal
Culture		Maximising benefits
Business		Front-end improvements
Processes		Back-end improvements
Technology		Cost efficiency

Figure 1. Evolution of Digital Transformation through layers of impact.

3. KEY ELEMENTS FOR CULTURAL CHANGE IN HIGHER EDUCTION

In higher education, we have identified the following seven cultural items to be at the core of the required change:

- *Focus on the customer*. In the past, organisations have been optimising their operations from the delivery perspective and this has often left the customer bridging the gap between different parts of the service process. In higher education, this manifests itself through the

number of separate student support functions that are not working together in an optimal way. With digital tools, the processes can be changed to provide a smooth end-to-end process and a seamless student experience.

- *Digital first*. The traditional model for service design has been to first build manual processes and then upgrade them into the digital world. This often introduces unnecessary steps in the process and limitations in flexibility. Turning this the other way around and designing the digital version first will allow organisations to create future-proof processes while still maintaining the possibility to introduce manual interventions wherever needed.
- *Calculated risk taking*. The higher education sector has traditionally been risk-averse in its decision making, and this has introduced several controls, such as yearly planning rounds, budgetary controls, and complex governance models. To be able to survive in a rapidly changing business environment new approaches, such as "failing fast" will be essential and this will in turn change the current practices.
- *Agility*. To be able to survive and thrive in a fast-changing digital environment, organisations need to be flexible and agile in their development activities. This way, they can adopt to changing requirements and use learnings obtained during the development work. As a result, the outcome will be better aligned with business requirements and user needs.
- *Open innovation*. Accessing and exploiting outside knowledge while allowing internal experts to interact with the external world will be critical for keeping up with the rest of the world. Higher education has been strong in this area amongst the sector itself but there has been a lack of exchange between the HE community and other business sectors.
- *Breaking silos*. To be able to exploit the full benefits of digital technology, cross-organisational processes are critical for the success of the organisation. This in turn requires working across silos and using cross-functional teams to create and support truly customer-centric services.
- *Data at the core*. To support fact-based decision making at all levels of the organisation, there is a need to have a consistent and holistic view of the organisation's information resources. In higher education, the focus of data management has been on statutory reporting and operational activities. Consequently, there is typically a need to change the full flow of data from the source all the way to the decision-making process.

4. CONCEPTUAL FRAMEWORK OF CULTURAL CHANGE ELEMENTS

Based on the observations in the previous section, we can identify interdependencies between the different core cultural items to address digital transformation. To provide a full image, it is useful to indicate business challenges that are linked to the above cultural items. In our analysis, we are using the following typical challenges: (1) Student/staff dissatisfaction, (2) Slow pace of change, (3) Inefficient organisation, (4) Inefficient decision-making, and (5) addressing significant external events, such as the Covid-19 outbreak. The result is illustrated in Figure 2.
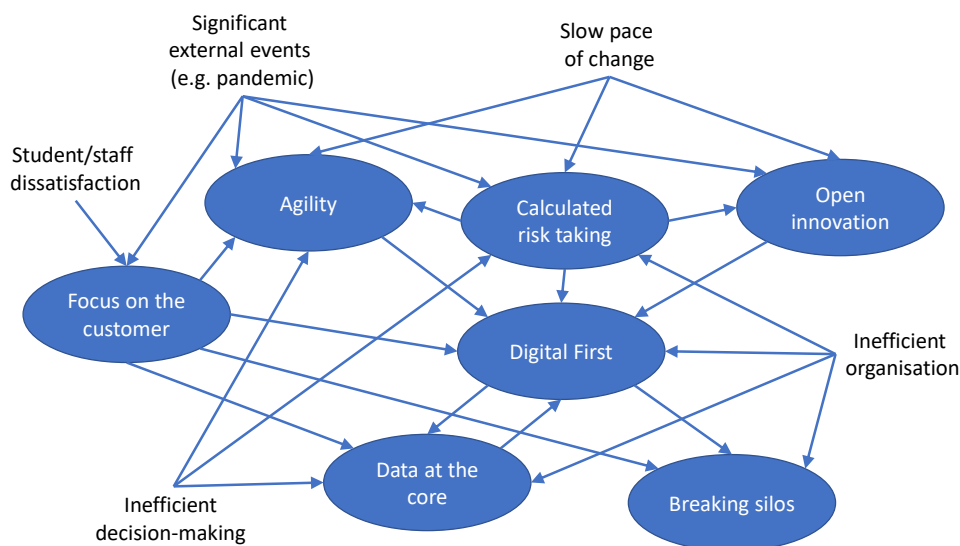

Figure 2. Framework of cultural change elements and related business challenges.

The full paper will analyse the dependencies of the above diagram and will provide a simple framework for institutions to address their own challenges in their journey to the digital future.

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Pekka Kähkipuro is Chief Information Officer at Brunel University London since 2016. He is heading the Information Services Directorate responsible for ICT, Media, and Library services. Prior to joining Brunel, Pekka was Director of IT at Aalto University in Finland in 2010-2016 and, before that, he held various senior roles in the private sector including Nokia. He has been EUNIS board member on two occasions (2011-2015, 2018 onwards) and President in 2015. Pekka obtained his Ph.D. in computer science from the University of Helsinki in 2000.