Digital transformation of higher education: Challenges and opportunities

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Abstract
Digital transformation of higher education is considered as one of the most important phenomenon in the public sector. Many higher education institutions with potential for digital transformation of higher education come forth for the implementation of knowledge. Many universities and schools developed digitization strategies and new kinds of offerings for their traditional target groups and for new, non-traditional target groups. However, digitization and digital strategies often are limited to digitizing the content of lectures and to opening access to education modules by offering them online. The present paper aims to discuss the opportunities in digital transformation of higher education.

Keywords: Digital transformation, higher education, opportunities and challenges.

Introduction
Digital transformation describes the shift from traditional creation and delivery of knowledge to the massive use of digital technologies which enhance the learning experiences. Many higher education institutions developed digitization strategies and new kinds of offerings for their traditional target groups and for new, non-traditional target groups. However, digitization and digital strategies often are limited to digitizing the content of lectures and opening access to education modules by offering them online. As our government has initiated teaching through MOOC through SWAYAM platform for giving digitalized education, enabling education for everybody (Kanjila and Kaul, 2016) [1]. It is opening new ways of gaining education right from k12 level to not only upto higher education but also many refresher and other training courses for the professionals already teaching in higher education.

The growing development of MOOCs affects the whole structure of lessons. Competition between lectures will therefore be international and we imagine that the existence of an excellent online course on a particular area will actually be different from traditional lectures developed in each institution. In other words, the lectures will be supported by a smaller population of highly qualified professors (from IITs, IIMs and central universities) who will each have a much larger audience. The role of teachers will evolve into tutors and facilitators whose central role is to verify and support the growing competencies, to guide learners to good online resources, and to organize the implementation of knowledge.

MOOC platforms support for collaborative learning and peer learning in distributed student groups who cannot attend on-campus teaching modules but are geographically distributed. The service transformation paths are also affected as arranging online modules, online examination procedures and modified workflows for issuing certificates will be needed. In the data architecture, one of the important changes is the more intense use of digital content and the integration of different media types with administrative course and student data (Sandkuhl & Lehmann, 2017) [4].
Licka & Gautschi (2017)\(^{[2]}\) reported that digitalization is an instrument of institutional structural and functional progress and as a means to enhance its image. It reflects innovation in shaping institution’s current and future processes and structures. It requires higher education institutions to be flexible and dynamic in handling projects on online courses and simplifying decision-making processes. The institution can enhance its ability to digitalize the content and lectures in a more targeted manner. Enabling digitalisation processes together with targeted change management enables adequate involvement of the people by minimising any resistance and increases acceptance of digitalisation efforts. Further, it is important to focus on staff training in accordance with digitalisation requirements.

**Challenges and Opportunities**
The digital transformation of higher education impacts both individual level and on system level. The various governmental initiatives have been launched and initiated. The individual impact is reported as the learners increased conceptual understanding of the phenomenon and their empowerment through education. The awareness of taking online education or training is increased in past few years in India. The digital implementation of knowledge has changed the lives of many students. There are many opportunities as well as challenges in imparting education through digitalization of higher education. Digitalized environment is deeply transformed environments both for the learners as well as teachers. Digitalization of education has also blurred the borders that were previously defined by students and teachers being present in the same location at the same time. There are several opportunities of digitalization of higher education. If students use more and more technology, learning analytics might show great potential in supporting students individually in their learning. Computer-based feedback can be provided by the teachers in case the strength of learners in a particular course is very high.

In digitalized environment, learners experience immediate forms of access to knowledge that challenge the role of the teacher as a transmitter of knowledge, all the assertions of a teacher can be controlled and sourced by students. Facing the abundance of resources on the Web, the teacher is immediately placed in a network of evaluation and comparison that goes beyond the comparison between teachers of an institution. In addition, students find online a number of exceptional resources: lectures, exercises and assignments already completed without having to think. Thus, the immediacy of access to knowledge requires to rethink the type of learning exercises that is given to do. The transformation of practices of new generation heavily involved in a screen culture of navigation, and multi-tasking, make obsolete the classical position of actively listening to the teacher (Roussel, 2014)\(^{[3]}\).

From the teacher’s perspective, he/she might feel decline in authority as he/she is no longer the sole possessor of knowledge. There is some resistance to technology in the teaching profession because of two sole reasons first, due to the lack in required ICT skills for imparting online education and for some others the uncertainty of its usefulness, and secondly due to the paradoxical situation that makes teachers face students who are more seems to be competent, in the use of new technologies.

The challenge in implementing an online course is a significant dropout rate throughout the duration of course. Learners mostly join an online course with the attitude to the “get certified” objective, and the learner may encounter obstacles during the course, such as the “watch video”, “read study materials”, “assessments” and “quiz exercises”. From the early analyses of completion rates of online courses, it has been shown that a learner’s objectives and achievements depends upon his/her time constraints.

The digitalization processes are shaping the future of higher education. Higher education institutions therefore have a strong interest in shaping the digital transformation. The transition will also bring structural and cultural changes and offer many opportunities and options such as expandability and access to mass audience for higher education institutions. There is urgent need of action to fill the gap between use and potential of this digitalization phenomenon. It is a challenging task for higher education institutions to explore the quick solutions for digital changes. The is further need for holistic evaluation and commitment of many stakeholder in order to succeed.

**Conclusion**
In order to conduct successful digital transformation of higher education, recruiting qualified personnel is indispensable. Also, the ICT skills training of existing personnel are very much required. Irrespective of the any subject field of higher education, personnel must be equipped to interact with younger generation learners, deliver online lectures, develop e- contents and work with digital solutions. It is a process of ongoing development that further shapes the structures and processes of higher education institutions in coming years.

**References**