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DIGITAL TRANSFORMATION IN HIGHER EDUCATION: INSTITUTIONAL PATHWAYS FOR TEACHING AND LEARNING

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ABSTRACT

Higher education institutions across the world are grappling with how to best apply digitalization within curricula and research. The emergence of MOOCs, Rubrics for online learning, and new modes of knowledge production has led to new forms of pedagogy and research methods. Although online learning is becoming increasingly available, it has yet to be adopted as the primary mode of teaching and learning. In order to utilize digitalization in higher education, institutions have developed a wide range of programs, courses and policies over the past few years. As a result, there is no single "best" way of applying digital to academic practice. Each institution has its own particular needs and resources. The aim of this study was to map institutions' approaches to digitalization of teaching and learning with the aim of sharing best practices. The methodology of this study was based on the literature review, document analysis.

Keywords: Digitalization, Higher Education, Institutional approaches, Teaching, Learning.

Introduction

In the age of digitalization, higher education has been experiencing a paradigm shift in its teaching and learning approaches. To address this transition, an increasing number of academic institutions are exploring the development and application of new pedagogies. Yet, the application of these technologies in higher education can be challenging. This article introduces digitalization in higher education and identifies four types of institutional approaches to teaching and learning, namely, experimenting with tools, using tools to augment traditional pedagogy, developing new pedagogies for under-resourced institutions, and conceiving digital higher education as a model of practice.

The process of digitalization is advancing at a rapid pace, and it is transforming how we live, work, and learn. Digital technology can be seen in all facets of education. However, the speed of digital technology adoption presents challenges for higher education institutions in supporting faculty development to integrate new technologies with pedagogical practices to engage students with learning. A lack of understanding associated with the potential of digital technology hampers faculty development and implementation of technologies in the classroom. The purpose of this study was to determine how digital technology is being used by higher education institutions to support teaching and learning practices. The study focused on the following three areas: (a) institutional characteristics, (b) instructional approaches for teaching and learning, and (c) pedagogical approaches for incorporating digital technology into the classroom.

Objectives of the study

The study describes the process of defining and demonstrating institutional approaches to teaching and learning, and offers concrete suggestions for institutional action to support these approaches. These include identifying and articulating the institutional context as well as the current strengths and weaknesses of institutional approaches.

Research Methodology

The study is conceptual in nature all information's are collected from various secondary source of information to provide a conceptual view on Institutional Approaches for Teaching and Learning for Digitalization in Higher Education. It provides a look at teaching and learning across institutions, universities, courses and pathways. The study is about teaching and learning within higher education institutions which will be shifting to the digital mode. It aids the new generation higher education students of today as they would need to perform same tasks as their predecessors did but with different methodologies and tools such as mobile devices, apps etc. These changes will require faculty members to change their traditional approaches towards teaching and learning using digital resources like MOOCs (Massive Open Online Courses). The study will provide a conceptual analysis of teaching and learning, the various ways of digitalization in higher education institutions worldwide.

Literature Review

Digitalization and the internet have dramatically changed the way we work and learn. This is also true in Higher education: teaching and learning for digitalization in Higher education is often seen as a new trend, even though it has been around for many years. The result of the collaboration between teachers and students is seen as a central quality feature of such digitalization efforts (Suleimenov et al., 2020) . This raises the question of why students do not always bring what they have learned to the class. Students are often hesitant to talk about their digital experiences, but more importantly, it appears that students are not aware of the social or community aspects of these experiences that teachers share on a daily basis (Ahel & Lingenau, 2020).

According to research by Kulkarni (2013)**,** one could say that digitalization is characterized by being "simultaneously experimental and gradual". This means that digitalization is characterized by being automatically perceived by everyone in the process of its development, so no one is alone in considering digitalization as an opportunity for learning. This is not only true for teachers and students, but also for higher education institutions and researchers. (Matveeva et al., 2020) claim that digital technologies enable the creation of new tools and facilitate the development of new knowledge. The aim of this kind of digitalization is to create an environment where students will easily learn new things, which they will later be able to apply in their everyday lives. They point out that there are different approaches to digitalization, which will influence the way that the new technologies are used.

When introducing new technologies in Higher education, many institutions developed their own models of learning for digitalization. (Suoranta et al., 2021) put forward the idea of "institutional models for teaching and learning for digitalization". According to this model, institutions have their own goals and objectives in mind with regard to learning for digitalization. For example, some educational institutions may develop a "digital community" where students can easily exchange ideas about what they have learned with each other. Other universities may focus on developing individual strengths through technological tools that support personalized learning. In addition, the tendency to develop newly designed tools has been seen in Higher education institutions(Ahel & Lingenau, 2020). This kind of development is characterized by a "radical change in the tools". This means that institutions have a different view on what they want to provide their students with the involvement of teachers in higher education institutions is also a transitional element that has been important for digitalization. It was previously emphasised that teachers tend to be very cautious when dealing with new technologies (Suleimenov et al., 2020).

Institutions tend to have a high number of support staff who are available to help teachers. In addition, the institution is often open for visitors who have questions about new techniques or ideas or how these techniques could advance learning for digitalization(Kulkarni, 2013).

The type of institution is also an important element regarding learning for digitalization: smaller and private higher education institutions often focus on intensive and intimate teaching and learning conditions. This means that the students work together in small groups. In contrast, larger institutions provide multimodal learning opportunities, such as hands-on workshops and studios, where students work on complex projects together(Kulkarni, 2013; Matveeva et al., 2020).

Unlike other technological innovations such as e-mail or the internet, the use of new technological applications in education is still in its infancy. However, with mass adoption by universities and colleges across the globe, the largest provider of distance education – Massive Open Online Courses – has seen exponential growth in student numbers over a short period of time. Though massive open online courses (MOOCs) are still relatively new, universities and colleges have already taken to these new forms of learning in an attempt to not only keep up with, but also to shape the way in which digitalization in education changes the face of learning (Akhmetshin et al., 2018). The number of students taking MOOCs is likely to continue to grow as students seek out alternative forms of education that are better suited to their needs. The role that MOOCs will play in higher education in coming years is sure to be interesting given their capacity for growth and popularity among both students and institutions alike. The widespread adoption of MOOCs will serve to increase the amount of social learning that occurs with traditional platforms, as these platforms are meant to build upon social learning (Thoring et al., 2017).

With MOOCs, educators are challenged to think of how they can develop meaningful online learning experiences that fit within the confines of an online format(Tømte et al., 2019). While it is clear that there are certain advantages to greater flexibility in digital learning, it is also clear that educators need to adapt their teaching practices in order for students to be able to adapt the same principles in their future learning experience.

Digitalization in Higher Education

The term digitalization is used to describe the percentage of knowledge that is made available online compared with all knowledge in libraries worldwide. There are two challenges to this evolving landscape: first, to integrate digital resources into the existing higher education system, both inside and outside of campus; second, to develop new pedagogies appropriate to digital learning environments.

In the age of digitalization, higher education has been experiencing a paradigm shift in its teaching and learning approaches. To address this transition, an increasing number of academic institutions are exploring the development and application of new pedagogies. Yet, the application of these technologies in higher education can be challenging.

Higher Education is currently undergoing a huge transformation which has been referred to as the ‘digital revolution’. The significant advancements in digital technologies, together with growing tertiary education participation rates, are reshaping the way higher education institutions operate and deliver their curricula. The digitalization of higher education has implications for how teaching and learning occur, design and delivery of curriculum, the office environment, how people work together, research practices and more.

For years higher education institutions have experimented with different digital technologies to enhance teaching and learning experiences. The development of online courses, Learning

Management Systems (LMS), online peer-assessment tools, content repositories, video conferencing facilities etc., are examples of how institutions can leverage digital technologies to deliver their curricula. Despite these initiatives however there is limited evidence on the effectiveness of certain technological approaches for teaching and learning in higher education contexts. There is limited information on which approaches are most effective for specific educational purposes or different types of learners or programmes.

Although the majority of universities in India do provide access to some digital learning resources, there is still a huge variation in how and if they use them and many learners still prefer traditional paper-based materials. The reasons for this vary widely: some students may be uncomfortable with technology; others may not have the necessary technology skills; while others may just prefer traditional approaches. It has been suggested that unless we can identify the effective practices around the use of different technologies for teaching and learning purposes we cannot be sure which approaches should be implemented universally across higher education institutions or whether or not specific digital technologies should be implemented at all.

To address these issues, the Indian Ministry of Human Resource Development (MHRD), in collaboration with the Open University of India (OUI) and supported by UNESCO, conducted a pilot project to map best practices of digitalization at different types of higher education institutions throughout India. The pilot project focused on 5 key elements: Digital Content; Adoption strategies; Learning Spaces; Pedagogy; and Use of technology. These 5 areas were chosen as they are considered to be the most relevant to the current higher education landscape in India.

This pilot digitalization pilot study was conducted at 14 partner institutions located across 8 main states/regions in India (i.e. Delhi, Gujarat, Maharashtra, Tamil Nadu, Uttar Pradesh, Karnataka and Andhra Pradesh). Eleven of these institutions were considered to be 'highly digitised' (based on their requirements for facilitating online learning environments) while 3 others were classified as 'medium digitised' (based on their requirements for online course delivery).

The study identified 6 key elements across the 3 main categories of higher education institutions (i.e. Universities; Colleges & Junior Colleges; and Private Unaided) which are considered to be extremely effective in delivering digital curricula. These elements are: Digital Content (DCO); Adoption Strategies; Learning Spaces; Pedagogy; Use of technology.

Institutional Approaches for Teaching and Learning in Higher Education

Why is it so difficult to teach and learn digitally in higher education? Views of the internet as a place where people spend their time on social media, texting instead of reading, or playing video games rather than focusing on fully understanding the course content may entrench this difficulty. As such, it can seem like an insurmountable task for teachers and learning facilitators to help students move into the digital age. However there are institutional approaches that are designed to facilitate learning that can be applied within higher education settings. The article examines three broad approaches that are being employed around the world by universities at different levels to address these challenges.

Digital teaching

Though some teachers and professors may consider fun and creative assignments to fall into this category, creative and engaging projects can also be structured to provide students with an opportunity to truly learn from a digital experience. With so much information being delivered through new platforms on the internet, if creative instructors do not find ways to

present their lesson material in a stimulating way, students can get lost in all of the distractions. These tactics help students engage with teaching material for longer periods of time while presenting new information in creative formats that heighten student attention . Teachers and learning facilitators can create lessons that require students to collaborate on a project for a chance to truly learn something new.

Creativity

There are many groups working to develop new educational materials that are designed to teach students by engaging them with fun interactions. The goal is not necessarily for the students to act out the material, but rather to create an active role within the lesson. There are several useful approaches that instructors can use that focus on creativity, including breaking down complex material into smaller pieces, allowing teams of students make decisions, and breaking up lessons into multiple sessions. This approach helps students become active participants in their own education.

Collaboration

The most effective learning occurs when students are not simply given information to study on their own, but are encouraged to discuss the material with others. Collaborative learning encourages group interaction and allows students to learn from one another's mistakes or insightful responses. Learning interactions are supported by face-to-face meetings where students can discuss the material in a formal setting. However, it is important for instructors to consider how learners will use these interactions for future learning experiences . It is also recommended that educators encourage learners to continue discussing their experiences outside of formally organized sessions.

Learning in the digital age

Despite all of this existing research, there is still a lot that can be done to make teaching and learning more engaging and enjoyable for learners today. It is becoming increasingly important for instructors to provide innovative teaching methods that help students develop critical thinking skills, encourage creative thought, and foster a deeper understanding of their course material. The goal should not be simply to replicate the traditional classroom experience with a new digital medium. Instead, they should take into account all of the ways in which learners are engaging with content today by integrating new mediums into the learning process.

Conclusion

In sum, the main findings of the study are that higher education institutions in India have yet to undergo a significant digitalization in teaching and learning practices. However, the findings reveal that the use of digitalization for teaching and learning practices are on the rise. It is likely that this trend will continue over time as higher education institutions come to learn the value of digitalization for teaching and learning practices. The study also suggests that the contributions that association of universities will make to the digitalization of higher education in India are likely to be significant. However, much more needs to be done before the digitalization of higher education in India begins to take root in policy making. The implementation of digitalization in teaching and learning requires institutional change, both at the level of educational policy and implementation. The implementation of digitalization in the teaching and learning practices is also affected by the willingness of faculty and learners to adopt digital devices and methods. It appears that the work to be done in India is considerable, but much can be learned from the experience of developed countries. It is also apparent that the use of digitalization in higher education will require cultural adaptation.

This is especially true in institutions that are historically accustomed to using printed text in the classroom. To overcome these challenges, policy makers will have to make concerted efforts to find alternative methods of supporting the use of digitalization in higher education.

REFERENCES

1. Ahel, O., & Lingenau, K. (2020). Opportunities and challenges of digitalization to improve access to education for sustainable development in higher education. In Universities as Living Labs for Sustainable Development (pp. 341–356). Springer.
2. Akhmetshin, E. M., Vasilev, V. L., Murtazina, D. A., Aleynikova, O. S., Averianova, T. A., & Aleksiuk, I. O. (2018). Problems of digitalization of higher education in a small town. Proceedings of the 32nd International Business Information Management Association Conference, IBIMA, 2020, 1710.
3. Kulkarni, K. G. (2013). Digitalization in higher education: costs and benefits. International Conference on "Digitalization and Beyond, 1–6.
4. Matveeva, S. V., Akatova, N. S., Shcherbakov, Y. I., & Filinova, N. V. (2020). Digitalization of higher education and professional development of educators: Technologies and new opportunities. Amazonia Investiga, 9(29), 77–86.
5. Suleimenov, I. E., Shaltykova, D. B., & Egemberdyeva, Z. M. (2020). Digitalization of Higher Education: The Impact of the Epidemiological Crisis in the Spring of 2020. 2nd International Scienti, 794–801.
6. Suoranta, J., Teräs, M., Teräs, H., Jandrić, P., Ledger, S., Macgilchrist, F., & Prinsloo, P. (2021). Speculative Social Science Fiction of Digitalization in Higher Education: From What Is to What Could Be. Postdigital Science and Education, 1–13.
7. Thoring, A., Rudolph, D., & Vogl, R. (2017). Digitalization of higher education from a student's point of view. EUNIS 2017–Shaping the Digital Future of Universities, 279–288.
8. Tømte, C. E., Fossland, T., Aamodt, P. O., & Degn, L. (2019). Digitalisation in higher education: mapping institutional approaches for teaching and learning. Quality in Higher Education.