

## **SOME ATTENTION REQUIRING ISSUES IN DIGITAL TRANSFORMATION AT SAO DO UNIVERSITY**

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For education in general and higher education in particular, digital transformation offers the opportunity to apply technology to create rapid changes in models, the ways to organize as well as teaching and learning methods. In recent years, Sao Do university has paid much attention to this issue with the purpose of improving quality of education and training. In scope of this paper, I would like to mention to definition of Digital Transformation, Advantages of Digital Transformation in education and training, Digital Transformation in higher education institutions in general and Sao Do University in particular, Conditions to ensure digital transformation and Some solutions to promote digital transformation at Sao Do university.

### **1. What is Digital Transformation?**

Digital Transformation is the use of data and digital technology to generally and comprehensively change lifestyle, working ways, as well as management and organizing methods of individuals and incorporations. In other words, digital transformation is the process of changing from a traditional model to a digital model applying new technologies such as Big Data, the Internet of Things (IoT), Cloud Computing, and technology software to alter management, administration methods; working methods and process as well as organizational culture. The development process of digital transformation includes Digitization, which is the conversion of real information into digital form for easier storage, search, and sharing; Applying digital to business processes, and using software to make operations simpler and more efficient. Digital Transformation is the use of technologies like Artificial Intelligence (AI), Big Data, and IoT... to collect, process and analyze data comprehensively and thoroughly, thereby leading to the changes in models and the ways the organizations operate.

### **2. Advantages of Digital Transformation in education and training**

Improve the quality of education: Today, technological achievements like IoT (Internet of Things) help strengthen management and supervision in educational institutions, and monitor learners' behaviors. For example, Big Data technology helps analyze students' learning behaviors so that the teachers can support and give appropriate advice if needed or Blockchain helps build a system to manage information and education records of learners, allowing them to consolidate, manage and share data from many schools as well as record learning history, transcripts of learners to ensure data information is uniform and transparent.

Increase interactivity, and practicality: For instance, we use Virtual Reality (VR), Augmented Reality (AR) in education to create virtual laboratories, virtual reality

models that can interact with users, AR books, Blippar software that teaches space science, and so on. These all help learners have multi-sensory experiences, understand and remember easily, as well as enhance curiosity and excitement for them. In addition, they also help students increase interaction, practice, and application of knowledge right in the classroom.

Create flexible learning space and time and promote open - equal - personalized education: In recent years, Massive Open Online Course (MOOC) has exploded with big names in the world such as Udacity, Coursera, edX, Udemy, Future Learn, which facilitate learners to acquire knowledge flexibly and conveniently anytime, anywhere. This promotes an open education, helps people access multi-dimensional information, narrows all spaces, and optimally saves time, thereby developing human knowledge, perception, and thinking rapidly.

Open learning resources helps learners and teachers get knowledge effectively, no matter where or when they are. Open learning resources are an essential development trend of modern education.

Reduce training costs: With the development of the Internet, online teaching models help reduce training costs. Accordingly, the course fee will be reduced to a considerable extent. The training institutions can save the cost of equipping facilities and paying for lecturers and experts and learners spend less on tuition fees, living expenses, and study materials...

Training facilities operate better: The application of technology to operations helps to manage teachers and students more thoroughly, reduce wasteful loads, and increase efficiency and working quality of office and training institutions.

### **3. Digital Transformation in higher education institutions in general and at Sao Do University in particular**

Digital transformation in education means the application of technology is also based on the purpose and organizational structure of the educational institutions and applied in three main forms:

Applying technology in the classroom: Classroom facilities, teaching tools.

Applying technology in teaching methods: Applying technology education trends such as Smart Classroom, Gamification, Programming, and so forth to teach.

Using technology in management: Management and operation tools.

Digital Transformation in education and training focuses on two main contents: Digital Transformation in educational management and Digital Transformation in teaching, learning, testing, assessment, and scientific research.

Education management includes digitizing management information, creating interconnected large database systems, deploying online public services, and applying 4.0 Technologies (AI, Blockchain, data analysis,) to manage, operate, forecast, and support making a decision quickly and accurately. In output management, it is necessary to use the latest technologies to assist in ensuring training, assessment, testing, and

recognition of results as well as make sure that the issuance of degrees and certificates are for the right subjects. Not only the evaluation results are digitized, but the evaluation process must also be implemented by applying technology on computers.

Digital transformation entails changes in management mechanism and internal organizational structure, restructuring of business process, alteration of relationships, information processing process, making decisions and solving problems of moving from the traditional environment to the digital environment, as well as changing the management of resources in higher education institutions.

#### **4. Conditions to ensure digital transformation**

- Changing in legal basis. It is necessary to have a complete and synchronous system of legal documents and internal regulations. Developing and promulgating policies that require scientific and thorough research. At the same time, for the policy to come into practice, it is necessary to have a system of tools to monitor, manage and ensure the quality of education - online and distance training to ensure the validity of this form of training. Institutions need to be one step ahead and be flexibly adjusted to accept new things: new technologies, new products, new services, new models.

- Changing thinking and management ability. Digital transformation affects many different stakeholders, of which the most direct and affected are learners and lecturers, followed by the team of management and support staff, who have to directly manipulate and operate the system. In particular, Sao Do University's leaders with the role of building and organizing the implementation of innovation strategies need to change their thinking and improve management capacity.

- Digital transformation is a total and comprehensive change process. For an organization, as it is a change, it is first and foremost the job of the leader, the head. Otherwise, no one would dare to do it and could do it. Because it is the work of all staff and lecturers of Sao Do university

- Ensure new technology infrastructure and equipment for schools, learners and people directly teaching. Accompanying the hardware device are unified software applications, compatible and connected platforms that integrate with each other so that all training and management activities can take place on it. A stable internet connection is a must for these platforms to work.

- Digital culture in schools includes issues of learning attitude, understanding of academic ethics, self-discipline, sense of self-study. For face-to-face training, control of the training process largely rests with the institution and the teacher, while for online and distance training, learners must also share this responsibility.

#### **5. Some solutions to promote digital transformation at Sao Do University**

- Developing a support platform for distance learning and teaching, thoroughly applying digital technology in management, teaching and learning; digitizing documents and textbooks; building a platform to share teaching and learning resources in both face-to-face and online forms.

- Changing in training tools, methods, training processes and training management, while developing new training codes and updating human resource training programs with content related to data and digital technology such as artificial intelligence, data science, cloud computing,

- Deploying in completing database system throughout the school: connect, communicate, share data and synchronize with other databases, contribute to the formation of an open database; implement radical digitization, using electronic documents, study books, electronic grade books to replace paper documents; Directing, operating, trading, meeting and training activities are carried out mainly in the network environment.

- Enhancing the combination of technologies such as Big data, AI, Blockchain... with specialized digital databases to build information collection systems that make forecasts, predictions and create suitable applications and services suitable for each learner.

- Completing synchronous network infrastructure, practical information technology equipment for teaching and learning, creating equal learning opportunities among regions with different socio-economic conditions, prioritizing the form of service hire and mobilizing resources for socialization to participate in implementation.

- Promoting the development of digital learning materials (for teaching - learning, testing, assessment, reference, scientific research); Forming a repository of digital data and open learning materials for each training discipline, linking with friends' schools, meeting the needs of self-study, lifelong learning, and narrowing the gap between regions; continue to innovate teaching and learning methods on the basis of applying digital technology, encouraging and supporting the application of new educational and training models based on digital platforms.

- Deploying educational social networks with unified control and orientation, creating a digital environment for connection and sharing among schools, families, lecturers and students; develop open online courses; Implement an online learning system...

- Training and fostering a contingent of managers and teachers with the necessary information technology and safety skills and knowledge to operate in the digital environment and meet the requirements of digital transformation.

- Correctly understanding digital transformation, properly assess the current situation, correctly identify and forecast challenges and problems to build a reasonable digital transformation implementation roadmap in order to quickly improve the quality and effectiveness of training, it is very important for Sao Do University in the current period.

Digital transformation in the current period should be seen as a long-term, strategic solution, associated with strong and radical reforms in teaching, learning and training management, not a solution for Covid-19 response situation. In digital transformation, the most important thing is not the technology, nor the investment of funds, but the high political determination of the head and the willingness to change of the staff and lecturers of Sao Do university.