

How to Lead Technology for Learning in Higher Education?

Abstract

Technology should be introduced into learning with careful consideration. Having a clear vision of the digital transformation of learning helps the institution to engage its teaching staff and students and motivate them to involve in learning and self-development, not just in the short term but also long term. Having a clear vision means defining the technology and how teachers and students access the technology to teach, learn, understand, or apply the knowledge. Furthermore, the standards should be logically related to the learning outcomes, meaning they should support the delivery of knowledge, understanding and application of knowledge, and the skills to analyse, synthesise or even assess the learning. Based on the vision, a digital learning strategy should be defined. It is a practical plan for how an organisation initiates digital learning by combining various technologies such as multimedia, social media, computer games, virtual or augmented reality, and other digital learning resources. A clear digital learning strategy represents a framework for the selection and coordinated use of actual digital learning resources. Learning management systems (LMSs) may be a good example for managing resources and immersing them in learning and teaching activities. One of the critical factors of successful digital learning represents learners' commitment. Without it, only a few learners may benefit from digitally supported learning.



Image. Leading Technology for Learning. Image source: <https://www.canva.com/>

1 Introduction

Leading technology for learning in higher education involves several key steps:

- a) Assessing the current state of technology use in the institution: This includes identifying existing technology infrastructure, software and tools being used and identifying areas where technology can be leveraged to improve the learning experience.
- b) Developing a strategic plan: Based on the assessment, create a plan that outlines the goals, objectives, and strategies for implementing technology in the learning process. This plan should be aligned with the institution's overall mission and goals.
- c) Building a collaborative team: Assemble a team of stakeholders, including faculty, staff, students, and IT professionals, to implement the plan.
- d) Providing training and support: Provide training and support to faculty, staff, and students on effectively using technology for learning. This includes providing online resources, tutorials, and workshops.
- e) Evaluating and adapting: Continuously evaluate the effectiveness of technology in the learning process and make adjustments as needed. This includes gathering feedback from faculty, staff, and students and using data to inform decision-making.
- f) Staying current with emerging trends: Stay informed about emerging technologies and trends in education technology and consider how they may be applied to improve the learning experience.

In the continuation of the text, only parts of the above-mentioned process are covered, emphasising the meaning of having a clear vision, creating and communicating an effective learning strategy and implementing appropriate management of digital resources supported by activities that contribute to gaining the learners' commitment.

"If you want to teach people a new way of thinking, don't bother trying to teach them. Instead, give them a tool, the use of which will lead to new ways of thinking." (Richard Buckminster Fuller)

2 Developing a vision of the digital transformation of learning

2.1 The vision and its importance

Digital learning technology comprises communication and information tools to enhance learning, teaching and assessment. It supports computer-based learning and the use of multimedia materials complementing or supplementing in-class activities (Staff, 2016).

A vision statement is a set of standards that guide an institution's decision-making and align its education-related goals. It is the vision statement that directly attracts and motivates instructors and learners. Standards should define the *technology* and *how teachers and students access the resources to teach, learn, understand*, and apply the knowledge. Students must also be given choices to *show what they have learned*. Standards should also define the *forms of learning*, among others, direct instruction, video streaming, podcasting, project-based learning, etc. (*Vision for Learning and Wellbeing*, n.d.).

2.2 Benefits of developing a vision

The vision of the digital transformation of learning should put *students at the centre* of teaching and learning, outlining the aspirations for all students to achieve and grow and realise lifelong learning goals. By setting the proper digital learning framework, students may take *ownership of their learning by accessing the resources* to learn, understand and *apply the knowledge*, and *show what they have learned*. Through *collaboration* and *communication*, they may be able to *make purposeful contributions* to the learning environments and promote the *open education idea*. The values promoted by digital learning direct the

students to respond positively to challenges and opportunities throughout their lives (*Vision for Learning and Wellbeing*, n.d.; *5 Teaching Strategies to Engage Students Using Technology*, 2016).

3 Determining a digital learning strategy

3.1 Definition of a digital learning strategy

A digital learning strategy shapes the way an organisation initiates digital learning. There is a variety of technologies that might be taken into consideration ranging “from blogs and videos to webinars and online collaboration through to online courses, immersive experiences and resources.” (*5 Teaching Strategies to Engage Students Using Technology*, 2016)

3.2 Examples of learning strategies

The reflection on teaching strategies (*5 Teaching Strategies to Engage Students Using Technology*, 2016) exemplifies five possible strategies to engage students to use learning technology:

- *Use of multimedia*. The ability to create and utilise multimedia makes a collaborative classroom and allows students to communicate and apply what they are learning.
- *The utilisation of social media* promotes skills of collaboration, sharing and exchanging ideas.
- *Using various digital learning resources* promotes exploring various resources and widening students’ horizons. Technologies such as podcasts, videos, blogs, creation and use of OERs, and other technologies may be used.
- *Using computer games and gamification* motivates students to learn while playing and gaming and increases student engagement and motivation.
- *Empowering students*. The use of technology may empower students by allowing them to express or showcase their ideas, be creative, connect to people around the world, or get in touch with experts to exchange knowledge and collaborate.

4 Managing resources

4.1 What is resource management

Managing resources involves the organisation and arrangement of learning resources, including text documents, images, infographics, HTML text, videos, audio files, and hyperlinks to internet resources (Eady & Lockyer, 2013). Eady and Lockyer (2013) note multimedia learning demonstrates more positive outcomes for students who learn from resources that effectively combine words and pictures rather than those that include words alone.

4.2 Resource management approaches

Teachers may use digital resources for various purposes and in many ways. For example, Eady and Lockyer (2013) list the following ways of managing digital learning and teaching resources:

- as a way to introduce students to a topic,
- as part of a teacher lecture or demonstration,
- as a stimulus to group or whole-class discussion,
- to provide students with access to different text types,
- to engage students in activities that are not possible in the classroom,
- to allow students to work at their own pace as a review or extension activity.

On the other hand, the EdTech blog stresses the following resource management approaches (*5 Best Educational Technology Resources to Improve Your Teaching Style*, 2018):

- Scaffolds and appropriate tools are quite important in problem-solving. They can help students immensely in solving problems.
- Webquests let the students search the web for relevant information since the internet can also be a vital educational and technological resource.
- The class blog is a creative way of developing students' knowledge on particular matters, driving an out-of-class agenda, can be a great resource where the students don't spend much time in class, are an excellent tool for disseminating information about new developments in a particular field of study.
- The class web page can be a place for posting announcements, and class timetables, a social platform for class members, a store of class photos, a place to download class resource materials and assignments, a to upload term papers, research papers, assignments, etc.
- Multimedia presentations. The modern classroom should embrace digital presentations that are filled with multimedia content. A PowerPoint presentation should be the face of any classroom presentation, enhanced and livened up by using photos, videos, flowcharts, diagrams, and audio.

5 Gaining commitment

5.1 Interactivity in learning

Gamification is the most popular everyday use area of games. Games have proven that they are addicting and highly engaging mechanics. This makes it logical that gamification can boost motivation, creativity, performance and participation in the involved activities. Gamification aims to bring design elements from video games and copy the addictive formula that makes the students enjoy learning. Gamification is the craft of deriving games' fun and engaging features and applying them to real-world (productive) activities like education. For example, a cyber-icebreaker task or an icebreaker game facilitates a relaxed and informal getting-to-know-each-other, leading to a more effective virtual group.

5.2 Virtual reality

Virtual and augmented reality. Gamification in virtual reality is used to improve training methods or training simulations. It promotes trainees' contribution, provides a better learning environment, enhances engagement to learn, and provides long-term motivation through playful elements. Instead of giving grades or performance evaluations, the trainees get points similar to an experience point system.

5.3 Formative and summative feedback and learning analytics

The educational system faces many challenges impacting the student's overall performance. The learning analytics approach can lead to a more personalised education by supporting students to learn at their own pace and providing an individualised learning journey. Learning analytics fetches the data it needs, analyses it, and offers predictions and insights.

6 References

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Pandemic Response Using Digital Media and Technology in Higher Education and Training

Project Agreement Number: 2020-1-UK01-KA226-HE-094489

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