

Digital Education as a Future Sustainable Development Goal

Abdisalam M Issa-Salwe*, Said Ahmed Ali Maah

East Africa University, Somalia

*Corresponding author: abdisalamm@puntinstitute.org

Abstract

The rise of digital technologies has impacted all aspects of society, from business to education. To meet the difficulties of the digital transformation, our younger generation's ability to learn and make decisions based on such interpretations is becoming increasingly critical. Therefore, future generations of students will need to be prepared with the required digital skills to meet the challenges of a digital society.

In higher education, digital transformation refers to how digital tools deliver value and drive change. This paper will look at the importance of digital education as a future goal of sustainable educational development.

Keywords: Digital technologies, digital education, e-learning, IT Infrastructure.

Introduction

Sustainable development education is one of the key motivators that can aid in achieving the Educational Sustainable Development (ESD) in Sustainable Development Goals (SDGs). ESD is an interdisciplinary educational strategy that encompasses the formal and informal curricula's integrated social, economic, and environmental components. (UNESCO, 2020).

The interdisciplinary nature of learning and teaching can strengthen and re-energise knowledge. This could lead to supporting and empowering learners, teachers, administrators, and researchers to understand sustainability issues' systemic and global

nature and their role in pursuing change for a more just, prosperous, and sustainable society. (Issa-Salwe, 2020)

Digital education is a powerful tool for helping ESD meet current and future needs for integrating SDGs into all forms and levels of education. (Kohler, 2022) It responds to the changes and challenges of developing transformative pedagogies, learning environments, content, and learning outcomes that can contribute to a more resilient society. (Idil Osman, 2012)

Despite the interconnectedness and links underpinning digital education and ESD, it must recognise the general issues that digital education faces and the impact technology can have on learning for sustainable futures.

The new ESD2030 strategic direction emphasises the need to expand and improve how digital education and technologies may be used to change people's behaviour and mindsets regarding sustainability. (UNESCO, 2020) In order to expedite efforts and measures that help young people acquire the knowledge, skills, values, and attitudes necessary to promote and construct a sustainable development that seeks to fulfil the 17 SDGs, the significance of developing inclusive educational opportunities is also emphasised. (ibid)

This special issue aims to give researchers from various disciplines, including the humanities, the opportunity to share their ideas, practices, and research on developments in digital education and ESD and how they can help achieve the SDGs in education. (Freeman, 2022)

The special issue also aims to contribute to the conversation about how digital education and technologies can improve ESD practices, learning environments, pedagogies, and content in all forms of education. It also aims to mobilise people to take appropriate actions that lead to sustainability in all aspects of life. Finally, it critically considers the problems, risks, and emergencies that digital education phases in ESD.

According to Freeman (2022), in higher education, digital transformation refers to using digital tools to deliver value and drive change. Technology should be used to enhance and change how things are done, not just for utilising it. The diversified digital ecosystem is impacting— and evolving — practically everything done by humans, and digital transformation embodies the cultural, workforce, and technological transition currently underway. (ibid.) It focuses on harnessing technology to advance core strategies and operational difficulties rather than on specific tactics or software.

The digital revolution, or technology-enhanced learning or e-learning, is the everyday use of digital tools and technologies in teaching and learning. Exploring digital technology can also help teachers create engaging learning opportunities in their textbooks and programmes, whether blended learning or wholly online. (Idil Osman, 2012)

According to EU future policy (EU Commission, 2021), the EU digital education plan is directed to the following two priorities:

1. Developing a high-performing digital education ecosystem (ibid.):
 - a) Creating infrastructure, connectivity, and digital equipment are all things that must be considered.
 - b) Planning and developing digital capabilities, including organisational capabilities
 - c) Providing high-quality learning content, user-friendly tools, and
 - d) Helping secure platforms that respect e-privacy legislation and ethical standards for digitally capable and confident teachers and education and training professionals.
2. Enhancing digital skills and competencies for the digital transformation requires the following steps (ibid.).
 - a) Providing basic digital abilities and competencies from a young age through digital literacy, including dealing with misinformation and computing education.

- b) Enhancing digital skills that can develop more digital professionals, including knowledge and comprehension of data-intensive technologies such as artificial intelligence (AI),

What Does Digital Transformation Mean for Higher Education?

When considering digital transformation in higher education, it is crucial to consider the pandemic's influence. The quick use of virtual education, resources, and gatherings shifted expectations and hastened the adoption of digital tools. As a result, the pandemic has presented an opportunity for higher education leaders to seize in many ways. (Kohler et al, 2022)

The pandemic was an opportunity for digital change as it proved that it was supposed to have the means to substitute face-to-face learning. As a result, digital learning has become an essential tool for higher education institutions to survive. (Issa-Salwe, 2020) Digital transformation has allowed teachers to simplify understanding by enabling students to focus their energies on their knowledge.

Trends In Current Digital Transformation

Digital transformation impacts two primary business areas: services and operations. This transition entails the development of new items and the modification of existing ones. For example, offering an online master's program or transitioning from physical textbooks to digital ebooks are two services. In addition, artificial intelligence (AI) gadgets throughout campus can answer issues such as where the lab is located or when the clinic closes, which can be helpful for first-year students still getting to know their way around campus. (Freeman, 2022)

Another significant feature is using technology to manage the registration and admissions processes and monitor resource allocation. Data-driven decision-making can serve as the foundation for digital transformation with the support of an automated and secure analytics program. These patterns reflect how colleges and universities can enforce and implement their digital transformation initiatives.

How to Develop Digital Transformation Best Practise

Many views about critical components must be in place to successfully move to a digitally transformed campus. The one thing that is noted across the board is that leadership matters. However, leaders might only need to know some details about making a change. Nonetheless, they need to raise awareness of how vital the transformation is and what it will take to get an organisation behind it.

Leaders who champion transformation are the key to the thriving culture shifts required to become a digital-first organisation. Without leadership firmly supporting the endeavour, it would be easy for projects to get scrapped in favour of an "old reliable" way of doing things.

According to Freeman (2022), mapping digital strategy centres on problem-solving innovations in service of the university mission – should be the starting point for the revolutionary move to digital-first. It should be based on business requirements rather than the newest vendor presentations.

Digital projects must be built based process transformation and "consumer" participation to guarantee efficiency and quality standards from the outset. Students are the clients in higher education. Private versus public colleges, online versus on-campus education, and full-time versus part-time enrolment are just a few of the possibilities available to them. (ibid,)

With the number of higher education institutions on the rise and the number of college-ready high school graduates declining, the need to compete for students has never been more critical. This generation demands hyper-personalised content that targets their location and situation and flawless cross-device interaction. (Freeman, 2022).

According to Freeman (2022), when an institution considers digital transformation, it must realise that it might be focused on one of four areas:

1. Transformation of the business process
2. Transformation of the business model

3. Transformation of the domain
4. Transformation of the cultural/organisational environment

All four transformations are required, and they must work effectively together.

Most higher education institutions may follow a corporate model in their digital transformation. That model refers to business operations or data (or the analytics surrounding data collection) that save costs, shorten cycle times, or improve quality.

The business model reveals fundamental functionalities such as blended or hybrid delivery, self-paced learning, and competency-based forms. Many institutions accelerated their efforts in this area due to the pandemic.

Business model transformations target the core components of the value delivery process, whereas firm process transformations concentrate on specific areas of the business.

When a company successfully spins around into a new area, it is called 'domain transformation'. They will eventually expect the same ease and security when paying for higher education. While higher education organisations will continue focusing on instruction, several universities' digital roadmaps already include tertiary services that fulfil student expectations. (UNESCO, 2020)

In many respects, cultural or organisational transformation is the bedrock of digital transformation. This transition necessitates leadership, teamwork, courage, emotional intelligence, and other change management techniques. Additionally, it calls for a strong emphasis on change management, a laser-like concentration on progress towards institutional goals, and an increase in institutional agility and adaptability to handle rapidly changing needs. (ibid.) Successful projects will also support a culture that is open to change.

Finally, digital transformation can be done in stages, as a university can benefit from automating as much as possible. However, the shift to a wholly transformed campus will be influenced by improved digital talent, the culture change required to welcome digital efforts, and the public benefits of automation.

The diversified digital ecosystem is impacting — and transforming — practically everything we do, and digital transformation embodies the cultural, workforce, and technological transition currently underway. It focuses on harnessing technology to advance advances in core strategies and operational difficulties rather than on specific tactics or software.

Startup for Digital Leadership

There must be a leadership shift for every transformation that can lead to the changes. There must be a foundation of leadership support for digital transformation. A paradigm shift to help the mindset will be required to make this move.

Digital transformation cannot be approached in a one-size-fits-all manner. A risk-management attitude is necessary for digital transformation. Successful digital transformation requires an understanding that technology is how to address tremendous difficulties and bring about widespread change. (Freeman, 2022)

Conclusion

Education for sustainable development (ESD) is a primary incentive for achieving the Sustainable Development Goals (SDGs). Because of its dynamic and interdisciplinary nature in learning and teaching, digital learning can support and empower learners, teachers, administrators, and researchers to understand sustainability issues' systemic and global nature. It can also help with the pursuit of prosperous and sustainable societies.

Education for Sustainable Development (ESD) can help the future by making it digital, so education for sustainable development can be used as a powerful tool for assisting ESD in meeting future needs in integrating SDGs into all forms and levels of education. Digital educational sustainable development can help tackle the challenges of developing transformative pedagogies, learning environments, content, and learning outcomes that can contribute to a more resilient and sustainable world.

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