

## Chapter 2

# Use of Digital Technology in Improving Quality Education: A Global Perspectives and Trends

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### **ABSTRACT**

*The UN 2030 sustainable development agenda focuses heavily on improving access to high-quality education. This goal can no longer be pursued without heavily relying on digital technology. In addition to reducing emissions through increasing energy efficiency and environmentally friendly alternatives to burning fossil fuels, these methods may be used to completely remove harmful greenhouse emissions from the air. The purpose of technological advances is to improve production and efficiency while reducing waste and harmful effects on the environment. These technological advances have had a significant positive impact on the academic system. Because of the COVID-19 pandemic, the use of computers and other electronic aids in the classroom has increased dramatically. These digital technologies have had a profound impact on educational institutions as a whole. The present study aims to explore the significance of technological advances in education, discussing their principal benefits and the challenges they provide.*

### **INTRODUCTION**

Education is critical to the psychological health required for long-term growth. The spread of digital communication technologies is a critical aspect in the present push for educational reform. Smartphones, smartboards, massive open courses on the internet, laptops, tablets, simulations, dynamic representations, and simulated environments are just a few examples of innovative technology-assisted educational

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resources that have transformed education in educational institutions and schools. The IOT has been demonstrated to be one of the most effective and affordable methods to teach children. It's also an effective method for including everyone in an excellent educational environment (Alghazi et al., 2020; Güler et al., 2022). Companies in the industry of learning technology are always coming up with innovative ways to increase kids' chances of receiving a decent education regardless of whether they do not live in an area with strong schools. When it comes to schooling, social media has come a long way. Many educators and learners now regard social media to be an essential component of the process of e-learning. It's an important forum for addressing current concerns. Social media platforms, in addition to promoting real-time information transmission, provide fertile ground for the creation of professional and private networks (Tasya, 2023; Vega-Muñoz et al., 2022).

Traditional classroom instruction lacks the immediate atmosphere for learning, faster evaluations, and higher engagement when compared with online learning. In contrast, technology and digital educational tools satisfy this demand. Some characteristics of this technology cannot be replicated by more traditional approaches to teaching. Given the broad usage of cellphones and other wireless technology, it seems to reason that such tools would help schools. Modern technology' adaptability and lack of interference have made education more appealing to today's kids. Traditional instructors are sometimes hesitant to incorporate new gadgets and technologies into the classroom since they are concerned that they would distract pupils rather than benefit them (Pakhomova, 2023 ;Barua&Urme, 2023). Students are going to profit from having online access to a class schedule that shows when examinations, presentations, and other significant occasions occur during the semester. Cellphones and clicker gadgets are two instances of pupil reaction technologies that can assist teachers in quickly determining how well their students comprehend a concept or notion and rather or not they require more explanation (Kwaah et al., 2022).

Farming in developed countries will soon experience a revolution due to the effect of computer technology, which will drastically cut the consumption of both water and pesticides. COVID-19- the phrases a global epidemic, lockdown, and confinement have just recently become commonplace. The devastation caused by the coronavirus epidemic is well recognised around the world. At the very least, the school system is surviving the crisis owing to the employment of digital technologies. Students can learn online from the convenience of their personal homes (Daniel &Ndumbaro, 2022). When technology is used in the classroom, students were more likely to stay focused on the content at hand and are less likely to be distracted. Students may discover that using projectors, laptop computers, and other cutting-edge technology devices in the classroom makes learning more interesting and fun. Technology-enhanced activities in the classroom that allow for pupils to speak and encourage student cooperation may make education more engaging and enjoyable for students. There are various methods to engage than talking (Ghobakhloo et al., 2021; Michaels, 2022)

Digital learning is an excellent way to save funds, better use resources, encourage sustainability, and increase student and teacher reach and influence. This is true for a variety of reasons, including the impact on the environment by using fewer pages for handouts and books, in addition to the time savings and ease of research. (Camilleri & Camilleri, 2022; Menon, 2022). There are few aspects of modern society and daily life that weren't influenced by technology. The global digital revolution is beginning to have an impact on the educational system. Technology is rapidly transforming the way pupils learn, and it is commonly expected that this development will make education more inexpensive and readily accessible (Hoffman et al., 2023; Limongelli et al., 2022). This article gives a basic summary of how to use digital technologies in the classroom. We will discuss why it is necessary to utilise technological resources in school, how digital tools can be used in the school environment, and some instances of

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