

Technology Benefits and Risks in Education

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Introduction

History has proven that the development of the educational field of a country depends, to a large extent, on the use of modern technology. (Wu, 2024) Linkages between the education field and technology have been a widely discussed topic during the last couple of decades. Many academic scholars and researchers have written papers on the effectiveness of technology and their pros and cons in the field of education. In this research essay, we will comprehensively examine a research question: "How can technology be an aid or hazard in the field of education?" with the help of some prominent past studies in this regard.

Martín-Gutiérrez, Jorge, et al. "Virtual technologies trends in education." *EURASIA Journal of Mathematics Science and Technology Education* 13.2 (2017): 469-486.

In "Virtual technologies trends in education" (2017), Jorge et al. argue that "Educational institutes will benefit from better availability to virtual technologies". They illuminate that virtual reality is the biggest area of interest and captures people's attention. The virtual reality making possible to communicate in the environment which is not imaginable to think about in the physical classrooms. They asserted that huge accessibility to the virtual technologies will redefine the way of education and making thinkable to breakdown the formal education boundaries. This paper addresses the possibilities of using different kinds of augmented and virtual reality technologies in the education sector. Another major aid of using virtual reality technology in the field of education is the high motivation, engagement and positive attitude of the students using VR in their education process because students are free to interact with other students and virtual objects. However, a major hazard of using this technology in the education field is that the students are not competent or skilled in using these technologies.

Bakir, Nesrin. "Technology and teacher education: A brief glimpse of the research and practice that

have shaped the field.” TechTrends 60.1 (2016): 21-29.

In “Technology and Teacher Education” (2016), Bakir claims that “teacher education programs are struggling to model and execute the integration of technology in education”. A key factor in learning and teaching is the integration of technology in the education sector. (Moriña et al., 2024) The author argues that the educational administrations are taking some serious initiatives at the local, state and federal levels to cope with this integration problem. He points out some key reforms and initiatives that strengthen and affect technology adoption in teacher education programs. The paper suggests that we should encourage mentor teacher who has wide experience in practising teaching with technology.

Collins, Allan, and Richard Halverson. Rethinking education in the age of technology: The digital revolution and schooling in America. Teachers College Press, 2018.

In “Rethinking Education in the Age of Technology” (2018), Collins, Allan and Richard comprehensively examine the education sector from different perspectives: how education is changing, why education reform fails, barriers to technology use in the education sector, evolution of school system, adoption of the universal schooling system and how the education system can support new technologies. They argued that technological changes have augmented some of the most insightful impacts on the education sector. (Mhlongo et al., 2023) Furthermore, some of the major aids of technology use in the education sector include 1) helps students to stay motivated during the education process, 2) encourages communication between parents and teachers, 3) open new means of learning, 4) students get easy access to data at a single place, 5) enhanced access to behavioural records on students, 6) prepare students for future domain, and 7) encourage classroom collaboration. On the other hand, the authors also point out some key hazards of technology in the education sector, including 1) technology creates distraction to the students, 2) making easier to cheat by the students, 3) the majority of the students do not know the difference between unreliable and reliable technologies, 4) majority of the students cannot afford the latest technologies, 5) technology replacing professors in classrooms which discourage them to promote technologies in the education sector and 6) another major hazard of technology which discourage to use use in education sector is high dependencies for information recall.

Bayne, Siân. “What’s the matter with ‘technology-enhanced learning’?.” *Learning, Media and Technology* 40.1 (2015): 5-20.

In “What’s the matter with ‘technology-enhanced learning’?” (2015), Bayne argues that technology-enhanced learning outlines the interface between higher education teaching and digital technology. He concludes that we should be more critical and careful with the terms we adapt to define education field. Also, education should be a little experimental and something more than its present state where technology should be given a special place.

Hegedus, Stephen, et al. *Uses of technology in upper secondary mathematics education*. Springer, 2016.

In “Uses of Technology in Upper Secondary Mathematics Education” (2016), Stephen et al. examine the technology used in the higher education system with special emphasis on mathematics. They discuss multiple dimensions of the uses of technologies in the mathematics field and point out some aids and hazards of the uses. In terms of aid, they state that technology is making it possible to solve complex mathematical problems. While in terms of hazard state the technology reluctance of teachers because technology is seizing their jobs.

Linkages with *Novel Fahrenheit 451*

People are using technology everywhere and every day, for instance, social media, email checking, mathematical calculations, and forecasting of the future. (Zhang & Tur, 2024) It has significantly affected the social structure in *Fahrenheit 451* and today’s world. There is a bulk of technological similarities between *Fahrenheit 451* and our world. The novel is grounded in a future time where books are measured as a bad thing, and technologies rule our daily lives, which depicts the very dangerous situation of society. If we suppose that we are living in the era depicted in the novel, then the use of technology in the education sector is a serious threat.

References

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