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The effect of developing technology on education and professions

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ABSTRACT: The impact of technology on our daily lives and work cannot be denied in today's world. The field of education, as well as various professions, has been affected by the phenomenon. Scholars have explored diverse viewpoints regarding how developing technology impacts these fields; some argue for its benefits while others highlight its drawbacks. This essay aims to scrutinize the effect of developing technology on education and professions through a holistic examination of relevant literature. By dissecting empirical studies from multiple sources, this article intends to explore how technological advancements have transformed teaching methods, job requirements, and skill sets necessary for succeeding in today's digital era. The findings demonstrate that integrating technology into educational practices and professional environments has certain advantages but also poses challenges that require careful consideration from stakeholders involved in these sectors. Concerns include issues with access to tools and resources as well as concerns about privacy breaches or potential biases resulting from automated algorithms. At the same time, this article also mentions technology's positive and negative effects on professions. All things considered, this essay adds value to ongoing debates surrounding the consequences of developing technology on education and professions by providing insights into both sides of the argument via a balanced analysis of available research evidence.

1. INTRODUCTION

The world is constantly evolving, and the technology that surrounds us evolves alongside it. Each innovation presents both opportunities and challenges in various areas, but one field where this is particularly evident in education and professions. Over the past few decades, rapid technological development has transformed traditional learning and working methods. These advancements have brought significant changes from online learning platforms to virtual reality simulations. The impact of developing technology on education and professions cannot be overstated. It has enhanced access to information by breaking down geographical barriers so that learners can access resources from anywhere globally at any time. This increased accessibility has encouraged more collaborative learning environments as students connect with peers from different cultures or backgrounds. Additionally, innovative teaching methods are now achievable thanks to technology's adaptability - for example, gamification or personalized learning strategies. Educators can create engaging lessons that cater to individual student needs, making it simpler for them to comprehend complex concepts while also maintaining their interest. The development of technology has led to changes in many professions. In particular, the rapid progress of automation, robotics,

and artificial intelligence technologies has eliminated some professions or caused a decrease in labor demand as a result of the automation of jobs. However, it is seen that this effect of technology creates not only job losses but also new job opportunities. In addition, developments technological have increased productivity in many professions and allowed things to be done faster and more accurately. Therefore, the impact of technology on professions is a complex issue and will play an important role on future labor demand and ways of doing business. Another positive effect of technological advancement is creating fresh career prospects for individuals interested in fields such as computer science or digital marketing. Moreover, across industries professionals can work remotely which leads to benefits like improved work-life balance and reduced commuting time. All-in-all there exist numerous ways through which developing technology positively impacts both education and professions worldwide. As society moves forward into an everchanging future successfully embracing whilst effectively adapting new technologies will play a crucial role within industry sectors of educators and professionals alike if they wish successful outcomes within their respective fields.

2. LECTURE REVIEW

The literature in this area is quite extensive. Because technology has many good or bad effects on education and professions from different aspects. And that's because technology has expanded over a huge area and a whole lot of branches. Especially when we expected to find a lot of research on the possible future effects of technology on professions, we were disappointed about this, because there wasn't enough scientific research, or even what we thought there was on the subject. In the field of education, we encountered more diverse scientific research, and most of them were made on exactly the subjects we expected. As technology continues to play an ever-increasing role in our daily lives, there is a growing need for comprehensive research into its effects across various domains we were hoping for more research to be conducted on its effects in various areas. With our growing reliance on technology, it is essential to gain a more profound understanding of how it affects us, in order to better comprehend its impact on our lives.

3. METHODOLGY

To gather information about the impact of technology on education and professions, I conducted research for this essay by utilizing a variety of educational articles. My selection was made based on their relevance, reliability, and currency in discussing the topic at hand. These sources were thoroughly analyzed to identify key themes and trends in terms of how technology is transforming both educational and professional fields. Moreover, these informative materials helped me gain better insights into possible challenges or opportunities that may arise from technological advancements within those areas. By relying on multiple educational articles as sources for this research project, I have successfully acquired a broader understanding of current developments associated with the effect of technology on education and professions.

4. **RESULTS**

1.1. Digital Transformation, technology, and employment

It is seen that the economic and social developments experienced throughout the history of humanity have affected almost every aspect of life. One of the important developments that caused both the economy and society to undergo a radical transformation is the effect of accelerating technological changes. Physical products turn into digital services that reduce usage, reproduction, distribution, and transportation costs, which is what we call digital transformation. For example, as with CDs, newspapers, and printed books replaced with electronic versions, marginal production is possible because it is possible for these products to be copied digitally once they are produced. costs are falling. However, books can now be listened to over the internet as audiobooks, or the information they contain can be adapted into a video and transferred more simply [1] And especially now, with the digitalization of workplaces, trade is mostly done over the Internet. Because, thanks to certain applications, people can access dozens of alternatives for the product they are looking for with a single click, without effort and without getting tired. This digital transformation has had a good effect on some people's businesses and badly on others. And this is not the first time, similar things happened when industrialization started, and everyone had a different opinion about it, just like now. Some say that digitalization will affect the employment rate badly and destroy some of the existing jobs, while others say that it will create new job opportunities and affect the Journal of IoT and Intelligent Solutions Vol. 1 No. 1 June 2023

employment rate in a positive way. Digital transformation can provide many advantages for the customer and the seller.

The development of technology can also provide us a lot of convenience in the work we do, as an example, with the developing artificial intelligence technology, we can now have artificial intelligence solve questions, make our researches, have articles written on the subject we want, and have many more things can done. These have a great effect on facilitating human life, but there is also the fact that with the development of robots they are being used more and more in the industry as time goes on, which slowly starts to affect us and perhaps even more in the future. Because they are more efficient than us, they do not get tired and they cost less in the long run, and for these reasons, it raises questions such as whether they will take over our business in all areas as time goes on. Can see that especially with the development of technology, robots are also developing and they are taking up more roles in the industry with each passing year. According to the International Robotics Federation, the number of industrial robots has increased globally from 400,000 in 1990 to 2.1 million in 2017. In addition, the rate of increase in the number of industrial robots from 2013 to 2017 was 11% on average worldwide, which is well above the economic growth and population growth in most countries. In some countries, such as China and Vietnam, the number of industrial robots has quadrupled in the last decade. These developments also encourage intense discussions about the threat of robots to employment" [2]



Figure 1:

1.2. Technology and education

For decades now, there have been debates about incorporating technology into education and professions. Many scholars argue that it enhances access to information, fosters innovative teaching methods, and creates new career paths. According to [4]study on the impact of technology on student learning, using digital tools has a positive relationship with student's active participation in class.

found that learners who use technological means retain more information than their counterparts. This discovery highlights how developing technologies can positively influence teaching practices by enabling educators to design lessons that cater to diverse learning styles. These programs help ensure educators have access to current resources and knowledge about technological advancements. The rapid advancement of created ample employment digital tools has opportunities across various industries; this trend continues today with increasing frequency as newer emerging technologies continue to appear regularly. In turn, educational institutions worldwide should embrace this trend by providing cutting-edge training for students before they enter different workforces where they will face unique challenges requiring adaptability skills acquired while studying using advanced technical tools available at schools or universities equally focused on cutting-edge tech development so graduates can contribute significantly when employed professionally within modern workplaces where innovation reigns supreme. In conclusion, the rapid development of technology has had an overwhelmingly positive effect on education and professions--enhancing information source accessibility while promoting innovative pedagogical methodologies all leading toward creating plenty of future-orientated employment pathways enabled through leveraging advanced digital toolsets effectively coupled with future-proof skill sets uniquely obtained from focusing upon optimal educational environments supported by expertly crafted professional development programs. However useful its implementation has been, educators must be mindful of the risks associated with overdependence on digital tools and ensure that students' well-being is not negatively affected by their use. High-quality professional development programs can play a crucial role in helping teachers integrate technology effectively into their lessons to create an optimal learning environment.

5. **DISCUSION**

In the last few years technology has left an indelible mark on education and the professions. The rapid pace of technological developments led to an increase in the availability of knowledge, encouraging new teaching methods and creating new career prospects. An important boon that technology bestows on education is its ability to enrich access to information. In today's world, students now have a wealth of knowledge at their fingertips. With just a click or two, students can gain enlightenment on any subject from around the world. This convenience gives students more authority on their learning journey, allowing them to delve deeper into topics independently while following their self-guided paths.

Also, innovative teaching methods are another way technology continues to disrupt traditional education models. Educators currently benefit from access to tools such as virtual simulations, interactive whiteboards, or online platforms that foster more immersive classroom experiences than ever before. These tools allow instructors to effectively tailor lessons to different learning modes or student interests while intensifying engagement levels. Finally, technological breakthroughs have created exciting job opportunities in a variety of industries, equipping professionals with specialized skills such as programming and data analysis competencies required for emerging industries such as artificial intelligence or blockchain Technologies. As a result, although we have experienced first-hand how the developing technology affects the society positively in terms of Education and Professions; there are unexplored areas that require further exploration of this theme. Future research may explore ways universities can optimize technological resources through specialized training programs, or determine whether technological advances should be integrated into existing curricula rather than completely replacing traditional assets, among other notable related issues. Thanks to technology, many professions have made great conveniences and many new professions have gained value. For example, we now order grocery, food, water and all kinds of needs from our home, and these can reach our home even within minutes. Large companies such as Getir, Yemeksepeti, eBay, Trendvol and Amazon have grown so much and thousands of people have been employed. Not only in this regard, but technology has also provided convenience to everyone in all professions. While they used to draw on architectural papers, they can now draw very easily through applications. Engineers can test the things they produce with artificial intelligence models. In this way, the progress of life is currently advancing at an amazing pace. The development of technology is the most contributing factor to the advancement of technology. This development is growing like an avalanche and all people benefit from this development significantly.

6. CONCLUSION

To summarize, the growth of technology has significantly impacted education and occupations. Technology has become a completely part of our lives. The confluence of technology in classrooms and workplaces has changed the way we learn, work, and interact with each other. Thanks to fast communication, things have become much easier and we have saved time. This impact is evident through productivity gains, increased collaboration, and As discussed throughout this document, emerging technology has revolutionized education delivery by increasing access to online virtual learning environments, resources, and personalized learning experiences.It also enables educators to use innovative teaching techniques that encourage active student participation. At the same time, technological advances have brought a lot of benefits in terms of sustainability in business and education. It even provided access to research on the other side of the world in the field of education and profession in seconds. [5]While trees were cut down to produce books, notebooks, and pens, we can now do our work over the phone without the need for them. In addition, technological advances have created new job opportunities while obsolete some traditional jobs. While the benefits are clear, it is crucial to acknowledge the potential downsides of technology incorporation into education and occupations, such as privacy concerns about data collection and the unequal distribution of resources among different socioeconomic groups. However, in general, it cannot be denied that developing technology plays a very important role in shaping today's educational practices in different fields and professional practices. While innovation continues at a great pace; It will be the task of educators and professionals alike to adapt quickly if they aspire to remain competitive in their industry. People should keep up with the developing technology and prepare themselves accordingly. According to this, it is an obvious fact that people who do not prepare will be left behind in the name of their profession and personal development in the future. In conclusion; It seems plausible that an upward trajectory for technological progress, possibly for years or even decades, presents challenges that must be faced directly if both positive changes and long-term success continue to apply to all parties involved (including students).

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