IS THERE A REINVENTED TEACHER? NEW EDUCATIONAL PARADIGMS

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Abstract

The current paper aims to explore and analyze the challenges of today's teacher in preparing tomorrow's youth through the new paradigms of education and the impact of technologies, because we are dealing with future digital natives and teachers known as digital immigrants. We will focus on the education process but also on the product delivered for the labor market in the context of digital era. It is true that many professors have had to adapt rapidly, some of them for their own motivation, others for circumstances, but there are also many who still have a certain fear of digital technologies (hardware or software) and this is challenging for many reasons. It is not only enough the desire to implement it, but to know how to do it the right way and adapt it so that it turns out to be really functional and beneficial for students. There are many new roles that are assigned to the teacher in these new educational paradigms generated by ICT (informational and communication technologies). Teachers must stop being less police officers or/and simple information providers but become organizers, guides, generators, companions, coaches, learning managers, counselors, facilitators. In the context of a reinvented teacher with information at one click away, new paradigms have to appear, planning educational strategies inside or outside the classrooms. In the end, this paper will emphasize the role of current paradigms in shaping educational policies, understanding the close connection between them.

Key words: (digital age, educational paradigms, teachers' roles, AI tools;)

INTRODUCTION

In recent years, artificial intelligence has made remarkable advancements in various fields, from healthcare to finance, and education is no exception. AI technologies, such as machine learning algorithms and natural language processing, are being increasingly integrated into educational settings to enhance teaching and learning experiences. As AI becomes more prevalent in education, it is essential to examine how these technologies are redefining the traditional role of teachers and shaping new paradigms in education (Perrotta and Selwyn, 2019).

The rise of digital tools, online resources, and innovative teaching methods has significantly transformed the role of teachers in the classroom (Keane *et al*, 2023); (Jones *et al*, 2020). While technology has provided numerous benefits, it has also presented challenges, ultimately reshaping how educators interact with students, deliver content, and assess learning outcomes (Redecker, 2017); (Selwyn, 2020). As educators navigate this rapidly changing landscape, new paradigms are emerging that challenge traditional notions of teaching (Bondie *et al*, 2021) and redefine the roles of teachers in the classroom. The new roles of teachers in the context of evolving educational paradigms, including the integration of technology and artificial intelligence, encompass a range of responsibilities beyond traditional instructional delivery. (Kimmons and Veletsianos, 2021; Zhao, 2022).

MATERIAL AND METHOD

A systematic review of scientific literature was conducted in two phases. The initial phase involved a broad exploration of the PubMed and Google Scholar databases to assess the feasibility of the topic, guided by the following research questions: How can we identify the new roles of teachers in context of the digital age? What new tasks appear for teachers? In addition, are there any new paradigms related to this updated status of teacher? In the second phase, further searches were performed using the EBSCO, ScienceDirect, and Scopus databases, employing the keywords: digital age in education, revised status for teachers, updated educational framework.

RESULTS AND DISCUSSIONS

One of the central aspects of the changing educational landscape is the evolving role of teachers. In the past, teachers were primarily seen as knowledge providers and facilitators of learning. However, with the advent of AI technologies, teachers are now taking on new roles as learning designers, mentors, and facilitators of personalized

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learning experiences. The integration of AI in education has shifted the focus towards student-centered learning approaches, where teachers play a crucial role in guiding and supporting students as they navigate complex learning environments.

One of the most profound effects of technology on teaching is the diversification of instructional methods. Traditional lectures have been supplemented or even replaced by interactive platforms, multimedia presentations, and online discussions. Teachers can now create engaging learning environments that cater to different learning styles. For instance, tools like video conferencing and educational apps allow for real-time collaboration, enabling teachers to facilitate group work and discussions beyond the confines of the classroom. This shift empowers educators to adopt a more student-centered approach, where they act as facilitators of learning rather than mere transmitters of information.

Technology has democratized access to information. Teachers now have a wealth of resources at their fingertips, allowing them to enhance their curriculum and provide students with up-to-date content. Online databases, educational websites, and digital libraries offer a plethora of materials that can enrich lessons and foster critical thinking. Moreover, the availability of open educational resources (OER) enables teachers to share and adapt high-quality materials for their specific teaching contexts. This access not only enhances the learning experience but also encourages teachers to continuously evolve their pedagogical strategies.

Another significant impact of technology is the ability to collect and analyze data on student performance. Learning management systems (LMS) and assessment tools provide educators with valuable insights into students' strengths and weaknesses. This data-driven approach allows teachers to tailor their instruction to meet individual needs, providing targeted support where necessary. By identifying learning gaps, educators can intervene promptly, ensuring that all students have the opportunity to succeed. Consequently, teachers are increasingly taking on the role of data analysts, using technology to inform their teaching practices and improve educational outcomes.

Despite the numerous advantages, the integration of technology in education also poses challenges. Teachers must continually adapt to new tools and platforms, which can be overwhelming, especially for those who may not be tech-savvy. Professional development and training are crucial in helping educators feel comfortable with these technologies. Additionally, the digital divide—where some students lack access to technology—remains a significant concern. Teachers must navigate these disparities to ensure equitable learning opportunities for all students.

The new roles of teachers in the context of evolving educational paradigms, including the integration of technology and artificial intelligence, encompass a range of responsibilities beyond traditional instructional delivery. Some of the new roles of teachers include:

1. Facilitator of Learning: Teachers now serve as facilitators of learning, guiding students through personalized learning pathways and providing support as students engage with digital resources and tools.
2. Curator of Educational Content: Teachers curate and create educational content to meet the diverse learning needs of students, leveraging technology to access and organize a wide range of resources (Selwyn, 2020).
3. Data Analyst: Teachers analyze student data generated by educational technologies to track progress, identify learning gaps, and tailor instruction to meet individual student needs.
4. Technological Integrator: Teachers integrate technology tools and platforms into their teaching practices to enhance student engagement, collaboration, and learning outcomes (Harris *et al*, 2022).
5. Mentor and Coach: Teachers act as mentors and coaches, providing guidance, feedback, and support to students as they navigate complex learning environments and develop 21st-century skills.

In order to cover all these positions, teacher training is a critical aspect of education that directly impacts the quality of instruction and student learning outcomes. In the future, teacher training is likely to undergo significant transformations to address the evolving needs of educators and students in the 21st century. Some perspectives on the teacher training might refer to:

1. Shift towards Continuous Professional Development: In the future, teacher training is expected to move away from traditional one-time workshops or courses towards a model of continuous professional development. Educators will need ongoing support, mentoring, and opportunities for reflective practice to enhance their teaching skills, stay abreast of the latest research and pedagogical approaches, and adapt to changing educational trends (Darling-Hammond, 2020).
2. Integration of Technology: With the increasing integration of technology in education, future teacher training programs are likely to focus on equipping educators with the digital skills and

knowledge needed to effectively integrate technology into their teaching practices. This includes training on using educational apps, online resources, learning management systems, and other digital tools to enhance instruction and engage students (Darling-Hammond, 2021; Zhao, 2022).
3. Emphasis on Social-Emotional Learning (SEL): As the importance of social-emotional learning gains recognition, teacher training programs in the future may emphasize the development of educators' skills in fostering students' social and emotional well-being. Training in areas such as empathy, communication, conflict resolution, and creating a positive classroom climate will be essential for preparing teachers to support students' holistic development.
4. Culturally Responsive Teaching: Future teacher training programs are likely to place a greater emphasis on culturally responsive teaching practices to help educators create inclusive and equitable learning environments for diverse student populations. Training in cultural competency, anti-bias education, and strategies for addressing systemic inequalities in education will be integral to preparing teachers to meet the needs of all learners.
Based on these findings, several new theoretical frameworks have emerged to guide the integration of artificial inteligence in education and inform teaching practices. One prominent theory is *connectivism*, which emphasizes the importance of networks and connections in learning (Siemens, 2014). In a digital age where information is readily accessible, teachers are no longer the sole source of knowledge but rather facilitators of connections and resources for students to construct their understanding (Sîrghea, 2020). Another theory that is gaining traction in the field of educational technology is *constructionism*, which posits that learning is most effective when students actively construct knowledge through hands-on experiences and collaboration (Wang, 2022). AI technologies can support constructionist approaches by providing interactive simulations, virtual environments, and personalized learning pathways that engage students in active learning processes.
In the context of connectivism and the evolving role of technology in education, students play a crucial role as active participants in constructing knowledge, navigating digital networks, and engaging with diverse information sources. From the perspective of students, connectivism emphasizes the following key aspects:
1. Autonomous Learning: Students are encouraged to take ownership of their learning process, explore various information sources, and create connections between concepts to construct their understanding of the subject matter (Conole, 2018).
2. Digital Literacy: Students are expected to develop digital literacy skills, including the ability to critically evaluate information, navigate online resources, and collaborate effectively in digital environments (Veletsianos, 2022).
3. Networked Learning: Students engage in networked learning experiences where they connect with peers, experts, and resources to co-create knowledge, share insights, and participate in collaborative learning activities within digital networks (Popovici and Mironov, 2015).
4. Lifelong Learning: Connectivism promotes a culture of lifelong learning, where students are encouraged to adapt to changing information landscapes, continuously update their skills and knowledge, and participate in ongoing learning communities.
In the contemporary landscape of education, the integration of new technologies has ushered in a paradigm shift in teaching and learning methodologies. Central to this transformation is the theory of competencies, which underscores the mastery of specific skills and knowledge essential for success in the ever-evolving global society. Immediate feedback mechanisms facilitated by educational technologies play a crucial role in advancing competency-based education. Through online assessments, interactive quizzes, and automated grading systems, students receive timely feedback on their progress and performance, enabling them to identify areas of weakness and take corrective actions promptly. This real-time feedback loop promotes continuous improvement and empowers students to take ownership of their learning by actively engaging in the process of self-assessment and reflection (Langworthy, 2022).

Maria Langworthy's work delves into the role of technology in promoting student agency and self-directed learning. She highlights how new technologies empower students to take control of their learning journey, set goals, and monitor their progress towards mastering competencies. By leveraging digital tools and resources, students can explore diverse learning pathways, seek out personalized support, and develop a deeper understanding of complex concepts through interactive and engaging experiences.

CONCLUSIONS

In conclusion, the integration of artificial intelligence in education is leading to the emergence of new paradigms that are reshaping the role of teachers and transforming teaching

practices. By embracing new theoretical frameworks and leveraging AI technologies effectively, educators can create engaging and personalized learning experiences for students. As we continue to explore the potential of AI in education, it is essential for educators to adapt to these changes, foster a culture of lifelong learning, and prioritize the human elements of teaching that are irreplaceable by technology. Even if there are transformed teaching methods, expanded access to resources, and enabled data-driven instruction, all of which enhance the learning experience. However, the challenges posed by rapid technological change and the digital divide necessitate continuous adaptation and support for educators. As technology continues to evolve, so too will the role of teachers, requiring them to embrace these changes to foster a more inclusive and effective educational environment.

In addition, the future of education is likely to see a greater focus on personalized and differentiated instruction. Advances in adaptive learning technologies, cognitive science, and data analytics are enabling educators to tailor instruction to individual learning needs, preferences, and abilities. Personalized learning approaches empower students to learn at their own pace, explore their interests, and engage with content in ways that resonate with their unique learning styles.

Further research it is needed to be conducted in order to analyze the needs for teachers training in pedagogy, technology, their well-being and retention.

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