Reimagining Teacher Roles in the Age of AI: Perspectives from Vietnamese Classrooms

Yen Thi Nguyen[1], Beverly Grace Clapano Oblina[1]

[1]ESL Coordinator, & ESL Teacher, ESL Standard Department, Vinschool Central Park, Ho Chi Minh City, Vietnam, 700000

[1]AP Seminar, Academic Writing, & ESL Teacher, ESL Standard Department, Vinschool Central Park, Ho Chi Minh City, Vietnam, 700000

Email address: yenivy90@gmail.com, beverlygrace90210@gmail.com

Abstract—Artificial Intelligence (AI) plays a transformative role in education by enhancing how teachers interact with students and manage their responsibilities. This article provides an overview of AI's influence on teaching roles by addressing three core questions: What is AI in education? What are the impacts of AI on teachers? How does AI reshape teaching practices? The primary objective is to investigate how AI tools and systems influence teaching effectiveness and holistic student development. Drawing from a synthesis of current academic literature, the paper identifies three major contributions of AI to teaching: personalization of learning, efficient task automation, and improved responsiveness to student needs. The emerging roles of teachers now include being facilitators, emotional support providers, and digital content designers. Further exploration of AI's application in ESL contexts may enhance program success and language acquisition.

Keywords— Artificial Intelligence, Education Technology, Teacher Roles, AI Impact, Teaching Innovation.

I. INTRODUCTION

Artificial intelligence has made significant advances in education and teaching. It is a vital driver of innovation in all industries globally, including education. Artificial intelligence systems provide excellent teaching assistance by, among other things, customizing learning for students, automating instructors' regular duties, and powering adaptive assessments. The swift advancement of AI technology is bringing profound changes to both teaching and learning processes. AI-driven instruction is expected to revolutionize education in essential ways (Zawacki-Richter et al., 2019). Consequently, there has been a strong push to integrate AI tools into educational practices (Cope et al., 2020). The impact of artificial intelligence on education has become a widely discussed topic. As key stakeholders in the integration of AI, teachers play a crucial role in its successful implementation (Seufert et al., 2020). Therefore, it is essential to consider their insights, experiences, and expectations when embedding AI in educational settings (Holmes et al., 2019). A teacher's readiness significantly influences how effectively technology is introduced, as it directly affects student learning outcomes (Cope & Ward, 2002; Ding et al., 2019; Ertmer, 2005; Ottenbreit-Leftwich et al., 2018). According to Sumakul (2019), educators need to develop specific competencies to navigate the challenges brought about by AI. These emerging technologies reshape teaching practices across all disciplines, including English as a Foreign Language (EFL).

The COVID-19 epidemic has had a profound impact on the worldwide education environment, precipitating an unanticipated shift away from traditional, in-person education and toward remote and AI-powered learning alternatives. With schools and institutions forced to close, instructors and students alike have quickly adapted to a new world in which technology plays a vital role in education delivery. As a result, demand for online education platforms and AI-powered solutions has increased as institutions strive to ensure that learning can continue uninterrupted. The epidemic has hastened the shift to technology-driven education, underscoring the significance of investing in AI and online learning solutions, as well as the need for institutions to be ready to pivot rapidly in the face of unexpected challenges. As the world struggles to recover from the epidemic, it is obvious that the integration of AI and online education is here to stay and will play a growing role in shaping the future of education.

In one international school in Vietnam, AI technology served as a vital resource for sustaining education during the COVID-19 pandemic. Notably, the school was among the early adopters of remote teaching during periods of campus closure and became one of the first institutions in the country to implement hybrid learning when face-to-face classes resumed. Hybrid teaching was adopted to accommodate all students, those who were physically present in the classroom and those who were at home to prevent the spread of the virus, simultaneously during the class session. Likewise, teachers who could not report physically to the school due to virus contamination while some students were in the physical classroom could continue teaching from home. Faced with the Covid-19 pandemic, AI technology is its key partner in making it possible to quickly switch from face-to-face teaching to remote teaching and from face-to-face teaching to hybrid teaching. Thus, teachers are ready to use AI technological apps in the classrooms and prepared for training when necessary.

Although artificial intelligence cannot replicate the depth of human interaction and instructional nuance provided by teachers (Rafferty, 2020), it offers significant opportunities to reshape educators' roles in positive ways. By easing the burden of routine tasks, AI allows teachers to focus more on meaningful engagement and instructional quality. This study investigates how AI influences teaching roles with the aim of

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enhancing both academic outcomes and holistic student development.

II. METHODOLOGY

The goal of the literature review is to synthesize insights from previous studies, offering a foundational framework for future research. It helps trace the evolution of knowledge, informs policy development, sparks innovative thinking, and guides inquiry within specific academic domains (H. Snyder, 2019). Sources were gathered from major academic databases including ScienceDirect, Google Scholar, ProQuest, Web of Science, Taylor & Francis, Springer, UNESCO, and reputable educational blogs. The search strategy applied Boolean operators (AND, OR) using keywords such as Artificial Intelligence, Impact of AI, and Role of Teachers in Teaching.

III. DISCUSSION

The presentation of the discussion follows the order of the research questions used in this study.

RQ1 What is AI in education?

Artificial Intelligence in Education (AIEd) represents an interdisciplinary field focused on utilizing AI technologies to assist teaching practices, enrich student learning experiences, and support educational transformation (Chen et al., 2020; Holmes et al., 2019; Hwang et al., 2020; Ouyang & Jiao, 2021). Firstly, AIEd contributes to improving instructional design by enabling features such as automated student assessments (Wang et al., 2011; Zampirolli et al., 2021), real-time monitoring of learning progress (Berland et al., 2015; Ji & Han, 2019), and identification of learners at risk of underperforming (Berland et al., 2015; Ji & Han, 2019). Secondly, AIEd promotes personalized learning via adaptive tutoring systems (Kose and Arslan, 2017; Myneni et al., 2013), the provision of tailored content (Ledesma and Garca, 2017; Zhang et al., 2020), and the identification of individual learning deficiencies (Liu et al., 2017). Thirdly, it supports educational innovation by promoting technological integration (Hwang et al., 2020), enhancing communication channels within learning environments (Holstein et al., 2019; Yannier et al., 2020), and reshaping teacher-student dynamics (Xu & Ouyang, 2022). Technologies such as machine learning and deep learning have increasingly been applied in educational contexts to optimize both instruction and learning outcomes.

The emergence of AI-powered educational technologies has led to the development of new learning platforms, such as learning management systems built around digital textbooks, data-driven personalized learning tools, voice-recognition systems, speech synthesis technologies, and chatbots powered by natural language processing (Ekin, 2022). In modern education, AI not only improves the quality of learning content but also redefines pedagogical approaches and disrupts traditional educational frameworks by introducing innovative methods of teaching and assessment. Across various sectors—from sports and mobile applications to construction and now education—AI continues to drive advancements and reveal new areas of application. Its integration with digital learning environments has introduced a transformative educational

model. The worldwide eLearning market, enhanced by AI solutions, was anticipated to exceed USD 243 billion by the conclusion of 2022. AI's role in education extends beyond automation; it is central to ongoing improvements in the quality of higher education, with over half of educational institutions relying on it for administrative efficiency. Emerging AI trends are fueling rapid expansion in the EdTech sector by boosting student engagement through customized learning experiences, interactive content, and gamified environments that support skill development. Consequently, the AI education market is forecasted to exceed USD 20 billion by 2027. This growth reflects the substantial investments being made in a broad spectrum of AI applications, including app development, educational robotics, virtual assistants, NLP, computer vision, and machine learning (Gupta, 2022). Clearly, AI is not just a passing trend—it is a driving force shaping the future of education.

Noteworthy developments in AI within the educational sector include advancements in personalized learning. Tools like Thinkster Math offer tailored instructional programs that adapt to individual student needs by identifying learning gaps and reinforcing weak areas until mastery is achieved. This approach enhances engagement and makes learning more effective and enjoyable. Another major benefit is AI-assisted grading. Teachers often spend significant time on assessment-related tasks, but platforms such as Gradescope streamline grading and provide performance analytics that help identify students who may need additional support. AI also supports various administrative functions, including course planning and scheduling, thereby allowing both teachers and school staff to focus more on instruction and student interaction.

In terms of accessibility, AI promotes inclusivity by accommodating students with varying learning needs, language backgrounds, and physical abilities. Tools like Presentation Translator generate real-time subtitles and translations, ensuring broader comprehension in multilingual or special education contexts. Furthermore, AI contributes to efficient content creation. With tools like Transcribe, educators can convert spoken lessons into written transcripts, simplifying the preparation of learning materials for both review and students who may have missed class.

Additionally, AI provides round-the-clock academic support. Platforms like Brainly offer students 24/7 assistance for their assignments and self-paced learning. Early exposure to AI tools also equips students with digital competencies crucial for future employment. As industries increasingly embrace automation, developing AI literacy at school becomes fundamental in preparing students for tomorrow's workforce.

The future trends of AI in education are growing, with estimates such as the one we cited earlier forecasting a tremendous increase in the use of AI in education over the next year. The more instructors and students utilize AI in education, the better it will grow; therefore, the possibilities are practically limitless, but we can predict the following:

More and more personalized. With the ability to analyze data more efficiently, the manner in which students engage with AI applications will become increasingly advanced.

Students will benefit from a more personalized learning experience.

Virtual reality. As virtual reality develops more advanced, VR software is going to be utilized more and more in schools to provide students first-hand experience in different subjects. Experiments in science class, for example, might be done using VR, allowing for more sophisticated but safer experiments than ever before.

Teachers vs robots. Some teachers worry that AI technology might take over their jobs in the future. But it doesn't look like that will happen. AI might be able to teach students math and help them learn a new language, but most agree that human teachers cannot be replaced when it comes to other important parts of education, like building social and emotional skills. So, teachers will not be replaced by robots, but AI will change their ways of working in the future.

Preparing students for a digital workplace. AI is expected to be utilized increasingly in professional environments, so learners will keep studying it. Schools already teach coding, which helps students get used to telling a robot (or a program) what to do. This prepares them for a future where robots and humans work together.

The trends of AI will significantly shape education in 2025. AI is beginning to transform the academic world, and this transformation will continue. Yet, informed and guided decision-making will determine whether a technology increases or diminishes learning.

RQ2 What is the impact of AI on teachers?

Most teachers are not afraid to admit that they have trouble managing their time, which is understandable given the number of tasks they have to do every day. Teachers want to spend more time teaching students one-on-one, doing research, and continuing their own education, but they do not have time to do so. AI can help teachers save time by automating tasks, analyzing student performance, and closing the educational gap. The following are key impacts of AI on teachers:

Personalization: Much as AI can tailor learning courses for students, it can also do so for teachers. AI may provide teachers with a clear picture of which subjects and lessons require reevaluation by assessing student learning histories and skills. This analysis enables teachers to design the optimal educational curriculum for all students. Teachers can modify their classes to target the most prevalent knowledge gaps or trouble areas before a student falls too far behind by examining the individual needs of each student.

Answering questions: Having access to a school's entire knowledge base, AI-powered chatbots may respond to a range of generic and repeated inquiries often posed by students without the intervention of a teaching member. AI allows teachers more time to focus on lesson planning, curriculum research, and increasing student engagement.

Task automation: Teachers typically have a lot on their plates, including lessons as well as administrative and organizational responsibilities. They grade exams, mark assignments, do paperwork, provide progress reports, arrange lecture resources and materials, handle instructional materials, and more. This implies they may spend too much time on non-teaching tasks, leaving them overloaded. AI-powered technologies may give quick feedback on student performance, allowing teachers to review and adapt their teaching approaches in real time. With the aid of automated technologies and solutions, teachers may concentrate on teaching core competencies.
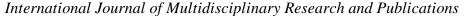
Pinpointing where courses should be improved: Teachers may not always be aware of the gaps in their instructional materials and lectures, which can lead to conceptual confusion among students. AI offers a solution to this problem. When several students submit incorrect homework responses, the system informs teachers and provides future students with tailored messages that provide suggestions to the proper response. Instead of waiting for a response from the teacher, students receive immediate feedback to assist them better comprehend the topics.

Providing personalized help: AI helps students outside of school with personalized tutoring. AI will be able to give students the extra tools they need to succeed when they need to practice skills or learn new ideas before a test.

Identifying weaknesses in the classroom: AI also recognizes classroom deficiencies. For instance, AI will determine when groups of students miss specific questions, informing the teacher when content must be reviewed. AI will keep teachers responsible and strengthen optimal teaching techniques. Although artificial intelligence will not completely replace teachers, it may reshape how teachers instruct and students learn.

Smart Content Creation for Learning: AI can help teachers make intelligent materials that are more fun for both teachers and students to use in the classroom. AI can help teachers make different kinds of content that are smart and geared toward making learning easier. AI also helps by making creative content. Digital textbooks, video lectures, conferences, and other forms of creative content are all included. Students can get the highest grades by using these methods, which are made possible by artificial intelligence, which lets teachers create personalized learning experiences.

Greater Benefit Students with Special Needs: AI is making disabled people's lives a lot better. AI really shines when it comes to helping people with disabilities get better resources. This is similar to how it helps with customized learning. Speech recognition software like Nuance can help with word transcription for students who have trouble writing or who cannot move around as easily. Using these technologies, teachers may be able to give students better study materials that meet their individual needs better.

There is no doubt that artificial intelligence will significantly shape the future of education. It will support both teaching and learning by enhancing student performance and promoting well-rounded development. However, many of the qualities that define exceptional educators are beyond the capabilities of AI. These include the ability to inspire learners, cultivate a supportive and inclusive classroom environment, manage interpersonal challenges, foster a sense of connection and belonging, and view situations through the lens of each individual student. Additionally, guiding students in exploring values, self-identity, history, and social context—along with

providing mentorship—are deeply human aspects of education. These essential responsibilities lie at the heart of teaching and are not tasks that technology should attempt to replace.

RQ3 How does AI impact the role of teachers in teaching?

Artificial Intelligence changes the role of teachers in teaching for the better by reducing their workload and making their instruction more efficient. Some teachers' roles are being performed by AI (Sumakul, Hamied & Sukyadi, 2022). These could serve as indications that teachers' roles are being disrupted. This does not mean, however, that teachers would be replaced by AI in the near future, as suggested by some experts (e.g., Edwards & Cheok, 2018; von Radowitz, 2017). AI could help the work of a teacher, but the teacher will still be a key element in the classroom, a determining factor in helping students to become successful learners. Instead, teachers should be ready to upgrade themselves by learning new roles required in AI-injected learning settings (Montebello, 2018). Teachers must have a requisite knowledge to apply AI apps in the classrooms.

When introducing artificial intelligence technology into classrooms, *teacher readiness* is a crucial factor to consider. In this context, teacher readiness relates to teachers' technological and pedagogical aspects of AI apps. According to study done by Sumakul, Hamied, and Sukyadi (2022), the coordinator of the writing courses that utilized Plot Generator mentioned this concern. She stated that the other teachers under her supervision may not feel comfortable using the app because they were not trained on how to teach using the app. When asked what she would do differently the next semester regarding this issue, she responded, "I would better train the instructors and give lesson plans for the teachers." They are consistent with the notion that instructors require assistance and support while utilizing technology (Ding et al., 2019; Owen et al., 2020). Sumakul (2019) highlights that AI might play many roles in the lesson delivery stage, but the preparation stage and evaluation stage would still be dominated by the human teacher. AI apps are just tools, designed to help teachers to teach better, so students learn more. AI will change the role of teachers in the classroom. Here are some new roles of teachers: *overseers who design and select machine-led instruction, student motivation monitors, learning motivators,* and *pastoral support providers.*

Teachers as overseers who design and select machine-led instruction: Teachers have realized the effects of using AI in teaching, and their roles have changed, especially in EFL classrooms (Sumakul, Hamied & Sukyadi, 2022). Their main job is to help their students get involved in the learning process and learn better. One job of teachers is to find ways to use apps as teaching tools. They decide if an AI app could be helpful for their students and how to use it properly. One interesting discovery about how teachers' roles are changing is that teachers actually want to help make AI apps. Involving teachers in app development could be the key to making AI apps work well in the classroom, since teachers could give many ideas about how the apps can be used to teach.

Teachers as monitors of student motivation: If the AI applications could only be used by a certain sort of student, and the students using the AI app must be active, autonomous, and "very driven" to complete the tasks independently, then there is a problem. What about students lacking in motivation? Many feel that, in addition to ability, motivation is another crucial ingredient for successful learning. Motivation has the ability to affect what, how, and when we learn (Schunk & Usher, 2012). In the context of language acquisition in particular, Dornyei and Ryan (2015) assert that motivation aids in initiating and sustaining the learning process. So, it is the teacher's responsibility to keep students interested throughout the learning process.

If a teacher discovers that an app may not be appropriate for students with low motivation, there may be internal or external problems to consider (Deci & Ryan, 1985), or the app's pedagogical design may be inadequate (Rieland, 2017; Zawacki-Richter et al., 2019). It is the teacher's responsibility to devise activities that will motivate their students. The teacher chooses what and how to use technology in the classroom. If it has been determined that an app has no positive impact on student learning, the teacher may opt not to utilize it or create activities that might enhance the app's pedagogical potential.

Teachers as facilitators and counselors: With AI performing some administrative work, teachers may devote more time to assisting students in comprehending classes and providing guidance. Several students committing identical errors on the same work, for instance, is a signal of a probable issue requiring teachers' attention and follow-up. Most significantly, instructors can help students maximize their skills and approach life optimistically. This demands certain abilities, including emotional intelligence, creativity, and communication. All of these are beyond the capability of machines.

Teachers as providers of pastoral care: Pastoral care encompasses the support offered to address students' emotional, mental, physical, and spiritual well-being. Every learner has the right to experience their educational journey in a safe and supportive environment. Various factors—including caregiving duties, disabilities, mental health concerns, family background, gender identity, and personal relationships—can significantly influence a student's academic performance and overall welfare. It is the teacher's role to offer guidance and support in these areas. As students navigate complex stages of identity development—political, cultural, social, sexual, and spiritual—the process can be challenging. Teachers must listen with empathy, acknowledge students' experiences, and provide a space for reflection and growth. This holistic support plays a vital role in students' personal and academic development—something technology alone cannot provide.

Therefore, educators ought to take on the roles of facilitator, mentor and counselor, online content curator, activity organizer, and project designer, among other responsibilities. Educators should enhance their social-emotional abilities, awareness of students' needs, data analysis skills and adept use of data and information, as well as creativity in instruction. Teachers may spend more time

collaborating with each other. More time for collaboration should translate into better outcomes for students.

Automation lessens the teachers' burden. Most of the saved time may be invested in enhancing education through more tailored instruction and direct mentorship. Also, additional time can enhance social–emotional growth and the development of 21st-century skills, which will be required to survive in an increasingly computerized workplace. Instructors may cultivate one-on-one connections with students, promote self-control and tenacity, and facilitate student collaboration.

IV. CONCLUSION

Artificial intelligence is having a significant impact on the education industry. It will alter instructors' roles in the classroom. Instructors must be prepared to use AI in the classroom. Teachers' administrative and teaching workloads will be eased by AI technology apps. These repetitive duties will be taken over by artificial intelligence. Teachers' duties will shift from knowledge transmitters to pastoral support givers, facilitators, mentors, and counselors, online content curators, activity organizers, and project designers, among other things. AI enables instructors to be more flexible, innovative, and resourceful in their search for methods to improve their teaching effectiveness for improved student outcomes and holistic student development. Students may create a bright future for themselves by incorporating AI into the classroom. With this in mind, a research on the use of AI in ESL classrooms is a potential study.

V. IMPLICATIONS

Education's fundamental goal is to equip students for real-world experiences, and as artificial intelligence becomes increasingly integrated into various industries, preparing learners to interact with AI effectively is essential. To ensure future success, students must develop the ability to engage with AI tools in purposeful and productive ways throughout their educational journey. Without this preparation, they risk being unready for the demands of the modern workforce. AI plays a key role in equipping learners with the skills required for both current and emerging career landscapes.

Notably, Vietnam stands out as one of the few nations that managed to navigate and recover successfully from the global pandemic, positioning itself as a promising environment for business growth and investment. To support this momentum,

it is crucial to prepare students not only with strong English communication skills but also with the career readiness and digital competencies needed to thrive in an increasingly AI-driven economy.

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