

AI in Education: A Threat to Teachers or a Tool for Enhancing Learning?

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ABSTRACT

Artificial Intelligence (AI) is playing an increasingly important role in education, changing how students learn and how teachers teach. This essay explores both the opportunities and risks of using AI in schools. On the positive side, AI supports personalized learning by adjusting materials based on students' needs, helps teachers by automating routine tasks, and improves access for students in remote areas or with special needs. When used effectively, AI can make education more inclusive, efficient, and flexible. To examine these issues, this essay applies a descriptive–analytical–argumentative method. It begins by explaining how AI is used in education, then analyzes both its benefits and drawbacks, and finally presents a reasoned position supported by academic literature and real-world examples. The essay draws on sources from both international and Indonesian contexts to ensure relevance and balance. This topic is significant because AI adoption in education is growing rapidly, yet many institutions and educators are not fully prepared to face its ethical, pedagogical, and technological challenges. Therefore, it is suggested that schools, policymakers, and teacher-training institutions work together to create clear guidelines, ensure ethical data use, and equip teachers with the necessary skills. A thoughtful, human-centered approach is essential to ensure that AI enhances, rather than replaces, the irreplaceable role of educators.

Keywords: Artificial Intelligence, Education, Threat, Enhancing

INTRODUCTION

In recent years, technology has changed many parts of human life, including how we learn and teach. One of the most important technologies today is Artificial Intelligence (AI). In schools and universities, AI is used in many ways—for example, to give feedback to students, grade assignments automatically, and create learning programs that adjust to each student's needs. These tools are helping teachers manage large classes and helping students study in more effective ways.

Many experts believe that AI can improve the learning process. AI tools can track how students perform, find areas they do not understand, and give them help that fits their learning style. This is known as personalized learning. Luckin & Holmes (2016) explain that AI systems can give students the right material at the right time, which helps them learn better and faster. For busy classrooms, this is a big advantage because one teacher cannot always give full attention to every student.

Teachers also benefit from AI. Some tasks, like grading quizzes, checking grammar, or making reports, can now be done by AI systems. This gives teachers more time to focus on real teaching, such as helping students face to face, discussing ideas, and giving emotional support.

Holmes et al. (2019) say that when AI handles boring tasks, teachers can become better guides and motivators for students, rather than just information providers.

AI can also help students who need special support. For example, there are apps that can read texts aloud, turn speech into writing, or translate from one language to another. These tools are useful for students with disabilities, or those who live in areas where there are not enough teachers. According to UNESCO (2021), AI has the power to make education more equal by giving access to learning to more people around the world, including in poor or remote regions. However, some people are worried that AI might replace teachers in the future. If schools rely too much on AI, human teachers may lose their important roles in the classroom. Selwyn (2019) warns that education could become too mechanical and cold, and that students might not get enough attention, care, or motivation from machines. This could make learning less meaningful and reduce the value of the teacher-student relationship.

Another problem is that AI cannot understand human feelings. Teachers can feel when a student is confused, sad, or unmotivated—AI cannot. Biesta (2010) says that teaching is not only about giving knowledge. It is also about guiding students to grow as people, with values, ethics, and character. These are things that only humans, not machines, can give fully. There are also risks in using AI without strong rules. For example, AI systems collect student data to work well, but this can become a problem if that data is not protected. There are also cases where AI gives unfair results because of bias in the system. Zawacki-Richter & Jung, (2023) remind us that schools must use AI carefully, with rules that protect students' rights and privacy.

Because of these different views, this essay will explore whether AI in education is more of a help or a danger. It will look at both the good and bad sides, using opinions from experts and examples from real life. In the end, the essay will argue that AI is not something to fear, as long as it is used wisely. When teachers and AI work together, students can get the best of both worlds.

METHOD

This essay applies a descriptive–analytical–argumentative method to examine the role of Artificial Intelligence (AI) in education. This method is appropriate for non-empirical academic writing that aims to explain phenomena, analyze contrasting viewpoints, and develop reasoned arguments supported by credible literature.

In the descriptive stage, the essay outlines the concept of AI and its practical applications in educational settings, such as adaptive learning platforms, automatic grading systems, and virtual tutoring tools. This section provides readers with foundational knowledge about how AI is transforming teaching and learning.

In the analytical stage, the essay explores both the benefits and the risks of AI integration. Sources that highlight positive aspects are drawn from peer-reviewed journals, global education reports, and expert opinions that emphasize AI's capacity to support personalized learning, increase access, and assist teacher efficiency (e.g., Luckin et al. (2016); Holmes, Bialik, et al. (2019); UNESCO (2021)). Meanwhile, critical perspectives are gathered from scholars and policy documents that discuss potential drawbacks, such as reduced human interaction, teacher deskilling, data privacy risks, and digital inequality (e.g., Biesta (2010); Selwyn (2019)).

In the argumentative stage, the essay presents a reasoned stance that AI should serve to enhance—not replace—the professional role of teachers. The argument builds on a synthesis of contrasting scholarly views and advocates for a balanced, human-centered approach to AI adoption in education.

The sources used in this essay were selected purposefully, based on academic credibility, relevance to the topic, and representation of both supportive and critical views on AI in education. Preference was given to peer-reviewed journals, educational reports, and expert analyses from both international and Indonesian contexts. Random or non-academic sources were excluded to ensure the reliability and scholarly integrity of the discussion.

DISCUSSIONS

The rapid growth of Artificial Intelligence (AI) in education has brought many changes to how students learn and how teachers teach. This development has sparked debate among educators, researchers, and policymakers. Some view AI as a valuable tool that can help improve teaching and learning, while others worry it may replace teachers and reduce the human side of education. This section explores both perspectives by looking at how AI can enhance education and also what risks it may bring to the teaching profession. The goal is to give a balanced view of AI's role in the classroom today and in the future.

A. *AI as a Tool for Enhancing Learning*

Artificial Intelligence (AI) is becoming more popular in education around the world. Many experts believe that AI can help improve the way students learn and support teachers in their work. Instead of replacing teachers, AI can be used as a smart tool to personalize instruction, automate repetitive tasks, expand access to learning, and offer practical solutions through adaptive technologies. This section explores these key benefits and how they can help build a more effective and inclusive educational environment.

1. *Personalized Learning through AI*

One of the most important benefits of AI in education is its ability to create personalized learning experiences. Unlike traditional teaching methods that often use the same materials for all students, AI can adjust the content based on a student's individual needs. For example, some AI systems can give easier questions to students who are struggling, and harder tasks to those who learn faster. This helps all students learn at their own pace (Holmes, Bialik, et al., 2019).

AI-powered learning platforms also collect data about how students perform. From this data, the system can understand which topics a student finds difficult and provide more practice in those areas. This makes learning more focused and effective. For teachers, it also provides useful insights to know which students need extra help (Luckin et al., 2016).

In addition, personalized learning can help increase student motivation. When students see that the lessons match their level and interest, they are more likely to stay engaged. AI tools like Squirrel AI in China or Knewton in the US have shown how adaptive learning systems can help improve test scores and learning outcomes (Zawacki-Richter & Jung, 2023). In Indonesia, some EdTech platforms like Ruangguru have started adding adaptive features that support students with different learning speeds.

Although AI cannot fully replace human understanding, it can help teachers give better support by making the learning process more personal. With the right use of AI, each student can get the help they need, without making others wait or feel left behind.

2. *Automating Administrative Tasks for Teachers*

Teachers often spend a large part of their time on non-teaching tasks, such as checking homework, grading assignments, recording attendance, and preparing reports. These tasks, although necessary, can take away time that could be used for planning

lessons or giving students personal attention. AI offers a solution by helping teachers manage these routine activities more efficiently (Fitria, 2021).

AI tools can automatically grade multiple-choice tests and short answers. Some systems can even provide instant feedback to students, so they can learn from their mistakes right away. This not only saves time for teachers but also helps students improve faster. According to (Holmes, Bialik, et al., 2019), using AI for assessment can reduce teachers' workload and give them more space to focus on pedagogy.

In some schools, AI systems are also used to track student behavior and attendance. For example, facial recognition or login data can show who is present or which students may need support. While these tools can be helpful, they must be used with care to avoid privacy problems (Zawacki-Richter & Jung, 2023).

AI does not replace the teacher's job, but it can help make the job more manageable. By reducing the pressure of repetitive work, AI gives teachers the chance to be more creative and supportive in the classroom. With proper use and ethical rules, AI can become a valuable assistant, not a burden.

3. *Expanding Access and Supporting Inclusive Education*

AI can help make education more available to students who often face barriers in learning. In many rural or remote areas, there are not enough qualified teachers or learning resources. With the help of AI-powered platforms, students can still access lessons, videos, and practice materials anytime and anywhere. This helps reduce the education gap between urban and rural regions (UNESCO, 2021).

For students with special needs, AI offers many tools that support inclusive education (Fitas, 2025). For example, speech-to-text apps help students who have difficulty writing, while text-to-speech tools help those who struggle with reading. Some AI programs even provide visual or audio instructions that suit different types of learners. These features can give students more independence in learning and help them feel more confident in class (Holmes, Bialik, et al., 2019).

In Indonesia, online learning platforms like Zenius and Ruangguru began using AI-based features during the COVID-19 pandemic to reach students across the country. Although internet access remains a challenge in some areas, the use of AI has opened new possibilities for equal access to education (Haetami, 2025).

It is important to note that technology alone is not enough. AI must be combined with good planning and infrastructure support. However, when used properly, AI can help build a more inclusive education system that respects every student's right to learn.

4. *Practical Applications of AI in Education*

In recent years, many schools and learning platforms have started using AI in practical ways (Vieriu & Petrea, 2025). One well-known example is Khan Academy, which uses AI to guide students through lessons and give instant feedback. The system can track student progress and offer the right questions at the right level. This makes learning more active and personalized (Holmes, Bialik, et al., 2019). Another popular example is Duolingo, a language learning app that uses AI to adjust lesson difficulty and recommend review activities. It helps users practice the skills they are weakest in. These AI-powered apps show how technology can help learners improve faster and stay motivated (Essafi et al., 2024).

In Indonesia, platforms like Ruangguru and Zenius have started integrating AI. Some of these offer personalized feedback and smart learning paths. These changes show AI's growing role in national education (Sihaloho & Napitupulu, 2024).

Schools in developed countries are also experimenting with AI tutors. These digital assistants can answer questions, explain topics, and help with assignments. Though they are not perfect, they help fill the gap when teachers are not available. With the right policies, such systems can be very useful in supporting teachers and improving student learning outcomes.

B. AI as a Threat to Teachers

While AI offers many benefits for education, it also raises serious concerns, especially for teachers. Some educators worry that AI systems may slowly take over important parts of their job, such as giving feedback or planning lessons. There is also fear that teachers will lose their value and be seen only as assistants to machines. This section discusses the possible threats that AI brings to the teaching profession, including job insecurity, reduced professional autonomy, lack of emotional connection, and ethical problems related to data use. These concerns must be considered carefully when deciding how to use AI in the classroom.

1. Job Displacement and Teacher Insecurity

One of the biggest fears among teachers is the possibility of losing their jobs because of AI. As technology becomes smarter, some school systems might think that fewer teachers are needed (Chan & Tsi, 2023). For example, if AI can teach, grade, and give feedback, some people may believe that human teachers are no longer necessary. This creates anxiety and uncertainty for many educators (Selwyn, 2019).

In some online learning platforms, AI chatbots already answer student questions, explain concepts, and give scores instantly. While these tools are useful, they may lead schools to reduce the number of teachers, especially in large classes or remote programs. When teachers feel that their role is being replaced, it can lower their motivation and job satisfaction (UNESCO, 2021).

However, research shows that AI still cannot replace the unique human touch that teachers bring. But if schools rely too much on AI without clear boundaries, the risk of teacher displacement will grow. Teachers need assurance that technology will support them, not take over their work.

2. Erosion of Professional Autonomy

Another major concern with the rise of AI in education is the risk of reducing teachers' professional freedom. Teachers are trained to make their own decisions about how to teach, based on their students' needs and the classroom context. However, some AI systems offer fixed recommendations or auto-generated lesson plans that limit the teacher's ability to choose the best method (Biesta, 2010).

If schools or platforms require teachers to follow AI-generated suggestions too closely, the role of the teacher becomes more passive. This can reduce creativity and critical thinking in teaching. Over time, educators may feel like they are simply operators of a system instead of professionals making real decisions (Luckin et al., 2016).

In some cases, school leaders may even trust AI results more than teacher judgment. This could damage the teacher's status and influence in the learning process. While AI can provide useful data, it should be used as a support tool—not as a controller of instruction. Teachers must remain the main decision-makers in the classroom.

3. Lack of Emotional Connection in AI-Based Classrooms

Teaching is not only about giving knowledge; it is also about building relationships. One key role of teachers is to understand students' emotions, give encouragement, and

respond with empathy. AI, no matter how advanced, cannot feel or express real emotions. This lack of emotional connection may affect the learning experience, especially for students who need personal attention and motivation (Selwyn, 2019).

Students often learn better when they feel supported by someone they trust. A kind word from a teacher or a look of understanding can make a big difference, especially for those who struggle. AI can provide fast answers or feedback, but it cannot offer true human care. Some students may feel more isolated when interacting only with machines (Luckin et al., 2016).

In classrooms where AI tools are used heavily, the role of the teacher as an emotional guide may be reduced. If this continues, students may see learning as a mechanical process, not a human experience. Emotional support is important for developing confidence, motivation, and a sense of belonging—all of which are hard to achieve through AI alone.

4. *Ethical Concerns and Data Privacy Risks*

AI systems in education collect large amounts of data from students, such as test results, behavior patterns, and even personal information. While this data can help improve learning outcomes, it also creates serious risks. If student data is not protected properly, it may be leaked, sold, or used without permission. These risks are especially dangerous for younger students who may not fully understand how their data is handled (UNESCO, 2021; Sihaloho & Napitupulu, 2024).

Another major concern is the lack of transparency in how AI systems make decisions. Many AI algorithms are complex and not easy to explain. For example, if an AI tool gives a student a low score or blocks their access to certain content, it may be unclear why. This lack of transparency can create confusion and raise questions about fairness. (Park & Kwon, 2024) and (Boulay, 2023) argue that when decisions are made by AI without clear reasoning, trust in the system may decrease.

There is also growing worry about bias in AI systems. If AI tools are trained on data from one cultural or social group, they may not work fairly for students from other backgrounds. This can lead to discrimination or unequal learning opportunities. AI should support equity, but without careful design, it could widen existing gaps (Holmes, Bialik, et al., 2019); (Haetami, 2025)).

In addition to data security and bias, ethical use of AI also involves respecting the roles of human teachers. Teachers must remain in control of the learning process, while AI serves only as a supporting tool. (Karran et al., 2024) emphasize the importance of including all stakeholders—teachers, students, developers, and policymakers—in decisions about how AI is used in education.

To avoid ethical problems, schools and governments must create clear rules about how AI can be used. Teachers also need training to understand the risks and to use AI responsibly. Protecting privacy, ensuring fairness, and maintaining human oversight are essential to using AI in a way that respects the dignity and rights of all students.

CONCLUSION AND SUGGESTION

The integration of Artificial Intelligence (AI) in education brings both opportunities and challenges. On one hand, AI can support learning by offering personalized content, reducing teachers' routine tasks, and making education more inclusive. On the other hand, it raises serious concerns about job insecurity, the loss of teacher autonomy, lack of emotional connection, and data privacy. These two sides show that AI is a powerful tool—but one that must be used wisely and ethically.

To make AI useful and safe in education, teachers, schools, and policymakers need to work together. Teachers should receive proper training on how to use AI tools without losing their professional role. Schools should also create clear rules to protect student data and ensure that AI supports, not replaces, the human side of learning. AI should be seen as a partner—not a replacement—for teachers.

This essay mainly focused on the advantages and risks of AI based on secondary sources. However, it does not include in-depth field research or classroom case studies. Future work could explore how AI affects real teaching practices and how students feel about learning with AI tools. This would give a clearer view of how AI truly changes the classroom experience.

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