AI as a Teacher's Ally: Transforming Classroom Management for The 21st Century

Sajida Begum

Research Scholar, Department of Education, Assam University, Silchar, sajidabegum515@gmail.com

Prof. Ajay Kumar Singh

Department of Education, Assam University, Silchar

ARTICLE DETAILS	ABSTRACT
	The term "artificial intelligence" is a combination of "artificial," meaning "not real" or "natural," and "intelligence," meaning "the ability to reason, to trigger new thoughts, to perceive and learn." Artificial intelligence is a branch of the computer science field that is highly focused on the manufacture of Intelligent machines that behave and respond just like human beings. The artificial intelligence (AI) in classroom management is the application of AI technology to improve the effectiveness and efficiency of classroom management environments and activities in accordance with the AI technology. AI technologies help teachers plan assignments, monitor student behaviour, adapt instruction, and improve classroom dynamics. By utilizing AI, teachers can devote more time to instruction and less to administrative tasks, thereby increasing student engagement and learning efficiency. The field of education in the twenty-first century depends heavily on artificial intelligence. This paper highlights the use of artificial intelligence (AI) in classroom management, its benefits, and the challenges.

Introduction:

The reproduction of human intellect in robots, which are programmed to interpret and act as people, is referred to as artificial intelligence (AI). Such cognitive abilities as learning, reasoning. This includes problem-solving, perception, and comprehension of language. Al refers to the Use of Artificial Intelligence activity of developing computer systems, robots, or software that can perform activities usually requiring human intelligence. This is made easier by looking at cognitive processes and researching the architecture of the human brain. The knowledge gathered from these investigations is used to develop software and systems that behave and think like humans. In the classroom, students learn their duties, which helps them to develop their identities in the community. A comfortable environment must be created in the classroom by appropriately furnishing it with facilities. Controlling and managing the classroom, student behaviour, and student learning are all included in the wide phrase "classroom management," which is used by instructors.

In classroom managements, artificial intelligence (AI) can be defined as the application of the technology of artificial intelligence to make the management of classroom settings and classroom activities more effective and efficient. Al-solutions assist instructors with organization work, behavior tracking, teaching individualization, and classroom dynamics improvement. Incorporating Al, educators will have an opportunity to focus on teaching more closely and less on managerial tasks, providing students with a more efficient and engaging learning process.

Review of Literature:

Allam et al. (2023). discovered that A long list of learning needs and preferences takes place among Students. Al is not the only instrument for teachers as much it can also enable them to save time and enhance their thinking skills. Students and educators should therefore be aware of the constraints, potential risks, and ethical issues surrounding the use of AI in education to optimize its benefits while reducing costs.

Kaul(2024)This study emphasizes the importance of paying close attention to implementation strategies and conducting research to maximize the benefits of AI in training future teachers to meet the demands of twenty-first-century classrooms.

Yugandhar & Rao (2024) highlight the potential way of enhancing classroom learning by the data on grades, overall academic performance in the course, and performance on the final exam: the inclusion of management approaches and increasing the experiences of students overall in their learning employment

of AI tools during English classes. Teachers will be able to implement AI-powered solutions and hence profitably address a lot of classroom management concerns, such as individualized pupil support, immediate comments, and differentiation of instruction. With the AI technology, teachers can create livelier and engaging study environments, addressing the different needs and abilities of their students. The ability to provide students with personalised assistance is the third reason why AI systems offer immense value in classroom management.

Chalak and Fallah (2019) found that the latest technological advancements in the classroom surroundings are essential for the enhancement of the students' learning, followed by rigid rules and regulations and a well-structured timetable.

Significance of the Study:

Artificial intelligence is very crucial in schooling in the 21st century. Al assists the teacher as well as the students in different ways. Teaching with the use of AI-driven technologies helps teachers do more consistent, results-based, and active learning. Classroom Apps and tools Different Apps and tools convert classroom Aided in managerial work through giving innovative explanations in a way that makes organizational responsibilities easier to handle, pupil interaction, and make customized experiences.

Objectives of the Study:

1. To learn how to use the tools of AI in Classroom Management.

2. To examine the benefits of AI in Classroom Management.

3. To study the challenges of the application of AI in Classroom Management.

Research Questions:

   a.   What AI tools are used by the teachers for classroom management?
   b.   What are the benefits of using AI in classroom management?
   c.   What challenges do teachers face in the application of AI in classroom management?

Methods of the Study:

The current study was conducted by the researcher with the help of the analytical approach. The researcher carried out a secondary the data gathered on research blogs, journal articles, books, YouTube, etc, to analyze it.

Use of AI Tools Application for Classroom Management:

Computerized Attendance Systems:

An AI-based attendance removes the need to count participants; attendance is recorded automatically through biometric presence by using facial recognition and identifying the students. As such, we can utilize, as an example, the NCheck Bio Attendance to put marks on the face recognition of students,

Behaviour Monitoring and Management:

For providing a healthy learning environment in the classroom, artificial intelligence (AI) can monitor and evaluate student progress. ClassCraft AI tool is used for monitoring student behaviour, rewarding positive activities, suggesting solutions to control negative behaviours, and promoting a supportive classroom atmosphere.

Google Classroom:

AI improves classroom management tasks and provides feedback to the students. Teachers use Google Classroom as a single platform to communicate with students, assign assignments, share materials sharing and give feedback. By combining the time and resources allotted to various activities, it helps teachers better organise their classes.

Kahoot!:

A gamified educational platform powered by AI that creates interactive games and quizzes through entertaining and engaging students. Kahoot! increases student motivation and engagement. Teachers create quizzes related to different topics with the help of Kahoot! that students may take in real time, making learning more dynamic and entertaining, and which helps the teachers in effective teaching.

Classroom Orchestrator:

Al monitors classroom activity and evaluates, and gives suggestions. It assists teachers in managing resources more effectively and conducting more sensible classes. The Classroom Orchestrator provides data-based recommendations for resource allocation enhancement, delivering instructions with an eye on different activities in the classroom.

Benefits of AI in Classroom Management:

Personalized Learning Experiences:

AI improves academic performance and pupil engagement by adjusting instruction to individual needs. DreamBox Learning adapts maths lessons on the fly to provide each learner with individualised help and challenges. (Delello, et al., 2025) reveals that the possible advantages of AI were noted in 16 (11.03%) of the responses, highlighting how AI might enhance personalized learning, aid in administrative duties, and promote innovation and creativity within education.

Improved Interaction and Cooperation:

AI improves communication between students, parents, and teachers, which improves engagement, coordination and keeps everyone involved in contact, which enhances the educational process. Remind, for instance, employs AI to improve communication by alerting and educating users about classroom events and student achievement. (Brazeau, 2025) shows that AI tools like MagicSchool.AI and Diffit are used to create lessons

Management of Study Resources:

By scheduling classes and allocating resources optimally, AI improves the efficiency of the teachers, and classes are organised efficiently. By using artificial intelligence (AI) can track the students and report on classroom activities, classroom orchestrator, for instance, helps teachers make the most of their time and resources.

Gamification and Student Engagement:

AI increases student engagement and interest by including game aspects in instructional curriculum. By encouraging good behaviour and active engagement, gamification increases the enjoyment and engagement of learning. Artificial intelligence (AI) is used, for instance, by Kahoot! to develop interactive games and tests that enhance learning goals and boost student engagement and enjoyment during class.

Feedback and Assessment:

AI is also a relief to instructors as it has eased their work and stress by providing automation and real-time features. feedback. The teachers are empowered to focus more on creative and efficient teaching strategies. As an example, capabilities enabled by artificial intelligence, such as Google Classroom and other platforms, simplify the assessment and marking process and take part of the burden off the shoulders of teachers' administrative duties. According to (Yang & Xia, 2023) AI tutoring programs

provide immediate feedback, which boosts students' confidence and self-efficacy while decreasing emotions of frustration and inadequacy.

Reducing Pressure and Administrative Stress:

AI reduces instructors' burden and stress by automating administrative duties and offering real-time feedback. Educators are enabled to concentrate more on innovative and effective teaching strategies. For instance, AI-powered features like Google Classroom and other platforms streamline the grading and feedback procedures, relieving teachers of some of their administrative duties.

Challenges for Implementing AI in Classroom Management:
Less Flexibility:

A teacher can develop a student's mind more flexibly than any AI, no matter how intelligent they are. In contrast to AI, which lacks diverse teaching methods, educators may offer a variety of techniques for problem-solving. Today, the ability to think creatively, solve problems, and use analytical reasoning is essential. AI systems and standardised tests may not be able to adequately assess these skills. It could ignore crucial components like effort, participation, or social skills used to complete a task or test. (Singh, 2025)

Technology Addiction:

Previously, students would have to stash their smartphones and tablets to attend school they would crack their obsolete textbooks. It has been impossible to keep kids off technology since it is used in all classes to think about how they are going to be in the future without it. Consequently, society will have a lot of people addicted to technology and who do not have social skills after several decades. The cause of this is that Al can strengthen addiction to technology. Students' learning may become less autonomous and creative if they rely too much on AI technologies, which would restrict their ability to learn new things because of their possible reliance on AI-provided solutions. Instead of gaining new information, they will shift cognitive work to robots by using technology without critically analysing it. Teachers' ability to properly engage pupils may be hindered by this technostress, which may also have an impact on the standard of their mentoring and emotional support services. (Chen, Yuan, Dong, Cai, & Ai, 2024)

Teacher Training and Support:

For the effective use of AI technologies and integrating them into teaching strategies, teachers need adequate training. Schools introduce instructors to AI tools and how they are used for classroom

management by conducting seminars, webinars, and hands-on training sessions. (Pan, 2024) highlighted that the existing technological infrastructure has a major impact on how successful AI applications are. Many schools may lack the equipment and internet connection that is necessary for the effective use of AI technologies, especially those in remote areas. Training initiatives that promote AI knowledge among educators are essential for tackling ethical issues and the technological constraints of AI. (Paek & Kim, 2021)

Data Privacy and Security:

Hindering unauthorized access and security breaches to sensitive information of students. Schools are to abide by the requirements governed by the regulation, such as the General Data Protection Regulation (GDPR) and the family. The protect of the student data, educational rights, and privacy Act (FERPA) was adopted.(Owoc, Sawicka, & Weichbroth, 2021) reveals that the growth of AI in education presents considerable concerns regarding privacy and data security. AI technologies often demand significant amounts of personal data, raising worries about data storage and usage methods. The possibility of data breaches or the misuse of sensitive information highlights the necessity for strong policies in educational institutions to protect student privacy and guarantee ethical data management.

Pedagogical Integration:

Incorporating AI in the training of teachers must put an emphasis on the pedagogy implications and correspondence to learning aims and targets. Better learning to advance teaming consequences, future educators desire to know how to best incorporate AI technology into their teaching plans.

Conclusion:

Artificial intelligence (AI) is surging in the field of education, and it has changed to a considerable extent. years, and it has massive potential that can be provided to the future of learning. The potential for AI is huge. In the future, it is bound to revolutionise the education sector in terms of teaching and learning; educators, researchers, tech specialists, and legislators must work together, be creative, and tackle new ethical and pedagogical issues. AI-powered chatbots and communication platforms help teachers, students, and parents. (Delello, et al., 2025) reveals that the teachers' perceived ease of use in both personal and classroom settings was significantly impacted by their high level of acquaintance with AI. From evaluating assignments to creating and refining lessons, they talked about various ways to integrate AI into their work. 54.75% participants said that AI was mostly convenient for working on

monotonous organizational responsibilities, which is in line with the Technology Acceptance Model (TAM), which holds that perceived utility initiates technology acceptance. Teachers' enthusiasm to use and adapt AI tools is anticipated to rise as they receive more professional development, which will enhance the technology's perceived value and applicability.

References:

- Allam, H., Dempere, J., Akre, V., & Flores, P. (2023). *Artificial Intelligence in Education (AIED): Implications and Challenges*. Atlantis Press International BV. https://doi.org/10.2991/978-94-6463-286-6_10.

- Brazeau,B.(2025,May06).*https://www.mdpi.com/22277102/15/2/113?utm_source=chatgpt.com#B6-education-15-00113*. Retrieved from https://www.ace-ed.org/creating-inclusive-learning-environments-supporting-the-diver.

- Chen, J., Yuan, D., Dong, R., Cai, J., & Ai, Z. Z. (2024). Artificial intelligence significantly facilitates development in the mental health of college students: A bibliometric analysis. *Frontiers in Psychology*, 15.

- Chalak, A., & Fallah, R. (2019). Effect of Classroom Management and Strategies on Students' Achievement at the Undergraduate Level. *Language Teaching Research Quarterly*, *11*, 81–98. https://doi.org/10.32038/ltrq.2019.11.08.

- Dimitriadou, E., & Lanitis, A. (2023). A critical evaluation, challenges, and future perspectives of using artificial intelligence and emerging technologies in smart classrooms. *Smart Learning Environments*, *10*(1). https://doi.org/10.1186/s40561-023-00231-3

- Delello, J., Sung, A., Mokhtari, K., Hebert, J., Bronson, A., & Giuseppe, D. T. (2025). AI in the Classroom: Insights from Educators on Usage, Challenges, and Mental Health. *Education Sciences*, 113. doi:https://doi.org/10.3390/educsci15020113

- Here, T. G. (2024). *Implementing AI : A Practical Guide for the Classroom*.

- Karsenti, T. (2019). Artificial intelligence in education: The urgent need to prepare teachers for tomorrow's schools. *Formation et Profession*, *27*(1), 105. https://doi.org/10.18162/fp.2019.a166

- Kaul, P. (2024). *Integrating Artificial Intelligence in B.Ed. Curriculum*. *12*(2), 586–590.

- Kritandani, W., Aryani, R., & Rakasiwi, T. (2024). A Report Review: Artificial Intelligence and

the Future of Teaching and Learning. *International Research-Based Education Journal*, *6*(2), 245. https://doi.org/10.17977/um043v6i2p245-253

- Nasar, I., Uzer, Y., Aisyah, Ridayani, & Purwanto, M. B. (2023). Artificial Intelligence in Smart Classrooms. *Asian Journal of Applied Education (AJAE)*, *2*(4), 547–556. https://doi.org/10.55927/ajae.v2i4.603803

- Owoc, M. L., Sawicka, A., & Weichbroth, P. W. (2021). Artificial intelligence technologies in education: Benefits, challenges, and strategies of implementation. *Springer In IFIP international workshop on artificial intelligence for knowledge management*, 37-58.

- Paek, S., & Kim, N. (2021). Analysis of worldwide research trends on the impact of artificial intelligence in education. *Sustainability, 13*(14), 7942.

- Pan, Y. (2024). The Application of Artificial Intelligence in the Classroom: Advantages, Challenges, and Suggestions. *Journal of Education, Humanities and Social Sciences, 45*, 211-216.

- Singh, T. (2025, May 05). *https://teacherplus.org/2023/2023/july-2023/artificial-intelligence-in-the-classroom-a-benefit-or-hindrance/*. Retrieved from https://teacherplus.org/.

- Technology, C. (2023). *The Educator ' s Lens : Understanding the Impact of AI on Management Education Navita Vashista , Preeti Gugnani & Manju Bala Panipat Institute of Engineering and Technology , India Anuj Kumar Apeejay School of Management , India*. *19*(3), 9–27.

- Yang, Y., & Xia, N. (2023). Enhancing students' metacognition via AI-driven educational support systems. . *International Journal of Emerging Technologies in Learning,, 18*, 133-148.

- Yugandhar, D. K., & Rao, D. Y. R. (2024). Artificial Intelligence in Classroom Management: Improving Instructional Quality of English Class with AI Tools. *Educational Administration: Theory and Practice*, *30*(4), 2666–2672. https://doi.org/10.53555/kuey.v30i4.1914