



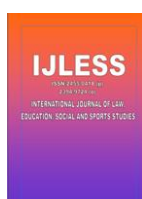
Impact of Artificial intelligence on performance of teachers

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ABSTRACT

Education is not an exception to how artificial intelligence (AI) is drastically altering several industries. The incorporation of AI into educational settings has completely upended the field of education as it develops, presenting both tremendous opportunities and tremendous problems. We shall examine the main benefits and drawbacks of artificial intelligence in education in this article, looking at them from many of angles. Integrating AI in education has significantly transformed teaching methodologies, teachers performances and assessments etc. This paper explores the role of Artificial intelligence in enhancing teachers performance through personalised feedback and administrative support. AI tools such as automated grading system, virtual of teaching effectively, reducing bias and enhancing fairness. However the challenges such as data assistants and different platforms, allow teachers to optimize instructional strategies, identifies the areas of improvements and it focuses on students engagement. By analysing large datasets, It provides objective evaluation privacy, ethical considerations and teacher adoption to artificial intelligence tools remains critical. This study highlights the potentiality of AI to compliment teachers role, improve teaching outcome and reshape the education system for emphasizing the need for balancing and human centred.

Introduction

Artificial intelligence in education has introduced transformative possibilities and reshaping how teaching learning process conducted. AI technologies such as machine learning algorithms, data analytics and intelligence systems are increasingly integrated in to educational systems to enhance teachers performance effectively. The tools offers wide range of capabilities such as automated grading, personalized planning, feedback and monitoring performances which empowers teachers to streamline their work and focus on quality education. Through AI, teachers can identify students needs, progress and based on that they can modify their teaching strategies to improve learning outcome. AI provides performance analysis for teachers, offers valuable feedback on instructional practices and area of professional growth. It enhances efficiency, and reduces teachers workload, technical changes, ethical aspects and data privacy. The integration of AI allows teachers to focus more on students

engagement and less on time consuming administrative work. AI system provides insights into students progress, teaching strategies to individual needs, helping teachers to identify areas for improvement in their teaching methods & also it enhance teachers performance, it raises concerns, ethical issues and humanisation in education.

This paper explores the significant impact of AI on teachers performance, effectiveness in teaching and challenges associated. But integration of AI in education enables collaborative relationship between technology and educators to improve students success.

Review of related literature

The impact of Artificial Intelligence on teachers performance has a growing area of research. As AI continues to shape educational practices. so many studies explored how AI enhances teachers effectiveness, administrative burdens and supports instructional delivery.

1. **Chen et al. (2019)** examined AI based adoptive learning systems and found that they help teachers tailor lesson plans and identify struggling students effectively.
2. **Sun, Cui and Zhou (2020)** Highlights that AI driven administrative support systems improve time management and reduce teachers burnout.
3. **Denial and butson (2021)** emphasized AI analytics platforms use classroom data to provide actionable feedback on teachers instructional methods.

Artificial intelligence

“It is a set of technologies that enable computers to perform a variety of advanced functions”

There are four primary AI types reactive, limited memory, theory of mind and self-aware.

The father of AI is John M C Carthy.

Definitions of AI

According to IBM: “AI is technology that enables computers and machines to simulate human learning, comprehension, problem solving, decision making, creativity and autonomy.

According to McCarthy (1956) : Artificial Intelligence is the science and engineering of making intelligent machines, especially intelligent computer programs. It is related to the task of using computers to understand human intelligence, But AI does not confine itself to biologically observable methods”

Advantages of AI tools to teachers

1. As number of students increases in institution, Ai will work easing the burden on teacher
2. To analyse the syllabus and course material
3. To grade and conduct exams
4. It helps to focus and identify on gifted and slow learners
5. Better analysing the studying data
6. Provide platform to individual teaching
7. It detects the image of handwritten papers, so it helps in analysing and grading the exam papers.
8. It reduces the cheating and plagiarism from students
9. It provides past and personal data of students in short span of time
10. It provides platform to individual learning based on their own grasping power and study will learn through enjoy and interest.
11. It develops students knowledge, learning capabilities, and performances also

12. It gives direction to career path of each student by gathering studying data.

13. It enables teachers to gain students insight

Disadvantages of AI tools to teachers:

1. Job insecurity
2. Loss of autonomy
3. Bias and Inaccuracy
4. Dependent on technology
5. Loss of personal connection
6. Increasing workload for integration
7. Technical challenges
8. Limited adoptability
9. Costly for implementation
10. No data privacy for ethical considerations
11. Digital Divide - Not all students have to access to devices, internet connectivity etc
12. Dehumanisation of education
13. Unemployment

Conclusion:

The impact of artificial intelligence on performance of teachers like enhances their efficiency, personal learning, professional development, challenges and collaborative potential. So, AI has significantly enhances the performance of teachers when they used judiciously, innovative and student-centered environment.

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