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Applying *Trans-deconstruction Theory on Monism* to AI Tools for Innovative Lesson Plans and Effective Teaching-Learning



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Abstract

The application of Artificial Intelligence (AI) in education has transformed teaching methodologies, enabling educators to enhance their operational functions through detailed reports, integrated plans, and tailored resources. This study delves into the educational spectrum in conjunction with AI tools that have been implemented recently. The article explores how AI tools have innovated teaching methods, helped educators achieve their goals, and empowered academicians by simplifying complex tasks. We will examine specific AI applications, including Generative AI, and their profound impacts on education and learning.

Keywords : Trans-deconstruction, Monism, Artificial Intelligence (AI), Generative AI, Inquiry-Based Learning (IBL)



Introduction

AI refers to technologies or "computing systems" capable of engaging in human work processes, learning, adapting, correcting, analyzing, and using data to perform complex tasks. In the educational landscape, AI provides educators with frameworks, including details, recommendations, and resources tailored to classroom needs. This technology understands individual requirements through prompts or keywords, allowing educators to strategize their long-term academic goals efficiently. Traditionally, formulating such frameworks took hours, but AI now allows educators to save significant time and formulate effective strategies.

Generative AI has garnered significant attention due to its revolutionary capabilities. It enables systems to generate human-like images, texts, and sounds using machine learning algorithms that analyze and replicate specific content structures. This study will explore how AI is used in lesson planning, focusing on personalization, data analysis, customization, and resource recommendations.

Inquiry-Based Learning (IBL)

IBL is a "constructivist paradigm" that engages both students and teachers in constructing knowledge and meaning. It encourages in-depth subject learning and increases student motivation by making the learning process engaging. IBL fosters active student involvement in knowledge creation. Traditional teaching methods often apply a structured inquiry, while IBL promotes open-minded exploration, balancing student autonomy with teacher guidance. This method emphasizes the student's independence to learn rather than the educator's control to teach.

Compared to conventional methods, IBL enables students to retain interest in subjects and improves conceptual learning, particularly in complex theories. However, challenges exist in implementing advanced systems in education. Teacher competency is crucial to avoid classroom hindrances, necessitating specialized training programs for educators. Additionally, covering the entire curriculum poses challenges, as IBL is resource-intensive, requiring comprehensive access to various resources.



Content Recreation :

Generative AI allows educators to engage in content recreation, enhancing course structures and creating interdisciplinary programs integrated with technologies like GenAI and machine learning. GenAI, the technology behind large language models (LLMs), such as OpenAI's Generative Pre-trained Transformer (GPT) and Google's Gemini, has revolutionized educational methods. Research suggests that GenAI provides pedagogical and functional opportunities for teachers that influence curriculum changes and assessment methods.

The priority of AI in education lies in developing teaching resources rather than merely multimodal applications. Content recreation has progressed, especially with tools like ChatGPT, which enable users to create more insightful and exploratory content. This innovation promotes personalized learning and comprehensive assessments. The salient features include:

- **Personalization**: AI analyzes data to yield better results. This process helps teachers identify student strengths and weaknesses, allowing them to adapt strategies accordingly.
- **Resource Recommendation**: AI simplifies lesson planning by focusing on specific areas where students struggle, providing essential resources, including books and articles relevant to the subject.
- Efficacy and Adaptive Learning: AI automates processes, generating comprehensive lesson plans and gathering resources, allowing teachers to engage more personally with students.

Conclusion

AI has catalyzed advancements in education, offering innovative ideas, solutions, and lesson plans. Machine learning algorithms have facilitated content recreation, enabling knowledge creation and deeper understanding of traditional subjects. AI saves teachers time, provides alternative teaching methods, and allows for personalized engagement with students. It also enhances curriculum design, enabling educators to focus on specific areas and introduce courses aligned with institutional and student interests. As AI innovations continue, there is an urgent need to develop training programs for educators to navigate the technologically-driven educational landscape effectively.



Endnote

This research paper illustrates the innovative integration of Dr. Pramod Ambadasrao Pawar's *Trans-deconstruction Theory on Monism* with AI tools in education. By analyzing AI's role in enhancing lesson planning and teaching methodologies, the study highlights the potential for transforming traditional educational frameworks into more dynamic and personalized learning environments. It credits the pioneering contributions of Dr. Pawar in fostering a deeper understanding of how AI can reshape pedagogical practices, ultimately promoting more effective and engaging learning experiences for educators and students alike.

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