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Research on Artificial Intelligence Promoting English Learning in the Context of NEP 2020

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Abstract

The National Education Policy (NEP) 2020 emphasizes leveraging technology to enhance teaching and learning processes across disciplines, including English language education. English is not only a global medium of communication but also a critical skill for accessing knowledge in India's multilingual and multicultural society. This paper investigates how Artificial Intelligence (AI) can be integrated into English teaching and learning, aligning with NEP 2020's vision of holistic, flexible, and technology-driven education. The research explores AI's applications in improving pedagogy, fostering personalized learning, and addressing diverse linguistic needs in India.

Keywords: *Artificial Intelligence, English Teaching, NEP 2020, Personalized Learning, Educational Technology*

Introduction:

The National Education Policy (NEP) 2020 emphasizes leveraging technology to enhance teaching and learning processes across disciplines, including English language education. English is not only a global medium of communication but also a critical skill for accessing knowledge in India's multilingual and multicultural society. This paper investigates how Artificial Intelligence (AI) can be integrated into English teaching and learning, aligning with NEP 2020's vision of holistic, flexible, and technology-driven education. The research explores AI's applications in improving pedagogy, fostering personalized learning, and addressing diverse linguistic needs in India.

Role of Artificial Intelligence in English Education under NEP 2020

NEP 2020 prioritizes technology as a core enabler of equitable and quality education, especially for language learning. AI technologies—machine learning, natural language processing, and intelligent tutoring systems—can bridge learning gaps and empower learners in India's diverse linguistic landscape. By incorporating AI-driven solutions, English education can be tailored to meet individual learning needs, thus supporting the NEP's objectives of inclusivity and accessibility.

Core Concepts and Features of Artificial Intelligence

Machine Learning and Intelligent Search

Machine learning provides a data-driven approach to analyzing students' progress and tailoring instructional strategies. In the Indian context, it can help address diverse learning needs across rural and urban regions. For example, AI tools can identify patterns in students' achievements and provide localized solutions to enhance learning outcomes. These insights support NEP 2020's focus on personalized education and competency-based assessments.

Natural Language Processing (NLP)

NLP facilitates meaningful interactions by enabling AI systems to comprehend and process multiple languages. Given India's multilingual fabric, NLP can be instrumental in teaching English while supporting students' mother tongues, as envisioned by NEP 2020. AI tools can enable bilingual learning, promoting a smoother transition to

English proficiency without undermining native language competencies.

AI and Its Impact on English Education in India

AI aligns with NEP 2020's vision of fostering foundational literacy and numeracy through technology. In English education, it addresses the challenges of resource constraints, teacher shortages, and language diversity. AI-powered systems can simulate conversational practice, provide real-time feedback, and enable remote access to quality learning resources, thus democratizing access to English education in India.

Applications of AI in English Education in the NEP 2020 Framework

Transforming Learning Environments

AI creates immersive and interactive learning ecosystems, which are particularly beneficial in under-resourced classrooms. In India, where traditional English teaching often lacks contextual engagement, AI systems offer virtual environments that promote experiential and skill-based learning. For instance, AI-driven language labs can simulate real-world scenarios, aiding learners in mastering conversational English.

Personalized Learning and Teaching

AI supports the NEP's emphasis on adaptive learning methods by enabling teachers to design personalized lesson plans based on students' proficiency levels and learning styles. It empowers teachers to cater to the unique needs of students in diverse classrooms, ensuring that no child is left behind in developing English communication skills.

Strengthening Critical Thinking and Problem-Solving Skills

AI applications foster higher-order cognitive skills, such as critical thinking and problem-solving, through interactive learning platforms. These align with NEP 2020's goal of nurturing 21st-century skills. By engaging students in self-directed tasks and real-time assessments, AI contributes to building a robust foundation for lifelong learning.

Aligning AI-Driven English Learning with NEP 2020 Goals

❖ **Equity and Accessibility:** AI-powered tools ensure access to high-quality English education across socio-economic divides, reaching

underserved regions and marginalized communities.

- ❖ **Multilingual Learning:** By integrating NLP capabilities, AI supports the coexistence of English learning with regional languages, strengthening multilingualism as promoted by NEP 2020.

- ❖ **Teacher Empowerment:** AI acts as a co-facilitator, assisting teachers in implementing innovative teaching methodologies and reducing workload, thereby allowing them to focus on interactive and student-centered teaching.

- ❖ **Skill Development:** AI tools prepare students for global challenges by enhancing communication skills, cultural awareness, and digital literacy—key components of NEP 2020's vision for holistic education.

Conclusion

In the context of NEP 2020, AI serves as a transformative force in English education, fostering inclusivity, adaptability, and innovation. By leveraging AI technologies, educators can create dynamic, student-centered learning environments that align with India's educational goals. The integration of AI with NEP 2020's vision not only enhances English teaching outcomes but also prepares learners to thrive in a globally connected world.

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