



मोतीलाल नेहरू राष्ट्रीय प्रौद्योगिकी संस्थान इलाहाबाद
प्रयागराज-211004 [भारत]
Motilal Nehru National Institute of Technology Allahabad
Prayagraj-211004 [India]

No. 184 /Reg. Off./2023-24

Dated: July 20, 2023

To,

The Under Secretary (NITs)

Technical Section - III (NITs Desk),

Department of Higher Education,

Ministry of Education,

Room No.523, C - Wing,

Shastri Bhawan, New Delhi - 110 115

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Subject:- LSUQ NO. 529 dated 27.07.2023 on Use of Artificial Intelligence –reg.

Dear Sir/ Madam,

Please refer to your e-mail dated 20.07.2023 on the above mentioned subject. In this connection, the desired information pertaining to MNNIT Allahabad is as follows:

(a) whether the Government concurs with the view that integrating Artificial Intelligence (AI), specifically Generative Pretrained Transformer (GPT), into the education system is a crucial step to keeping pace with the rapidly changing technological landscape;

Yes, Government may plan to integrate Artificial Intelligence (AI), specifically Generative Pre-trained Transformer (GPT), into the education system for the following benefits:

Personalized Learning: AI can analyze individual student's strengths and weaknesses and provide personalized learning experiences. This tailored approach can help students learn at their own pace, enhancing their understanding and retention of the material.

Access to Quality Education: AI-powered educational platforms can reach remote and underserved areas, providing access to quality education for students who might not have had such opportunities otherwise.

Adaptive Assessment: AI can assess students' performance and progress in real-time, allowing educators to identify areas where students may need extra support and providing timely interventions.

Enhanced Content Creation: Generative pre-trained transformers like GPT can generate educational content, including lesson plans, quizzes, and interactive materials, which can save teachers time and effort in preparing their lessons.

Teacher Support and Professional Development: AI can assist teachers by providing them with insights into their teaching methods, suggesting improvements, and offering access to relevant resources and professional development opportunities.

(b) if so, the details of the steps that are proposed to be taken by the Government keeping in mind that it could also transform the traditional education model into a more personalised, adaptive, and effective learning experience and if not, the reasons therefor;

Here are some steps that the government could consider to achieve this transformation.

Investment in AI Research and Development: The government can allocate funds to support research and development in AI technologies specifically tailored for educational applications. This could include collaborating with AI experts and educational institutions to create innovative solutions.

Creating an AI Curriculum: Introduce AI-related topics and digital literacy skills into the curriculum at different educational levels. This will help students understand AI's capabilities, limitations, and ethical implications, preparing them for a tech-driven future.

AI-Driven Content Creation: Develop platforms that leverage generative pre-trained transformers to create high-quality educational content, including interactive lessons, quizzes, and multimedia materials. This content should be adaptable to cater to the individual learning styles and preferences of students.

Teacher Training and Support: Provide professional development opportunities for teachers to learn how to effectively integrate AI technologies into their classrooms. This training should cover best practices, ethical considerations, and how to complement traditional teaching methods with AI-powered tools.

AI-Powered Virtual Tutors: Develop AI-powered virtual tutors or teaching assistants that can provide additional support to students, answer questions, and facilitate discussions, even outside regular school hours.

Enhancing Collaboration and Connectivity: Invest in technology infrastructure to ensure seamless integration of AI tools and platforms into educational institutions. This includes ensuring access to high-speed internet, smart devices, and appropriate hardware and software.

Data Privacy and Security Measures: Enforce strict data privacy and security regulations to safeguard student information and prevent misuse of personal data.

Monitoring and Evaluation: Continuously assess the impact of AI integration in education to measure its effectiveness, identify areas of improvement, and make data-driven decisions for future developments.

Ethical AI Development: Encourage collaboration with AI developers and organizations that prioritize ethical AI development and adhere to ethical guidelines in AI use.

(c) whether the Government is cognizant that educators can harness the power of Chat Generative Pre-training Transformer (ChatGPT) to monitor student progress, create customized learning paths, and provide targeted tutoring;

Yes

(d) if so, the details of the steps proposed to be taken by the Government with this innovative language model, along with other AI advancements, presents significant opportunities for content generation, answering student queries, grading assignments, and shaping the future of learning;

The use of AI technologies like Chat Generative Pre-training Transformer (ChatGPT) in education was gaining attention and recognition by various governments and educational institutions. Many governments were becoming increasingly cognizant of the potential of AI in education, including its ability to monitor student progress, create customized learning paths, and provide targeted tutoring.

Educators and policymakers have been exploring ways to harness the power of AI, including ChatGPT, to enhance teaching and learning experiences. AI-powered systems can analyze vast amounts of data to gain insights into individual student learning patterns, preferences, and areas of improvement. This information

can help educators develop personalized learning plans and provide targeted support to students, maximizing their academic progress and achievements.

AI-powered chatbots and virtual tutors, like ChatGPT, have the potential to engage with students in real-time, answer their questions, and provide immediate feedback. This not only supports students in their learning journey but also allows teachers to focus on more individualized and challenging aspects of education, while the AI system handles routine tasks.

However, while the potential benefits of AI in education are significant, there are also challenges and ethical considerations that need to be addressed. Privacy and data security concerns arise when using AI systems to monitor and collect student data.

Governments and educational institutions need to strike a balance between leveraging AI's capabilities and maintaining human oversight and involvement in the learning process. AI should be seen as a valuable tool to augment and support teachers' efforts, rather than as a replacement for human educators.

(e) whether the Government proposes to address the challenges associated with Chat Generative Pre-training Transformer (ChatGPT)'s implementation to ensure effective learning outcomes and overcome potential inequities and distractions in the classroom; and

Yes, Government should address the challenges associated with Chat Generative Pre-training Transformer (ChatGPT)'s implementation.

(f) if so, the initiatives proposed to be taken by the Government in this regard and if not, the reasons therefor?

To address the challenges, governments may consider the following measures:

Ethical Frameworks and Guidelines: Develop and implement clear ethical frameworks and guidelines for the use of AI in education. These guidelines should emphasize the responsible and ethical use of AI, data privacy, and security considerations.

Transparency and Explainability: Encourage AI developers and educational technology providers to design AI algorithms with transparency and explainability in mind. Educators and students should be able to understand how AI systems arrive at certain conclusions or recommendations.

Data Privacy and Security: Implement robust data privacy and security measures to protect student data. This includes ensuring compliance with relevant data protection laws and regulations.

Inclusivity and Accessibility: Ensure that AI-powered educational tools are accessible to all students, regardless of their socioeconomic background, disabilities, or language proficiency. Address potential disparities in access to technology and internet connectivity.

Combining AI with Human Interaction: Emphasize the role of human educators and the importance of human interaction in the learning process. AI should be seen as a tool to complement and enhance teaching, not as a replacement for human teachers.

Professional Development for Educators: Provide training and professional development opportunities for educators to effectively integrate AI technologies into their teaching practices. This training should focus on how to best use AI to support personalized learning and address individual student needs.

Equitable Distribution of Resources: Ensure that the implementation of AI in education does not exacerbate existing inequalities in the education system. Efforts should be made to distribute resources and access to AI-powered tools fairly across different schools and regions.

Continuous Monitoring and Evaluation: Continuously monitor the impact of AI implementation in classrooms to assess its effectiveness in improving learning outcomes. Use this data to make informed decisions and adjustments to improve the AI systems' performance.

Research and Collaboration: Support research initiatives and collaborations between educational institutions, AI developers, and government agencies. This can lead to innovative solutions that address specific educational challenges and needs.

This is for your kind information please.

Thanking you.

Yours truly,



[Ramesh Pandey]
Registrar (Oftg.)

No. 184 /Reg. Off./2023-24

Dated: July 20, 2023

Copy to:

1. Director, MNNIT Allahabad for kind information please.



[Ramesh Pandey]
Registrar (Oftg.)