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ECOSOC 4: Commission on Science and Technology for Development (CSTD)

Research Report

Topic 1: Addressing the use of artificial intelligence in education.

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Outline

Introduction

In the past few years, one thing that has been on a major rise to the top, is artificial intelligence (AI). In the past year, if you've had access to the internet, there's an AI tool that you definitely must have heard of, which is ChatGPT. "ChatGPT was created by OpenAI, an AI and research company. The company launched ChatGPT on November 30, 2022"[1]. The recent emergence of artificial intelligence tools such as ChatGPT have a very important role in the world around us; therefore, exploring its significance and debating the use of it in education is very important, as there are many ways for artificial intelligence to be used as a benefit but it can very easily be misused.

Key Terms

Artificial Intelligence (AI): the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings.

Education: the process of teaching or learning, especially in a school or college, or the knowledge that you get from this.

Background Information

The usage of artificial intelligence in education has gained massive popularity, due to the scope and range of showing how AI can revolutionize the old and traditional learning methods and approach education in a completely new way, from what it was before. One of the biggest

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[1] https://www.zdnet.com/article/what-is-chatgpt-and-why-does-it-matter-heres-everything-you-need-to-know/

advantages of the usage of artificial intelligence in education is its ability to recognize every student's strength and weakness through its algorithm and due to that it is able to tailor its learning processes for each student, which gives way more focus on each student. This is beneficial as people in this world do not learn at the same speed or in the same ways. Another thing that occurs with the usage of artificial intelligence in education is that it makes the job for teachers less stressful and saves them time, which allows them to focus more on things to improve the learning. Artificial intelligence can grade tests, check homework, and even make presentations. One of the problems with the usage of Artificial Intelligence in education is the accessibility to it. The availability of technology and other digital resources is fairly disproportional. This is because many underprivileged countries don't have a lot of access to technology. Due to this problem in accessibility of technology between well developed countries and underdeveloped countries, the usage of artificial intelligence can cause the digital divide between the countries to grow even more. Other problems that arise with the usage of artificial intelligence are the ethical implications and the lack of data privacy that come with it. This could also increase unemployment in countries, as Artificial Intelligence could take over many jobs. It would also be considered a long-time investment, as artificial intelligence doesn't need to receive salaries, consequently it would be cheaper in the long run. Due to artificial intelligence models such as ChatGPT, cheating for students has become significantly easier. For example, you can just ask Chat GPT to write you a 2000-word essay on a topic and it will do it in no time, allowing the students to just copy it and claim it as their own work.

Major Countries and Organizations Involved

China

They are using Artificial intelligence special headbands where these headbands give data on the students' engagement level during classes and school. China is also using artificial intelligence powered cameras to monitor the students in classes to keep track on the student's behavior and track their movements. Another AI program that China is using, helps them to use the algorithms to keep track of their students' learning weaknesses and strengths and create learning plans for specific student based on it.

USA

Just two states—California and Oregon—have offered official guidance to school districts on using AI in schools this fall. Another 11 states are in the process of developing guidance[2]

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[2]https://crpe.org/ai-disrupt-ed-13-states/#:~:text=Just%20two%20states— California%20and,AI%20for%20the%20foreseeable%20future.

India

Tamil Nadu, a state in India has developed a cost-effective DL-FRS, a deep learning approach for a facial recognition-based attendance system, which runs on a lightweight edge computing device with an integrated camera. Students can just walk into the school, and the system automatically recognizes each of them face-to-face and marks their attendance. As they believe marking attendance wastes teaching resources and is very easily manipulated and prone to error [3]

Edtech Companies

Edtech companies are organizations such as Duolingo and Khan Academy. EdTech vendors are companies that produce educational technology solutions[4].AI in education are chatbots, virtual tours, personalized learning, multilingual learning support, automation of tasks, adaptive learning, automated grading, intelligent tutoring systems.[5]

UNESCO

UNESCO affirms that the deployment of AI technologies in education should be purposed to enhance human capacities and to protect human rights for effective human-machine collaboration in life, learning and work, and for sustainable development[6].

Relevant UN Resolutions

- E/RES/2023/4 Economic and Social Council
- United Nations Activities on Artificial Intelligence (AI) | International Communication Union (pages 24-31, 106-126)[7]

Previous Attempts to Solve the Issue

Many small solutions have been brought up to prevent students from using artificial intelligence for cheating. Such as, the existence of websites where if you upload the work onto the database, they can see how much of the work is AI generated or plagiarized. There have also been attempts

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[3] https://indiaai.gov.in/article/five-ways-ai-is-transforming-education-in-india
[4] https://global-edtech.com/edtech-definitions-products-and-trends/#:~:text=EdTech%20vendors%20are%20companies%20that,through%20attending%20conferences%20and%20events.
[5] https://www.mindinventory.com/blog/how-ai-is-transforming-education-industry/#:~:text=Some%20example%20of%20AI%20in,intelligent%20tutoring%20systems%2C%20and%20more.
[6] https://www.unesco.org/en/digital-education/artificial-intelligence#:~:text=Through%20its%20projects%2C%20UNESCO%20affirms,work%2C%20and%20for%20sustainable%20development.
[7] https://www.itu.int/dms_pub/itu-s/opb/gen/S-GEN-UNACT-2022-PDF-E.pdf

to solve the issue of digital equality, so if artificial intelligence is used everyone should have a fair chance to progress with it. Programs have been set up where these organizations give free devices, which help in access to the digital educational resources. This occurred in Uruguay where the government started a project, and they gave an XO laptop to around 400000 children who were in first to sixth grade.

UNESCO

They have asked governments of countries to implement regulations and rules and proper teacher training for the usage of AI in education, to help with this the UNESCO have also let out a guidance on AI in education. Some of the guidance they suggested were that the use of AI in education should have an age of limit of 13 and above.[8] UNESCO is committed to supporting Member States to harness the potential of AI technologies for achieving the Education 2030 Agenda, while ensuring that its application in educational contexts is guided by the core principles of inclusion and equity.[9]

United Nations

They want to ensure that AI systems do not overrule freedom and autonomy of human beings and should guarantee human oversight.[10] In SDG 4 they want to have technology innovation and equal education for all.

Possible Solutions

To offer artificial intelligence training to everybody on the school staff, as there is a possibility of them struggling with the usage of AI, especially if they have not had any previous experience with AI.

One of the main problems with artificial intelligence is data protection. In order to protect children from that, you could teach the children how to use the tool properly and also teach them about internet safety, and how they shouldn't share personal information with strangers.

Encourage and increase the amount of creativity in students' projects and daily schoolwork, because with artificial intelligence, it is very easy to just get a finished product through the AI software. Therefore, teachers should try and encourage creative ideas and also give assignments that cannot be easily accomplished with AI.

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[8] https://www.unesco.org/en/articles/unesco-governments-must-quickly-regulate-generative-ai-schools
[9] https://www.unesco.org/en/digital-education/artificial-intelligence#:~:text=Through%20its%20projects%2C%20UNESCO%20affirms,work%2C%20and%20for%20%20sustainable%20development.
[10] https://unsceb.org/sites/default/files/2022-09/Principles%20for%20the%20Ethical%20Use%20of%20AI%20in%20the%20UN%20System_1.pdf

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(1) https://www.unesco.org/en/articles/unesco-governments-must-quickly-regulate-generative-ai-schools

(2) https://www.unesco.org/en/digital-education/artificial-intelligence#:~:text=Through%20its%20projects%2C%20UNESCO%20affirms,work%2C%20and%20for%20sustainable%20development

(3) https://global-edtech.com/edtech-definitions-products-and-trends/#:~:text=EdTech%20vendors%20are%20companies%20that,through%20attending%20conferences%20and%20events

(4) https://www.mindinventory.com/blog/how-ai-is-transforming-education-industry/#:~:text=Some%20examples%20of%20AI%20in,intelligent%20tutoring%20systems%2C%20and%20more

(5) https://crpe.org/ai-disrupt-ed-13-states/#:~:text=Just%20two%20states—California%20and,AI%20for%20the%20foreseeable%20future