СЕКЦІЯ: ІННОВАЦІЙНІ ТЕХНОЛОГІЇ НАВЧАННЯ В ЗАКЛАДАХ ОСВІТИ

FUTURE DIRECTIONS AND POTENTIAL OF AI IN PERSONALIZED SEN EDUCATION

Bohdan Hereha
the recipient of the third (educational and scientific) level of higher education in the specialty 014 Secondary education (Physics)
Vasyl Stefanyk Precarpathian National University,
bohdan.hereha.23@pnu.edu.ua

In the last several years, inclusive education has become one of the major objectives of educational systems across the globe with a goal of providing equal learning opportunities to all students irrespective of their abilities. Within mainstream educational settings, however, such students with Special Educational Needs (SEN) tend to suffer many obstacles. Some of these include lack of access to individualized instruction, absence of customized content, and little support for various learning preferences – simply to name a few. There are many traditional ways that tend to neglect to fulfill the requirements of students who are SEN, causing them to be bored and fail to make satisfactory educational progress [5, p. 2].

Artificial intelligence (AI) has become disruptive in a number of sectors and it is equally optimistic with educational reforms especially in the area of inclusive education. To be more specific, aided by machine learning and natural language processing as well as interactive technologies, AI provides learning aid solutions that are capable of personalizing the learning process, promoting accessibility and ensuring equity for SEN students. By integrating AI-driven strategies, educators have the opportunity to address the specific needs of SEN students, making education more adaptive and responsive [1, p. 3].

This article examines the current measures in place to leverage AI in the support of SEN learners, especially its potential to deliver individualised, customizable and enjoyable instruction. This will be achieved by assessing recent interventions and their effectiveness, providing examples of uses, ethical challenges, and educational policy infrastructure on AI in SEN education. The goal of this research is therefore to help reconcile current and practice-oriented imaginings of education, and the enabling technologies coming to the fore in the case of AI [2, p. 3].

AI is becoming more popular and more practically used to organize and support the education of SEN students. It is because, AI brings great benefits in its twin qualities of personalization and adaptability, making it easy to engage and involve every student in the learning activity. As Kaloyan Damyanov notes, intelligent tutoring systems, adaptive assessments, assistive technologies that fall under the umbrella of AI-based education and its tools have been successful in fulfilling the multiple learning needs of learners, offering them appropriate and

adjustable content, and enabling the learners to learn in both traditional and digital classrooms [1, p. 3].

Presented here are several pivotal AI-based systems that contribute towards and improve the learning experience for SEN learners, each with specific advantages catering to the different educational diagnostic categories.

1. Adaptive Learning Platforms and Personalization

One of the main benefits of using AI in the field of education for students with special educational needs is its propensity for customization. Thanks to its machine learning capabilities, AI can study students' behavior, their learning styles, and performance data in order to infuse specific aims, content and feedback for SEN students. This in-built customization allows for the delivery of instructions that suit the learners' abilities and even preferences in order to promote a captivating and user-friendly (accessible) environment [4, p. 2181–2182]. Adaptive learning systems as well are able to track the progress of learners, implement variation in the difficulty of the tasks given, and offer extra help if necessary thus mitigating the risks of boredom or frustration for SEN students.

2. Assistive Technologies for Enhanced Accessibility

Assistive technology leveraging artificial intelligence play a crucial role in the education of students with exceptionalities such as those with difficulties in vision, dyslexia, autism spectrum disorder, and even language difficulties. For example, apps that convert speech to text and vice versa assist the learners who find it difficult to read or speak. On the other hand, the virtual reality applications and the augmented reality applications help solve the accessibility challenges by providing different learning modes without necessarily altering the curriculum. These types of technology facilitate active participation and use of the curriculum by the students thus bridging the learning gaps. In support of this, Shalini Garg and Shipra Sharma point to the importance of assistive AI tools in the education of dyslexic children and children with ASD by providing them with pictures and interactive activities that make learning easier and fun [3, p. 524].

3. Intelligent Tutoring Systems and Real-time Feedback

The integration of AI into intelligent tutoring systems (ITS) has helped educators address individual leaning needs of students in a more pronounced way. These systems aim to provide instant feedback, personalized tasks, presence of even 3D active learning environments, learnt materials being needed to be at most easily fetched the pace and comfort level of the SEN learner. José Israel Reyes and Julio Meneses state that ITS modify the lessons and inform corrective feedback so that learners can progress at their own rate without being excessively reliant on their teachers [5, p. 4]. This is particularly important in inclusive education where teachers have very limited time and resources to give individualized instruction to every child with SEN.

Ethical and Practical Challenges in AI Implementation for SEN Education

Even though the use of AI in SEN education presents great benefits, there are several ethical and practical challenges that accompany the implementation process. Data privacy poses the greatest challenge, especially where AI systems process

information about individuals in order to design education. Protecting students from unnecessary invasion of privacy requires responsible stewardship of data as well as ethics in education. There is also the issue of algorithmic bias which if not well managed may put some groups of students at a disadvantage [2, p. 4]. It is these issues which require more transparent processes towards the development and deployment of AI and the Principle of Fairness.

The other relevant hurdle is the digital divide where some sections of the countries' populations may suffer exclusion from the adoption of AI in education. A significant number of learners, most of them located in the rural areas and further away from the zones served for education, are most probably unable to access or afford the required technology and digital resources. This problem is of great significance in Ukraine where there are economic differences and regional distribution of advanced educational technologies. In order for AI to be advantageous, it is important to strive for improvement in technology access and education on the use of AI for students and teachers [1, p. 5].

The Potential for AI in Ukrainian SEN Education

In Ukraine, the current trends regarding the integration of digital technologies in the educational process provide great prospects for the use of AI in supporting the special educational needs. The use of AI in Ukrainian schools would help solve the existing problems with individual attention and the organization of learning for all children. With a higher integration of digital technologies in schools, it becomes easier to introduce AI-powered materials, in particular those focused on adaptive, feedback-based learning and assistive technology.

The introduction of AI in education for students with SEN in Ukraine could assist them in attaining quality education regardless of their understanding and comprehension abilities. This also complements the national strategy of Ukraine for digitalisation of education. This other aims to promote inclusive measures to reduce equity in education. It, however, requires concerted efforts aimed at funding, infrastructure, training and strategic measures focused on socially and materially responsible practices of using artificial intelligence. If these challenges are met in advance, Ukraine could become a potential champion of AI for Education aimed at equality and integration of the SEN students.

Recommendations for Future Research and Policy

This paper points out the fact that many more studies are needed, as there is more that can be done with AI in SEN education. AI research should be directed at the creation of tools for various educational settings in ICT, as well as the ethical issues related to the use of AI in education. According to Mr. Chandan Kumar Dubey, it will be imperative to use AI supporting SEN for its targeted purpose, which is being equitable, accountable and accessible [2, p. 6].

Above all, politicians need to build the infrastructures for the education system that will facilitate the use of AI. This will require money for the pedagogical personnel in use, policies on management of data, and ethics of AI. In Ukraine, where digitalisation is pursued as a strategy, education would benefit from the use of

artificial intelligence in enhancing new approaches to SEN education, as long as there are measures and avenues for its appropriate use.

In sum, the role of AI is likely to be revolutionary in the context of education for pupils with SEN which earlier promises to deliver a more flexible, pragmatic, and inclusive learning setting. Considering technological and ethical facets of AI implementation, it is possible for the practitioners and the decision-makers to transform the education system which appreciates the needs of every individual student. This research provides a foundation for future studies and policy development, highlighting the importance of AI-driven inclusivity as a central tenet of modern education.

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USING CHATGPT FOR ENHANCING WRITTEN TRANSLATION PRACTICE: PEDAGOGICAL INSIGHTS AND PRACTICAL APPLICATIONS

Kravets Svitlana Volodymyrivna
Ph.D in Philosophy Sciences, Associate Professor of the Theory and Practice of Translation Department,
Ternopil Volodymyr Hnatiuk National Pedagogical University,
svitlana.kravets@gmail.com

This paper examines the integration of ChatGPT in teaching written translation practice, assessing its benefits, challenges, and implications for translation training. Through practical examples, this study highlights how ChatGPT enhances linguistic competence, improves translation accuracy, and fosters independent analytical skills among translation students, thereby supporting educators in addressing evolving industry needs [1, p. 45].

The rapid advancement of AI-driven tools, particularly large language models like ChatGPT, has transformed language instruction and translation practice. Despite the traditional reliance on human expertise in translation, AI now supports translators in real-time, offering suggestions, grammar corrections, and contextual insights [2, p. 102–103]. This raises questions about effectively using these tools in educational settings to improve translation skills without compromising critical thinking. This