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Lifelong Learning in the AI Era: Opportunities and Challenges for Global Learners

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The 21st century has witnessed the emergence of artificial intelligence (AI). AI not only transforms how individuals live and work but also reshapes the education landscape. AI-related learning has become essential, particularly in the education sector. The use of AI in teaching and learning aligns with the Sustainable Development Goal 4 (SDG 4): Quality Education, which emphasises inclusive and equitable lifelong learning for all (UNESCO, 2021). Lifelong learning is a self-driven pursuit of knowledge, skills, and competencies throughout life (Candy, 2002). With AI increasingly integrated into education and the workplace, global learners face new opportunities and challenges for lifelong learning.

AI offers learners vast opportunities to access personalised, flexible, and globally connected education. Adaptive learning systems powered by AI can tailor the content to individual learner needs and allow students to progress at their own pace. For language learning, AI provides students with real-time feedback on grammar, sentence structure, and writing coherence (Ali & Ismail, 2025). This can help students overcome their anxiety when writing. Payne (2019) suggested using AI in essay writing, as they can interact with different technologies and respond to creative writing or discussion prompts. This can indirectly foster self-directed learning with the use of instant feedback.

In addition, the use of AI enhances inclusivity in global education. AI tools such as ChatGPT, Grammarly and Quillbot, to name a few, help break language and accessibility barriers, particularly for learners from diverse cultural and linguistic backgrounds (Luckin et al., 2016). This is practical for cross-cultural collaboration across geographically diverse locations to complete the given task. Technology-driven tools are essential for university students upon graduation, as they support employability. As students enter the workforce, AI skills can enhance their job-seeking prospects. According to the World Economic Forum (2020), by 2025, 50% of employees will require reskilling due to automation and AI-related skills. AI-powered career platforms can help individuals identify relevant training opportunities, enabling them to remain competitive in an evolving labour market.

Despite its potential, AI also introduces challenges. A primary concern is the digital divide, which creates unequal access to technology and digital literacy, contributing to global educational inequalities (van Dijk, 2020). Learners in rural or under-resourced regions often lack the infrastructure to benefit from AI-driven education.

Another challenge lies in the ethical and human dimension of AI. The overreliance on machine learning risks undermining critical human skills such as creativity, empathy, and ethical judgment. In teaching and learning, for example, students may assume that AI should replace the actual thinking

process and provide the information they need. Therefore, education systems should ensure that learners do not become passive recipients in the classroom but remain active, critical, and reflective thinkers. Another concern of using AI is privacy and data security, as AI platforms often collect extensive personal data to customise learning experiences. Thus, precautions should be taken, as users may be exposed to the risk of data misuse.

A balanced approach of technology and humans is required to maximise the benefits of AI for lifelong learning. Policymakers and educators should prioritise digital inclusion by investing in infrastructure, ensuring equitable access to technology, and providing digital literacy training. Pedagogically, AI should be used to complement, not replace, human educators. Hence, instructors play an irreplaceable role in cultivating higher-order thinking, ethical awareness, and socio-emotional development, which AI alone cannot provide. Moreover, global collaborations between governments, institutions, and technology providers are essential to establish ethical frameworks governing AI in education (UNESCO, 2021). These frameworks should address equity, transparency, and accountability issues while promoting innovation that supports sustainable lifelong learning.

Lifelong learning in the AI era presents both transformative opportunities and significant challenges. While AI enhances access, personalisation, and employability, inequality, ethical issues, and data security must be carefully navigated. For global learners, the future of lifelong learning lies in embracing AI as a supportive tool while maintaining human-centred values of critical thinking, creativity, and collaboration. By striking this balance, education can truly empower individuals to thrive in an AI-driven world.

References

Ali, S. N. D. H. M., & Ismail, M. H. (2025). Alleviating writing anxiety through artificial intelligence: A digital shift in global education, *Buletin APB Edisi 14*.

Candy, P. C. (2002). *Lifelong learning and information literacy*. White House Conference on School Libraries.

Dijk, J. van. (2020). The Digital Divide (1st ed.). Wiley.

Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). *Intelligence unleashed: An argument for AI in education*. London: Pearson.

UNESCO. (2021). *AI and education: Guidance for policymakers*. United Nations Educational, Scientific and Cultural Organization.

World Economic Forum. (2020). *The future of jobs report 2020*. World Economic Forum.