commitment to continuous learning and development.

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DEVELOPING AI LITERACY OF PRE-SERVICE FOREIGN LANGUAGE TEACHERS

Дацків О. П.
кандидат педагогічних наук,
доцент кафедри англійської філології та
методики навчання англійської мови
Тернопільський національний педагогічний університет
імені Володимира Гнатюка

The rapid proliferation of AI-driven technologies in education necessitates a reconceptualisation of teacher education. In the context of foreign language instruction, where multimodal communication, cultural sensitivity, and learner diversity intersect, the role of AI is particularly dynamic. Pre-service foreign language teachers must be equipped to use AI tools and critically assess, adapt, and design AI-enhanced learning environments. This paper argues that developing AI literacy should be considered one of the core aims in teacher education, alongside pedagogical content knowledge and intercultural communication skills.

Despite copious body of research on AI in education, there is no structured framework of pre-service teachers' AI literacy, no insight regarding what AI knowledge the pre-service teachers need and how they should learn it to achieve AI literacy, as well as there have been no well-defined approaches for enhancing pre-service teachers' AI literacy [5, p. 100].

D. Long and B. Magerko define AI literacy as "a set of competencies that enables individuals to evaluate AI technologies critically; communicate and collaborate effectively with AI; and use AI as a tool online, at home, and in the workplace." [4, p. 2]. AI literacy is pivotal in preparing pre-service teachers for the challenges and opportunities ahead, ensuring they can effectively leverage AI tools in the classroom to foster innovation, collaboration, and personalised learning experiences [1, p. 2]. It extends beyond basic digital literacy to encompass knowledge, skills, and attitudes that enable individuals to responsibly understand, use, evaluate, and interact with AI systems. For pre-service foreign language teachers, AI literacy includes understanding how AI systems function (e.g., natural language processing, machine learning), recognising AI's impact on language learning and classroom practices, evaluating the pedagogical appropriateness of AI tools, and addressing ethical issues such as bias, surveillance, and

data privacy.

This literacy is situated within broader frameworks of critical digital literacy and computer-enhanced language learning (CALL), aligning with 21st-century competencies promoted by UNESCO and the European Commission [2; 8]. AI in language learning led to the establishment of ICALL (intelligent computer-assisted language learning). According to S. Pokrivčáková, the aim of ICALL teacher training is "to inform current and future language teachers about the latest AI-powered educational tools, and provide them with the knowledge and skills needed for effective integration of these AI tools into their classes" [6, p. 144].

A proposed framework for AI literacy in pre-service foreign language education comprises the following components: knowledge of basics of AI technologies (machine learning, natural language processing, data training), application areas in education and language learning, practical skills (selection and evaluation of AI tools aligned with pedagogical goals, design of AI-integrated learning activities and materials, basic troubleshooting and user guidance, awareness of ethical issues (data privacy, algorithmic bias, transparency), awareness of sociocultural limitations of AI (e.g., accent recognition bias) as well as interdisciplinary awareness which comprises engagement with current debates on AI policy.

Successful development of AI literacy requires systematic integration of courses on AI and education into teacher education curricula, hands-on practice, which encourages experimentation with AI tools for lesson planning, assessment, and classroom simulations, and collaborative projects involving pre-service teachers in designing or evaluating AI-enhanced resources for real classrooms. Teacher educators must also be equipped with AI literacy to mentor future educators effectively. Equally important is to address pre-service teachers' and teacher educators' concerns about AI in a timely manner. Research by J. W. Hur employed the concerns-based adoption model to explore participants' concerns about AI and found that targeted AI literacy education enhanced preservice teachers' awareness and confidence in teaching AI [3, p. 56].

Within the framework of the Erasmus+ KA2 project "Modernisation of university education programmes in foreign languages by integrating information technologies / DigiFLEd", the above-mentioned steps are being taken at Ternopil Volodymyr Hnatiuk National Pedagogical University in cooperation with six Ukrainian and three European partners to promote AI literacy of pre-service foreign language teachers.

While promising, AI literacy development at Ukraininan teacher-training HEIs faces several challenges: not all institutions or pre-service teachers have equal access to devices, platforms, or required internet bandwidth, many teacher educators lack AI expertise, adding AI literacy courses into already full programs may not be feasible, AI tools must be adapted to institutional policies, learner needs, and sociocultural contexts. It should be noted that developing AI literacy is about tool use and fostering responsible and inclusive pedagogy. Pre-service teachers must learn to detect and mitigate algorithmic bias, safeguard learner data and privacy, promote transparency and accountability in AI-mediated tasks, and encourage critical media literacy among their learners. These skills correspond with democratic and humanistic values that underpin language education.

To institutionalise AI literacy in foreign language teacher education Ukrainian universities need to align teacher standards with emerging digital competency frameworks, integrate AI literacy into both theoretical and practical components of teacher education programs, provide pathways for in-service teachers' professional development, encourage international exchange across educational systems to share innovations and address inequalities in AI access.

AI literacy is becoming an essential dimension of teacher professionalism in the 21st century. For pre-service foreign language teachers, it enables more effective integration of technology into language learning and the development of reflective, ethical, and context-aware teachers. As AI continues to change education, preparing future foreign language teachers to navigate this transformation is a pedagogical imperative.

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