

DEVELOPING UNIVERSITY STUDENTS' INFORMATION EVALUATION COMPETENCE THROUGH ARTIFICIAL INTELLIGENCE TOOLS

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Abstract. Generative artificial intelligence (AI) provides rapid explanations and summaries, but fluent output may contain unsupported claims, bias, or fabricated references. This conceptual paper examines how AI-supported learning can develop university students' information evaluation competence. It argues that competence emerges from structured tasks requiring students to question claims, trace evidence, compare sources, detect limitations, and justify conclusions. A seven-stage instructional sequence is proposed for higher education, positioning the teacher as a designer of inquiry and ethical guidance within the digital transformation of higher education in Uzbekistan.

Keywords: generative artificial intelligence, critical thinking, information evaluation, AI literacy, higher education, source verification

Introduction

Generative AI is becoming part of university study. Systems such as ChatGPT can explain concepts and synthesise information within seconds, but fluent output can conceal factual errors, invented citations, and assumptions embedded in training data. UNESCO (2023) therefore stresses human-centred and pedagogically purposeful use. The central problem is not simply whether students use AI, but whether they can judge what it produces. This paper outlines a methodology for using AI to strengthen information evaluation as a component of critical thinking.

Conceptual Basis and Educational Risks

Critical thinking involves purposeful interpretation, analysis, evaluation, inference, and explanation (Facione, 1990). Information literacy applies these processes to locating evidence, judging authority and context, and using information ethically (Association of College and Research Libraries [ACRL], 2016). AI literacy adds an understanding of what AI systems can and cannot do and the ability to evaluate their outputs (Long & Magerko, 2020; Ng et al., 2021). A student who can operate an AI tool but cannot verify its claims is digitally active, not necessarily information literate.

Generative AI can support explanations, feedback, brainstorming, and comparison, yet its educational value is conditional (Kasneci et al., 2023; Lo, 2023). Large language models generate probable text rather than establish truth; plausible wording may therefore be mistaken for evidence. Risks include bias, fabricated references, plagiarism, privacy concerns, overreliance, and reduced intellectual independence (Dwivedi et al., 2023; Tlili et al., 2023). Prohibition alone does not teach students to manage these risks; guided evaluation is required.

A Methodology for AI Supported Information Evaluation

The proposed methodology organises learning into seven connected stages. First, students define an information problem and formulate criteria for a trustworthy answer. Second, they generate an AI response while documenting the prompt used. Third, they identify factual claims and trace each claim to an original source. Fourth, they compare the response with peer-reviewed research, official data, or authoritative institutional publications. Fifth, they mark inaccuracies, missing context, bias, unsupported

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generalisations, and fabricated citations. Sixth, they reflect on how prompt wording and prior assumptions influenced the output. Finally, they produce an independent conclusion supported by verified evidence. This sequence shifts attention from accepting an answer to examining how knowledge claims are constructed.

Suitable tasks include an “AI fact-check” in which students annotate verifiable claims; comparison of an AI summary with a journal article; a bias audit examining absent perspectives; and prompt revision followed by evaluation of accuracy rather than fluency. Assessment should reward evidence quality, transparent verification, recognition of uncertainty, and independent judgement. Teachers design reasoning tasks, model verification, set ethical boundaries, and distinguish permitted assistance from academic misconduct. These activities can be adapted across disciplines and support the digitalisation of higher education in Uzbekistan.

Conclusion

AI tools do not automatically improve critical thinking. Universities should integrate AI and information literacy through tasks requiring verification, comparison, reflection, and justified conclusions. Assessment should examine students’ evaluation process, while ethical guidance ensures that learners retain responsibility for evidence-based decisions.

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