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Artificial Intelligence for Educators – Practical Guidelines: Tool Selection, Attribution, and Assessment of Student Work

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Abstract: The observation that artificial intelligence plays and will continue to play a prominent role across all professional fields, in political and social life, in education, and for personal development has led to growing awareness of the importance of making anticipatory adjustments to educational systems and processes. This recognition has prompted the proposal and continuous refinement of various resources: suggestions, guidelines, reference frameworks, educational policy documents, and legislative regulations that vary in their utility, pertinence, and coherence, yet remain undeniably relevant for our changing times.

Building upon these existing resources, this article serves as a practical introductory guide for the responsible integration of artificial intelligence in teaching and research activities. It provides useful elements for selecting AI tools appropriate to specific pedagogical tasks, reviews protocols for citing and acknowledging AI contributions in various professional contexts, and proposes effective methods for assessing the authenticity of student work in the AI era. The guide advocates for maintaining a careful balance between harnessing technological potential and preserving the essential human component in the educational process.

Keywords: artificial intelligence in education, AI tools, academic work, ethics, assessment

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While AI tools offer unprecedented opportunities for educational enhancement, their effective implementation depends on educators' ability to make informed decisions about when, how, and why to integrate these technologies. The following considerations provide a foundation for responsible AI adoption in educational practice. For educators, the most valuable considerations regarding AI use encompass several key areas:

- Continuous exploration of the possibilities of AI and exchange of ideas with fellow teaching professionals to stay current with emerging tools and best practices
- Strategic AI tool selection for each specific task, whether for text generation, image or video creation, scientific documentation, analysis, data visualization, or other educational needs
- Critical approach to AI outputs
- Transparency – clearly acknowledging AI contributions in any work
- Data privacy (Protect student privacy by never entering personal student information or sensitive data into public AI tools. Avoid uploading copyrighted material without proper licensing agreements.)
- Balanced integration (AI complements rather than replaces human teaching and interaction.)
- Human-centred assessment (Student evaluation remains fundamentally human-led.)
- Developing students' capabilities to use AI tools responsibly and to critically position themselves towards their results (as an opportunity to be more efficient and smarter)
- Continuous monitoring of the impact on (learning outcomes of) students

1. Selecting the Right AI Tool

AI applications are becoming increasingly specialized. Initially, generalist tools created as conversational applications or multi-purpose chatbots—such as ChatGPT, Bing Chat/Copilot Chat, Claude, and Gemini—now feature separate modules for specific tasks, evolving into multi-agent systems. Additionally, numerous specialized "AI agents" are emerging, some multimodal and purpose-built for specific domains (Istrate, 2024). These specialized tools demonstrate superior efficiency within their designated fields because they utilize specialized training datasets and operate with parameters optimized for particular types of assistance, including virtual assistants for medical fields, programming, and design.

Understanding the distinctive features of various AI tools and selecting the most suitable ones for specific tasks is crucial for optimal results. Even among generalist tools, significant differences exist: some excel at logical reasoning (Magistral), others at understanding and elaborating natural language texts (like Claude), and still others at managing complex queries and document analysis (like Gemini). Currently, some tools also demonstrate better performance with requirements and responses in specific languages, including Romanian (notably Claude).

The trend toward diversification and specialization continues to accelerate, resulting in dedicated agents for virtually every aspect of the educational process—from curriculum planning to personalized assessment of student progress. The following examples represent just a fraction of available specialized tools:

Generalist/ comprehensive AI tools for education

- MagicSchool.ai, ChatGPT (Study mode), Eduaide.Ai, and similar platforms

Lesson planning tools

- MagicSchool AI provides pre-populated prompts to help teachers get started and includes MagicStudent for a secure, customizable student environment
- Chalkie AI enables creation of complete lessons for any subject and age group (K-12), generating editable slides and worksheets

Content creation tools

- Google Gemini includes built-in data privacy protection, complying with COPPA, FERPA, and HIPAA (important in the US), as well as GDPR and GPAI (mandatory in Europe). It features Deep Research functionality for comprehensive investigations
- NotebookLM is a free AI-powered tool that helps teachers and students interact with their own documents, allowing upload of up to 50 different sources (pdf, doc, ppt)
- Canva (Magic Write) proves useful for rapidly drafting lesson plans, poster content, stories, or sketches

Assessment and feedback tools

- VibeGrade serves as an AI assistant for essay grading, integrating directly with Google Docs and Google Classroom via Chrome extension

Learning support and tutoring

- SchoolAI, Khanmigo (Khan Academy), ChatGPT Study Together/Study mode, Querium (feedback for mathematics and science problems)

Interactive learning and motivation tools

- SchoolAI allows students to engage in safe, monitored interactions with AI-powered learning activities while enabling teachers to create personalized AI chatbots
- Curipod transforms assigned homework into interactive games and surveys, instantly generating live lessons with AI-developed questions

Specialized assessment tools

- EnlightenAI (automatic grading and feedback), Quizlet (quiz creation), VibeGrade (essay grading with direct Google suite integration)

Differentiation tools

- Diffit for teaching, learning, and assessment differentiation

Interactive video tools

- Edpuzzle for interactive video lessons

Other creative and technical tools

- *Image generation:* DALL-E, Midjourney, Stable Diffusion
- *Audio management and transcription:* Descript
- *Text editing and transcription:* Grammarly, Otter.ai, Notion AI, Jasper, Jenni
- *Scientific literature search:* Perplexity AI, Elicit, Research Rabbit
- *Data visualization:* Tableau, Julius

2. Acknowledging AI Contributions in Academic Work

When incorporating AI assistance into scholarly articles, two primary approaches exist for proper attribution. The first involves in-text citation (similar to citing non-printed sources) combined with bibliographic entries. The second consists of adding visible disclosure text, typically placed at the article's conclusion. Ideally, both approaches should be employed when possible and appropriate.

APA style in-text citations examples:

- (ChatGPT, personal communication, April 9, 2025)
- (OpenAI, 2025)

APA style bibliographic reference: OpenAI. (2025). *ChatGPT* (Aug. 9 version) [Large language model]. https://chat.openai.com/chat

MLA style reference/in-text citation: (OpenAI. ChatGPT. chat.openai.com/. Accessed 9 Aug. 2025)

Disclosure information can be added in "Declarations" or "Other Information" sections. Some journals require separate sections titled "Declaration on Generative AI." When artificial intelligence was not used, authors may state: "*The author(s) did not use any generative AI during the preparation of this work.*"

OpenAI suggests the following disclosure text for ChatGPT-assisted content: "*The author generated this text in part with GPT-3, OpenAI's large-scale language-generation model. Upon generating draft language, the author reviewed, edited, and revised the language to their own liking and takes ultimate responsibility for the content of this publication.*"

We recommend checking the most current wording recommendations when submitting articles that utilized ChatGPT, as these may change: https://openai.com/api/policies/sharing-publication/

Our suggested generic disclosure statement reads: "*In the process of drafting this text, AI digital assistants were consulted* [tools used are listed in parentheses, e.g., Sharly, ChatGPT, ResearchRabbit, Elicit] *to find additional*

information sources, for completions, and to improve coherence, clarity, and accuracy. All AI suggestions were evaluated and selected by the author, who fully owns the ideas and intellectual contribution in this text."

When AI tools assist in writing articles in scientific fields requiring high accuracy or for core content (beyond abstracts or conclusions), more detailed disclosure becomes necessary to enable research approach reconstruction and subsequent scientific validity assessment. For example:

"*In the writing of this paper, ChatGPT was used to answer the following questions: (1) 'What recommendations are there in the literature for the ethical use of anamnesis in initial conversations with cancer patients?' Content from this response was reviewed by our authorship team. Relevant content was edited for clarity, and irrelevant content was excluded. We then identified, reviewed, incorporated, and cited the original source materials in this paper. (2) 'Please provide a list of ways in which patient responses can be ethically used in articles for medical journals.' Content from this response is presented verbatim in Figure 1. This content was reviewed and discussed by our authorship team, which then guided us in crafting use cases described in Figure 2.*"

Images in articles must also comply with journal guidelines and academic standards. Examples of appropriate descriptions and references for AI-generated images can be found at https://pedagogie-digitala.ro/how-to-cite-chatgpt-and-ai-products/#images

3. AI Support in Research and Administrative Documents

Recent developments in funding applications for European Commission programs such as Erasmus+ and Horizon have introduced official guidelines for those choosing to use generative AI tools:

"*When considering the use of generative artificial intelligence (AI) tools for proposal preparation, it is imperative to exercise caution and careful analysis. AI-generated content must be thoroughly reviewed and validated by applicants to ensure appropriateness and accuracy, as well as compliance with intellectual property regulations. Applicants bear full responsibility for proposal content (including AI-generated portions) and must transparently disclose the AI tools used and their applications.*

Specifically, applicants must:

- *Verify the accuracy, validity, and relevance of AI-generated content and correct any errors or inconsistencies*
- *Provide a comprehensive list of sources used to generate content and citations, including those generated by AI tools, checking each reference for accuracy and proper citation*
- *Recognize potential plagiarism risks when AI tools may have reproduced substantial text from other sources, verifying original sources to ensure unintentional plagiarism does not occur*
- *Acknowledge the limitations of AI tools used in proposal preparation, including their potential to propagate biases, errors, and cognitive gaps.*"

The list of sources used for content and citation generation should be added at the funding application's conclusion in a special "Declarations" or "Ethics, contributions, consent" section. This can take the form of a numbered list of AI tools or descriptive text such as: "*We utilized Grammarly (2025) to support language editing throughout the manuscript/project proposal. For reference: Grammarly (Aug 25 version) [Large language model]. (2025). Retrieved from https://app.grammarly.com*".

4. Marking AI Contributions in Educational Materials

For films or images published on streaming platforms, we recommend adding text indicating the use of artificial intelligence tools for content alteration, particularly in situations where confusion risk exists (realistic materials, everyday life situations), to prevent the spread of distorted information or unlabelled fake news: "*Modified content/synthetic content — The sound or images have been significantly modified or digitally generated* [with the tool/tools: ...].".

For (multimodal) teaching materials including AI-generated images, specify the program used for image creation at the material's end—for example: "*The images in this material were generated with Fotor (fotor.com)*".

5. Detecting AI Contributions in Student Work

In today's environment where AI tools are readily accessible, the temptation to use them frequently for various school assignments is considerable. Some studies already indicate emerging dependency among new generations on these "magical" applications that provide quick homework solutions.

The publishing industry offers valuable insights for differentiating between authentic student work and AI-assisted products. Some editorial boards of scientific journals have adapted their evaluation procedures to identify and eliminate texts that rely excessively on AI, considering several key indicators:

- Author's genuine expertise (E-E-A-T: Experience, Expertise, Authoritativeness, and Trustworthiness) – analysis of previous works on the same topic
- Distinctly human expression – relatively uneven rhythm with natural stylistic variability
- Novel and original formulations – fresh interpretations and ideas that demonstrate independent thinking
- Personal elements – from expressing personal opinions to including personalized case studies.

Following this model, **educators can assess students' written work** using various techniques and criteria:

- Thematic and cognitive concordance. Compare task achievement level with previous performance and the student's established level in the respective discipline.
- Cognitive-argumentative coherence. Evaluate the student's ability to orally defend ideas presented in the material.
- Linguistic consistency. Analyse vocabulary usage and sentence construction patterns.
- Natural stylistic variability. Look for the natural variation specific to human expression. (*Burstiness*)
- Degree of originality. Assess interpretations and formulations that transcend templates. (*Perplexity*)
- Personalized elements. Identify individual reflections and personal insights.
- Academic rigor. Verify presence of appropriate citations and bibliography.
- Metadata and formatting. Check (in)consistency in document formatting and technical elements.
- Development time. Compare with normal duration required for the task type (suspicion may arise when extensive material appears in unusually short timeframes).

While specialized software tools exist for detecting AI-generated content (such as GPTZero, Turnitin AI Detection, Copyleaks), these have significant limitations and should not constitute the sole verification method. The holistic approach, based on knowledge of the individual student and the criteria mentioned above, remains most reliable.

Conclusion

The integration of AI tools represents an extraordinary opportunity for improving the educational process, but it requires a deliberate, ethical, and well-founded approach. Digital literacy in this domain should help both students and teaching professionals understand the risks and opportunities that AI presents, enabling informed decisions about its use.

The success of AI implementation in education depends on teacher readiness, resource access, and quality initial and continuing professional development programs that graft technological aspects onto authentic, relevant, pragmatic, humanistic pedagogy.

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Author Biography

Olimpius Istrate, PhD in education sciences, brings over 20 years of experience in the areas of digital pedagogy, education programmes evaluation, and teacher training. Since 2004, he has taught specialized courses at the University of Bucharest's Faculty of Psychology and Education Sciences, Teacher Training Department – at both bachelor's and master's levels – including Computer Assisted Instruction, Virtual Learning Environments, New Media in Education and Training, AI in education. Currently, Dr. Istrate works as an e-assessment specialist on secondment to the Office of the Secretary General of the European Schools in Brussels. His notable achievements include co-founding Academia Online (2003), founding Elearning.Romania (2005), serving as regional education manager at Intel (2007-2010), founding iTeach.ro (2010), coordinating eTwinning nationally (2011-2012), working as senior education officer at the International Federation of RCRC in Geneva (2013-2016), and co-founding digitaledu.ro (2015). Dr. Istrate has authored several books, chapters, and articles in the field of digital pedagogy, including his influential 2022 paper "Digital Pedagogy. Definition and Conceptual Area", published in the Journal of Digital Pedagogy. His latest assignments include collaboration with UNESCO IBE, the European Commission, the World Bank, and various national working groups for innovation in education.