Rethinking University Assessment in the Age of LLMs: Practices, Tools and New Literacies

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Riassunto

La crescente diffusione dei Large Language Models (LLM) mette in discussione gli approcci tradizionali alla valutazione universitaria, rendendo meno visibili i processi di apprendimento e più complessa l'attribuzione dell'autorialità. A partire da uno studio di caso esplorativo condotto nell'ambito di un corso di Didattica generale, il contributo analizza gli usi, le percezioni e le interazioni degli studenti con l'intelligenza artificiale generativa, evidenziando i limiti di una valutazione centrata esclusivamente sul prodotto finale. Viene proposto un modello di valutazione orientato al processo, fondato su trasparenza, verificabilità e attribuzione attraverso accordi e registri d'uso dell'IA, insieme a compiti e criteri valutativi riprogettati. Il lavoro sostiene la necessità di sviluppare una nuova assessment literacy capace di promuovere un uso responsabile dell'IA, preservando autonomia, pensiero critico e riflessione degli studenti.
Parole chiave: Large Language Models; Valutazione; AI literacy; Istruzione superiore; Assessment literacy

Abstract

The widespread adoption of Large Language Models (LLMs) challenges traditional approaches to university assessment by making learning processes less visible and authorship more difficult to interpret. Drawing on an exploratory case study conducted within a General Didactics course, this paper examines students' uses, perceptions, and interactions with generative AI,

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highlighting the limitations of product-oriented assessment. It proposes a process-based framework centred on transparency, verifiability, and attribution through AI usage agreements and logs, together with redesigned assessment tasks and criteria. The paper argues that assessment literacy must evolve to foster responsible AI use while preserving students' agency, critical thinking, and reflective learning.
Keywords: Large Language Models; Assessment; AI literacy; Higher education; Assessment literacy

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A pedagogical and assessment issue

The spread of Large Language Models (LLMs) in university settings changes the conditions under which academic work is produced, presented and assessed. With generative systems, the final text may be produced through varying degrees of collaboration with AI, complicating authorship attribution and the correspondence between the submitted work and the learning process it documents. This is especially significant when writing is not merely a means of communicating results, but a process through which students select information, make connections, develop arguments and clarify their position. From this perspective, academic writing is not merely a repository of acquired knowledge: it is an epistemic and formative practice. The possibility of transferring certain stages of this practice to a generative system therefore requires us to question not only the authenticity of the final product, but also the quality of the interaction that generated it.

The problem addressed here was primarily pedagogical. From the 2024/2025 academic year onwards, the growing presence of LLMs in study and writing activities made it necessary to redesign a university course in General Didactics and the associated assessment tasks. It was no longer sufficient to determine whether AI should be permitted or prohibited; it was necessary to understand how students used it, for what purposes, and with what tensions between support, delegation, autonomy and responsibility. Viewed in its socio-cultural dimension, technological innovation shapes how knowledge is produced, organised and legitimised (Panciroli & Rivoltella, 2023; Parikka, 2019). The novelty of LLMs lies not solely in their ability to retrieve or reorganise information, but in the possibility of engaging in dialogue with a system that responds, argues, proposes alternatives and guides the drafting of the text. We are thus moving from querying a tool to conversing with an artificial interlocutor, capable of supporting the user in their reasoning

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(Mollick, 2024), but also of taking on an increasing share of their task, to the point, in some cases, of replacing their thought process.

From this perspective, the central issue is not what AI is capable of doing, but the educational and cognitive relationship that the student builds with it. The same function can take on profoundly different meanings: a suggested rewriting might support the critical review of a text or take the place of the writer's decision; a summary might facilitate access to complex material or render reading it superfluous; feedback might trigger a process of improvement or be passively accepted as a prescription to be followed. The decisive factor is therefore the stance adopted by the individual during the interaction.

The research: understanding uses, representations and stances

The research, both empirical and theoretical, was carried out as part of the General Didactics course at the University of Rome Tor Vergata. The case study adopted an exploratory and qualitative approach, integrating various tools: questionnaires, forum discussions, focus groups and AI-use disclosure instruments. The ami was to reconstruct not only the frequency or type of use, but also the meanings attributed by students to their interaction with generative systems.

The research questions focused on the uses, perceptions and forms of interaction developed by university students in the field of educational sciences. In particular, the study sought to understand how AI was used for learning, studying and writing, what functions were attributed to it, and what criteria guided the choice between a use perceived as legitimate and one considered problematic.

The data paint a complex and, in some respects, contradictory picture. The general attitude towards AI appears to be predominantly pragmatic. Students recognise the usefulness of these tools, particularly for overcoming writer's block, improving linguistic style, summarising materials, reorganising content and beginning the process of constructing a text. The use observed is therefore largely instrumental and efficiency-oriented, in line with international research (Aljuaid, 2024).

This view, however, coexists with a profound ambivalence. Students express fears of losing cognitive autonomy, of their style becoming uniform, of weakening critical thinking, and of no longer being able to clearly distinguish their own contribution from that of the system. AI is described simultaneously as both a resource and a threat: it helps to complete the work, but can cast doubt on its actual authorship; it facilitates the start of the writing process, but risks creating dependency; it improves the form, but can erase the personal voice.

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Discourse analysis has enabled the identification of different stances. A first stance, associated with the figure of the writer, regards AI primarily as a functional tool for completing the task. The prevailing question is how to produce a better, clearer or more rapidly drafted text.

A second stance, that of the critic, highlights the risks of delegation, loss of authenticity and cognitive dependence.

A third stance, associated with the role of the citizen, situates the use of AI within a broader framework of norms, responsibilities, rights and conditions of fairness.

These stances do not identify rigid categories of students; they can coexist within the same individual and vary depending on the task, the subject, the teacher's requirements and the stakes associated with the assessment. Their significance lies rather in demonstrating that the use of AI cannot be understood through a binary distinction between use and non-use, correctness and incorrectness, autonomy and dependence. Between assistance and delegation lies an intermediate zone that traditional evaluative categories struggle to recognise (Spinelli, 2025), but which can be interpreted through the various patterns of collaboration between the student and the generative system (Nguyen et al., 2024).

A particularly significant finding concerns the gap between declared uses and enacted practices.

Students' accounts frequently refer to the need to verify the AI's responses, maintain control and adopt a critical stance. However, in the practices observed, verification is often entrusted once again to the very same system that produced the content. The AI is consulted to check the accuracy of a statement, confirm the reliability of a source or assess the quality of a text.

This results in a sort of functional reversal. The artefact, which offers no independent guarantees of accuracy or traceability of sources, becomes central to the process through which a judgement is formed. It is not just the writing that is delegated, but also its assessment. The critical issue therefore lies not merely in the transfer of part of the cognitive work, but in the transfer of evaluative power to a system that cannot assume epistemic responsibility for its own responses.

From the crisis of authorship to the crisis of assessment

The debate on generative AI in universities was initially dominated by issues of academic integrity, plagiarism and the detection of artificially generated texts. Whilst this perspective had the merit of highlighting the risks associated

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with the undeclared production of academic work, it appears insufficient to interpret the variety of interactions observed.

The notion of ‘post-plagiarism’ (Eaton, 2023) refers to moving beyond a context in which the human author can be regarded as the sole agent capable of textual production. This is not a matter of normalising delegation or dismissing the issue of attribution, but of recognising that the structural presence of AI alters the conditions under which authorship, originality and personal contribution must be defined.

From this perspective, the assessment question cannot be limited to establishing whether the student has used AI. It is necessary to understand for what purposes they have used it, at which stages, with what degree of control, and with what effects on the learning process. Declared use may be pedagogically poor, just as non-use does not in itself guarantee the depth of the process undertaken.

Assessment centred exclusively on the final product therefore misses a significant part of the information needed to form a judgement. A formally adequate text could result from profoundly different cognitive processes: independent processing, reflective collaboration with the system, guided revision, passive acceptance of suggestions, or complete delegation. If these differences remain invisible, the teacher assesses an artefact without being able to plausibly reconstruct the decisions that generated it.

LLMs therefore do not merely produce a crisis of authorship. They also produce a crisis in the legibility of assessment. They make it more difficult to establish what the product actually documents, what learning has been mobilised, and what level of autonomy has been exercised. Hence the need to shift the focus from the finished product to the traceability of the process, without compromising the quality of the outcome but placing it within a more nuanced framework.

This shift also requires an evolution in teachers’ assessment literacy (Pastore, 2022). Assessing in AI-mediated environments means knowing how to design tasks capable of making observable not only knowledge and performance, but also choices, revisions, checks and forms of attribution. It also means recognising that assessment criteria directly influence the way in which students use the tools. An assignment focused solely on the end product – one that is poorly contextualised and easily delegated – encourages different uses compared to a task that requires students to document their process, justify their decisions and critically discuss alternatives.

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Making the process transparent: agreements and usage logs

The pedagogical response cannot rely primarily on prohibition. A blanket ban tends to shift interaction with AI into an extra-curricular, invisible and unsupervised space, in which students experiment without shared criteria and without the opportunity to openly discuss doubts, errors and forms of dependency. Even the use of automated detection tools is pedagogically weak, as it steers the relationship towards suspicion and offers no reliable indications of the quality of the process.

The proposal developed during the research involves the introduction of agreements and usage logs for AI (Spinelli, in press). The agreement defines the framework within which the interaction can be considered part of the learning pathway. It does not take the form of a generic authorisation, but clarifies permitted functions, problematic ones, the student's responsibilities and the procedures by which usage must be documented.

The usage log, on the other hand, makes it possible to highlight certain relevant stages of the process. It should not become a verbatim transcript of all interactions, nor should it be yet another bureaucratic formality. It may consist of a reasoned selection of prompts, responses deemed significant, modifications made and decisions taken. Its value lies in the ability to reconstruct the process through which the artefact was produced. The usage agreement is based on three principles.

The first is transparency. Decisions regarding the use of AI must be explicit and open to discussion. Declaring the interaction does not amount to an admission of wrongdoing, but rather means making the process open to scrutiny. Transparency enables the teacher to understand the role played by the system and allows the student to reflect on their own strategies.

The second principle is verifiability. The validation of sources, information and inferences remains the student's responsibility. The system may suggest content, connections or interpretations, but it cannot guarantee the epistemic correctness of the result. Verification must therefore not be reduced to a generic recommendation, but incorporated into assessment tasks and criteria. Students must be able to demonstrate how they have checked the information, which sources they have consulted and why they have accepted or rejected a suggestion.

The third principle is attribution. The contribution of AI must be indicated precisely and in proportion to its actual role. It is not sufficient to state generically that ChatGPT or another system has been used. Students should clarify the purposes for which it was employed and which parts of the work resulted from the interaction. Attribution does not amount to recognising intellectual authorship in the same sense as for a human subject, but it makes it

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possible to distinguish the different contributions involved in the construction of the artefact.

Transparency, verifiability and attribution transform the use of LLMs from a hidden practice into an object of educational mediation. They restore legibility to the process and cognitive dignity to those uses of AI that genuinely support learning. At the same time, they make it possible to identify and discuss forms of delegation that weaken the student's agency.

Redesigning assessments and assessment criteria

The introduction of agreements and logs cannot be separated from the redesign of assessments. Asking students to document their use of AI whilst leaving tasks that can easily be delegated unchanged would result in nothing more than a formal change. The transformation must concern the very structure of assessment.

A first approach involves designing situated assessment tasks, linked to activities carried out during the course, to specific materials and to decisions that require the student to take a stance. The more an assessment can be completed by producing a generic text, the more difficult it becomes to recognise the student's contribution. Contextualisation makes it necessary to integrate students' work with knowledge, experiences and references that form part of the educational programme and the socially shared learning process that has taken place within it.

A second approach involves breaking the task down into observable stages. Initial drafts, mind maps, intermediate versions, reasoned revisions and metacognitive comments can provide different kinds of evidence compared to the final piece of work alone. Not all assessments need to include every stage, but the assessment should be able to access certain key decision points in the process.

A third approach involves introducing brief forms of discussion or oral feedback. The aim is not to verify that the student is the actual author, but to enable them to justify their choices, discuss a source, explain a revision or acknowledge the limitations of the work carried out. Oral elements can restore a dialogic dimension to assessment, which is particularly relevant when writing has been mediated by generative tools.

Rubrics, too, need to be rethought. Alongside the quality of the final product, consideration can be given to the consistency between objectives and the strategies adopted, the ability to select and rework the AI's suggestions, the quality of the verification, the transparency of the attribution, and an awareness of limitations. These criteria are not intended to reward the most extensive or

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sophisticated use of technology, but rather the ability to manage the interaction in the interests of learning.

The ultimate aim of documenting the process is to gather evidence relevant to the expected learning outcomes. Proportionality is therefore a key principle: the required traceability must be sustainable, comprehensible and proportionate to the stakes of the assessment and manageable within the teaching context.

New literacies for students and teachers

The redesign of assessment requires literacies that cannot be attributed solely to students. Students must learn to formulate informed requests, critically interpret responses, verify sources, recognise forms of delegation and take responsibility for final decisions. They must also understand the criteria by which their work is assessed and know how to document the process without reducing it to a technical sequence of prompts.

Teachers, in turn, must develop design and assessment skills appropriate to a context in which the final product is no longer a self-sufficient indicator. They must understand the possibilities and limitations of generative systems, but above all know how to formulate assessment tasks, feedback and criteria that keep the student's agency at the centre. The literacy required is therefore not merely technological. It encompasses pedagogical, assessment, epistemic and ethical dimensions. It requires the integration of critical observation, process monitoring and pedagogical responsibility (Kalantzis & Cope, 2024).

From this perspective, training in AI cannot be reduced to learning prompting techniques. The quality of the interaction does not depend solely on the precision of the request, but on the ability to evaluate the response, situate it within a framework of knowledge, recognise its limitations and decide responsibly how to use it. The key competence lies in maintaining a *reflective distance* from the system, avoiding both a priori rejection and uncritical reliance.

AI can act as a catalyst for effective teaching conditions when incorporated into a deliberate educational project. It can support the production of materials, the development of rubrics, feedback and conversational tutoring. However, its effectiveness depends on the pedagogical model within which it is embedded.

Conclusions

The research shows that the proliferation of LLMs cannot be addressed by focusing solely on rules of use. It highlights a deeper issue: the need to rethink

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what is actually assessed through a written artefact and what evidence enables us to recognise learning in an AI-mediated process.

The shift from the product to the legibility of the process does not entail abandoning the assessment of the final outcome. Rather, it implies integrating this with information relating to the choices made, checks carried out, revisions undertaken and responsibilities assumed. Agreements and usage logs, situated assignments, process-oriented rubrics and opportunities for discussion can help to make interaction with AI transparent and formative.

The most significant pedagogical challenge lies in the space between the transparency of the process and the development of new literacies. In this space, assessment can regain a genuinely educational function: not merely determining whether a product is correct or original, but helping the student to recognise how they have constructed their own knowledge, which decisions they have delegated, and which responsibilities they are willing to assume.

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