GENERATIVE ARTIFICIAL INTELLIGENCE IN ACADEMIA

Between Operational Enthusiasm and Intellectual Scepticism

FACULTY OF MANAGEMENT University of Lodz
U.PORTO FEP FACULDADE DE ECONOMIA UNIVERSIDADE DO PORTO
upf. BARCELONA SCHOOL OF MANAGEMENT
OŚRODEK PRZETWARZANIA INFORMACJI
European E-Learning Institute
ACEEU ACCREDITATION COUNCIL FOR ENTREPRENEURIAL & ENGAGED UNIVERSITIES
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What Actually Drives AI Adoption?

The narrative of AI's rapid conquest of academia conceals a significant oversimplification. The adoption of generative AI (GenAI) tools in research environments does not stem from technological herd mentality or social pressure - empirical evidence clearly demonstrates that normative and environmental factors play a marginal role in this process. The decision to reach for such tools is distinctly rational and instrumental: researchers adopt AI if, and only if, they perceive concrete added value for their own work.

Quantitative research findings point to two direct predictors of GenAI usage intention: perceived **usefulness and perceived compatibility** with one's existing working style and research rhythm. In other words, a researcher asks above all: "Does this tool solve my specific problems?" and "Does it fit the way I already work?" Both questions must be answered affirmatively before sustained adoption takes place.

A particularly important mediating role is played by ease of use. Interface intuitiveness is not a value in itself - it acts as a catalyst that shortens the path from first contact with a tool to recognising its practical utility in everyday research tasks. The lower the cognitive cost of learning the system, the faster a researcher can assess its genuine potential.

A Tool, Not a Replacement: The Application Map

Qualitative research paints a coherent picture of domains where AI finds an ideal fit with the needs of the academic community. The dominant model is treating GenAI as **a high-quality administrative assistant** - a tool that takes over repetitive, structured, and time-consuming activities: preparing grant applications, project reports, literature reviews, and preliminary analysis of large datasets. This frees up the researcher's cognitive resources for those stages of scientific work that require unique competencies: critical thinking, creative synthesis, and deep subject-matter expertise.

One of the most significant and systemically important support mechanisms is the **democratisation of access to global science.** GenAI tools effectively lower the language barrier for researchers whose first language is not English. The ability to efficiently draft, stylistically refine, and adapt manuscripts to the requirements of prestigious international journals allows these scholars to compete on equal terms in the global publication market - a privilege that had previously been available only to a select few.

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In the conceptual phase, AI takes on the role of an intellectual sparring partner: a tool that supports the organisation of ideas, the testing of working hypotheses, and the exploration of preliminary research concepts. This application is, however, subject to an explicit condition: final substantive verification, assessment of relevance, and responsibility for conclusions must remain unequivocally with the human researcher. AI inspires and organises - it does not decide.

The Anatomy of Distrust: Barriers and Non-Negotiable Limits

Despite declared willingness to use AI, the level of trust in this technology within academia remains low. The explanation for this apparent paradox lies in the specific nature of the scientific ethos. **Hallucinations** - the phenomenon whereby language models generate false information delivered with convincing certainty - represent a critical flaw in an environment whose identity is built around the pursuit of objective, reproducible, and verifiable truth.

An equally powerful barrier is the **"black box" problem** and the associated risk of losing control over intellectual property. Researchers reject the use of GenAI for tasks involving unpublished data, preliminary research findings, or manuscript concepts in preparation. The fear of losing copyright and unintentionally disclosing protected information is one of the strongest and most difficult barriers to overcome.

No less significant is the **structural and social dimension.** The automation of analytical tasks that have traditionally served as an apprenticeship for junior researchers - assistants, doctoral students, and undergraduates - threatens to erode the fundamental mentor–apprentice relationship. When AI takes over laborious yet formatively critical activities, positions and opportunities to acquire practical research competencies disappear, and without those foundations it becomes impossible to build a solid professional career in academia.

Finally, a clear **red line of empathy and ethics** is drawn: tasks requiring moral judgement, resolution of interpersonal conflicts, assessment of student work, and individual mentoring are widely regarded as inherently human domains. Automation in these areas is not perceived as support, but as a degradation of the process and a diffusion of responsibility. According to the respondents, the quality of a relationship and the integrity of an assessment cannot be uploaded into an algorithm.

> **The lack of result reproducibility makes AI a tool that science cannot trust unreflectively.**

LEADERS VS. SUPERVISORS: THE PARADOX OF RESPONSIBILITY

A particularly compelling dimension of the research is the comparison of attitudes between two groups: institutional leaders (those in managerial positions) and academic supervisors without such functions. Leaders tend to demonstrate stronger intentions to adopt AI - overwhelmed by administrative duties, resource management, and grant project coordination, they see in GenAI enormous opportunities to optimise managerial processes and reduce bureaucratic burden.

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The paradox emerges, however, the moment the conversation shifts to tasks requiring abstract thinking, critical judgement, and adherence to ethical standards. Those same enthusiastic leaders then set the **hardest limits** and express the strongest resistance to AI - considerably more radical than that of typical supervisors. People managing academic institutions, while open to operational improvements, simultaneously demonstrate the deepest awareness of what in science is irreplaceable.

This paradox of responsibility is psychologically coherent: the broader the systemic perspective, the clearer the distinction between what can be delegated and what constitutes the unique value of human intellect and academic ethos.

Strategic Implications and Recommendations

The research findings translate into concrete guidance for institutional decision-makers. Above all, there is a clear need to **move away from generic training** describing technical aspects of gen AI (i.e. how language models work), towards programmes focused on integrating AI into precisely defined research tasks like optimising literature reviews, drafting grant applications, or preprocessing data. A contextual, task-oriented approach to technology education consistently yields better outcomes than general awareness training.

The **risk of access inequality** demands urgent attention. The real prospect of dividing the academic community into researchers equipped with advanced paid tools and those reliant on limited free versions poses a genuine threat to the principle of equal opportunity in science. Universities and research institutions should develop models for **institutional, secure, and auditable access** to advanced AI systems, ensuring that the quality of a researcher's tools is not determined by the depth of their personal budget.

Finally, the academic community urgently needs **regulatory clarity.** The absence of coherent, transparent legal and ethical frameworks generates uncertainty that fosters the emergence of informal prohibitions and restrictions - often arbitrary and disproportionately harmful to junior members of the academic community. Clear guidelines specifying which AI applications are permitted, which require disclosure, and which are unconditionally prohibited are an essential prerequisite for the responsible and equitable deployment of this technology in academia.

Methodological Note:

This executive summary is based on a dual-phase research conducted in early 2026. The findings incorporate quantitative data from 136 researchers in Poland, Spain, and Portugal (using Structural Equation Modeling based on an extended Technology Acceptance Model) and qualitative insights from four Focus Group Interviews with academic leaders and supervisors in Poland, Spain, and Portugal.