Generative artificial intelligence and educational autonomy: historical metaphors and ethical principles for pedagogical transformation

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CRITICAL PERSPECTIVE: BETWEEN OPACITY AND NARRATIVE

The Current Problem

Growing concern about the opacity of generative AI tools in learning systems.

What happens inside?

[Control/Opacity] Multivac / Matrix
- [Access/Market] Free software bazaar / App Store

Technological narratives influence educational adoption.

7 ETHICAL PRINCIPLES FOR A SAFE ADOPTION OF GAI, FOCUSED ON:

1 PRIVACY

Protection of student and teacher data.

2 PEDAGOGICAL ALIGNMENT

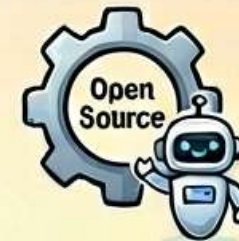Technology serves learning objectives, not the other way around.

3 HUMAN SUPERVISION

The teacher maintains control and the capacity for intervention.

4 TECHNOLOGICAL TRANSPARENCY

Understanding how tools function and their limitations.

PRACTICAL EXEMPLIFICATION: THE LAMB ENVIRONMENT

What is LAMB? Learning Assistant Manager and Builder

Open-source framework that embodies the proposed ethical principles.

Allows designing contextualized and secure AI assistants.

Results in Higher Education

Real Impact.

Controlled experiences show significant improvements in:

✅ Student autonomy,

✅ Pedagogical coherence.

The final model seeks a technological integration centered on teacher autonomy, alignment with the institution's principles and practices, and meaningful learning.