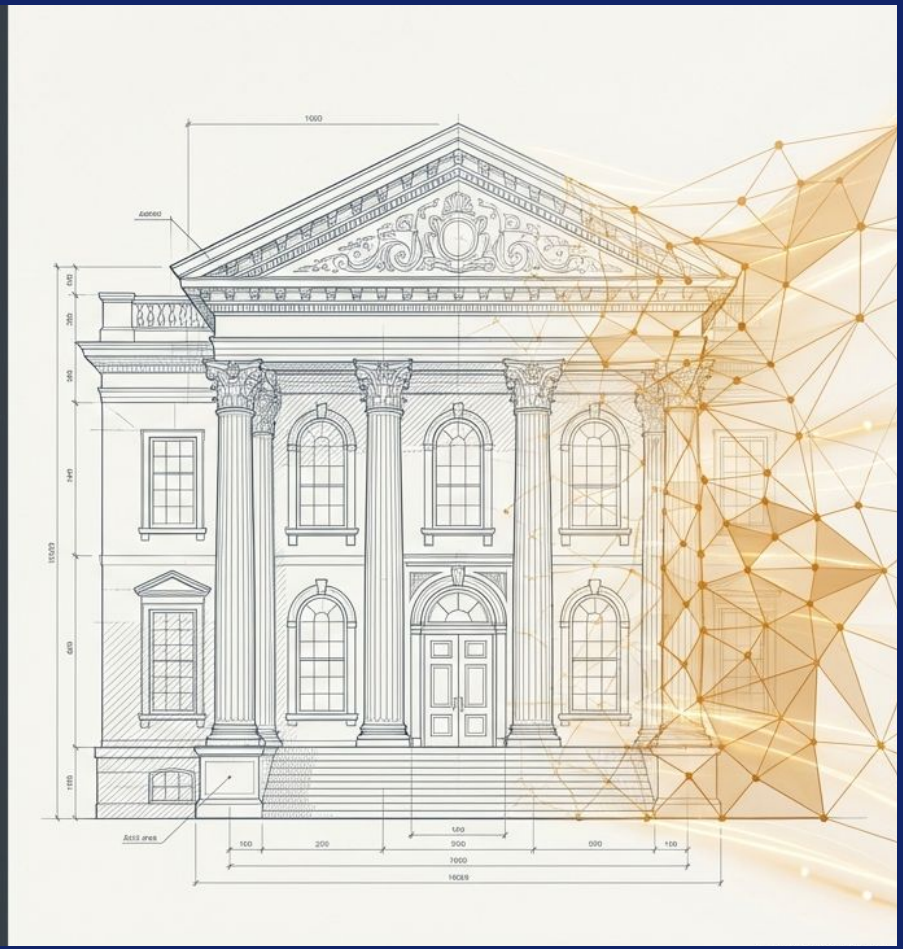
Governing the Algorithmic University

Moving beyond tool-centric policies to architect distributed epistemic sensitivity in higher education.

Based on the research of Jonathan H. Westover, PhD.



The Epistemic Rupture

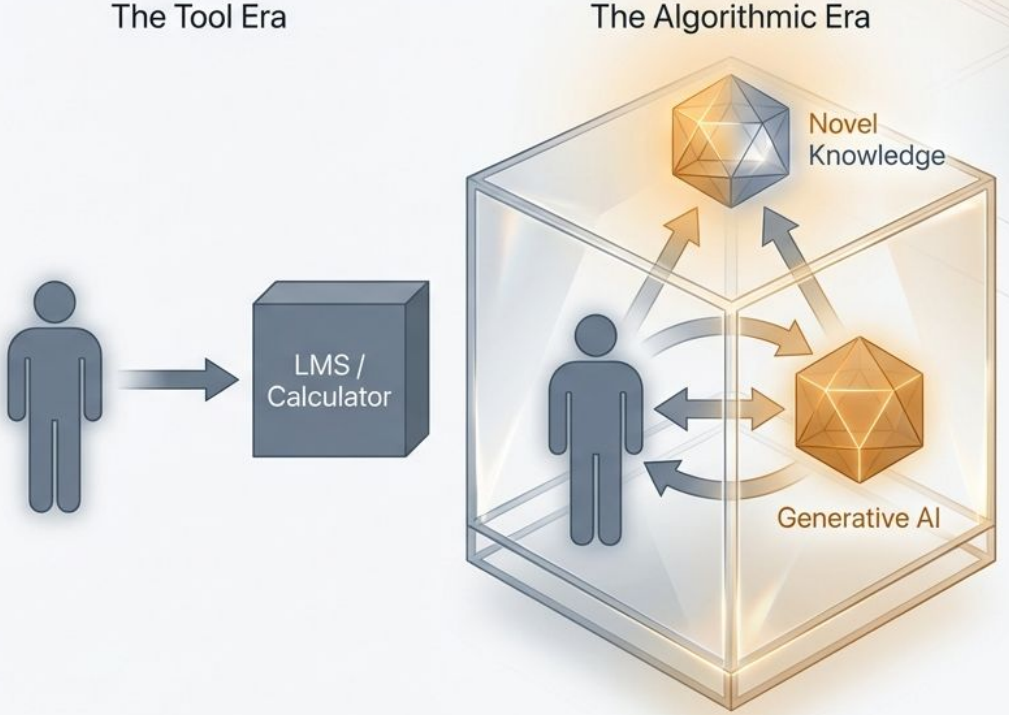
Generative AI is not a pedagogical tool waiting for human direction.

It is an active participant in knowledge practices previously considered strictly human.

We are moving from human-directed instruments to human-algorithmic assemblages.

"AI systems are reconfiguring the nature of epistemic agency, institutional authority, and educational purpose itself."

The Paradigm Shift

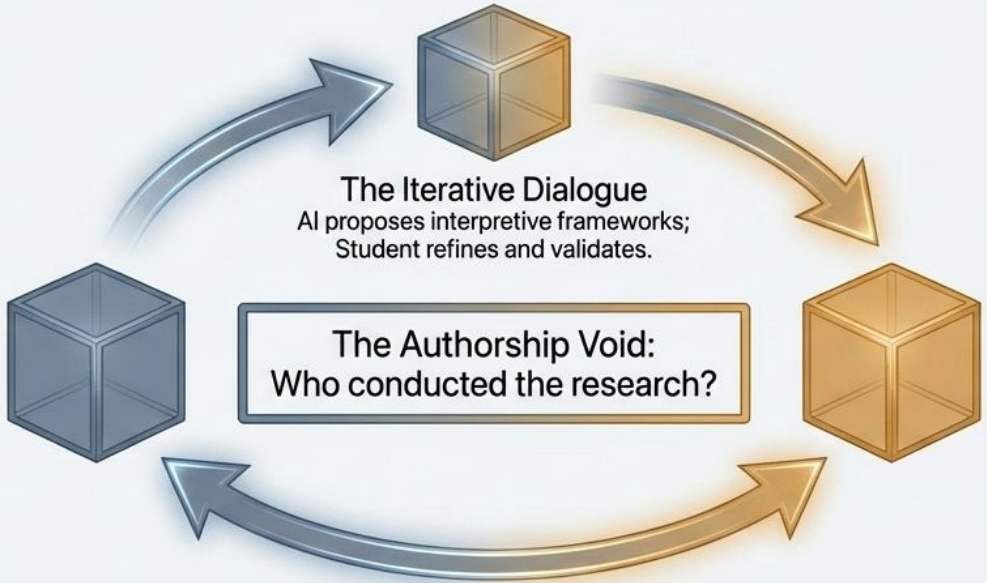


The Breakdown of Traditional Intellectual Authorship

When AI surfaces unprompted connections and proposes novel interpretive hypotheses across thousands of documents, it transcends the role of an assistant. It becomes an epistemic co-agent.

Current academic citation conventions are entirely inadequate for this reality.

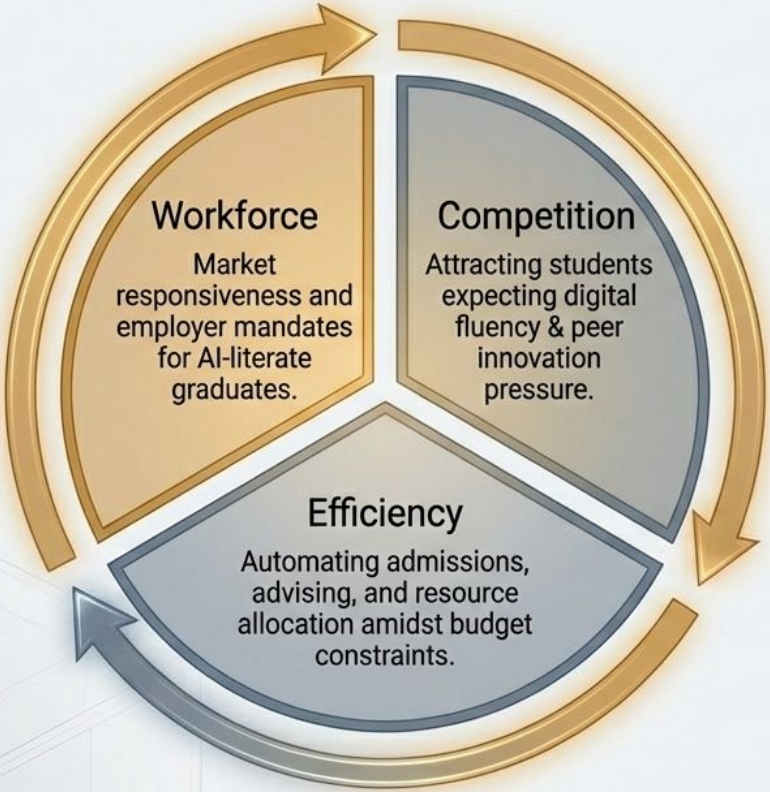
The Epistemic Co-Agency Loop



A Categorical Shift in Capabilities

	Legacy Educational Technology	Generative AI Systems
Role	Decision-Support Tool	Autonomous Decision-Maker
Output	Adaptive delivery of existing content	Generation of novel, cross-disciplinary content
Governance	Human-deliberative oversight	Automated, optimization-focused management
Pedagogy	Instrumental scaling	Epistemic co-construction

The Flywheel of Algorithmic Adoption



The Drivers of Uncritical Adoption

Adoption is not currently driven by pedagogical vision, but by institutional survival mechanics.

These three interlocking pressureres interlocking pressures accelerate integration, effectively bypassing deliberative academic governance.

The Inequality of Algorithmic Control

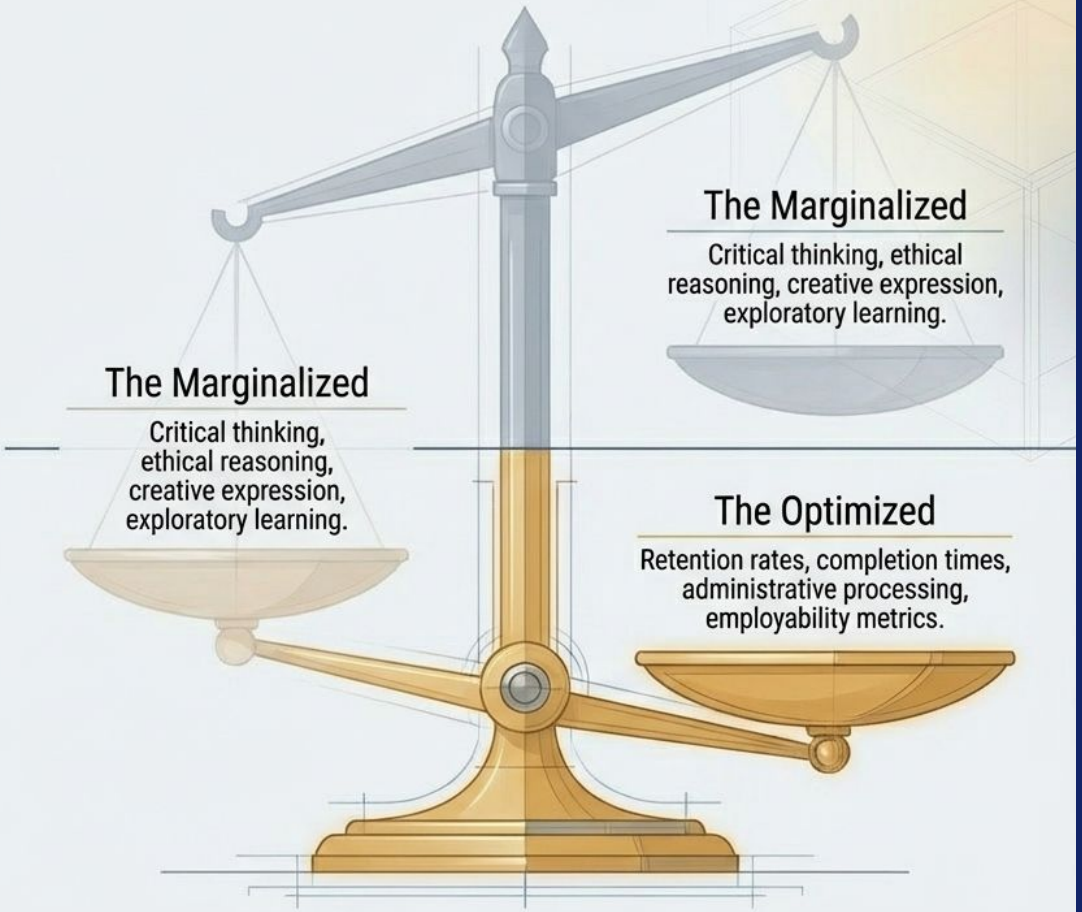
The distribution of AI capabilities mirrors existing educational stratification. Less-resourced institutions are forced to purchase commercial platforms whose design priorities reflect market imperatives, functionally outsourciny outsourcing their institutional values to vendors.

The Algorithmic Stratification Pyramid

The Organizational Paradox

Algorithmic governance systematically shifts institutional priorities toward outcomes that algorithms can easily measure and optimize.

Key Insight: When performance metrics emphasize quantifiable throughput, deeply humanistic educational goods resist reduction to data points and face institutional marginalization.



The Stakeholder Paradox

	Capabilities Expanded	Agencies Constrained
 Students	Always-available tutor, immediate feedback, reduced writing anxiety.	Loss of productive cognitive struggle, metacognitive atrophy, boundary uncertainty.
 Faculty	Elimination of routine assessment tasks, rapid generation of redagogical materials.	Professional deskilling, override by opaque analytics, standardization of assessment.
 Staff	Automation of routine information provision.	Role elimination, workload consolidation for remaining employees.

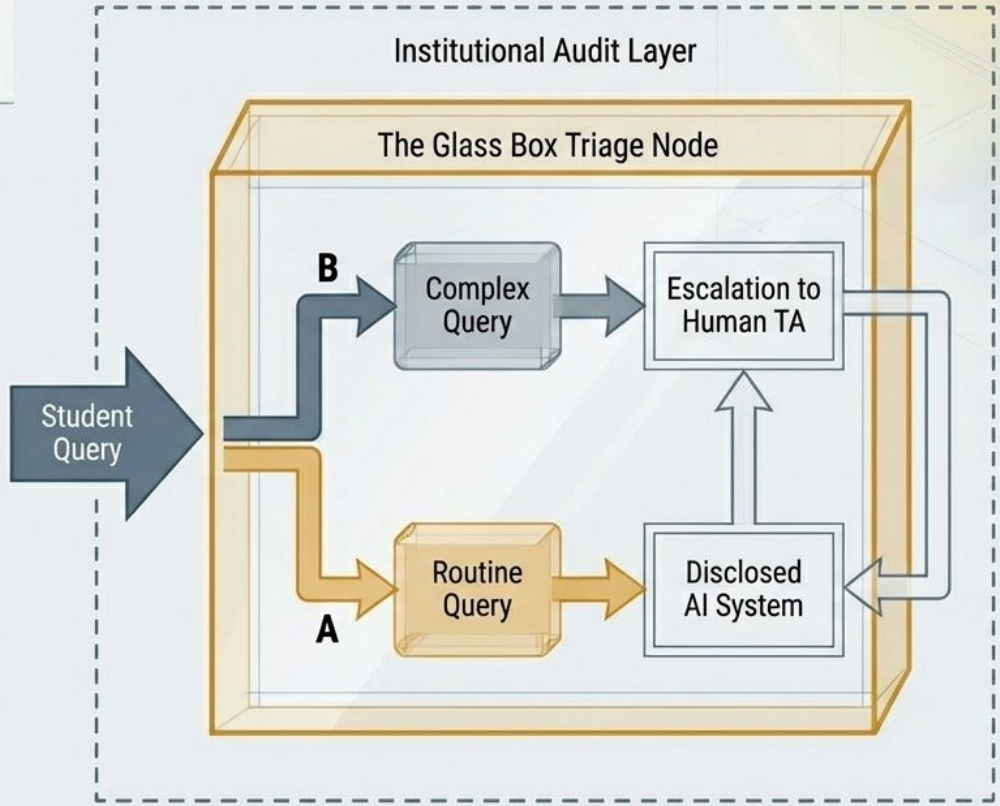
Blueprint 1: Transparent Epistemic Partnerships

Case Study: Georgia Institute of Technology (HATA Program)

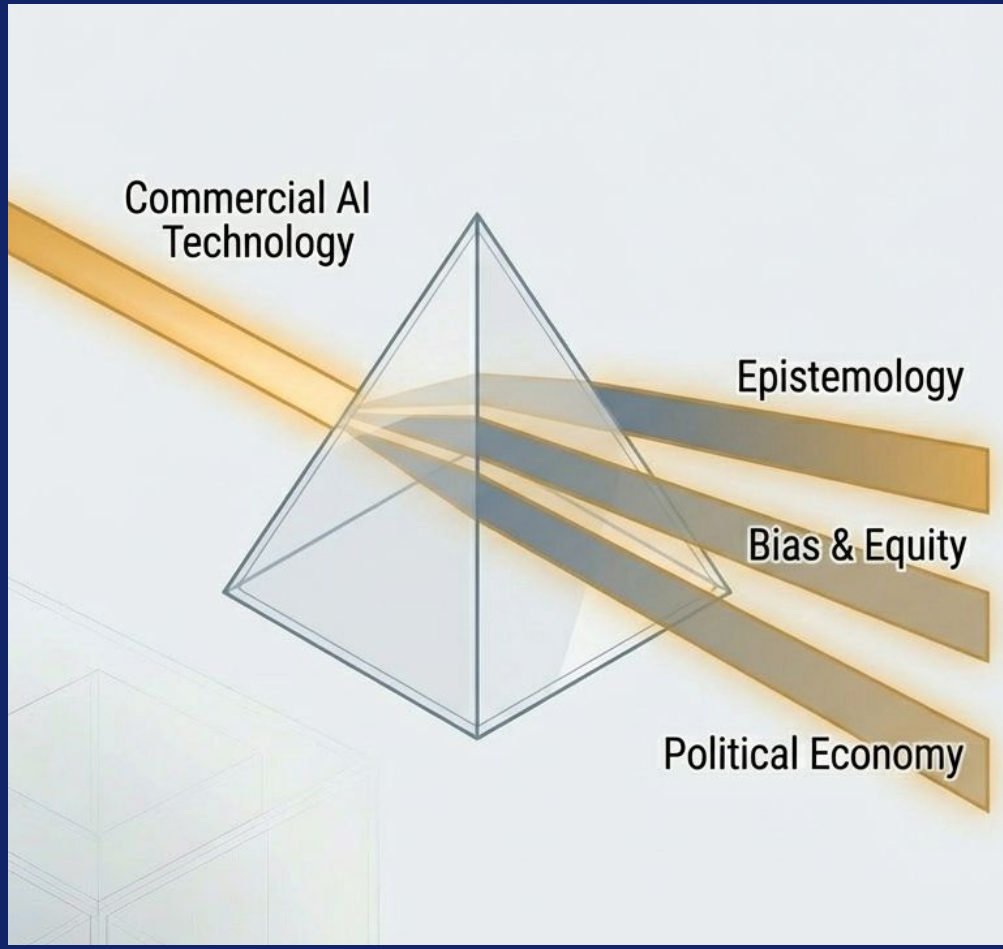
Core Principles:

- **Operational Transparency:** Explicitly disclose AI nature, limitations, and training provenance.
- **Contestability:** Genuine authority for students/faculty to override algorithmic determinations.
- **Attribution:** Clear frameworks acknowledging AI contributions without granting co-authorship.

The Transparent Architecture



Blueprint 2: Algorithmic Literacy & Critical Pedagogy



Case Study: University of Edinburgh

Three Pillars:

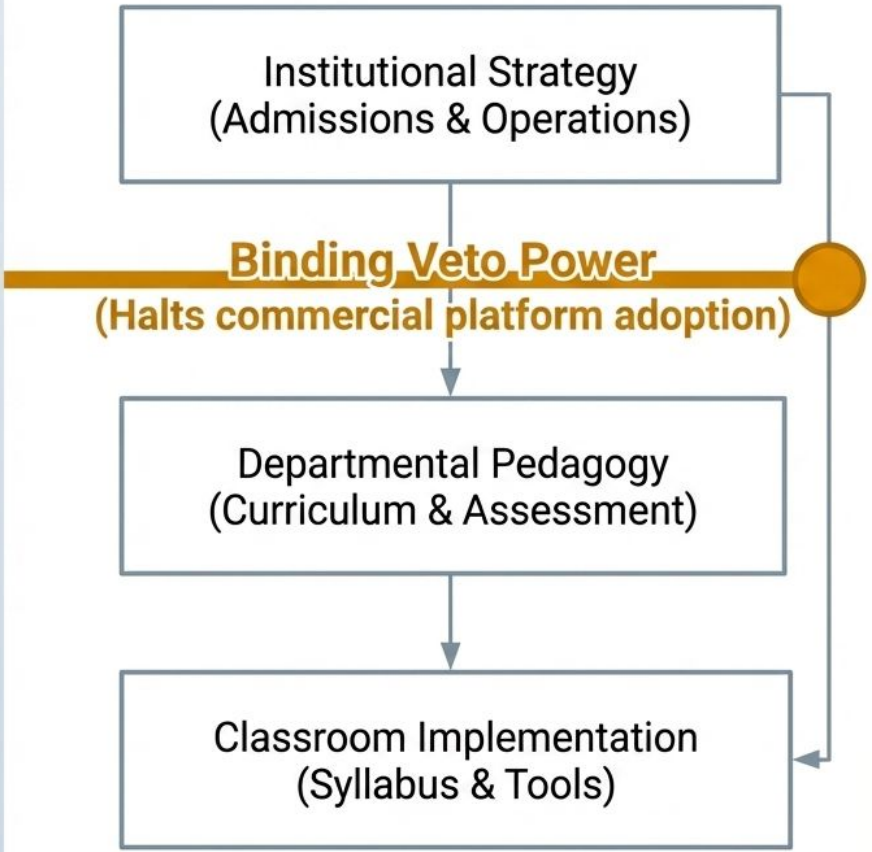
- **Epistemological Interrogation:** Distinguishing statistical correlation from causal understanding.
- **Bias Recognition:** Identifying how algorithms reproduce intersecting marginalization.
- **Political Economy Analysis:** Understanding how commercial incentives shape system design.

Outcome Data: Graduates show vastly higher sophistication in evaluating organizational AI decisions.

Blueprint 3: Participatory Governance Structures

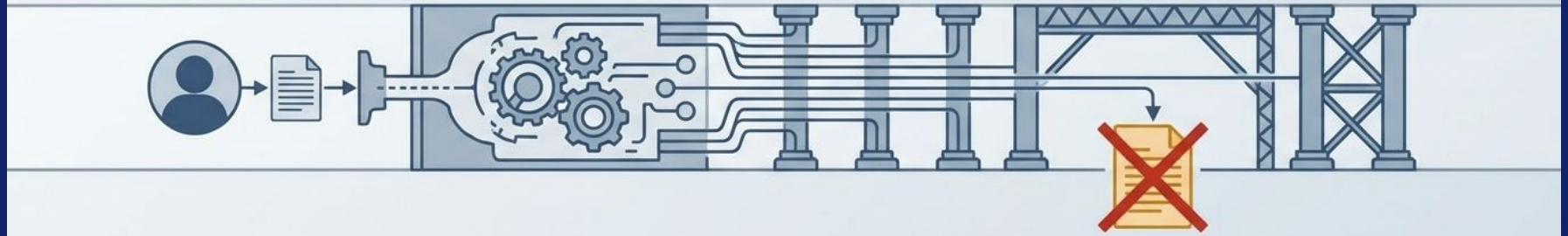
Case Study: Technical University of Munich (AI Governance Council)

Key Differentiators:
- **Layered Authority:** Distinguishing strategic, departmental, and classroom decisions.
- **Meaningful Representation:** Substantive, compensated student and cross-disciplinary faculty involvement.
- **Binding Veto Power:** Authority to block procurements that fail transparency and equity criteria. Advisory-only bodies prove insufficient against market pressures.



Blueprint 4: Pedagogically-Driven Procurement

Case Study: Stanford University Digital Education



The Stanford Approach: Rather than licensing commercial tools that write for students, Stanford built an AI that provides process-focused feedback on argumentation, explicitly refusing to generate alternative text.

Values vs. Optimization Table

Commercial Platforms	Pedagogical AI
- Prioritize data extraction, standard outputs, user engagement maximization, and feature proliferation.	- Prioritize cognitive struggle, metacognitive awareness, intellectual risk-taking, and disciplinary nuance.

The Result: Measurably higher student writing metacognition. Pedagogy dictates design, not the reverse.

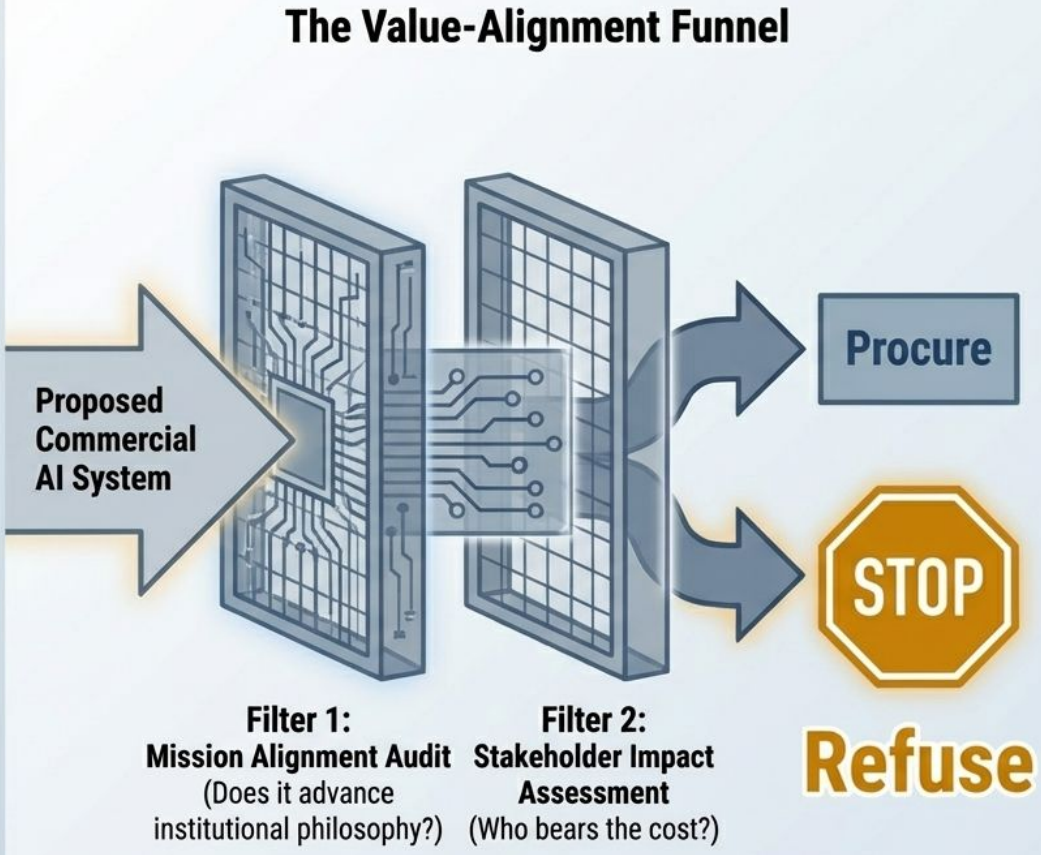
Blueprint 5: Institutional Resistance & Refusal

Case Study: Reed College

The Protocol: Reed audited an AI course recommendation system designed to optimize credit efficiency.

The Finding: The algorithm systematically discouraged exploratory, interdisciplinary learning—the core of the liberal arts mission.

The Choice: Reed actively refused the AI, investing equivalent resources into human academic advising. Refusal is an active strategic choice.

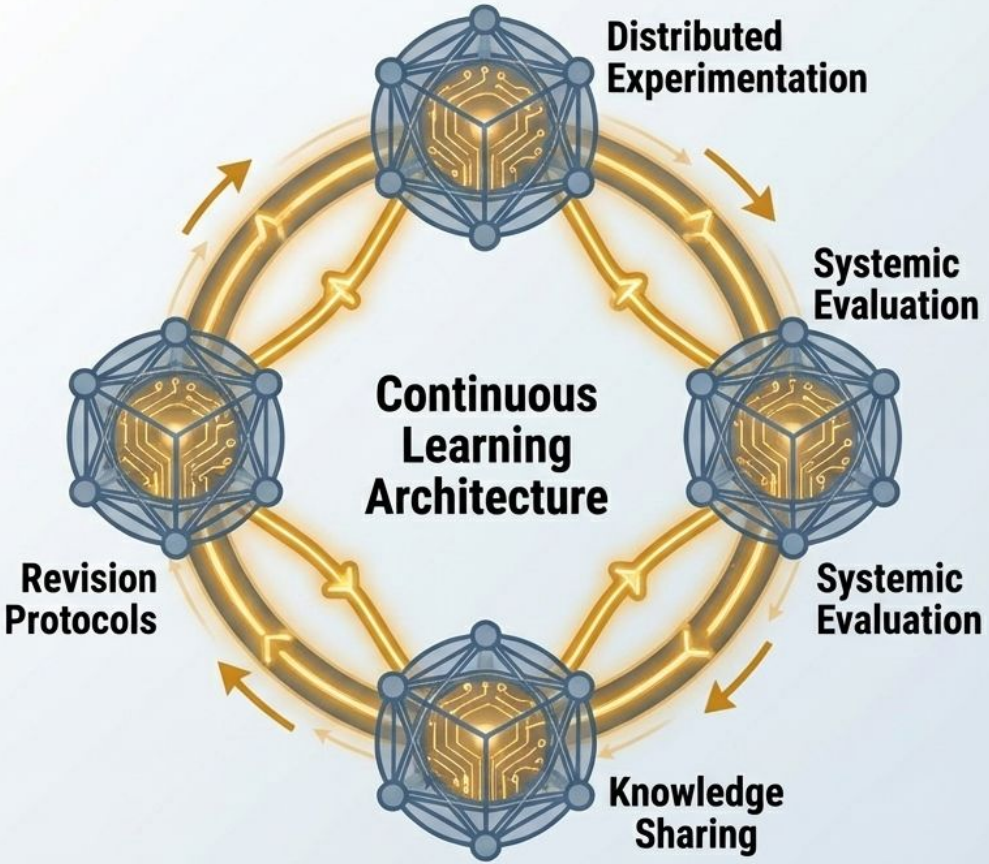


Blueprint 6: Continuous Institutional Learning

Case Study: University of Michigan (AI Learning Lab)

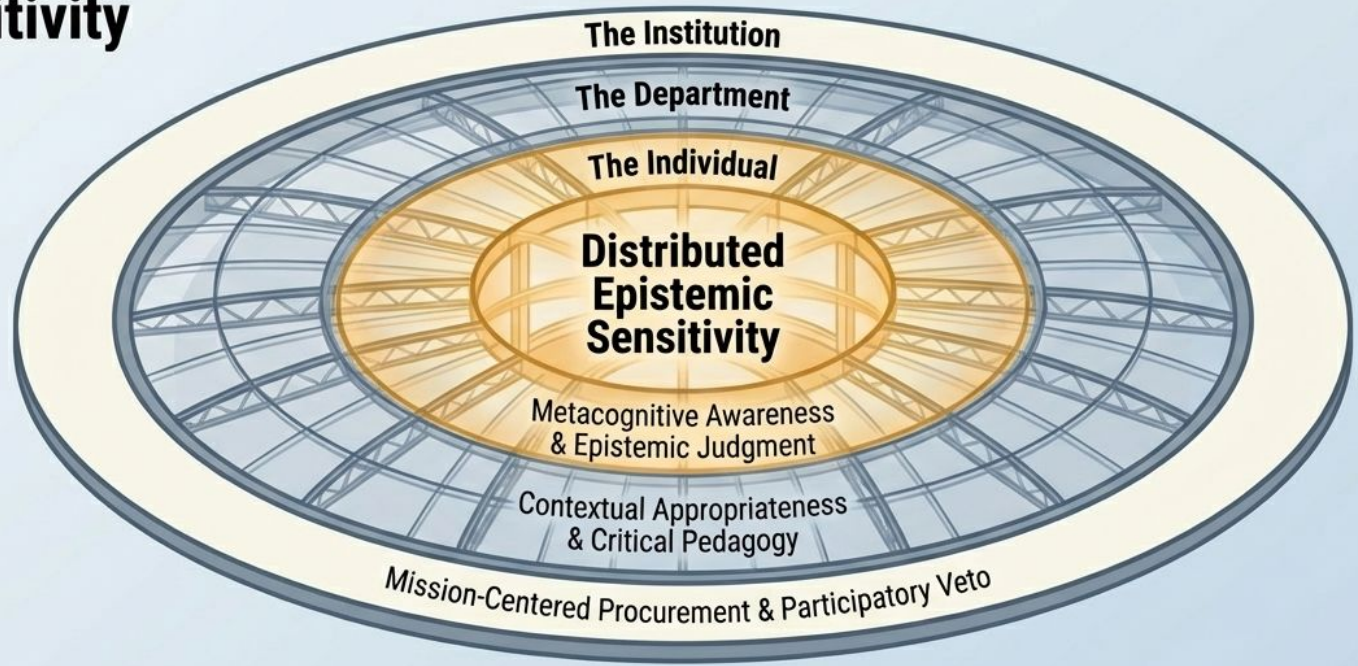
Core Mechanisms:

- **Distributed Experimentation:** Framing AI implementation as research rather than policy, removing career penalties for ambiguous results.
- **Regular Impact Assessment:** Systematically evaluating both intended outcomes and unanticipated consequences.
- **Revision Protocols:** Feeding insights directly back into governance committees to adapt policies dynamically.



The Architectural Goal: Distributed Epistemic Sensitivity

Solving the AI challenge is not about building a better syllabus policy. It is about establishing systemic, epistemic awareness across three layers.



The algorithmic university is not inevitable. Intentional, values-driven governance preserves the distinctly human capacities for ethical reasoning and collective wisdom that constitute higher education's enduring purpose.