

REVIEW ARTICLE



2395-2636 (Print):2321-3108 (online)

Cognitive Offloading and Critical Synthesis: A Conceptual Framework for Integrating Project-Based Learning and Artificial Intelligence in Secondary English Language Arts

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DOI: [10.33329/rjelal.14.3.61](https://doi.org/10.33329/rjelal.14.3.61)



Article info

Article Received: 10/06/2026
Article Accepted: 14/07/2026
Published online: 20/07/2026

Abstract

The pedagogical divide between traditional, text-centric English Language Arts (ELA) instruction and the dynamic, multimodal literacies of the 21st century necessitates a fundamental re-evaluation of classroom practice. Project-Based Learning (PBL) offers a robust framework for authentic inquiry, yet its implementation is often constrained by intensive cognitive demands on both students and educators. This conceptual paper explores the theoretical and practical synthesis of PBL with Artificial Intelligence (AI) in the secondary ELA classroom. Drawing upon Deweyan pragmatism, constructionist learning theory, and cognitive load theory (CLT), the study argues that AI functions not as an autonomous tutor but as a cognitive partner capable of managing germane and extraneous cognitive loads. This partnership liberates teachers to focus on higher-order mentorship and creates space for deeply personalized, critically reflective inquiry. The paper proposes a novel conceptual framework, the AI-Augmented PBL Loop, which structures AI integration across four key phases: (1) Generative Ideation, (2) Socratic Research Scaffolding, (3) Differentiated Process Support, and (4) Critical Multimodal Production. Critically, this framework embeds an ethical-audit pedagogy, transforming AI from an invisible tool into an object of critical literacy analysis, thereby addressing algorithmic bias and issues of authorship. The paper concludes by examining the implications of this synthesis for ELA praxis, arguing that the strategic integration of AI is essential to democratizing sophisticated literacy production and cultivating

a genuinely critical, agentic disposition toward the digital information ecosystem.

Keywords: Project-Based Learning, Artificial Intelligence in Education, English Language Arts, Digital Literacy, Cognitive Load Theory, Multimodal Composition, Critical AI Literacy

1. INTRODUCTION

The modern secondary English Language Arts (ELA) classroom is a site of intense paradigmatic tension. On one hand, the gravitational pull of tradition anchors the discipline to canonical texts, formalist close reading, and the summative five-paragraph essay. On the other, the centrifugal force of a globalized, digital culture demands that students be not merely passive consumers of literary heritage but active, ethical, and rhetorically agile producers of multimodal texts that circulate in authentic public spheres (Mirra et al., 2016, p. 12). This pedagogical dichotomy between the study of a static textual past and the practice of a dynamic compositional present represents a crisis of relevance for the field. Project-Based Learning (PBL), with its emphasis on sustained inquiry into authentic, complex questions and the creation of a public product, has long been proposed as a solution to this schism (Larmer & Mergendoller, 2015). However, despite robust evidence of its efficacy, the widespread adoption of PBL has been stymied by the practical, cognitive, and logistical burdens it imposes on practitioners (Condliffe et al., 2017, p. 24). The idealized PBL classroom requires a single educator to simultaneously act as a curriculum designer, a research librarian, a differentiated scaffolding specialist, and a technical support for diverse multimodal projects: a feat of pedagogical heroism that is often unsustainable.

Concurrently, the rapid proliferation of generative Artificial Intelligence (AI), particularly Large Language Models (LLMs), has been met in educational discourse with a mixture of utopian promise and moral panic.

Initial reactions in the humanities centered predominantly on threats of academic dishonesty and the potential atrophy of critical writing skills (Marche, 2022). This paper argues that both the unbridled optimism and the reactionary pessimism are insufficiently dialectical. Building on emerging scholarship in AI in Education (AIED), a more nuanced position is required: AI is neither a *deus ex machina* nor a "plagiarism bot," but a new class of cognitive tool that can fundamentally restructure the learning environment. This paper proposes a conceptual synthesis, arguing that the strategic integration of AI can resolve many of the pragmatic barriers that have historically confined PBL to the margins of ELA instruction. The central research question addressed is: How can generative AI be theoretically and practically integrated into the ELA PBL cycle to reduce extraneous cognitive load for teachers and students, while simultaneously fostering a deeper, critically reflective, and more equitable form of multimodal literacy? By deconstructing the PBL process into distinct phases and mapping AI capabilities onto its specific cognitive bottlenecks, this paper develops the "AI-Augmented PBL Loop," a conceptual framework for a new human-machine pedagogical partnership.

2. LITERATURE REVIEW

This conceptual framework is situated at the intersection of three distinct academic conversations: constructivist and constructionist learning theory, research on PBL efficacy and barriers in ELA, and critical scholarship on AI in Education.

2.1 Dewey, Constructionism, and the Philosophical Roots of PBL

Project-Based Learning is a direct descendant of John Dewey's pragmatist philosophy, which reconceptualized education as "a process of living and not a preparation for future living" (Dewey, 1916, p. 22). For Dewey, learning was not the passive absorption of static knowledge but an active, iterative process of inquiry driven by genuine purpose. This foundation was later extended by Seymour Papert's theory of constructionism, which posits that learning is most effective when learners are consciously engaged in constructing a public entity, whether a sandcastle, a poem, or a computer program (Papert & Harel, 1991). The cognitive act of "making" and the ability to reflect on that making are indivisible. In the ELA context, this shift is a profound epistemological challenge to the supremacy of the internal, private cognition of the isolated reader. It reframes literacy from a state of reception to a practice of transformation, where a student's critical understanding of a text is demonstrated in its creative re-articulation for a specific, external audience. This aligns with the "New London Group's" call for a pedagogy of multiliteracies, which recognizes the complex orchestration of linguistic, visual, audio, gestural, and spatial modes in meaning-making (Cope & Kalantzis, 2009, p. 7). PBL, in this view, is the practical manifestation of a multiliteracies pedagogy.

2.2 The Promise and Peril of PBL in English Language Arts

Empirical research has validated the potential of PBL to foster deeper learning, critical thinking, and engagement across disciplines. A meta-analysis by Condliffe et al. (2017) found that PBL approaches were particularly effective when they were built around a driving question, involved a process of iteration and revision, and had a core of shared intellectual discourse. In the humanities, studies have shown that PBL can successfully bridge the

gap between canonical literature and civic engagement, increasing students' sense of agency and rhetorical dexterity (Spires et al., 2012, p. 42). Yet, the literature also consistently identifies significant implementation challenges. A primary barrier is the "teacher as bottleneck" phenomenon, where the cognitive load of designing unique inquiry pathways, scaffolding diverse learner needs (from English Language Learners to students with IEPs), and orchestrating multiple complex creative workflows simultaneously overwhelms the single practitioner (Ertmer & Simons, 2006, p. 43). In an ELA-specific context, another key tension is between covering mandated canonical content and devoting weeks to a deep, messy project. This is further complicated by the assessment challenge: evaluating a collaborative podcast or a community documentary requires a sophisticated, process-oriented rubric that often conflicts with the efficiency demands of standardized systems. It is precisely these documented barriers: differentiation, process management, and authentic production, that a strategic AI intervention can most directly address.

2.3 Beyond Tutoring: AI as a Cognitive Partner and Critical Object

The dominant narrative of AIED has often focused on intelligent tutoring systems (ITS) that emulate one-on-one instruction, delivering content and adapting to a learner's pace (du Boulay, 2019, p. 86). The advent of generative AI, however, opens a fundamentally different role: the machine as a Socratic partner in a non-linear, creative, and investigative process. This conception is drawn from David Jonassen's theory of computers as "mindtools" (Jonassen, 2000, p. 4). Mindtools are not pedagogical agents that instruct; they are intellectual partners that offload lower-order cognitive processing (like information retrieval and computation) so the learner can engage in higher-order reasoning (synthesis, argumentation, creative design). In writing specifically, the scholarship on automated feedback is shifting from a corrective

model, with its echoes of Fordist efficiency and a deficit view of the student writer, to a rhetorical response model. An LLM can be prompted to respond not by “fixing” grammar, but by reading as a skeptical or confused audience member, productively complicating the student’s rhetorical situation (Woo et al., 2023, p. 5). This form of AI interaction aligns with a Vygotskian model of scaffolding within the Zone of Proximal Development (ZPD) (Vygotsky, 1978, p. 86), where the AI provides a temporary, responsive support structure that is faded as the learner internalizes the cognitive process.

Crucially, the most recent wave of critical scholarship insists that AI must not only be a tool for learning but an object of critical learning. Bali’s concept of “critical AI literacy” moves beyond functional technical competence to interrogate the systems of power, bias, and labor encoded in AI models (Bali, 2023). This critical orientation transforms the AI from a transparent utility into an opaque text to be read and contested. In an ELA PBL unit, an LLM’s output is not a neutral oracle but a constructed and potentially biased representation, ripe for the type of rhetorical deconstruction that is a core discipline of English studies. This synthesis of the cognitive partner role and the critical object role forms the unique proposition at the heart of this study’s framework: an AI pedagogy that simultaneously supports and questions the very tool it employs.

3. METHODOLOGY

This paper employs a conceptual research design, integrating a theoretical synthesis to construct a novel pedagogical framework. The methodology does not rely on primary empirical data collection but performs a structured, critical analysis and operationalization of existing theories and documented practices. The study was conducted in three distinct phases. The first phase was a theoretical-deductive analysis, identifying the specific cognitive demands of

the classic PBL cycle through the lens of Sweller’s Cognitive Load Theory (CLT) (Sweller, 1988, p. 28). Each stage of PBL: ideation, research, process management, drafting, revision, and production, was analyzed to distinguish its inherent germane cognitive load (essential to the learning goal) from its extraneous cognitive load (demands imposed by the learning environment or task presentation) (Paas & van Merriënboer, 2020, p. 26). The second phase was a functional mapping, where the specific capabilities of generative AI (personalization, generative ideation, natural language processing, multimodal synthesis) were systematically aligned with the identified extraneous cognitive bottlenecks. The final phase involved a critical-synthesis, layering an ethical dimension onto the functional framework. This phase drew on post-critical pedagogy to ensure the proposed model did not uncritically endorse technological solutionism, embedding a meta-cognitive layer where the AI’s own operations become the subject of critical scrutiny. The outcome is a four-part conceptual model, the AI-Augmented PBL Loop, which is described and theoretically justified as an actionable heuristic for design-based research and future empirical testing.

4. The AI-Augmented PBL Loop: A Conceptual Framework for Praxis

The proposed framework re-architects the ELA PBL process as a dynamic loop with four integrated, AI-augmented phases. It is designed to systematically shift extraneous loads to the AI, reserving the learner’s and teacher’s cognitive capacity for germane, higher-order critical thinking.

4.1 Phase 1: Generative Ideation and the Dialectical Driving Question

The initial design phase of PBL is disproportionately cognitively demanding for the teacher, requiring the creation of a “driving question” that is both philosophically rigorous and productively problematic. The framework proposes transforming this from a solitary and

often agonistic act of teacher creativity into a dialectical, human-machine collaboration. Using an LLM, the teacher engages in a rapid prototyping dialogue. For a unit on George Orwell's 1984, a teacher might prompt: "You are a non-fiction editor and political philosopher. I need a driving question connecting surveillance, language control, and modern data privacy. The final product must be a public-facing investigative podcast for a civic media outlet." The LLM generates, the teacher critiques, specifies, and re-prompts. This iterative loop, a form of Socratic design, externalizes the creative memory bank, allowing the teacher to operate as a curator and critical editor of AI-generated possibilities rather than starting from a blank page. The research burden is offloaded; the germane task of applying pedagogical and ethical judgment is intensified. With a library of highly specific, localized, and actionable driving questions generated in a fraction of the traditional time, a key first barrier to PBL adoption is lowered.

4.2 Phase 2: AI as a Socratic Research Scaffold

The student inquiry phase is notoriously susceptible to extraneous cognitive load, manifesting as aimless web surfing and superficial patchwriting. The framework replaces the open-web search with a Socratic research tutor, a Custom GPT or similarly prompted AI persona designed not to answer questions but to teach the process of inquiry. The prompt architecture is critical: "You are a research librarian trained in dialectical questioning. A student will pose a research question. You cannot provide a direct answer. Instead, reply with three more precise, probing questions that reveal epistemological gaps, define one key academic term the student may not know, and suggest one type of scholarly database. Prompt the student to document their evolving research path." A student entering "Do social media influencers create a new kind of Newspeak?" would not receive a summative list. They would be guided to consider the distinctions between algorithmic linguistic drift

and state-imposed linguistic control, to examine the concept of "hallucination" in AI-generated content, and to search communication studies databases for empirical analyses of platform vernaculars. This changes the very texture of research. The extraneous load of filtering a million hits is removed; the germane load of critical wondering and concept formation is activated. It is a personalized scaffolding structure within each student's ZPD, impossible at scale without AI, that makes sustained, divergent inquiry a plausible reality for a class of thirty.

4.3 Phase 3: Differentiated Process and Rhetorical Rehearsal

The long arc of a project is an executive function mountain range. For many students, particularly those with IEPs or who are English Language Learners (ELLs), the extraneous load of simply managing time and breaking down a complex task obscures the germane learning goal. The framework embeds an AI executive-function partner. A student explains the project's final goal; the AI, pre-prompted with a project management role and a specific timeline, breaks it into a phased workflow with discrete, daily, non-judgmental checklists. The "hidden curriculum" of self-management is taught explicitly, via a patient, unshakeable machine agent, freeing the teacher to focus on the quality of the ideas, not the organization of the binder. Simultaneously, the AI becomes a rehearsal space for linguistic power. Before a Socratic seminar serving as a project milestone, an ELL student can engage an AI dialogue partner prompted to role-play a respectful but firm ideological opponent. The student practices articulating a complex interpretive claim, receives low-stakes feedback on the clarity of her syntax and the power of her wording, and enters the high-stakes, human discussion with a roadmap of phrases and a fortified sense of scholarly identity. The framework uses AI to democratize the kind of invisible, middle-class cultural capital and private tutoring support

that have always quietly scaffolded academic confidence for some, but not all, students.

4.4 Phase 4: Critical Synthesis, Multimodal Production, and the Ethical Audit

The final phase addresses the production of the public product, where AI's potential for both exciting creation and insidious cheating is most acute. The framework's central principle here is visible process and critical synthesis. Students are permitted to use generative AI tools (LLMs for wording refinement, text-to-image models for visual rhetoric, audio enhancers for podcast clarity) only under a mandate of transparent disclosure and critical reflection. A student producing a documentary on algorithmic bias does not simply use an AI text-to-speech engine to narrate a chapter. The AI's output is a text to be analyzed. The student's definitive reflection, a core assessed component, becomes a rhetorical analysis of their own production process: "Why did I choose a synthetic 'standard American male' voice for my AI narrator? How does that choice risk reinforcing the very techno-normativity my documentary critiques? How did the AI's image generator visually encode an Orientalist gaze when I prompted it for 'a futuristic Asian street,' and what changes did I make to my prompting language as a decolonizing design act?" This is the apex of the framework. It transforms the AI from a de-authorized ghostwriter into a tool of post-critical making. The machine's encoded biases become the raw material for the core English discipline of deconstruction. The public product does not just meet an authentic need; it contains within it a sophisticated, meta-critical performance of how that meaning was technologically made, masked, and manipulated. The student performs not just as a creator, but as a high-level critical architect of a human-machine narrative, a competency of profound relevance for the modern information age.

5. DISCUSSION

Opportunities, Frictions, and Ethical Imperatives: The AI-Augmented PBL Loop presented here is not a technologically deterministic model but an ecological one, profoundly reconfiguring what Biesta calls the "beautiful risk of education" (Biesta, 2013, p. 38). The framework directly addresses the primary barriers identified in the literature by strategically allocating cognitive labor. The teacher's role is elevated from content deliverer and logistical manager to learning architect, ethical philosopher, and lead mentor. The extraneous load of personalizing forty distinct research paths is managed by the AI, but the irreducibly human task of helping a student process the emotional weight of those interviewed for a community oral history project is not just preserved but is, in fact, given its due temporal and emotional space. The framework carves out time for the beautiful risk.

This reconfiguration engenders a new form of equity. The model reframes equity not as identical treatment but as a technologically scaffolded nexus of support for the precise location of each learner's need. A neurodivergent student uses a project management AI chatbot not to do the work of thinking, but to scaffold the executive structure required to finally bring their sophisticated thinking to a coherent public form. An ELL student uses a language rehearsal AI to build the disciplinary discourse confidence that prevents intellectual silencing. This is a clear, theoretically grounded rebuttal to the deficit-model anxieties that AI will lead to an epidemic of cheating. In a correctly architected AI-augmented PBL unit, the act of plagiarism becomes irrelevant, as the assessment does not target a single, final textual product from an anonymous author. Assessment is a distributed, visible network of a dialectical design history with an AI, an annotated research log, a series of iterative drafts with human and machine feedback, and a culminating, presented defense to an authentic audience. Fabrication of this

entire ecosystem is a more complex intellectual task than simply engaging in it. The unit is, by its nature, cheat-resistant, redefining academic integrity from a policing action to a positive, visible practice of critical synthesis.

However, the implementation of this framework necessitates a crucial, ethically demanding proviso: the systematic, discipline-specific professional development of ELA teachers. The risk of the framework being reduced to a "plug-and-play" series of uncritical tech tools is its greatest vulnerability. Teacher education must move beyond basic digital literacy to a sophisticated understanding of prompt engineering, algorithmic bias detection, and the design of constructivist, rather than instructivist, AI learning scaffolds. Teachers must be trained to design the metacognitive assignments that compel students to dissect an AI's output as a constructed and ideological text, not receive it as a neutral fact. This is not an augmentation of a legacy skill but a new, essential pedagogical competency. The English teacher becomes a critical AI ethicist, and this new role must be scaffolded by initial teacher education and ongoing professional learning communities just as carefully as the students' own learning is scaffolded by the AI.

5.1 Implementation Frictions and Institutional Readiness

While the AI-Augmented PBL Loop offers a coherent theoretical architecture, its translation from model to practice is contingent upon a set of institutional preconditions that cannot be assumed. First, technological infrastructure poses a non-trivial barrier: many secondary ELA classrooms lack reliable broadband, sufficient device-to-student ratios, or district-approved access to generative AI platforms, particularly in under-resourced schools (Williamson et al., 2023). The framework's reliance on Custom GPTs or API-based LLMs assumes a level of digital access that is not universally distributed, risking the

replication of the very inequities the model purports to redress.

Second, the framework demands a fundamental renegotiation of teacher professional identity. The elevation of the teacher from "logistical manager" to "learning architect" is not a simple upgrade but a potentially threatening dislocation for practitioners whose professional training and self-concept are rooted in textual authority and direct instruction. Without sustained, discipline-specific professional learning communities, not one-off workshops, teachers may resist the framework or, worse, reduce it to a series of uncritical "AI as search engine" substitutions that bypass its constructivist core (Ertmer & Simons, 2006). The most significant implementation risk, therefore, is not technical but cultural: the framework will succeed only where schools simultaneously invest in teacher agency, protected planning time, and collaborative co-design structures.

Third, the framework's alignment with existing assessment regimes remains unresolved. Summative standardized assessments, which remain the dominant metric of school accountability, do not measure distributed, process-oriented, multimodal production. Until district-level grading policies and state standards explicitly recognize the competencies the framework cultivates, critical AI literacy, metacognitive documentation, rhetorical deconstruction, teachers will face an irresolvable tension between the framework's ambitions and the institutional demand for quantifiable, easily scorable outcomes. This is not a flaw of the framework but a structural friction that requires policy-level advocacy, not merely classroom-level innovation.

5.2 Cognitive Atrophy and the Paradox of Automation

The most potent critique of AI integration in writing instruction is the specter of cognitive atrophy: the concern that by offloading tasks such as drafting, revision, and research

synthesis to generative models, students will fail to develop the foundational fluency, grammatical intuition, stylistic ear, and argumentative stamina, that undergirds sophisticated critical thought (Marche, 2022; Warschauer et al., 2023). This paper does not dismiss this risk; rather, it argues that the framework must be designed with deliberate friction to mitigate it.

Cognitive Load Theory (CLT) provides a useful distinction: the AI-Augmented PBL Loop deliberately offloads extraneous load (task management, information retrieval, surface-level language polishing) but must preserve and intensify the germane load: the deep, effortful cognitive work of interpretive judgment, counterfactual reasoning, and rhetorical decision-making. The framework's Phase 4 "ethical audit" is the primary bulwark against atrophy: by requiring students to analyze, critique, and revise AI-generated outputs rather than simply consume them, the act of evaluation becomes a higher-order cognitive exercise that may actually strengthen critical faculties (Woo et al., 2023).

However, this protective mechanism is only as robust as the assessment design. If teachers do not rigorously assess the process documentation and metacognitive reflection alongside the final product, students will rationally optimize for efficiency, using AI to bypass the very struggle that produces cognitive growth. The framework therefore mandates a "visible process" pedagogy: every AI interaction must be accompanied by a student-authored justification of why the AI's output was accepted, rejected, or modified. This transforms the AI from a substitute for thinking into a provocation for thinking, ensuring that the machine's fluency does not become the student's crutch but rather the sparring partner that sharpens the student's own intellectual edge.

5.3 Data Privacy as Architectural Constraint

The framework's operationalization raises immediate and non-negotiable data

privacy concerns that cannot be treated as an afterthought. The use of third-party generative AI platforms, particularly those hosted on cloud infrastructure with opaque data retention policies, exposes student work, including personally identifiable information, writing samples, and research trajectories, to potential surveillance, data mining, or unauthorized secondary use (Williamson & Hogan, 2021). In the U.S. context, this implicates FERPA and COPPA compliance; in the EU, GDPR's stringent data sovereignty requirements render many mainstream AI tools legally non-compliant for classroom use.

This paper therefore argues that the AI-Augmented PBL Loop must be implemented using privacy-preserving technological architectures. Where possible, schools should deploy on-premise, open-source small language models (SLMs) that do not transmit student data to external servers. Alternatively, districts must contract with educational AI providers that offer clear, auditable data-use agreements, with explicit prohibitions on model training using student inputs. The framework's Phase 3 "executive-function partner" and Phase 2 "Socratic research scaffold" are particularly sensitive, as they involve iterative, personalized dialogues that constitute a detailed cognitive profile of each learner.

Beyond legal compliance, the framework must embed privacy as a pedagogical value. The same critical AI literacy that students apply to algorithmic bias in Phase 4 should extend to data privacy: students should interrogate who owns their prompts, what inferences can be drawn from their query histories, and how their data might be commodified. This transforms privacy from a bureaucratic hurdle into an object of critical inquiry, consistent with the paper's broader commitment to making AI itself a subject of rhetorical deconstruction. However, this pedagogical aspiration is contingent upon institutional transparency: districts must provide clear, student-friendly privacy policies and obtain informed consent from families

before any AI deployment. Without this groundwork, the framework's implementation is ethically untenable.

6. CONCLUSION AND FUTURE RESEARCH

The synthesis of Project-Based Learning and Artificial Intelligence represents a critical juncture for secondary English Language Arts. This paper has argued that the long-standing, intractable barriers to PBL adoption chiefly, the Herculean cognitive load that the model places on a single practitioner can be strategically managed through a new pedagogical partnership with AI. The proposed AI-Augmented PBL Loop provides a conceptual framework for this partnership, moving beyond both the dystopian rhetoric of the "death of the essay" and the utopian fantasy of robot tutors. It posits a far more nuanced and demanding future: one where the human teacher, liberated from the logistical drudgery of managing universal chaos, can dedicate their expertise to the sublime and complex tasks of ethical mentorship, critical provocation, and caring for the living, messy, and profoundly human process of inquiry. In this model, AI does not de-skill the teacher; it re-skills them to operate at the highest level of their professional license, as designers of intellectual ecosystems. It does not automate student learning; it scaffolds a new form of critical authorship that is transparent, dialogic, and aware of its own technological mediation.

The promise of this framework is not just a more efficient ELA classroom, but a more democratic and critically aware one. By making the sophisticated production of multimodal texts technically accessible and by making the internal bias of AI a primary object of rhetorical analysis, this pedagogy equips students with the foundational literacy of the 21st century: the ability not just to use an algorithm, but to read, write alongside, and talk back to it. The direction for future research is necessarily empirical and critical. Design-based research (DBR) is needed to implement the AI-

Augmented PBL Loop in diverse classroom contexts, gathering rich, qualitative data on shifts in teacher cognitive load, student metacognitive development, and the quality of multimodal rhetoric produced. Concomitantly, longitudinal studies must track how these critical AI literacy interventions impact students' information evaluation skills in non-academic digital settings. Ultimately, the goal is to test this conceptual model in the crucible of the classroom to iteratively refine a pedagogy that holds the timeless humanities: truth, beauty, and agency, in tense, productive balance with the transformative potential of intelligent machines. The framework's success depends not on the elegance of its design but on the institutional courage to confront its inherent tensions. Implementation requires sustained investment in teacher professional learning and infrastructure; cognitive atrophy demands pedagogical architectures of deliberate friction; data privacy necessitates architectural choices that privilege student rights over vendor convenience. These are not peripheral considerations but constitutive conditions. A framework that acknowledges these constraints is not weaker but stronger, more actionable, more critical, and more worthy of the trust that teachers, students, and families must place in it.

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