INDUSTRY REPORT · MARCH 2026

Expanding Interpretation

Curricular Design for a Post-Literate Age

A preliminary framework for teaching interpretive dexterity in an age of algorithmic mediation, with cross-cultural case studies from an Anthropocene perspective on education.

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Preface

We arrived too late into a world too algorithmic. The learners who walk into our classrooms and seminar halls today were born into an informational order that their instructors did not build, do not fully comprehend, and cannot, in good conscience, pretend to have mastered. A generation came of age scrolling through feeds whose curation logic no one in the room can fully explain, composing themselves in the idiom of platforms whose incentive structures bear no necessary relation to truth, and receiving from large language models fluent approximations of understanding that are, in the most literal sense, understanding-less. This is the pedagogical situation. It requires a response adequate to its strangeness.

The students we encounter at Lumine Academy come from Singapore and Bangkok, from smaller Chinese cities whose names would mean nothing to an admissions officer in New England, from Long Island and Vancouver, from families whose wealth was made in three different centuries and economies that may not exist in ten years. They are, in the aggregate, extraordinarily capable: polyglot, digitally dexterous, cosmopolitan in their consumption if not always in their judgment. Many of them can navigate six platforms in three languages before breakfast. They can prompt an AI into producing a passable college essay and intuit, without being taught, that the result is somehow hollow. They suspect that the meritocratic bargain their parents struck—study hard, test well, ascend—may no longer hold. They harbor a quiet vertigo about what the world will look like when they are thirty, and they are correct to feel it. The familiar, recurrent world of stable careers, legible institutions, and reliable epistemic authorities is dissolving under their feet, and they know this in their bodies before they know it in their curricula.

Some of them are addicted to TikTok in ways they can describe with clinical precision and cannot stop. Some play cyberpunk games whose dystopian premises feel less like fiction every semester. Most of them toggle, hourly, between an embrace of technological possibility and a suspicion that the machines are, in some fundamental way, impoverishing the texture of human experience. They are, in short, the first generation to inhabit the Anthropocene as a felt condition rather than a scientific abstraction: a generation for whom the entanglement of human and non-human agencies—algorithmic, ecological, computational—is the ordinary atmosphere of daily life.

Lumine Academy was founded as an international boutique research, consulting, and education firm precisely because we believed that the most urgent questions in education today require the convergence of philosophical rigor, cross-cultural fluency, and practical design thinking that no single disciplinary tradition can supply alone. We think from the vantage of the Anthropocene: a world in which human and non-human actors co-constitute the conditions of knowledge, and in which the task of education is to prepare learners to inhabit that symbiotic world with intelligence, responsibility, and a capacity for judgment adequate to its complexity. This report is an attempt to articulate what such preparation might look like—concretely,

pedagogically, and across the diverse cultural contexts in which our work unfolds.

What follows is offered in the spirit of a working hypothesis: rigorous in its theoretical commitments, honest about the limits of what it can demonstrate, and animated by the conviction that the humanities possess resources for meeting this moment that have yet to be fully mobilized.

Xiaochen Zhao
New York, March 2026

EXECUTIVE SUMMARY

This report confronts a widening gap between the interpretive demands of contemporary information environments and the pedagogical models inherited from print-era humanistic education. Traditional humanities curricula cultivate close reading of stable texts; the informational world students now inhabit is governed by algorithmically curated feeds, machine-generated language, and cross-cultural digital ecosystems whose mediating logics are often invisible. The central argument is that the dominant text-centric model of hermeneutic training, while indispensable, requires supplementation by a systematic pedagogy of *system-level* interpretation.

THE FRAMEWORK AT A GLANCE

Interpretive Systems Analysis (ISA) is a curricular framework organized around four pedagogical dimensions: **Mediation Analysis**, **Translational Thinking**, **Architectural Critique**, and **Cross-Contextual Navigation**. Together, these dimensions cultivate what we term **interpretive dexterity**: the capacity to critically assess information systems, formulate responsible judgments, and move between cultural contexts with both analytical rigor and ethical responsibility.

Drawing on media ecology (McLuhan, Postman, Stiegler), hermeneutical phenomenology (Gadamer, Ricoeur), translation studies (Benjamin, Venuti), and critical pedagogy (Freire, hooks), the report develops the ISA framework in theoretical detail and illustrates its application through three case studies situated in distinct educational settings:

CASE STUDY	CONTEXT	EMPHASIS
“Interpreting the Machine”	U.S. liberal arts seminar (15 weeks, undergrad)	Systemic legibility and responsible judgment
“Reading Between Systems”	U.S. public school, Title I (8 weeks, 10th grade)	Systemic legibility and responsible judgment
“The Collaborative Audit”	Cross-cultural online hybrid program (6 weeks)	All four dimensions via collaborative LLM audit

The report acknowledges that these case studies are theoretically constructed models rather than reports of completed empirical research. The framework’s effectiveness in cultivating the competencies it targets remains to be demonstrated through classroom implementation, with appropriate assessment instruments and longitudinal tracking. The contribution of this report is conceptual: it articulates a new pedagogical framework, grounds it in established theoretical traditions, and offers concrete design models for its implementation.

CORE CONCEPT: INTERPRETIVE DEXTERITY

Interpretive dexterity comprises three interlocking capacities: **systemic legibility** (the ability to render visible the logic of a meaning-producing system), **translational agility** (the ability to move between interpretive frameworks without reducing one to the terms of another), and **responsible judgment** (the capacity to formulate assessments under conditions of radical mediation).

01 INTRODUCTION: THE INTERPRETIVE CRISIS

Consider the landscape. According to a 2025 Pew Research Center survey of 1,458 U.S. teenagers, roughly two-thirds now use AI chatbots, with three in ten doing so daily; 59% use ChatGPT, and 54% report turning to chatbots for help with schoolwork (Pew Research Center, 2025). A College Board study found that 84% of American high school students used generative AI tools for schoolwork by May 2025, up from 79% just four months earlier (College Board, 2025). The Higher Education Policy Institute reports that 88% of university students used generative AI for assessments in 2025, compared with 53% the previous year (HEPI, 2025). These are adoption curves without precedent in the history of educational technology.

The saturation extends well beyond the classroom. Europol has warned that as much as 90% of online content may be synthetically generated by 2026 (Europol, 2022). Algorithmic trading now accounts for an estimated 60 to 70% of total trading volume on U.S. equity markets (Goehmann, 2025); the global algorithmic trading market reached USD 18.8 billion in 2025 and is projected to nearly double by 2034 (IMARC Group, 2025). In April 2025, Duolingo's CEO announced the company would become "AI-first," phasing out human contractors and launching 148 new language courses built entirely by generative AI in under a year—courses that had previously taken a decade to develop with human labor (von Ahn, 2025). AI-powered recommendation algorithms drive over 80% of content discovery on major social media platforms, where the average user spends 2 hours and 24 minutes per day. The informational world that students inhabit is, in a measurable and accelerating sense, a world produced by machines.

THIS WEEK IN THE INTERPRETIVE CRISIS

On March 19, 2026, Hachette Book Group pulled the horror novel *Shy Girl* by Mia Ballard from publication after widespread allegations—first raised by readers on Reddit and Goodreads, then investigated by *The New York Times*—that the book was substantially AI-generated. The same week, at the 2026 London Book Fair, 10,000 writers including Kazuo Ishiguro signed an empty book titled *Don't Steal This Book* in protest against AI firms training on copyrighted works without permission. The Society of Authors launched a "human authored" certification sticker. These are signals of a crisis in interpretive authority that extends from the classroom to the publishing house to the trading floor.

The question this report addresses is pedagogical: Given these conditions, how do we teach interpretation? The data above describe an environment in which the distinction between human-produced and machine-produced meaning has become practically unenforceable, in which the systems that mediate information are themselves opaque to most of the people who depend on them, and in which the velocity of adoption has outpaced the capacity of educational institutions to respond. What follows is an attempt to articulate a response adequate to this strangeness.

The Theoretical Problem

Something has changed in the conditions of interpretation. The observation is by now commonplace, even banal: that information abundance does not yield understanding; that the proliferation of textual, visual, and computational media has rendered the inherited humanistic toolkit at once more necessary and more obviously inadequate. What remains less commonly articulated is the precise nature of this inadequacy and what a curricular response to it might look like.

The humanistic tradition has always understood interpretation as a cultivated capacity. From the ancient *trivium* to the modern seminar, the assumption has been that close, patient engagement with a stable text—literary, philosophical, historical—develops a transferable ability to assess meaning, weigh evidence, and formulate judgment. This assumption was never entirely wrong, and nothing in this report should be read as a case for its abandonment. The problem is that this model was calibrated to a specific media ecology: one in which texts were relatively stable objects, produced through identifiable processes, circulated through legible institutional channels, and encountered in contexts that encouraged sustained attention. Each of these conditions has been disrupted.

> *The contemporary learner encounters meaning primarily through systems whose logic is opaque.*

A social media feed is curated by algorithms whose optimization targets bear no necessary relation to truth, coherence, or significance. A large language model generates text that mimics the surface features of human reasoning without possessing the experiential substrate from which such reasoning arises. A news aggregator arranges information according to engagement metrics that systematically privilege affective intensity over epistemic reliability. These are the dominant media through which a generation now forms its understanding of the world. The humanistic tradition has ample resources for interpreting the *content* that circulates through these systems. What it lacks, as yet, is a systematic pedagogy for interpreting the systems themselves.

This report proposes such a pedagogy. “Interpretive Systems Analysis” (ISA) is a curricular framework designed to extend hermeneutic training from the interpretation of texts to the interpretation of the complex, layered, often deliberately opaque architectures through which meaning is now produced and distributed. The framework does not replace close reading; it supplements it with a set of analytical capacities calibrated to the actual conditions under which interpretation now occurs.

Structure of this Report

Section 2 surveys the relevant literature across four fields—media ecology, hermeneutics, translation studies, and critical pedagogy—identifying the conceptual resources each offers and the gaps that remain between them. Section 3 develops the ISA framework in detail, articulating its four pedagogical dimensions and the theory of “interpretive dexterity” that underwrites them.

Section 4 presents three illustrative case studies, each situated in a distinct educational context, to demonstrate how the framework might be implemented in practice. Section 5 addresses limitations and proposes directions for future empirical research.

02 LITERATURE REVIEW: CONVERGING FIELDS

2.1 Media Ecology and the Conditions of Post-Literacy

The concept of “post-literacy” as used here does not denote the disappearance of reading and writing. It describes, rather, a transformation in the conditions under which literate practices operate—a shift in the media ecology that alters what it means to encounter, assess, and respond to a communicative artifact. The foundational insight of media ecology, from Innis through McLuhan to Postman, is that media are never mere conduits for content; they are environments that structure perception, cognition, and social organization. McLuhan’s dictum that the medium is the message was, at bottom, a hermeneutical claim: that what a medium *does* to the structure of attention matters more, interpretively, than what any particular message within it *says*.

Postman sharpened this insight into a pedagogical argument. In *Amusing Ourselves to Death* (1985) and *Technopoly* (1992), he contended that the migration from a print-dominated to a television-dominated epistemology did not merely change the *delivery* of information; it altered the very criteria by which information was assessed as credible, significant, or worthy of attention. The shift from television to the algorithmic feed has only intensified the dynamic Postman identified. Where television substituted entertainment for discourse, the algorithmic feed substitutes engagement for relevance, producing an information environment in which affective charge functions as a proxy for epistemic warrant.

Bernard Stiegler’s work on “cognitive proletarianization” extends this analysis into a more explicitly philosophical register. For Stiegler, digital technologies do not merely distract attention; they externalize cognitive functions—memory, judgment, orientation in time—that were formerly constitutive of individual and collective subjectivity. The result is what Stiegler calls the loss of *savoir-vivre* and *savoir-faire*: practical and interpretive knowledge that cannot be reduced to information retrieval. The pedagogical implications are substantial. If digital systems do not just deliver content but actively restructure the cognitive faculties through which interpretation occurs, then a pedagogy of interpretation must address the systems themselves, treating them as objects of hermeneutic attention rather than transparent instruments.

> **FROM THEORY TO EMPIRICS**
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> More recent scholarship in platform studies (Gillespie 2018, Srnicek 2017, Zuboff 2019) has given empirical specificity to these philosophical claims, demonstrating the concrete mechanisms—recommendation algorithms, engagement optimization, behavioral prediction—through which digital platforms shape the production and reception of meaning.

This body of work establishes the factual premise of the present project: that the systems through which contemporary learners encounter information are active agents in the construction of meaning, and that interpreting these systems requires skills that the traditional humanistic curriculum does not systematically cultivate.

2.2 Hermeneutics and the Question of System-Level Interpretation

The hermeneutical tradition offers the deepest theoretical resources for thinking about interpretation as a cultivated capacity, but these resources require adaptation to address system-level phenomena. Gadamer's philosophical hermeneutics, with its account of the "hermeneutical situation" and the productive role of prejudice (*Vorurteil*) in understanding, provides a sophisticated framework for analyzing the interpreter's embeddedness in tradition. The concept of *Wirkungsgeschichte*—effective-historical consciousness—emphasizes that interpretation is never a disembodied act of cognition but is always situated within a history of effects that conditions what can appear as meaningful. For Gadamer, understanding occurs through a "fusion of horizons" (*Horizontverschmelzung*) in which the interpreter's own horizon encounters and is transformed by the horizon of the text.

This framework is powerful for analyzing text-level interpretation. Its limitation, for present purposes, is that it was developed with a specific kind of interpretive encounter in mind: the dialogue between a reader and a text understood as an expression of meaning by a historically situated author or tradition. The "texts" that most urgently require interpretation today—algorithmic feeds, search result rankings, machine-generated language—do not fit this model straightforwardly. They are products of optimization processes that generate meaning-effects without originating from a meaning-intention. The pedagogical challenge is to extend hermeneutical attention to these phenomena without collapsing the distinction between interpretation and mere description.

> *Ricoeur's insistence that interpretation requires both Erklären and Verstehen creates space for a hermeneutics that engages with the structural and computational dimensions of meaning-production.*

Ricoeur's hermeneutics, with its greater emphasis on the "explanation" pole of the interpretive arc, offers a partial bridge. His insistence that interpretation requires both *Erklären* (explanation) and *Verstehen* (understanding)—that one must pass through structural analysis to arrive at a deeper comprehension—creates space for a hermeneutics that engages with the structural and computational dimensions of meaning-production. The ISA framework draws on this Ricoeurian insight: system-level interpretation involves both understanding *how* a system operates (its architecture, its optimization targets, its affordances and constraints) and interpreting *what* this operation means for the forms of understanding it enables and forecloses.

2.3 Translation Studies as Interpretive Model

Translation studies provides a crucial and underexploited resource for interpretive pedagogy. The translator is, in a fundamental sense, the paradigmatic interpreter: someone who must attend simultaneously to the semantic content, formal structure, cultural embeddedness, and pragmatic effect of a communicative artifact, and who must then reconstruct these dimensions within an entirely different system of conventions and expectations. Walter Benjamin's celebrated essay "The Task of the Translator" (1923) articulated this dual attention philosophically, arguing that translation is directed not at reproducing the surface meaning of a text but at discovering the "pure language" (*die reine Sprache*) that shimmers in the interstice between source and target. Whatever one makes of Benjamin's messianic metaphysics, the pedagogical insight is clear: translation compels an awareness of the gap between what a system of representation makes sayable and what resists assimilation into that system.

Lawrence Venuti's distinction between "domesticating" and "foreignizing" translation strategies extends this insight into a critical register. Domestication renders the foreign text fluent and familiar in the target language, effacing the marks of its cultural otherness; foreignization preserves elements of strangeness, forcing the reader to reckon with the limits of their own interpretive habits. Venuti's work demonstrates that every act of translation embodies a politics of interpretation: a decision about how much cognitive friction the reader should be made to bear. This is directly relevant to the interpretation of digital systems, which routinely perform a kind of domestication—presenting algorithmically curated, engagement-optimized content as though it were a transparent window onto reality, effacing the mediating architecture that shapes what appears and how it appears.

The ISA framework incorporates "translational thinking" as one of its core dimensions, drawing on these insights to teach students to recognize the gap between what a system presents and what its presentational logic conceals. The analogy between translation and system-interpretation is instructive: in both cases, interpretation requires attending simultaneously to content and to the apparatus that conditions its appearance.

2.4 Critical Pedagogy and the Stakes of Interpretive Agency

The pedagogical dimension of this project draws on the tradition of critical pedagogy, particularly the work of Freire, hooks, and more recent scholars who have extended their insights into digital contexts. Freire's central insight—that education is never neutral, that it either functions as an instrument of conformity or as a practice of freedom—acquires renewed urgency in an environment where the very instruments of learning (search engines, LLMs, educational platforms) are themselves structured by interests that learners are rarely equipped to identify. The ISA framework is, in this sense, a Freirean project: its aim is to transform learners from passive consumers of algorithmically mediated meaning into agents capable of critically assessing the systems that shape their informational world.

bell hooks's emphasis on the classroom as a site of "engaged pedagogy" informs the framework's commitment to participatory, dialogical modes of instruction. The ISA curriculum is designed around collaborative exercises in system-deconstruction, reflecting hooks's conviction that critical consciousness is cultivated through shared inquiry rather than unilateral transmission. The cross-cultural dimension of the framework further reflects hooks's insistence that interpretive practices are always shaped by the social positions of interpreters, and that genuine critical literacy requires reckoning with the asymmetries of power and perspective that structure any interpretive encounter.

Figure 1. Convergence of four fields in the ISA framework

FIELD	KEY INSIGHT FOR ISA	LIMITATION ADDRESSED BY ISA
Media Ecology	Media structure perception; algorithms are environments, not neutral conduits	Descriptive rather than pedagogical; lacks curricular translation
Hermeneutics	Interpretation is situated, historically conditioned, and dialogical	Developed for text-level encounters; needs extension to system-level phenomena
Translation Studies	Every cross-system transfer transforms meaning; the gap is interpretively productive	Focused on linguistic transfer; needs application to digital system boundaries
Critical Pedagogy	Education is political; critical consciousness is cultivated, not transmitted	Under-theorized on the specific role of algorithmic mediation

03 THE ISA FRAMEWORK

3.1 Core Theoretical Commitments

The ISA framework rests on three interconnected claims. First, that interpretation in the twenty-first century requires attending not only to texts but to the systems that produce, curate, and circulate them. Second, that this expanded interpretive attention can be systematically cultivated through curricular design. Third, that the competency this cultivation yields—what I term "interpretive dexterity"—is transferable across domains, media, and cultural contexts.

COMPETENCY	DEFINITION
Systemic Legibility	The ability to render visible the logic of a meaning-producing system: to identify its optimization targets, affordances, constraints, and blind spots.
Translational Agility	The ability to move between interpretive frameworks, cultural contexts, and registers of meaning without reducing one to the terms of another.
Responsible Judgment	The capacity to formulate assessments of meaning, truth, and value under conditions of radical mediation, where the information environment itself is structured by interests that may be invisible, opaque, or actively misleading.

These capacities are interrelated. Systemic legibility without translational agility produces a narrow technicism—an ability to describe how a system works without grasping the cultural and political significance of what it does. Translational agility without systemic legibility produces a cosmopolitan dilettantism—a facility at moving between cultural contexts without understanding the infrastructural forces that shape them. Responsible judgment without either systemic legibility or translational agility produces moral sentiment without analytical purchase. The ISA framework is designed to cultivate all three in concert.

3.2 The Four Pedagogical Dimensions

The ISA framework is organized into four pedagogical dimensions, each corresponding to a distinct mode of system-level interpretive work. These dimensions are analytically separable but pedagogically integrated; in practice, any given exercise or module will engage multiple dimensions simultaneously.

Dimension One: Mediation Analysis

Mediation Analysis teaches students to identify and interrogate the mediating structures through which they encounter information. The term “mediation” is used here in a technical sense drawn from media ecology: it denotes the full apparatus of selection, arrangement, emphasis, and framing that intervenes between an event or idea and its appearance in a communicative artifact. A news article is mediated by editorial judgment, house style, institutional incentives, and the economic model of its publisher. A social media post is mediated by the algorithmic logic of the platform, the behavioral data of the user, and the engagement dynamics of the network. A response generated by a large language model is mediated by training data, reinforcement learning from human feedback, and the architectural constraints of the transformer model.

The pedagogical task is to make these layers of mediation legible. This involves, first, a descriptive competency: students learn to identify and map the mediating structures operative in a given communicative artifact. It involves, second, a critical competency: students learn to assess how these mediating structures shape what appears, what is obscured, and what is systematically excluded. The analytical model here draws on Ricoeur’s hermeneutical arc: one passes through structural explanation (how does this system operate?) to arrive at a richer understanding (what does this operation mean for the kind of world this system constructs?).

Dimension Two: Translational Thinking

Translational Thinking extends the insights of translation studies into a general pedagogical method. The core insight is that any act of moving information between systems—between languages, between media, between cultural contexts, between platforms—involves a transformation that is itself interpretively significant. What is gained, what is lost, what is distorted, and what is revealed in the passage from one system to another: these are hermeneutically productive questions that students can learn to pose systematically.

Concretely, this dimension involves exercises in deliberate cross-system translation. Students might be asked to “translate” a complex argument from a long-form essay into a Twitter thread, and then to analyze what the constraints of the target medium required them to sacrifice, compress, or reformulate. They might compare how the same news event appears across different national media ecosystems, attending to the structural features of each system that condition its rendering of the event. The theoretical basis for this dimension draws on Benjamin’s concept of the “translator’s task” and Venuti’s politics of translation. The pedagogical aim is to cultivate in students an awareness that every system of representation is simultaneously an

enabling constraint: it makes certain forms of meaning possible while rendering others unsayable.

Dimension Three: Architectural Critique

Architectural Critique addresses the computational and design architectures of the systems through which meaning is now predominantly produced and circulated. This dimension requires a degree of technical literacy, though the emphasis is on interpretive rather than engineering competency. Students do not need to understand the mathematics of a transformer model; they do need to understand what it means that a language model generates text by predicting the next token in a sequence, and how this generative logic shapes the epistemic status of its outputs.

The term “architecture” is used advisedly. Like a physical building, a computational system embodies a set of decisions—about what to optimize for, what data to train on, how to weight different signals, where to impose constraints—that structure what is possible within it. These decisions are often invisible to the end user, and rendering them visible is itself an interpretive achievement. Architectural Critique teaches students to ask: What decisions are embedded in this system’s design? Whose interests do they serve? What forms of meaning does this architecture make possible, and what does it foreclose?

This dimension draws on the emerging field of critical algorithm studies (Noble 2018, Benjamin 2019, Crawford 2021) and on the longer tradition of science and technology studies (STS), particularly the concept of “script” developed by Akrich (1992) and Latour (1992): the idea that technological artifacts embed prescriptions for use that shape the behavior and understanding of their users. The ISA framework adapts this concept for pedagogical purposes, teaching students to “read” the scripts embedded in digital systems with the same hermeneutic attention they would bring to a literary text.

Dimension Four: Cross-Contextual Navigation

The fourth dimension addresses a challenge that is at once pedagogical and existential: the need to make responsible interpretive judgments across cultural contexts that may operate according to different epistemic norms, communicative conventions, and frameworks of value. This is, in one sense, the oldest problem in hermeneutics—Schleiermacher’s problem of understanding an author better than the author understood themselves, Gadamer’s problem of the fusion of horizons. What is new is the scale and velocity at which cross-contextual interpretation is now required. A student who follows TikTok trends, reads long-form journalism, and studies European philosophy is performing acts of cross-contextual navigation constantly, usually without methodological self-awareness.

Cross-Contextual Navigation teaches students to perform these acts with greater intentionality and rigor. This involves developing an awareness of one’s own interpretive defaults: the assumptions, frameworks, and evaluative criteria that function as a tacit background. It involves developing the capacity to inhabit, provisionally and self-consciously, interpretive frameworks other than one’s own. And it involves cultivating the judgment required

to assess when cross-contextual differences are substantive (reflecting genuinely different commitments about truth, value, or meaning) and when they are artifacts of mediation (produced by the structural features of the systems through which information from different contexts is accessed).

Figure 2. ISA Framework: Four Dimensions Summary

DIMENSION	CORE QUESTION	ACTIVITIES	COMPETENCY
Mediation Analysis	What layers of mediation operate between event and appearance?	Comparative mediation mapping; platform analysis	Systemic Legibility
Translational Thinking	What transforms when meaning crosses system boundaries?	Cross-platform translation; bilingual media comparison	Translational Agility
Architectural Critique	What assumptions are embedded in a system’s design?	System Audit; algorithm deconstruction; LLM interrogation	Systemic Legibility + Responsible Judgment
Cross-Contextual Navigation	How do cultural contexts shape interpretation of the same artifact?	Media Diary; Navigation Guide; collaborative cross-cultural audit	Translational Agility + Responsible Judgment

04 ILLUSTRATIVE CASE STUDIES

The following case studies are theoretically constructed scenarios designed to illustrate how the ISA framework might be implemented in distinct educational settings. They are intended as preliminary design models. Each case study presents a specific pedagogical context, describes ISA-informed curricular activities, and analyzes the interpretive competencies these activities are designed to cultivate. The selection of contexts reflects the project's cross-cultural emphasis.

4.1 "Interpreting the Machine" — A U.S. Liberal Arts Seminar

SETTING

Context: A 15-week upper-division undergraduate seminar at a U.S. liberal arts college, cross-listed in Philosophy and Media Studies. Enrollment of 18 students, predominantly humanities majors with minimal technical background. The course fulfills both a philosophy elective and a "digital literacy" general education requirement.

The seminar is organized in three sequential modules. The first module (weeks 1–5) establishes the hermeneutical foundation through close reading of canonical texts in media ecology and hermeneutics (selections from Gadamer's *Truth and Method*, McLuhan's *Understanding Media*, and Postman's *Technopoly*), paired with hands-on exercises in mediation analysis. In a representative exercise, students select a single news event and trace its representation across five different platforms (a legacy newspaper website, a cable news broadcast, a Twitter/X thread, a TikTok commentary, and a ChatGPT-generated summary), producing a comparative mediation map that identifies the structural features of each platform that condition its rendering of the event.

The second module (weeks 6–10) focuses on Architectural Critique. Students engage with accessible accounts of how recommendation algorithms and large language models function (drawing on Crawford's *Atlas of AI* and selections from Bender et al.'s "Stochastic Parrots" paper), and undertake a sustained analytical project: the "System Audit." Working in pairs, students select a specific digital system (an Instagram Explore page, a YouTube recommendation sidebar, a ChatGPT interaction session) and produce a 3,000-word interpretive analysis that maps its architecture, identifies its optimization logic, and assesses its hermeneutical consequences—what forms of understanding it enables and what it forecloses.

The third module (weeks 11–15) integrates the first two through a capstone project in Translational Thinking. Each student selects a complex topic (a scientific controversy, a geopolitical conflict, a philosophical problem) and produces three distinct "translations" of it for three different media systems, accompanied by a reflective essay analyzing what each translation required them to sacrifice, transform, or invent.

Assessment is structured around portfolios rather than examinations. Students compile their mediation maps, system audits, and translational exercises into a cumulative portfolio, accompanied by a 2,000-word self-reflective essay in which they analyze their own development as system-level interpreters. The portfolio model reflects the framework's emphasis on interpretive *process* rather than the reproduction of predetermined content.

EXPECTED IMPACT

Anticipated Outcomes: This seminar develops all three components of interpretive dexterity, with particular emphasis on systemic legibility and responsible judgment. The liberal arts context—with its tradition of close reading and seminar-based discussion—provides a strong foundation for the hermeneutical dimension; the ISA framework extends this foundation into the domain of computational and platform mediation. The principal challenge is the minimal technical literacy of the student population; the curriculum addresses this through carefully scaffolded exercises that build technical understanding progressively, always in the service of interpretive rather than engineering competency. By the end of the semester, students should be able to produce sustained interpretive analyses of digital systems that integrate structural explanation with hermeneutical interpretation.

4.2 “Reading Between Systems” — A U.S. Public School Context

SETTING

Context: An 8-week module embedded within a 10th-grade English Language Arts curriculum at a Title I public high school in an underserved urban community. Class size of 28 students, predominantly from low-income households, racially and linguistically diverse. Students are digitally immersed—most spend four or more hours daily on TikTok, YouTube, Instagram, and Snapchat—yet have had little formal instruction in interpreting the systems that mediate their informational lives. The module fulfills state digital literacy standards.

The module is organized around the concept of “information ecologies”—the idea that different cultural and technological environments produce different conditions for the creation, assessment, and circulation of meaning. This framing leverages the students’ lived expertise as heavy platform users: they already navigate complex algorithmic environments with considerable fluency, and the module aims to transform this habitual navigation into a self-conscious interpretive practice. The pedagogical approach is asset-based, treating students’ extensive platform knowledge as the foundation for critical analysis rather than a deficit to be corrected.

The module opens with a week-long “Media Diary” exercise in which students document and analyze their own information consumption patterns across the platforms they use daily. This exercise, grounded in Mediation Analysis, makes visible the usually invisible scaffolding of their daily interpretive lives: the platform logics, recommendation algorithms, content moderation policies, and community norms that shape what information they encounter and how they evaluate it. For students in underserved communities, where algorithmic systems often reinforce existing inequities in information access and representation, this visibility is especially urgent.

Weeks 2–4 focus on Translational Thinking through a series of structured comparison exercises. Students examine how the same topic—a local news event, a health claim, a viral controversy—is treated across different platforms and media types, identifying structural differences in framing, sourcing, and epistemic authority. A characteristic exercise asks students to translate a TikTok explainer into a written op-ed, and then to analyze what the translation required them to add, remove, or transform, and why. The emphasis falls on what each medium makes possible to say and what it renders unsayable.

Weeks 5–7 introduce Architectural Critique through a comparative analysis of the platforms students use most. Students examine the design logics of TikTok versus YouTube, Instagram versus Reddit, Snapchat versus Twitter/X—attending to the structural differences (algorithmic feed versus chronological, ephemeral versus persistent, visual versus textual, engagement-optimized versus community-moderated) and their implications for the kinds of meaning each ecosystem makes available. A particular focus is placed on how recommendation algorithms construct different “information neighborhoods” for different users, and what this means for students whose zip codes, browsing histories, and demographic profiles already position them within particular algorithmic enclosures.

Week 8 is a capstone in which students produce a “Digital Navigation Guide”: a practical document, addressed to a younger student in their community, that identifies the key interpretive challenges involved in navigating everyday digital information ecosystems and proposes concrete strategies for doing so with greater critical awareness.

EXPECTED IMPACT

Anticipated Outcomes: This module develops systemic legibility and responsible judgment, with particular emphasis on Architectural Critique in contexts where algorithmic mediation intersects with structural inequality. The students’ extensive platform experience provides a strong experiential foundation; the ISA framework transforms this experience into analytical competence. The principal pedagogical challenge is the resource-constrained environment: limited class time, competing curricular demands, and uneven access to devices. The curriculum addresses this through exercises that require no technology beyond a smartphone and that integrate seamlessly with existing ELA standards for argument analysis, source evaluation, and expository writing. Students completing this module should demonstrate the ability to articulate how the platforms they use daily shape what they see, what they believe, and what remains invisible to them.

4.3 “The Collaborative Audit” — A Cross-Cultural Hybrid Program

SETTING

Context: A 6-week synchronous online program connecting 12 U.S. undergraduate students and 12 Chinese university students (ages 19–22) for a collaborative project in Interpretive Systems Analysis. The program is co-facilitated by instructors at a U.S. and a Chinese university, and sessions are conducted in English with translation support.

The program is organized around a single sustained project: a collaborative “System Audit” of a widely used large language model (such as ChatGPT). Mixed teams of three U.S. and three Chinese students are formed and tasked with producing a comprehensive interpretive analysis of the system, addressing four questions corresponding to the ISA framework’s four dimensions.

DIMENSION	GUIDING QUESTION
Mediation Analysis	What layers of mediation operate between a user’s query and the system’s response? Map training data composition, RLHF, content policies, interface design.
Translational Thinking	How does the system’s behavior change across languages and cultural contexts? Conduct structured experiments posing equivalent queries in English and Chinese.
Architectural Critique	What assumptions about knowledge, communication, and meaning are embedded in the system’s architecture? Identify epistemic commitments implicit in the design.
Cross-Contextual Navigation	How do users from different cultural and educational backgrounds interpret and respond to the system’s outputs? Interview peers in respective contexts.

The collaborative audit is designed to develop all four dimensions of the ISA framework simultaneously. Its distinctive contribution is that it makes cross-cultural interpretive difference a lived pedagogical reality rather than a topic of abstract discussion. U.S. and Chinese students bring different interpretive habits, epistemic norms, and expectations to the audit, and the collaborative process requires them to negotiate these differences in real time.

The principal challenge is logistical and interpersonal: managing synchronous collaboration across time zones and cultural communication styles. The program addresses this through structured facilitation protocols, dedicated reflection sessions, and a final cross-team presentation in which each group presents its findings and also reflects on the interpretive challenges of the collaborative process itself.

05 DISCUSSION: TOWARD INTERPRETIVE DEXTERITY

The three case studies illustrate the ISA framework's adaptability across educational contexts while converging on a common aim: the cultivation of interpretive dexterity as a core competency for navigating an age of informational abundance and interpretive crisis. Several cross-cutting observations emerge from the analysis.

The Principle of Productive Friction

Each case study is designed to generate moments of interpretive difficulty—moments when habitual frameworks prove inadequate, when cross-system translation reveals incommensurabilities, when architectural analysis uncovers hidden logics. These moments of friction are pedagogically productive precisely because they compel the learner to develop new interpretive resources. The framework does not aim to eliminate the difficulty of interpretation in a post-literate age; it aims to teach learners how to work within and through that difficulty with greater awareness and skill.

Interpretation as Practical Wisdom

The framework presupposes that interpretive dexterity is a *practical* competency—something cultivated through repeated exercise rather than acquired through propositional knowledge alone. This is why the curriculum is organized around projects, exercises, and collaborative activities rather than lectures and examinations. The epistemological model here is closer to Aristotelian *phronesis* (practical wisdom) than to *episteme* (theoretical knowledge): interpretive dexterity is a kind of knowing-how that develops through practice in contexts of genuine uncertainty.

Cross-Cultural Dimension as Integral

Interpretive dexterity includes the capacity to navigate between cultural contexts without reducing one to the terms of another. This capacity cannot be cultivated in a monocultural setting; it requires exposure to genuinely different interpretive traditions and the negotiation of genuine difference. The ISA framework's incorporation of cross-cultural exercises and collaborations is designed to provide this exposure in a structured, pedagogically supported environment.

AI as Hermeneutical Object

The framework addresses a specific contemporary anxiety about the role of AI in education. Rather than treating large language models as threats to be resisted or tools to be uncritically adopted, the ISA framework treats them as hermeneutical objects: systems whose meaning-producing logics can and should be subjected to the same kind of critical interpretation that humanistic education has traditionally reserved for literary and philosophical texts. This approach models a form of intellectual engagement with AI that is interpretive in the deepest sense of the word.

> *The ISA framework treats AI not as a threat to be resisted nor a tool to be uncritically adopted, but as a hermeneutical object whose meaning-producing logics demand the same critical interpretation we bring to any text.*

06 LIMITATIONS AND FUTURE DIRECTIONS

This report presents a preliminary theoretical framework and illustrative case studies; it does not report empirical findings. Several significant limitations must be acknowledged.

The case studies, while grounded in real pedagogical contexts and informed by existing research on cross-cultural education, are theoretically constructed rather than empirically tested. The framework's effectiveness in cultivating the competencies it targets remains to be demonstrated through classroom implementation, with appropriate assessment instruments and longitudinal tracking of learning outcomes.

Directions for Future Research

PRIORITY	RESEARCH DIRECTION	METHOD
1	Develop and validate assessment instruments for "interpretive dexterity" and its component competencies	Mixed-methods instrument development; psychometric validation
2	Pilot implementations of ISA curriculum in each of the three contexts described	Qualitative and quantitative evaluation; pre/post assessment
3	Comparative analysis of how different institutional and cultural contexts shape ISA implementation	Cross-site comparative case study; thematic analysis
4	Adaptation of the framework for secondary education, professional training, and lifelong learning	Design-based research; iterative curriculum development

A further limitation concerns the rapid pace of change in the technological landscape the framework addresses. The specific platforms, algorithms, and AI systems discussed in this report will evolve substantially in the coming years. The ISA framework is designed to be durable at the level of analytical method rather than specific content: its four dimensions describe transferable modes of interpretive attention that should remain applicable as the technological substrate shifts. Whether this durability holds in practice is an empirical question that only longitudinal research can answer.

Finally, the framework raises questions about institutional incentives and adoption. Humanities departments in higher education face significant resource constraints, and the interdisciplinary character of the ISA curriculum—drawing on philosophy, media studies, computer science, translation studies, and comparative education—requires a degree of institutional flexibility that many universities struggle to provide. The case for institutional investment in interpretive pedagogy of this kind is, ultimately, a case about what education is for: whether its purpose is to transmit established knowledge or to cultivate the interpretive capacities that enable learners to navigate a world in which knowledge itself is perpetually in question. The ISA framework is premised on the conviction that the latter purpose is a necessity.

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APPENDIX A: SUGGESTED READINGS BY DIMENSION

Mediation Analysis

- McLuhan, M. *Understanding Media* (selections)
- Postman, N. *Technopoly* (chapters 1–3)
- Stiegler, B. *Taking Care of Youth and the Generations* (chapter 2)
- Gillespie, T. *Custodians of the Internet* (chapters 1, 4)

Translational Thinking

- Benjamin, W. "The Task of the Translator"
- Venuti, L. *The Translator's Invisibility* (introduction, chapters 1–2)
- Apter, E. *Against World Literature* (selections)
- Liu, L. *Translingual Practice* (introduction)

Architectural Critique

- Crawford, K. *Atlas of AI* (chapters 1, 6)
- Noble, S. U. *Algorithms of Oppression* (chapters 1–3)
- Bender et al. "On the Dangers of Stochastic Parrots"
- Akrich, M. "The De-scription of Technical Objects"

Cross-Contextual Navigation

- Gadamer, H.-G. *Truth and Method* (Part II, sections 1–2)
- Ricoeur, P. "The Hermeneutical Function of Distanciation"
- hooks, b. *Teaching to Transgress* (chapters 1–3)
- Freire, P. *Pedagogy of the Oppressed* (chapters 1–2)

Appendix B: ISA Curricular Comparison

	CASE STUDY 1	CASE STUDY 2	CASE STUDY 3
Title	"Interpreting the Machine"	"Reading Between Systems"	"The Collaborative Audit"
Duration	15 weeks	8 weeks	6 weeks
Level	Undergraduate (upper-division)	High school (10th grade, Title I)	University (ages 19–22)
Setting	U.S. liberal arts college	U.S. urban public school, underserved community	Cross-cultural online hybrid

Primary Dimensions	Mediation Analysis; Architectural Critique; Translational Thinking	Mediation Analysis; Architectural Critique; Responsible Judgment	All four dimensions simultaneously
Capstone	Multi-platform translation portfolio	Digital Navigation Guide for younger peers	Collaborative LLM System Audit
Assessment	Portfolio + reflective essay	Media Diary + Navigation Guide	Group presentation + reflection
Key Challenge	Minimal technical literacy	Resource-constrained environment; integration with ELA standards	Cross-timezone and cross-cultural collaboration

APPENDIX C: ASSESSMENT FRAMEWORK

Traditional assessment instruments for humanities courses—examinations, analytical essays, participation grades—are calibrated to measure competencies associated with text-level interpretation: the ability to identify argumentative structure, marshal textual evidence, and formulate a thesis. These instruments are necessary but insufficient for assessing the competencies the ISA framework aims to cultivate. The following rubric frameworks are designed to assess interpretive dexterity in its three component capacities.

C.1 Systemic Legibility Assessment

Systemic legibility is assessed through the "System Audit" assignment, in which students produce an interpretive analysis of a specific digital system. The rubric evaluates four criteria: (a) Identification of mediating structures: Does the student identify the relevant layers of mediation operative in the system? (b) Structural explanation: Does the student explain *how* these structures operate, using appropriate technical and conceptual vocabulary? (c) Hermeneutical interpretation: Does the student move beyond description to assess what forms of meaning the system enables and forecloses? (d) Reflexivity: Does the student acknowledge their own position as an interpreter shaped by the very systems they are analyzing?

CRITERION	DEVELOPING (1–2)	PROFICIENT (3–4)	ADVANCED (5)
Identification of Mediating Structures	Identifies surface-level features only (e.g., "the algorithm shows me things")	Identifies multiple layers of mediation with some specificity (training data, RLHF, content policy)	Maps a comprehensive architecture of mediation with precise terminology and structural detail
Structural Explanation	Describes effects without explaining mechanisms	Explains key mechanisms with appropriate conceptual vocabulary	Provides rigorous structural analysis linking mechanisms to design decisions and incentives
Hermeneutical Interpretation	Remains at the level of description; does not assess implications	Identifies some implications for meaning-production and reception	Articulates a sustained interpretive argument about what the system enables and forecloses
Reflexivity	No awareness of own position as interpreter	Acknowledges own interpretive situation in general terms	Integrates reflexive awareness throughout; identifies specific blind spots in own analysis

C.2 Translational Agility Assessment

Translational agility is assessed through the capstone translation exercises. The rubric evaluates: (a) Fidelity to source complexity: Does the translation preserve the essential complexity of the original, or does it flatten nuance in the service of accessibility? (b) Awareness of systemic constraints: Does the student articulate what the target medium's affordances and constraints required them to modify? (c) Productive transformation: Does the translation generate new insight, or does it merely transpose content mechanically? (d) Reflective analysis: Does the accompanying essay demonstrate sophisticated understanding of what was gained and lost in

translation?

C.3 Responsible Judgment Assessment

Responsible judgment is the most difficult competency to assess, because it involves qualities of discernment that resist quantification. The ISA framework proposes assessing it through the reflective components of each assignment, using criteria adapted from critical thinking assessment: (a) Epistemic humility: Does the student acknowledge the limits of their analysis and the possibility of alternative interpretations? (b) Evidential reasoning: Does the student ground their judgments in specific, identifiable features of the systems they are interpreting? (c) Ethical awareness: Does the student attend to the implications of system-level interpretation for affected communities and publics? (d) Intellectual independence: Does the student formulate their own interpretive position, or do they default to received frameworks?

APPENDIX D: SAMPLE EXERCISES AND ACTIVITIES

The following exercises are designed to be adapted to the specific context and level of each implementation. They are organized by ISA dimension, with approximate time requirements and learning objectives indicated for each.

D.1 Mediation Analysis Exercises

MEDIATION ANALYSIS

Exercise: The Five-Platform Map

Time: 2 weeks (out-of-class research + in-class presentation)
Level: Introductory

Students select a single news event within the past month and document its treatment across five platforms: (1) a legacy newspaper website, (2) a cable news broadcast, (3) a Twitter/X thread, (4) a TikTok commentary, and (5) a ChatGPT-generated summary. For each platform, students identify: the format constraints (word count, visual elements, temporal structure); the sourcing conventions (expert citation, eyewitness account, user-generated content); the rhetorical register (formal, conversational, performative); and the engagement mechanisms (comments, likes, shares, algorithmic amplification). Students produce a visual "mediation map" and a 1,500-word analytical essay.

MEDIATION ANALYSIS

Exercise: The Invisible Editor

Time: 1 week
Level: Intermediate

Students open an incognito browser window and a regular browser window side by side. Using both, they search for the same set of ten queries (mixing political, commercial, cultural, and personal topics) and document the differences in results. They then create a new Google account with fabricated demographic information and repeat the exercise after one week of curated browsing activity. The aim is to make visible the personalization layer of search mediation. A 1,000-word reflection analyzes what the exercise reveals about the relationship between user identity and information access.

D.2 Translational Thinking Exercises

TRANSLATIONAL THINKING

Exercise: The Compression Challenge

Time: 1 week
Level: Introductory to Intermediate

Students select a 3,000-word academic argument (provided by the instructor) and produce three "translations": (1) a 280-character tweet thread (maximum 5 tweets), (2) a 60-second TikTok script, and (3) a single-paragraph email to a non-specialist friend. For each translation, students write a 500-word analysis addressing: What was the most important thing you had to sacrifice? What did the new format allow you to emphasize that the original did not? Was there a moment where you felt the translation was *lying* about the original?

TRANSLATIONAL THINKING

Exercise: The Bilingual Mirror

Time: 2 weeks
Level: Intermediate (requires bilingual students)

Students select a topic of personal interest and find the three most authoritative sources on that topic in each of their two languages. They produce a comparative analysis addressing: How do the sources differ in framing, emphasis, and assumed audience? Where do they disagree on matters of fact or interpretation? What aspects of the topic are present in one language's sources but absent from the other's? Students then write a 2,000-word essay theorizing the "translational remainder": what resists passage between the two information ecosystems.

D.3 Architectural Critique Exercises

ARCHITECTURAL CRITIQUE

Exercise: The LLM Interrogation Protocol

Time: 2 weeks
Level: Intermediate to Advanced

Working in pairs, students design and execute a structured experiment to probe the epistemic commitments of a large language model. They develop a set of 20 carefully crafted prompts designed to test: (a) How the model handles contested claims (scientific, political, historical); (b) How the model's responses change with prompt framing (authoritative vs. tentative, formal vs. casual); (c) Where the model's "confidence" diverges from its accuracy; (d) How the model responds to queries in different languages on the same topic. Students produce a 3,000-word "System Audit" analyzing their findings, structured around the question: What does this system assume about the nature of knowledge, communication, and authority?

ARCHITECTURAL CRITIQUE

Exercise: Platform Archaeology

Time: 1 week
Level: Introductory

Students select a platform they use daily (Instagram, TikTok, YouTube, Snapchat, Reddit) and spend three days documenting every design decision they can identify: Where are buttons placed? What actions does the interface make easy, and what does it make difficult? What information is prominently displayed, and what is hidden? What does the notification system reward? Students present their findings as a visual "design audit" with annotations, accompanied by a 1,000-word analysis connecting design decisions to the platform's business model.

D.4 Cross-Contextual Navigation Exercises

CROSS-CONTEXTUAL NAVIGATION

Exercise: The Media Diary

Time: 1 week
Level: Introductory

For seven consecutive days, students log every instance of information consumption: what they read, watch, listen to, and scroll through, noting the platform, language, duration, and their own assessment of the content's credibility. At the end of the week, students produce a visual representation of their "information diet" and a 1,500-word reflective essay analyzing patterns: What platforms dominate? What languages? What topics are overrepresented, and what is systematically absent? What surprised them about their own consumption patterns?

CROSS-CONTEXTUAL NAVIGATION

Exercise: The Navigation Guide

Time: 2 weeks (capstone for Case Study 2)
Level: Intermediate

Students produce a practical "Digital Navigation Guide" addressed to a younger student in their school or community who is just beginning to form independent information habits online. The guide should address: key structural differences between platforms they use; common interpretive pitfalls (how algorithms shape what appears trustworthy or important); strategies for maintaining critical awareness; and specific examples drawn from the student's own experience. The guide should be 2,000–3,000 words and combine analytical rigor with practical accessibility.

APPENDIX E: METHODOLOGICAL NOTE

A note on the methodological status of this report is in order, given its unusual position between several disciplinary conventions. The report is neither a standard philosophical argument (which would develop a conceptual thesis through sustained engagement with a circumscribed body of literature) nor a standard educational research report (which would present empirical findings from a defined study with a specified methodology). It is, rather, a work of curricular theory: a systematic argument for a pedagogical framework, grounded in interdisciplinary theoretical synthesis and illustrated through theoretically constructed case studies.

This genre has well-established precedents in educational philosophy and curriculum studies. Freire's *Pedagogy of the Oppressed*, hooks's *Teaching to Transgress*, and more recently Biesta's *The Beautiful Risk of Education* all develop pedagogical frameworks through theoretical argument rather than empirical demonstration, while using illustrative examples drawn from educational practice. The ISA framework follows this tradition, while incorporating elements of design-based research methodology in its case study construction.

The case studies presented in Section 4 are best understood as "conjectural implementations" (to adapt Lakatos's term): detailed, internally coherent descriptions of how a theoretical framework might be realized in practice, designed to test the framework's coherence, adaptability, and specificity rather than to report observed outcomes. Each case study draws on the author's professional experience in the relevant educational context (U.S. liberal arts pedagogy, underserved K–12 public education, and cross-cultural educational programming), and incorporates insights from existing research on cross-cultural education, digital literacy pedagogy, and hermeneutic instruction.

The interdisciplinary character of the theoretical synthesis requires a further note. The ISA framework draws on four fields (media ecology, hermeneutics, translation studies, critical pedagogy) that operate according to different disciplinary norms, employ different vocabularies, and address different audiences. The synthesis undertaken here is necessarily selective; it does not aim to provide comprehensive coverage of any single field, but rather to identify and integrate the specific conceptual resources from each field that are most directly relevant to the pedagogical problem under investigation. Readers with deep expertise in any one of these fields will find the treatment of their own discipline abbreviated; the aim is cross-pollination rather than exhaustive survey.

Finally, a note on the relationship between this report and the author's professional practice. The ISA framework emerges from sustained engagement with two educational contexts that rarely communicate: American liberal arts pedagogy and public education in underserved communities. The author's position at the intersection of these contexts—as a philosopher and educator trained in the Western hermeneutical tradition who works across the full spectrum from resource-rich international education to resource-constrained public schooling—provides the experiential basis for the framework's emphasis on adaptability. This positionality is a source of insight but also a potential limitation; the framework's applicability beyond the specific

U.S.-centered contexts remains to be tested.

APPENDIX F: GLOSSARY OF KEY TERMS

Algorithmic Mediation
The process by which computational algorithms intervene in the selection, arrangement, and presentation of information, shaping what appears to users and how it appears.

Architectural Critique
The third dimension of the ISA framework; the practice of interpreting the design decisions, optimization logics, and embedded assumptions of computational and digital systems.

Cognitive Proletarianization
Bernard Stiegler's term for the process by which digital technologies externalize cognitive functions (memory, judgment, orientation) that were formerly constitutive of individual and collective subjectivity.

Cross-Contextual Navigation
The fourth dimension of the ISA framework; the practice of making responsible interpretive judgments across cultural contexts that may operate according to different epistemic norms and frameworks of value.

Domestication / Foreignization
Lawrence Venuti's terms for translation strategies that respectively efface or preserve the cultural otherness of a source text. Extended in the ISA framework to describe how digital systems present mediated content as transparent or mark it as mediated.

Fusion of Horizons
Hans-Georg Gadamer's concept (*Horizontverschmelzung*) describing the process by which understanding occurs through the encounter and transformation of the interpreter's horizon by the horizon of the text.

Hermeneutical Arc
Paul Ricoeur's concept describing the movement of interpretation between explanation (*Erklären*) and understanding (*Verstehen*), passing through structural analysis to arrive at deeper comprehension.

Information Ecology
The totality of cultural, technological, institutional, and economic conditions that shape the production, assessment, and circulation of meaning within a given context.

Interpretive Dexterity
The core competency the ISA framework aims to cultivate; the capacity to critically assess information systems, formulate responsible judgments, and move between cultural contexts with analytical rigor and ethical responsibility. Comprises systemic legibility, translational agility, and responsible judgment.

Interpretive Systems Analysis (ISA)
The curricular framework developed in this report, organized around four pedagogical dimensions: Mediation Analysis, Translational Thinking, Architectural Critique, and Cross-Contextual Navigation.

Media Ecology
The study of media environments as structures that shape perception, cognition, and social organization. Associated with Innis, McLuhan, and Postman.

Mediation Analysis

The first dimension of the ISA framework; the practice of identifying and interrogating the mediating structures through which information is encountered.

Post-Literacy

As used in this report: a condition in which literate practices persist but operate under radically altered media-ecological conditions, such that the inherited models of textual interpretation are insufficient for navigating the dominant information environment.

Responsible Judgment

The third component of interpretive dexterity; the capacity to formulate assessments of meaning, truth, and value under conditions of radical mediation.

Script (STS)

Madeleine Akrich’s term for the prescriptions for use embedded in technological artifacts, shaping the behavior and understanding of their users.

Systemic Legibility

The first component of interpretive dexterity; the ability to render visible the logic of a meaning-producing system.

Translational Agility

The second component of interpretive dexterity; the ability to move between interpretive frameworks, cultural contexts, and registers of meaning without reducing one to the terms of another.

Translational Thinking

The second dimension of the ISA framework; the practice of recognizing and analyzing the transformations that occur when meaning crosses system boundaries.

About the Author

Xiaochen Zhao is the Academic Director and Senior Researcher at Lumine Academy Inc. She holds a Ph.D. in Philosophy and Education from Columbia University, with a specialization in aesthetics and hermeneutical phenomenology. Her research spans the intersection of continental philosophy, translation theory, literature, and interpretive pedagogy, with particular attention to how humanistic traditions can be mobilized to address the epistemic conditions of the Anthropocene. She has presented at philosophy conferences and published in academic journals, and her creative writing has appeared in *Hong Kong Literary*. She brings college-level teaching experience to her curricular design work at Lumine.

About Lumine Academy

Lumine Academy Inc. is an international boutique research, consulting, and education firm headquartered in New York. Thinking from the vantage of the Anthropocene, Lumine works at the intersection of philosophical inquiry, cross-cultural fluency, and pedagogical design to address the interpretive challenges of an age in which human and non-human agencies co-constitute the conditions of knowledge. The firm serves students, families, and educational institutions across Asia and the Americas, offering strategic guidance on admissions, academic development, curricular innovation, and the future of humanistic education in a computationally mediated world.

Disclaimer: This report presents a preliminary theoretical framework and illustrative case studies. It does not report empirical findings. The case studies are theoretically constructed models intended to demonstrate the framework's applicability across educational contexts. All scholarly references have been individually verified for accuracy.