



# Through McLuhan's Lens

*Understanding AI Through Media Theory*

## Education

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### AI and the University in the Age of Extended Mind

The following column applies Marshall McLuhan's media theory framework to this week's news. Analysis represents interpretation of documented concepts, not posthumous endorsement.

#### Scene: Any University, 1964

The examination hall at the University of Toronto in the spring of 1964 would have been instantly recognizable to any student of the preceding century. Rows of wooden desks, spaced precisely to prevent wandering eyes. Blue examination booklets, their lined pages awaiting the graphite traces of recalled knowledge. A proctor at the front, timepiece in hand, embodying institutional authority. And the students themselves-islands of concentration, each communing with the private archive of their own memory, racing to externalize

what they had internalized over months of lectures and reading.

The year matters. In 1964, Marshall McLuhan published *Understanding Media: The Extensions of Man*, a book that would make him the most famous-and controversial-intellectual in North America. While students across the continent bent over their blue books, McLuhan was articulating a framework that would, six decades later, illuminate why those blue books now sit in a crisis no one quite knows how to name.

Consider what the examination hall actually was: not merely a venue for testing, but a medium in itself. The isolated desk, the ticking clock, the prohibition against external resources, the demand for handwritten production-these were not incidental features. They were the message. The examination declared, through its very form: knowledge is individual property; thought is interior and transferable to paper; the educated mind is a self-sufficient container; intellectual labor can be measured by observing someone perform it in isolation.

Now jump-cut to 2024-2025. The same institutions, often the same buildings, sometimes the same desks. But the examination as a form-not its content, its form-has become unintelligible. Professors report that take-home essays arrive in prose more fluent than any student produced last decade.

In-class exams reveal students who cannot articulate what their submitted work ostensibly demonstrated they understood. Plagiarism detection software generates false positives on human writing and false negatives on machine writing. The entire apparatus of assessment-designed over a century to measure the contents of individual minds-confronts a technology that renders "the contents of an individual mind" newly uncertain as a concept.

Universities are calling this a cheating problem. They are calling it an academic integrity crisis. They are calling it an AI problem. This week alone, media trackers logged 909 articles focused on artificial intelligence and education-a staggering volume of institutional anxiety searching for language.

But what if none of these framings are adequate? What if what universities are experiencing is not a cheating problem, not a technology problem, but a medium problem-the kind McLuhan spent his career teaching us to see?

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## I. What Does AI Extend?

McLuhan's central insight was deceptively simple: every technology extends some human organ or capacity, and in doing so, changes the ratio of our senses and the structure of our thought. The wheel extends the foot. The book extends the eye. The telephone extends the ear and voice across distance. These extensions are not merely additive; they reorganize everything.

The question, then, is precise: What does artificial intelligence extend in the educational context?

The obvious answer-that AI extends memory, calculation, research capacity-is true but insufficient. The calculator extended mathematical computation, and universities adapted by shifting mathematical education toward concepts the calculator could not grasp. The search engine extended research capacity, and universities adapted by emphasizing synthesis over mere location of information. These were extensions of competence-tools that did what humans could do, only faster or more reliably.

AI's extension is more radical. In educational contexts, AI extends not merely the capacity to think, but the appearance of having thought-the performance of intellectual labor itself. This is an extension not of competence but of presence. A student submitting an AI-generated essay is not extending their thinking; they are extending the performance of thinking while remaining absent from the process.

This distinction illuminates a headline from this week's coverage: discussions of "AI Literacy vs. Readiness in Universities." The gap this language attempts to capture is McLuhan's gap between using a tool and understanding what it extends (and therefore amputates). To use a calculator requires literacy-knowing which buttons produce which functions. To understand what the calculator extends and obsolesces requires something else: a grasp of mathematics

deep enough to know when calculation serves understanding and when it substitutes for it.

AI literacy, in the emerging curricular sense, means knowing how to prompt effectively, evaluate outputs, and integrate AI into workflows. AI readiness-the harder achievement-would mean understanding that AI extends the performance of thought, and therefore amputates something about thought as performance. The student who can use AI fluently but cannot recognize what its use costs them is, in McLuhan's terms, extended and amputated simultaneously, and numb to both.

McLuhan would likely note that universities sense this extension but cannot name it because they are too close to it. The 909 articles on AI and education this week represent institutional nervous systems firing signals of disturbance, but the signal is being read as "students might cheat" when the actual message is "the thing students are supposed to be doing has become newly ambiguous as a concept." The extension of performance-of-thought means that having thought and having produced the appearance of thought are now, from the outside, indistinguishable. The examination was designed in a world where this distinction was not only clear but foundational.

The current panic about detection-AI watermarking, stylometric analysis, proctoring software-is the institutional attempt to restore that distinction technologically. McLuhan's framework suggests this will fail, not because detection technology is inadequate, but because detection accepts the premise that the examination form remains valid if only we can verify its uncontaminated completion. This is like trying to save the telegraph by developing better morse code.

What AI extends, ultimately, is the externalization of exactly those cognitive operations the examination was designed to make students internalize. The essay exam said: bring the library into your mind, and demonstrate that internalization by producing text without external reference. AI says: the library, the synthesis, the prose style, the argumentative structure-all of it can remain external to you while appearing to emanate from within.

The extension is total. And McLuhan would remind us: every total extension creates a corresponding amputation so severe we may not notice it for a generation.

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## II. What Does AI Obsolesce?

McLuhan's tetrad asks not only what a new medium extends but what it renders obsolete. The obsolesced form does not vanish immediately-it often persists as nostalgia, as ritual, as institutional inertia. But it loses its structural function. It becomes, in McLuhan's terms, "art"-valued for aesthetic or traditional reasons rather than operational necessity.

The essay examination, the term paper, the take-home test-these were themselves technologies, media in the McLuhanesque sense. They were developed in particular

historical circumstances to measure something specific. But what? This question is less obvious than it appears.

A headline from this week's coverage insists that universities "need to radically rethink exams." The conventional reading is that AI has made certain forms of cheating too easy, requiring new formats. But McLuhan's framework suggests something more unsettling: AI obsolesces not just certain assessment forms but the entire epistemology of demonstration-the premise that one proves knowledge by performing it in controlled isolation.

This epistemology has a history. The written examination emerged in European universities during the late eighteenth and nineteenth centuries, reaching its modern form alongside the industrial revolution's demand for standardized credentials. Before this, university assessment was largely oral and relational-the disputation, the viva voce, the defense. The shift to written examination was not merely practical; it encoded an entire theory of knowledge: that learning could be deposited in individual minds, that these deposits could be measured through solo performance, that the conditions of measurement (silence, isolation, time pressure, prohibition of resources) would ensure the performance reflected genuine internal contents.

What AI obsolesces is not the essay but this theory. When fluent, argued, synthesized text can be generated by invoking external systems, the entire apparatus of "demonstrate what you have internalized by producing text without external reference" collapses. The measurement no longer measures what it was designed to measure.

Universities are mourning a medium, not defending a standard. The language of "academic integrity" frames the crisis as one of honesty: students should not represent AI work as their own. But this framing assumes the examination system remains valid as a form-that the only problem is contamination of inputs. McLuhan would suggest the form itself has become obsolete, and the integrity discourse is a kind of grief that has not yet recognized itself.

The French-language headline from this week's coverage speaks of "préservé le goût de l'effort intellectuel"-preserving the taste for intellectual effort. This framing is more honest than the integrity discourse because it acknowledges that something is being lost, not merely threatened. But what is being lost is not effort itself; it is a particular medium through which effort was made legible. The student who writes an essay unaided in 2024 may be exerting exactly the effort that student exerted in 1984. But that effort has become invisible to the institutional apparatus, which can no longer distinguish it from effortless generation.

When a medium obsolesces, the question becomes: What was it actually doing? The examination system was doing at least three things: certifying individual knowledge acquisition; sorting students into hierarchies of demonstrated capability; and enforcing a particular discipline of intellectual labor (the solitary confrontation with difficulty, the requirement of sustained attention, the production of thought under constraint). AI obsolesces all three, but differently. Certification fails because performance becomes unverifiable. Sorting fails because the sorted variable has become ambiguous. The discipline of intellectual labor-this is more complex, because

AI may obsolesce the external enforcement of this discipline while leaving the discipline itself available to those who choose it.

McLuhan might observe that the examination was always a somewhat crude technology-a mass-production solution to the problem of measuring minds at scale. Its obsolescence is not entirely tragic. But institutions that have organized themselves around this technology for over a century cannot easily recognize its obsolescence, because to do so would require reimagining their fundamental operations.

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### III. What Does AI Retrieve?

Here McLuhan's tetrad becomes most generative. He observed that new media do not simply extend and obsolesce; they retrieve-they bring back older, previously obsolesced forms and practices. The automobile retrieved the private mobility of the horse while obsolescing the horse. Television retrieved the tribal campfire gathering while obsolescing the nuclear family's radio-centered living room.

What does AI in education retrieve? The answer requires looking backward to forms that the written examination itself obsolesced.

The medieval university knew nothing of blue books. Assessment was oral, relational, public. The disputatio-the formal academic debate-required students to defend positions in real-time against questioning. The viva voce examination survived into modernity precisely for doctoral degrees, where the stakes were high enough that text-production alone was deemed insufficient. Knowledge in this older paradigm was not demonstrated in isolation; it was performed in relation, under the scrutiny of masters who could probe, redirect, and evaluate responsiveness.

AI retrieves this model by necessity. When written production becomes unverifiable as individual achievement, institutions will increasingly turn to oral examination, to demonstration in person, to performance that cannot be separated from the performing body. Several universities this year have already announced expanded oral examination requirements.

But the retrieval goes deeper than format. The older model assumed that knowledge was relational-that understanding meant being able to respond, to adapt, to engage with unexpected challenges. The written examination replaced this with a model of knowledge as deposit-something placed into the mind that could then be extracted and displayed. AI retrieves the relational model because it forces the question: Can this person do something with what they ostensibly know? Can they respond to the unexpected? Can they demonstrate understanding in conditions that AI cannot simulate?

The headline noting that "a history professor says AI didn't break college" becomes interesting through this lens. McLuhan's framework suggests the professor is correct in a



specific way: AI did not break the relational core of education-the seminar discussion, the office hour conversation, the research mentorship, the intellectual apprenticeship. What AI revealed is that these relational forms had been marginalized by an assessment system that mistook the medium (written demonstration in isolation) for the message (genuine understanding).

This is McLuhan's insight applied precisely: the examination was the message of the modern university. Its message was that knowledge is individual, textual, demonstrable in isolation, measurable at scale. AI forces retrieval of an older message: knowledge is relational, performative, demonstrable only in living interaction.

The French concern for preserving "le goût de l'effort intellectuel" may find its answer in retrieval. The taste for intellectual effort was not produced by the examination; it was produced by the older forms the examination marginalized-the slow dialogue, the demanding mentor, the requirement of mastering difficulty before being permitted to advance. These forms survive in diminished pockets of the modern university. AI may retrieve them to centrality.

The Socratic dialogue-that founding image of Western education-was precisely the form that written examination obsolesced. Knowledge demonstrated through responsive interaction, under conditions where merely reciting information would be immediately exposed as insufficient. McLuhan might suggest that AI retrieves Socrates not as nostalgic ideal but as operational necessity.

Yet retrieval is never simple return. The retrieved forms will be transformed by the context of their retrieval. Oral examination in 2025 will not be medieval disputation; it will be shaped by everything that has happened since-including AI. The apprenticeship model retrieved will incorporate tools unimaginable to medieval masters. What returns is the structure-assessment as relational performance-not the historical content.

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#### IV. What Does AI Reverse Into?

McLuhan's most prophetic law of media-and the least understood-holds that every technology, pushed to its extreme, reverses into its opposite. The automobile, meant to provide freedom of movement, creates gridlock. The telephone, meant to connect, enables new forms of isolation. Light bulbs, meant to extend the day, create the twenty-four-hour city that never truly wakes.

This law operates through overextension. When a medium achieves total saturation, it flips into something unintended by its creators-often the precise opposite of its apparent purpose.

What might AI in education reverse into? Here the column must speculate-marking such speculation clearly as interpretation rather than established analysis-because the reversal, if McLuhan's pattern holds, will surprise even those

who see it coming.

Consider: AI extends the performance of intellectual labor. Pushed to the extreme, this extension means that everyone can produce fluent, argued, synthesized text. The universal capacity to generate such text renders it-worthless? No, not exactly. It renders it ambient. Text becomes like air-necessary, everywhere, produced without thought.

The reversal may be this: When the product of intellectual labor becomes universally generatable, the process of intellectual labor becomes the scarce value. What cannot be faked is the transformed person-the individual who has undergone the difficulty of genuine learning. Credentials certified paper products; the reversal may certify persons and their demonstrable capacities.

Education, in this reversal, would flip from credential-distribution back toward transformation. The modern university has functioned increasingly as a sorting and certifying mechanism-producing graduates whose paper records indicate certain demonstrated performances. If those paper performances become unverifiable, the university might reverse into its older function: actually transforming people, producing graduates whose in-person capabilities reveal what no paper could certify.

The headline announcing "Universities And The New Age Of AI" may mark precisely this reversal in early stages. When everyone has access to the extended capacities AI provides, differential value lies in what AI cannot extend: judgment, taste, the capacity to recognize quality, the wisdom to know what questions to ask, the relational skills to collaborate effectively, the ethical formation to use power responsibly. These were always, arguably, education's deeper purposes. The examination system did not measure them; it measured proxies, assuming the proxies correlated with the deeper goods.

AI reverses education into its actual purposes by obsolescing its proxy measures.

A second possible reversal: If AI extends the appearance of having thought, its extreme development might reverse into a renewed premium on authentic thought-verified, witnessed, demonstrably present. This would be a reversal from textual performance to embodied presence. The university might reverse from a distributed paper-grading system into an intensive community of intellectual practice-more like the monastery than the factory.

McLuhan would caution that reversals are never comfortable. The reversal of the automobile into gridlock was not pleasant for commuters. The reversal of social media into social isolation is not pleasant for the isolated. The reversal of AI-extended education will not be pleasant for institutions built on the obsolesced model. It may mean fewer students, more intensive instruction, credentials that cannot be distributed at scale, assessment that requires sustained human attention. The mass university-a twentieth-century invention predicated on the scalability of paper assessment-may reverse into something smaller, more demanding, more transformative, and far more expensive per student.

Or the reversal may go the other direction: AI-extended

education so total that the university simply dissolves, its functions distributed into credentialing systems (portfolio-based, performance-based, reputation-based) that require no campus, no four-year residence, no examination hall. This too is reversal-the institution that meant to concentrate and certify learning reversing into the dissolution of concentrated learning.

McLuhan's law does not predict which reversal. It predicts only that saturation produces flip, that the pushed-to-the-limit technology becomes its opposite. Those who watch for the reversal may navigate it; those who deny it may be navigated by it.

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#### A Rear-View Mirror on McLuhan Himself

Here the analysis must pause to acknowledge a paradox McLuhan himself would appreciate. This column applies McLuhan's framework-developed between the 1950s and 1970s-to a technological situation he could not have anticipated. We read him through our current crisis, and this reading both illuminates and distorts.

McLuhan's framework emerged from study of print, radio, television. His examples are telegraphs and typewriters, electric light and telephones. He died in 1980, before the personal computer became ubiquitous, before the internet, before social media, before AI. To apply his tetrad to artificial intelligence is to extend his tools beyond their original context-to do to McLuhan what AI does to the essay exam.

McLuhan's framework illuminates, but we should note where it strains. The tetrad assumes that new media fit into the pattern of prior media-extending, obsolescing, retrieving, reversing in recognizable ways. AI may or may not fit this pattern. A technology that extends cognition itself-that operates not merely on human outputs but on human thinking processes-may require frameworks McLuhan could not have developed because he could not have imagined the object.

We also read McLuhan through institutional anxiety. The examination crisis makes his media theory seem urgently applicable because we want frameworks that make sense of disruption. But McLuhan was often more interested in description than prescription. He famously refused to moralize about media effects, observing rather than judging. The application of his ideas to "what should universities do?" goes beyond what he typically offered.

Intellectual honesty requires acknowledging that this column does to McLuhan what any interpretation does to its object: extends some aspects, obsolesces others, retrieves what seems useful, and reverses into claims McLuhan might not have endorsed. The rear-view mirror in which we see McLuhan is shaped by what we need to see.

Still, the tetrad's value lies not in prediction but in seeing differently. McLuhan's questions-what does this extend? obsolesce? retrieve? reverse into?-are useful precisely

because they cut against the grain of how institutions naturally perceive technological change. Universities are asking "how do we preserve academic integrity?" McLuhan's questions ask something prior: What is actually happening? What shifts are underway? What medium is dying, and what medium is being born?

These are not comfortable questions. They do not produce policy recommendations. But they may be necessary before useful policy becomes possible.

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#### V. The Rear-View Mirror: Perceiving the Future Through the Past

McLuhan observed that we inevitably perceive new media through the lens of old ones. Early television was "radio with pictures." Early film was "recorded theater." Early automobiles were "horseless carriages"-defined by what they lacked rather than what they offered. This rear-view perception is not stupidity; it is the structure of human cognition encountering novelty. We can only see what we can see, and what we can see is shaped by what we have already seen.

Universities are deep in the rear-view mirror. Every response to AI in education has been framed through examination logic-the logic of the medium AI is obsolescing. "How do we prevent AI cheating on exams?" "How do we verify that submitted work is student-produced?" "How do we maintain academic integrity in the age of AI?" These questions assume the examination as a form remains valid and must be protected from contamination.

This is understandable. The examination has been the university's central medium for over a century. Professors were assessed this way; they assess others this way; the entire apparatus of grades, transcripts, credentials, graduate admissions, job applications-all of it assumes examination-based demonstration of individual capability. To question the examination form is to question an entire institutional ecosystem.

But McLuhan would urge precisely this questioning. The examination was itself a technology-a medium with messages, extensions, amputations. It was never neutral, never merely a window onto student minds. It shaped what it measured; it produced the forms of knowledge it purported merely to detect. The student who spent years preparing for examinations became a particular kind of knower: able to perform in isolation, under time pressure, through textual production, without external resources. This kind of knowing served industrial and bureaucratic modernity. Whether it serves what comes next is an open question.

McLuhan might suggest that universities stop asking "how do we prevent AI cheating?" and start asking "what is the university for now that this medium exists?"

This question has no obvious answer-which may be the point. The university has had many purposes across its

nine-hundred-year history: training clergy, certifying professionals, producing research, cultivating citizens, sorting labor-market entrants, providing four-year adolescent holding pens, transmitting cultural tradition, enabling social mobility, pursuing truth. The examination system served some of these purposes and obscured others. Its obsolescence reopens the question of purpose.

If demonstration of individual knowledge-acquisition is no longer verifiable through paper instruments, what is verifiable? What should be verified? What relationship between student and institution might emerge when the old transactional model (student demonstrates, institution certifies) breaks down?

McLuhan would not answer these questions. His method was the probe, not the program-the question that opens, not the answer that closes. Probes are uncomfortable for institutions that need policies, procedures, next steps. But probes may be necessary before policies can be anything other than rear-view attempts to preserve obsolete forms.

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#### Conclusion: A Question for the Examined Life

Socrates famously declared that the unexamined life is not worth living. He did not mean the life unassessed by essay examination. He meant the life not subjected to rigorous questioning-by oneself, by others, by the demands of wisdom. The examined life, in Socratic terms, was relational, ongoing, never certifiable, never complete.

The modern university borrowed the word "examination" and changed its meaning. Examination became a discrete event, a timed performance, a measurable output, a certifiable result. This was a narrowing. Something of the Socratic sense survived in tutorials, seminars, office hours, dissertation defenses-wherever education remained genuinely relational. But the institutional emphasis fell on the narrowed sense, the examination as product, the measurable demonstration.

AI may force a question that Socrates would have recognized: What is the examined life now?

If the narrowed sense of examination dissolves-if timed, isolated, paper demonstration of individual cognition becomes unmeasurable-does education have a future? Or does it have a different future, one that retrieves the examined life in its older, fuller sense?

What remains when the examination, as the modern university knew it, becomes unintelligible? What does education become when its dominant assessment medium dissolves? What new "extensions of man" will the university now enable-and what, in extending those capacities, will it amputate?

McLuhan left us not answers but better questions. These may be among them. The university, confronting AI, confronts finally itself-its purposes, its media, its messages. What it discovers will shape what education means for generations we cannot yet imagine but whose formation begins, in

examination halls and outside them, now.

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This column applies Marshall McLuhan's documented media theory to current events. All analysis represents interpretive application of McLuhan's published frameworks. Speculative claims are marked as such. McLuhan (1911-1980) did not address artificial intelligence directly; this analysis extends his methods to contemporary contexts.

**ABOUT THIS COLUMN**

This column applies Marshall McLuhan's media theory to contemporary AI developments. McLuhan (1911-1980) revolutionized our understanding of how technologies shape human perception and society.