

Democratic and Authoritarian Technologies: A Framework for Evaluating Artificial Intelligence in Education

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Abstract: I challenge prevailing enthusiasm for “artificial intelligence” (AI) in education by examining AI’s authoritarian entailments. The main aim is development of a framework for evaluating AI in education, focusing on three interconnected domains: ideology, cognitive and emotional socialization, and political power. Technologies must be understood as inseparable from the social dynamics and institutional forms from which they emerge. Educators are being compelled to use a technical system (“AI”) that erodes capacities required to govern it. This poses significant challenges for prospects of democratic education. “AI” in education will erase wisdom found in professional judgment, encourage cognitive and emotional dependency, and diminish capacity for independent thought and political action by concentrating decision making power over education in the hands of those who control the technology. “AI” must be judged not by efficiency or innovation alone, but by whether it advances human flourishing and democratic self-governance. I present a rubric for evaluating AI in education, focused on autonomy, dignity, intellectual development, cultural diversity, and the organization of power.

What I wish to do is to persuade those who are concerned with maintaining democratic institutions to see that their constructive efforts must include technology itself. There, too, we must return to the human center. We must challenge this authoritarian system that has given to an underdimensioned ideology and technology the authority that belongs to the human personality.

– Lewis Mumford (1964, 7)

It would be hard to overstate the zeal with which technologies branded artificial intelligence (AI) are being promoted. While “AI” boosterism remains the dominant narrative, a growing number of researchers and educators have raised concerns about “AI” in education and the rise of authoritarianism (Guest et al. 2025; McQuillan, Jarke, and Pargman 2024; Heffernan 2025; Garrison 2025; Luciano 2024).¹ I synthesize and build upon the insights of technology studies,

¹ There is a great deal of confusion regarding what constitutes artificial intelligence, hence the scare quotes. A separate treatment of both the concepts of *artificial* and *intelligence* is warranted, as is an analysis of the specific technical apparatuses that may rightly be considered artificially intelligent. It is beyond the scope of this paper to address these issues, although it should be noted that some of my earlier work attempted to deal with them, albeit incompletely and insufficiently (Garrison (2025, 2022, 2009). Promising efforts may be found in Larson (2023). Possibly more in the spirit of my argument, I’ll quote from an interview of Microsoft researcher and architect of virtual reality, Jaron Lanier (Lanier 2026), who, when asked, what if “AI becomes recursively self-improving,” said:

... the moment you think that way, you’re lost. You’ve already given in, and your mind is owned by the idiots [...] If you think of AI as a form of collaboration, it’s absolutely reasonable to think that, yes, we ought to be able to use this not just for a single step change, but rather for an ever-improving cycle, and that’s great. But it’s our collaboration. It’s us. AI does nothing. AI is a pile of shit without us. It is nothing. There’s only people. Interviewer: So, is a better question to ask what can we do with AI? Is that a better question? Jaron: No, because AI is not a noun. It’s not a thing. The only question is what can we do together with better tools for collaboration? That’s a question. [...] the term AI as it’s used doesn’t refer to a specific thing [technical apparatus], but rather an ideology, and so therefore all kinds of very different [computer] programs can be lumped together because they can be understood within that ideology, even if they don’t have much to do with one another. So, it’s a sort of anti-scientific term.”

Larson’s view is akin to Pasquinelli’s (2023), who argues that AI is not modeling biological intelligence but extracting the intelligence of labor and social relations.

recent critical AI literature, and calls to action to develop a framework for evaluating any of the data-intensive, algorithmic educational tools commonly placed under the “AI” banner. The AI evaluative framework I propose is one designed to foster discussion. While I obviously have a critical view, we need to encourage educators to go through the process of evaluating “AI,” individually and collectively. To promote educator evaluation of AI I have tried to frame things (mostly) as a series of questions, with explanations as to why those questions (and not others) are valuable. The focus is on implications of contemporary AI for democratic arrangements, with the starting point being that democratic arrangements are preferred to authoritarian ones. The ability of educators to contend with the present AI situation depends in part on their/our collective ability to evaluate what is going on with all things branded “AI.” A democracy-focused evaluative framework will help develop the collective knowledge and confidence needed to confront authoritarianism in and out of the classroom. To get educator assessment of AI off on the right foot, I explore how we should think about technology and the relationship between technology and democracy, how these insights might inform an evaluation of technologies deemed artificially intelligent, and finally, how such a framework can be applied to evaluate “AI” in education:

1: How Should We Think about Technology and Democratic Arrangements?

At NYSFEA 2025, we considered authoritarian and democratic social forms in relationship to education. The most important place to begin is to argue that technology *is part of* institutions — that is, technology is a material and structural expression of human culture, an inseparable part of what we call society. If we are going to think about democratic forms, building democratic ways of living, and maintaining democratic institutions, technology must be included in our thinking and action. Technology is part and parcel of the life of institutions and social relations more generally, not a separate and independent force. While perhaps a welcome starting point for many, it is not one generally accepted or easily maintained, even for those who are sympathetic to AI. In writing this and other missives about technology, I confess to struggling to produce narrative that does not, despite my efforts, reinforce misconceptions regarding technology, including “AI”. It is thus worthwhile to “begin again,” articulating the problems inherent to evaluations of technology and possible solutions to those problems. An important starting point for this work is to understand that debates about technology and democratic institutions are in fact quite old. I opened this paper with a quote from Lewis Mumford, in an essay arguing that technologies have democratic or authoritarian characteristics. The article appeared in 1964. Anyone who is familiar with the history of critical theory in the United States knows there was an argument following World War II about mass communication and associated technologies, the authoritarian personality (from Adorno), etc. Critiques of “instrumental reason” are in important ways critiques of technological rationalities; for Marx, technology discloses features of social relations and how we understand those relations. Of course, there are important writings on technology before Mumford, before Marx, before Aristotle and *technē*. Non-European thinking on technology, if not by name, is substantial (e.g., Wang, Qin, and Xu 2019)). It is thus important to recognize this is not a new problem. Thus, while the recent AI-boom most certainly presents new challenges in terms of evaluating technology, the more general problems of how we conceive of and speak about technology remain the same. The way we think about technology must be addressed if educators are to effectively evaluate and contend with “AI.” One contention I offer here is that many of the weaknesses or limitations of present “AI” discourse emerge from common myths about technology.

1a: *What myths about technology render evaluation difficult?* Hype is common in technology discourse and generally serves to foster an uncritical stance. *Hype* is defined as unsubstantiated claims regarding the capacities (e.g., AI is conscious) and efficacy (e.g., AI can teach) of a technology (Barrow 2024). Hyperbolic claims are typically designed by boosters to hasten adoption of technologies so as to expand boosters' profits, power and influence (Bender and Hanna 2025, 11–20). Anyone who has worked in education for more than a decade has been exposed to the promised but never realized educational benefits of various technologies. Knowledge of the harms of highly touted technology have been suppressed (e.g., Horvath 2025). Related is the association of various technologies with utopian or dystopian scenarios (with “AI”, both scenarios are often promoted by the same people and organizations), what Bender and colleagues (2025, 213–215) have termed *enchanted determinism*.²

Behind hype and mysticism stand two, mutually reinforcing, but seemingly contradictory, ideological myths: *technological somnambulism* and *technological determinism* (Frischmann and Selinger 2018, 45–59; Lawson 2018, 62–98; Pfaffenberger 1988). Technological somnambulism is the view that a given technology is morally, ethically, and politically neutral. Somnambulism encourages us, as the name suggests, to sleepwalk through technological matters, insisting that the nature of a technology is socially irrelevant.³ A sleepwalking view is evident in the all-too common (idealist) refrain, “It all depends on how you use it.” “Guns don’t kill; people do.” While this is in one sense true, somnambulist sloganeering about firearms masks the more compelling truth that guns, unlike butter, are designed to kill. Yes, one could drown their enemy in butter, but those with the guns will win the war. And yes, weapons can be used for purposes deemed “good” or “evil,” but consider that weapons of mass destruction are differentiated in international law from other weapons on account of their being designed to target civilian infrastructure and populations as opposed to effectively targeting only military combatants. Technological determinism is the opposite myth. While sleepwalking encourages us to ignore the nature of a technology or deny that it “leans” a certain way, determinism insists we yield to technology as an autonomous agent, a god, who alone dictates our future (Heffernan 2025; Becker 2025). The myth of technological determinism presents human beings as passive, and historically irrelevant — the only option is adaptation, not change of course. While the claim to technological neutrality gives up a certain agency to human beings (the character of a technology depends on its use), technological determinism boldly denies it, demanding acquiescence to “technological change.” Technological determinism precedes neoliberalism’s desperate incantation, “*There is no Alternative.*”

Importantly, these myths are unified and mutually reinforced by way of the *fetishizing mechanism* — that is, *rendering invisible the social relations from which a technology emerges and by which a technology is sustained*. In the somnambulist view, the social network required to construct the technology is hidden from the user; in the determinist view, the technology itself is seen as an “independent variable” outside the social network from which it in fact emerged (Pfaffenberger 1988, 20–53; Garrison 2022). The confluence of somnambulist and deterministic myths about technology is actively promoted in efforts to push faculty and students to rapidly adopt “AI” in education (Guest et al. 2025; Guersenzvaig and Monett 2026). Unchallenged, technological myths block us from a careful, all-sided evaluation of “AI” for

² Compare Garrison 2025. For a positive experimental view of utopia, see Means 2026.

³ This view is flawed in a similar manner to how environmental determinism is flawed, as evidenced in, e.g., radical behaviorism, see Garrison (2018).

educational and research purposes. Simply put, if the dominant approach to understanding technology directs us away from considering the nature of a technology (sleepwalking) while simultaneously insisting the technology is inevitable, that we have no choice but to adopt it (determinism), *we are being blocked from evaluating the technology*. We are not to examine if, how, when and under what conditions the technology contributes to our efforts as educators and researchers.⁴ Blocking evaluation is anti-science, anti-intellectual, and anti-democratic. The atmosphere being promoted is that “AI” presents some type of emergency, which means “we” cannot “waste” time considering what is at stake. It should be noted that an urgency-oriented approach to AI may also contribute to missed research opportunities for the revision and refined use of a new technology, such as machine learning.

1b: *How **should** we understand technology?* As Otto Mayr intones, technology is an “indispensable part of all human culture and is not, as one often hears, an alien, inhuman force unleashed upon mankind by some external agent” (1986, xv). Technology is, as Pfaffenberger (1988) argues, a “total social phenomenon” — simultaneously material, social, and symbolic; technology is *humanized nature*. As Frischmann and Selinger point out, we both make and are made by our technologies (2018). Understood as a social phenomenon, technology is an expression of *and* means for reproducing socio-cultural order. Machines never emerge or act without humans “in the loop” (Guest 2025). Technology is *more than just a tool*: it is a form of *institutionalization*, “interlocking systems of extraction, production, distribution and consumption,” such that these “systems gain their own momentum and dynamic” (Guest 2025, 6), which is not to argue technological systems are beyond the control of human beings. We might say that specific technical artifacts are instantiations of a technology. Technology is as “neutral” as any culture is neutral and it is as “determined” as much as any culture is determined. Once neutrality and determinism are questioned, we are able, following Doctorow (2026), to ask the important questions: *Who* the technology does something for, and *what* it does to the person using the technology. Put differently, evaluation must consider the degree to which a technology serves the people using it (empowerment or productivity) and the degree to which technology use serves those who own and control the technology. For instance, when workers determine the nature and character of automation, they aim to make the product better for the worker *and* consumer, while capital driven automation focuses on profit and tends to increase intensity of work at the expense of worker well-being *and* product quality. It is important to keep in mind how hype, magical thinking, and the myths of neutrality and determinism tend to mask the social relations and attending ideologies instantiated through a technology.

1b1: *Technological adoption is an ideological process*: Historical analysis suggests that socio-cultural formations are decisive in determining what technologies are widely adopted. In this sense, technological adoption is intensely ideological (Lanier and Glen 2020). After his extensive examination of automation in early modern Europe — with clocks reflecting monarchical power and feedback systems reflecting liberal political economy — Mayr (1986, 175) puts forward the following thesis: “[If] a technological innovation displays in structure and function an unmistakable analogy to the structure that a society prefers to give its various practical and theoretical systems, if it reflects the various mentalities and attitudes that shape public life, in short, if it matches and reinforces the prevailing conception of order, it will be received more warmly, regardless of its technological merits, than other inventions.” We might consider Mayr’s

⁴ Recently, senior administrators at my institution indicated that faculty were now *required* to “embrace” “AI” — we were *not* asked to discuss, test, or evaluate.

hypothesis the *social-anthropomorphic thesis* of technological adoption. If a society “sees itself” in the technology, it will more plausibly be developed and widely adopted. We might also postulate that in complex social systems with extreme inequality of political power and economic wealth, where public life has been undermined, the preferred technological adoption of elites may proceed without broad public consensus, especially during unstable periods in which no single conception of order prevails. Forms of technology not favored by elites may also be designated dangerous.⁵ A corollary of the social-anthropomorphic thesis applied to “AI” is that technology companies design chatbots, for example, to encourage users to anthropomorphize the tool *as a means to facilitate more widescale adoption than would occur on the merits of these apparatuses alone* (Monteith et al. 2026; Janson 2023; Guest et al. 2025; Barrow 2024). While it may be natural and of some evolutionary benefit for humans to anthropomorphize, technology companies use this built-in human tendency to *their* advantage (Gregg 2025).

1b2: *Technologies are socializing agents that extend or degrade human capacities*: While the prevailing ideology and social system may have a strong influence over whether a technology is widely adopted, it is also the case that social context of development influences the nature of a technology, its ontology (as building chatbots to encourage anthropomorphism reveals). Technical design, argues Lawson (2008, 54), is influenced by “the values, desires, intentions, etc., of those designers and all the groups that have had some say in the nature of the design.” These values and intentions become “concretized in the very structure of the technical object,” and thus can be “understood to be exerting a continuing influence over technical activity” by way of both “enablements and constraints” of human behavior and “codes of operation built into and mediating their use.”⁶ Finally, technical objects do not simply constrain or enable particular human behavior, or promote certain values, norms, or goals, they also may foster or disable “subjectification,” that is, the degree to which one is the subject of one’s own life, “rather than the object of what others — whether individuals, groups, or more abstract forces such as capitalist social media — may want them to be and do” (Biesta 2024, 4).

1b3: *Is it possible to have democratic or authoritarian technologies?* Challenging the myths of technological neutrality and technological determinism and establishing that technologies take on social characteristics of developers while socializing and enabling or disabling users, were all necessary to establish that technologies have political entailments. Thus, the idea is to think about how some technologies are constitutive of democratic arrangements, while other technologies are constitutive of authoritarian arrangements. One way to tackle this problem, well-suited to the field of education, is to consider how Mumford (1964) highlights *personality*, that is, the relation between technology and the development of persons, when expressing concerns about loss of the “human center” as a possible social effect of technological adoption. Again, we should ask: for whom does the technology do what, and what does this do to the person? What is valorized, and how does this relate to political arrangements? When we think about personality, especially in the United States, we think of it in purely psychological terms—shy individuals, the big five personality traits, or narcissism, etc. But we can also think of personality in institutional and political terms. Drawing on ‘personality’s’ archaic definition, we can think of *person-ality* as the quality of being a unique human *person*, as distinct from a *thing*.

⁵ This thesis is inspired in part by the anti-AI sentiment expressed by students during this years’ series of graduation speeches (Watters 2026).

⁶ This tendency is also evident with *standards*, where, for example, standardized tests reflect the values, interest and outlook of those who designed them, and pushed for their adoption (Garrison 2009).

We can also think of democratic education as developing unique powers and characteristics of persons, emerging from and in service of a common good.

The right to have a personality (to speak in one's own name) is a relatively modern idea (in the West at least): "...personality, once the exclusive attribute of kings, belongs on democratic theory to every [person]. Life itself in its fullness and wholeness cannot be *delegated*" (Mumford 1964, 2, emphasis added). My reading of Mumford suggests that a defining feature of democracy is the flourishing of the human person, the conditions of which are *final authority belonging to the whole body politic*. We might call this *democratic personality*. The idea is to think about technologies and their implications for personality, both individual and social (e.g., as in a *national* personality characteristic). Put differently, certain personalities are cultivated by specific institutional forms and cultural practices, which include specific technologies. Recent scientific and popular interest in anxiety, addiction, depression, narcissism, and other "personality disorders" have been linked to technological apparatuses, including "AI", but the *political* ramifications of such dysfunctional digital socialization are typically not considered. *Institutions and thus technologies are socializing agents*; a main function of education as an institution is socialization (Biesta 2024). As such, the technologies embedded in educational systems matter for the democratic, or common, personality. Thus, in evaluating "AI" in education, consideration should be given to this flourishing of the human person, which, the thesis holds, rests in part on the capacity to self-govern.

Of course, much has been said about education and democracy, but this robust *corpus* seems to have been erased by "AI" advocates, who (when not predicting our immanent doom) only promise improved efficiency and convenience. Put differently, technologies can be evaluated as democratic or authoritarian based on whether they support the flourishing of the human person, understood as part of democratic living and the common good. For whom (individually and collectively) does the technology facilitate decision making power, both as a capacity (an ability to *think things through*, or what is commonly called "critical thinking") and as a role (as a decision "maker")? The development or degradation of cognitive and emotional capacities *required for the democratic personality* are key for evaluating the character of an educational technology. A second way in which technology can be said to foster democratic or authoritarian arrangements is with respect to the degree of institutional centralization or decentralization associated with adoption of the technology. For example, nuclear power tends to give rise to centralized forms of control, as compared to, say, solar or geothermal power. The degree of centralization is often associated with the degree to which people have a meaningful say over the direction and character of something. Certainly, the vast computing power required for large language models associated with so-called generative AI stems from highly concentrated economic and political power and technical infrastructures such as data centers (Wheeler 2025).

2: Evaluating Technologies Deemed Artificially Intelligent

Evaluation of "AI" should include three domains, understood as distinct yet dynamically related: an ideological domain (What are attending aims, values, outlook, etc., of "AI?"), a cognitive/socialization domain (How does use of AI shape human capacities and personality?), and a political domain (What political formations are constituted, how is power shifted?).

2a: *Artificial intelligence as an ideology*: Because the phrase 'artificial intelligence' fails to point to a specific technical object or system, it can be, first and foremost, understood as ideology (Nayak and Walton 2026; Guest et al. 2025; Lanier and Glen 2020; Cugurullo 2025; Anderson

2024; Wheeler 2025). AI, as currently conceptualized, emerges with the anti-democratic political theory of Hobbes and the anthropomorphic construct, “person of state” (Garrison 2022); Descartes has been described as a “cybernetic” theorist (Bates 2025); but for our purposes, it is enough to establish that “AI” is emerging out of a highly unequal social system, at the behest of misanthropic corporate elites/billionaires who admittedly despise democracy, who have worked to deskilling and “dumb down” the populace, who seek to increase exploitation, policing, and imperialist war by way of automation/extensive surveillance (Crawford 2021; Pasquinelli 2023; Becker 2025; Horvath 2025; Eubanks 2018; Bender and Hanna 2025; Heffernan 2025; Dyer-Witthof, Kjosen, and Steinhoff 2019). Means (2026, 1), in *Teaching Against the Machine*, describes the situation well: “Figures like Silicon Valley edgelords, Peter Thiel, Marc Andreessen, and Elon Musk embrace this image of a calculated, programmable world. They hope to see the present order dissolve into neo-monarchical corporate fiefdoms and libertarian city-states powered by an advanced AI that banishes democracy, and where the only right afforded to citizens would be the right to choose which viceroy they will serve.” Even Pope Leo’s recent encyclical letter, “*Magnifica Humanitas*,” reads like a review of recent critical “AI” scholarship.⁷ None of this is to argue it is impossible to design something that might generally be considered artificially intelligent but not anti-democratic or otherwise socially regressive or fascist (van Rooij et al. 2024). Part of the motivation here is, without a doubt, to change course.

2b: *Artificial intelligence as cognitive and emotional outsourcing*: Guest (2025, 3-5) offers a framework for evaluating sociotechnical relationships. To facilitate her analysis, she redefines AI as “any techno-social relationship that outsources to machines or algorithms some part, however small, of human cognitive labor.” Any sociotechnical relationship, Guest argues, “could be AI if it links an artefact to human cognition such that the artefact can be seen as performing some aspect of a cognitive capacity. (Following Siegel (2020), I add emotional labor.) Guest’s redefinition not only emphasizes a much broader historical vantage point from which to study “AI,” it emphasizes technology as a relationship, encouraging the question “What does the [tool] do as a function of interacting with humans.”⁸ Once it can be determined that some degree of cognitive or emotional labor has been offloaded to a tool, Guest posits three, non-mutually exclusive, possible outcomes: displacement (which is harmful), enhancement (which is beneficial), or replacement (which is neutral). As examples, Guest evaluates various technical objects such as the abacus, the calculator, the alarm clock, the camera, and of course, the computer. Her evaluation framework considers, in particular, the effect on cognition (reskilling, deskilling, or where cognition is unaffected); labor obfuscation (the degree to which the role of human beings is hidden); human equivalence (whether the outcome is “worse or the same,” “different or better,” or “quantity, not quality”); human in the loop (none, worker, user); human input; and desired output. Table 1 (next page) summarizes Guest’s assessment framework for AI. As data-intensive automated digital technologies have been both recommended to promote mental health and linked to degraded well-being, the effect of use of a tool on emotional regulation has been, as noted, added to Guest’s framework. Given the significance of emotions for both teaching and learning, their inclusion in any framework evaluating “AI” in education seems prudent (Vadeboncoeur and Collie 2013; Siegel 2020; also see Garrison 2019).

It is useful to contrast Guest’s evaluation of the calculator (often favorably referenced in promotions of AI in education) and the camera, with her evaluation of large language model

⁷ See: <https://www.vatican.va/content/leo-xiv/en/encyclicals/documents/20260515-magnifica-humanitas.html>.

⁸ Lawson (2018) discusses extension theories of technology and de-skilling of humans.

(LLM) use. Assuming a math literate adult, Guest notes while the calculator replaces some human cognition, the effect is neutral, with cognitive capacity unaffected. While Guest

Criteria	Characterize relationship		
Form	replace	enhance	displace
Valence	neutral	beneficial	harmful
Effect on cognition	unaffected	reskilling	deskilling
Effect on emotion	unaffected	integration	dysregulation
Labor obfuscation	minimal	possible	maximal
Human equivalence	worse or same	different or better	quantity, not quality
Human-in-the-loop	rare	possible	common
Human input	transparent	transparent	opaque
Desired output	specified	formal	unspecified

Table 1: How does the artifact relate to cognitive and emotional labor?

acknowledges some techniques such as long division may atrophy, general mathematical reasoning does not decline with calculator use. Likewise, use of a camera does not degrade vision, and is considered beneficial. When comparing LLMs to essay writing, negative evaluations are given for all criteria. Table 2 presents Guest's evaluation of the calculator, camera and LLM.

Criteria	Calculator vs Mental Arithmetic	Camera vs Human Vision	LLM vs Essay Writing
Form	replacement	enhance	displace
Valence	neutral	beneficial	harmful
Effect on cognition	unaffected	unaffected	deskilling
Effect on emotion	unaffected	integrated	dysregulation
Labor obfuscation	moderate	moderate	maximal
Human equivalence	better	different or better	worse
Human-in-the-loop	none	user	data, programmers, sweatshop workers
Human input	function, numbers	framing, memory or film, energy source	so-called prompt
Desired output	result of calculation	persistent image or video	essay matching prompt

Table 2: Evaluation of Three AI Tools⁹

Unlike the calculator or camera (what Guest calls enhancement AI), use of generative AI tools such as ChatGPT to produce text for an essay facilitates the degradation and devaluation of

⁹ Adopted from Guest (2025). The added component of emotional integration and dysregulation draws on the work of Siegel (2020). My evaluation of the emotional effect of the calculator and camera is admittedly conjecture; the dysregulating effect of chatbot use is generally substantiated (Guest 2025; Garrison 2024).

human cognitive ability. Cognitive/emotional atrophy is not limited to skill; as in the case of legal and medical professionals use of AI tools, reasoning ability is also degraded. Callaway (2026) summarizes a wide range of research regarding the effects of cognitive offloading. Cognitive atrophy is associated with the use of GPS while learning and memory are degraded by the “Google effect,” that is, where the assumption that retrieved information remains easily accessible causes one to learn and remember less. There is growing evidence that secondary students learn less and reason less well when using ChatGPT-like tools in school. Use of generative AI tools degrades the reasoning and diagnostic capacity of legal and medical professionals; “automation bias” reduces efficacy of risk-management professionals.¹⁰ Given this degradation, admonitions to fact-check text from a chatbot ring hollow, as use of generative AI tends to erode the very capacities required to evaluate output of the technology (and those promoting it). It is valuable to quote Calloway (2026, 18-19) at length:

When the printing press reduced reliance on oral memory, it did not simultaneously reduce the reader’s capacity to evaluate the quality of what was printed. When calculators displaced arithmetic, they did not reduce the user’s ability to assess whether a calculation was needed or whether the result was plausible. The cognitive function offloaded was distinct from the cognitive function required to oversee the offloading.

AI collapses this distinction. The reasoning capacity it displaces is the same reasoning capacity required to evaluate its outputs. A professional whose capacity for independent analysis has been degraded through chronic AI dependence is less capable of performing the analysis independently, yes — but she is also less capable of determining whether the AI’s analysis is correct, relevant, complete, or appropriate to the situation at hand.... What distinguishes AI is that it generalizes this problem across the full range of professional cognition and operates in the very medium — language — through which reasoning is conducted. No amount of reference to calculators and printing presses can make that distinction go away.

We can conclude with Guest (2025, 12) that the subject (user of “AI”), now deskilled and displaced, disappears. She asks: “What voice does the human, now reduced to only a user, have if their essays ... are just the copy-pasted output of a device that performs patchwork plagiarism? What human connection do they have when their friends and romantic partners have been replaced with inanimate objects?” It is worth highlighting that positive human connection, for which there is no mechanical substitute, is the foundation upon which a healthy mind develops, (Siegel 2020).

2c: *What kind of political power does “AI” adoption constitute?* Calloway (2026) proposes contemporary AI be understood as a *new hegemonic* force used by elites to manufacture consent and secure dominance. Drawing on Gramsci, Calloway understands hegemony as the process by which cultural and institutional arrangements (especially unequal or undemocratic arrangements) come to appear as natural to those subject to them. Calloway predicts contemporary “AI” systems will erode the current (albeit already in decline) assemblage of liberal-democratic institutions, associated rights and freedoms, and especially the professions generally understood as needed to sustain these arrangements, such as law, medicine and education (Hartzog and

¹⁰ For additional evidence and related commentary, see the following: Goldenberg and Wiens 2026; Ramaswamy et al. 2026; Chirayath, Premamalini, and Joseph 2025; Guest et al. 2025; Shaw and Nave 2026; Orland 2026; Abdulhai et al. 2026; Ewen 2026; DeRewal 2025; Horvath 2025; León-Domínguez 2024; Bastani et al. 2024.

Silbey 2026). In a sense, his argument, and I am borrowing again from Mumford (1964), is that contemporary AI dynamics work against the development of democratic personality (he organizes his analysis around the precept of *cognitive sovereignty*). Unlike past hegemonies, such as slave law in the United States, Calloway argues that AI hegemony is mainly established by way of a *cognitive architecture rather than ideological struggle*. “Convenience and speed,” he writes, “make independent reasoning feel unnecessary, shifting the felt locus of authority from the human to the system” (3). Calloway argues that most people do not experience the decline in their ability to interpedently reason, which, in turn, makes evaluation of this trend especially challenging (Horvath 2025, 107–21).

Recognizing AI’s potential for hegemonic power, the political significance of Guest’s analysis becomes more apparent: The specific forms of cognitive offloading accompanying contemporary tools such as chatbots, image generators, and agentic AI, may not simply deskill. Degrading *independent reasoning* as both an ability and expectation not only militates against self-governance, but also diminishes capacity and imagination for individual and collective resistance to injustice and for development of alternative paths. Independent judgment, whether of the professional or the citizen, is to be “replaced by passive acceptance of algorithmically generated outputs.” Whether the outputs are correct is, in this analysis, beside the point. “Accepting them without independent engagement is itself the mechanism of cognitive capture” (Callaway 2026, 6). And, I would add, a form of socialization constitutive of a non-self-governed subjectivity, or political surrender: disabling individual and collective ability to fight for common interests and human rights. Calloway (2026, 3) outlines what he sees as modes of cognitive capture (scope expansion, language drift, logic mutation), and a “three-class hegemonic operation” where AI tools target in specific ways professionals, governed populations, and legitimizing institutions. The result is “a recursive consent loop in which we are building instruments that erode the faculties required to govern them.” The type of power being instituted, if the analysis of AI as hegemonic is correct, is that of *total unaccountability* (cf. Davies 2025).

3: How Should We Evaluate “AI” in Education?

“AI” in education may be examined in the same way we have critiqued the technology in general by focusing on the ideology of education-specific presentations of AI (How the purpose of education and role of teacher are presented.) the degree and character of cognitive and emotional offloading accompanying educator use of various AI tools (What exactly is being offloaded, does this help teachers and students, and how does it strengthen or weaken the profession?), and finally, the political implications of educational use of AI tools (Is the political or social power or agency of educators or students enhanced or diminished by use of AI tools?).

3a: *The ideology of educational AI*: The ideology of AI is dumbed down when applied to education. Recent books promoting the use of generative AI to “transform” teaching evidence a vapid blandness and lack of imagination that makes one almost yearn for a good dystopian and fascist missive from Palantir (n.d.). The carnival giddiness that often accompanies “AIED” presentations is, frankly, embarrassing: “Look mom! It spins!” (e.g., Gaspar 2025). Closely examined, there is absolutely nothing “transformative” being “recommended” in these often-glib manifestos. Sure, there are plenty of companies hawking educationally tailored AIs that optimize this or that (budgets, HR processes, student engagement, monitoring of vaping in bathrooms) and these *might* be useful; a few faculty are probably trying to do interesting things with LLMs. But

other than saving time, and peddling confused and contradictory ideas regarding personalization, the rallying cries are by comparison to claims about, say, the use of AI in medicine, palpably anemic (e.g., “AI” will eliminate disease and significantly extend human life). From what promoters say, the most educators can hope for is reduced time spent grading and being relieved of the intellectual responsibility to craft syllabi, curriculum, and conduct research. In terms of outputs (but not quality), various generative AI platforms can now craft syllabi, curriculum, and conduct research with relatively minimal human intervention. Advocates seem to suggest that educators use their new AI-generated free-time bounty to repair the relationships severely damaged by the various automated systems that liberated people from having to directly interact with each other. In fact, I always feel professionally satisfied when colleagues brainstorm with ChatGPT instead of seeking to form intellectual community amongst themselves.¹¹ Here, the ideological message is clear: The role of faculty is to step aside. “AI” — not your colleague, not your professional association — is your new “partner.” Obviously, partnering with AI as if it were a fellow educator transfers much control over course design, curriculum and research to the corporate entities who own and control the technology.

Students are told they equally benefit in an AI-oriented vision of education. They are promised more quick entry into the highly liberating and not-at-all precarious job market. No longer will students be blocked from an exciting occupational journey by being held to an academic standard — students already admittedly use generative AI in ways they believe will harm learning, but because the entire system is output-only focused, little will be done to counter the trend (Kapoor 2026). I predict students will be especially grateful for not being challenged to broadly study their world, and how it came to be, or debate, using the collective wisdom of humanity, what kind of world *they* might want to build. What a grand waste of time *that* would be! The fact is that most students really do see how being in the current workforce contributes to their parents’ happiness and fulfillment. Youth will thank us for not hampering them with, say, philosophy, history, or ideology — or learning one of the few remaining languages other than English. If we keep up the constant threats of job loss and promises of “lifelong learning,” offering a few Bible verses along the way (Yu 2026), educators will have prepared youth well to accept *even lower wages, even worse working conditions*, with no benefits. This is, after all, *what proponents of “AI” say the future is*, the future educators are to prepare youth for. Oh, and maybe we will see better test scores, too!

Admit it: It is hard to think of a less exciting formulation of why one might go to school.

The charge to educators, the ideological orientation, thus remains essentially neoliberal, *in full force before ChatGPT*: Quickly produce workers and replace public-serving schools and universities with privatized platforms to foster consumerism, obedience to elites, and wealth transfer (upward, of course).¹² We are all encouraged to celebrate and chase literal “moon shots” by spending billions trying to send human beings to Mars (Leinfelder 2026), but education for democracy and well-being (here on planet Earth) is, it seems, unrealistic. AI’s anemic ideological framing is very significant. No more is there talk of the “American Dream,” or education as the great equalizer; opportunity discourse is very muted now. What we do hear from advocates is that those using “AI” will take your job (“so get on board, or else”). Anemic,

¹¹ Recent research indicates that people are speaking less to each other than they did a decade ago (Jargon 2026).

¹² While it is commonly argued AI’s idea of education is most often reserved for use with working-class and minority youth, I would venture that such enshittification of education has been increasingly extended into once protected suburban and urban educational spaces.

neoliberal ideological framing of AI lends support to Calloway's claim that the hegemonic function of AI mainly operates via *cognitive architecture* — the software platforms and apps that increasingly mediate cognitive work — *and not ideological content*.¹³ Bloodless AI schooling also highlights the significance of Calloway's claim that many if not most "AI" users do not directly or immediately experience cognitive atrophy. Even the ideological content used to sell AI to educators has been *enshitified*. Musk gets to go to Mars. Teachers get dashboards indicating little Bobby is not focused, because he's not sufficiently clicking (or whatever). Of course, I acknowledge the decaying working conditions, especially of K12 educators, that make it understandable why some teachers might try any offering to lighten their load. But it is also worth emphasizing, when it comes to education, "AI" is, at least in its present forms, at best crumbs from the corporate table, for which, I should add, public schools must pay debilitating social surcharges. Unless workers introduce and control automation, it leads to intensification of work and degradation of the work product.

The most "developed" vision of education that comes with "AI", the model or worldview for how to go about teaching and organizing schools, is "personalized learning" and closely associated ideas such as competency-based education, along with admonitions regarding variations of the four-letter acronym to which everyone wants to add their discipline's letter ("STEM"), and a "laser" focus on all manner of advanced skill, such as typing a few carefully crafted sentences into a text window. "AI" has added *nothing* new here. The kind of "personalized learning" advocated for is not a new idea, but rather rooted in behaviorist psychology from a century ago; its application has not and does not consistently "work" by the standards of most proponents (i.e., test scores) and it is *inherently* anti-democratic (Roberts-Mahoney and Garrison 2015; Watters 2021; Tlili et al. 2024). It is, however, hard to overstate the ideological significance of "AI" conceptions of *learning*: For almost all forms of AI that might be used by educators, learning is imagined as behaviorists have imagined learning for more than a century — as an ensemble of stimulus-response mechanisms (e.g., operant-conditioning). "Reinforcement learning," relied on in training LLMs, robots, self-driving cars; is said to occur when one or more parameter of a model changes ("learning") as a consequence of prior model action. We might say that many AI tools are "learning machines" and thus bring with their use a conception of learning rooted in behaviorist ideology. Consider how often the word "feedback" is used to frame how a teacher might respond to what a student has produced. "Feedback," and "closing the loop," are in fact both concepts from cybernetics, the less often heralded but significant foundation of "AI" and closely aligned with psychological behaviorism (Garrison, 2018, 2025). The behaviorist world view is opposed to considerations of history, consciousness, purpose, etc., and in that sense, behaviorist conceptions of learning are against education (Garrison 2018). B. F. Skinner believed that we need to move beyond dignity, that freedom is an illusion; to solve social problems we need a "technology of behavior" (Skinner 1971). As Horvath suggests (2026), the most salient danger of the "AI" worldview is an apparent aim to train people to think like machines. For machine ontology, meaning, truth, understanding, knowledge, empathy, purpose, conscious experience, desire, love, imagined futures are all irrelevant to or impossible for a machine (Hicks, Humphries, and Slater 2024). Thinking like a machine would, in fact, entail *not thinking*. The only thing that matters for a machine is *behavior*; the knower vanishes, only action remains (Seals and Garrison 2024). It might bring the

¹³ In fact, this is what Palantir calls for, that is, "hard power, and hard power in this century will be built on software" ("Palantir (@PalantirTech) on X" n.d.).

point home to note that the words “behavior” and even “stress” were rarely used outside natural science or engineering contexts before the 1920s, e.g., the behavior of molecules; stress capacity of steel (Davies 2015).

3b: *Cognitive and emotional offloading, socialization and agency*: Much of the problem, from the point of view of learning, can be attributed to “educational technology,” with “AI” being the most recent offering. It is thus important to understand that there is robust scientific evidence that digital tools *impair* rather than enhance learning (Horvath 2025). When Guest’s (2025) framework is applied to “AI” in education, the conclusion is that “AI” in education is, as currently deployed, harmful. Table 3 summarizes Guest’s case that offloading is evaluated as harmful to human cognitive well-being, displacing and deskilling educator expertise, while contributing to depersonalization.

Criteria	AI Graded Essay vs Teacher	AI Developed Course vs Teacher	AI Communication vs Teacher
Form	displacement	displacement	displacement
Valence	harmful	harmful	harmful
Effect on cognition	deskilling	deskilling	deskilling
Effect on emotion	depersonalization	depersonalization	depersonalization
Labor obfuscation	maximal	maximal	maximal
Human Equivalence	worse	worse	worse
Human-in-the-loop	data, programmers, sweatshop workers	data, programmers, sweatshop workers	data, programmers, sweatshop workers
Human input	so-called prompt	so-called prompt	so-called prompt
Desired output	rubric matching/timely response	standard course	timely response; friendly and informative

Table 3: Evaluation of Recommended Educational Uses of “AI” Tools¹⁴

Educators have long faced efforts to deskill their profession, and the recent push for AI can be viewed as an extension of this long-standing trend. Contemporary deskilling efforts have taken the form of mandated scripted curriculum, and date back to the mid-1800s development of standardized tests designed to limit educator professional judgment and autonomy (Garrison 2009). Deskilling efforts are themselves partly responsible for documented shortcomings of educators and education preparation programs. Suffice it to say that offloading assessment,

¹⁴ Adopted from Guest (2025); the claim that generative AI is associated with depersonalization is supported by Henriksen et al. (2025). Note, here the target is the professional educator, not student. It should also be noted that while the quality of assessment of essays, course development, and communication is believed to be lower with the use of generative AI (assuming an experienced educator), AI generated exams appear to be equal or better than educator developed forced response exams, if using standard psychometric criteria (Isley et al. 2025). For recent research on the limited quality of automated essay grading, see Talmi et al. (2026).

course design, and communication responsibilities to machines will further hamper the development of educators' professional expertise including expertise in forming relationships with students and their families. Especially in the classroom, student-family-teacher relationships are key, not as auxiliary niceties, but rather as foundations for accurately and quickly judging student development. The educational value of a technology whose use degrades a teacher's ability to assess student work, design courses, and communicate with students and families should be seriously questioned. While there is little doubt the average workload and class size of many educators is overwhelming, selling automated technologies as a solution forecloses discussion of other methods of improving both the quality of education and supporting educator well-being (namely, fair workloads with proper supports and compensation). Those selling educator deskilling technologies are also often the architects or associates of social planners seeking to limit public school funding for academic personnel.

3c: Epistemicide and professional knowledge: A main concern up to this point has been that of cognitive offloading and, drawing on Calloway, AI hegemony via the architecture of “cognitive capture.” Cognitive capture refers to the expanding scope of AI systems that replace human cognitive labor, institutionalizing philosophical emptiness, mythical and ideological flatness, and epistemological indifference. But Calloway suggests there is “a deeper phenomenon” that should concern us: “the destruction of the knowledge traditions themselves.” Drawing on postcolonial scholarship regarding the displacement of diverse ways of knowing, Calloway argues that when “AI capture” spans an entire domain of practice, such as education, *epistemicide* results. To understand the significance of the death of a way of knowing, consider when a language “dies” — the thinking enabled by that language also dies. Displaced traditions do not fade away with the new monoculture, “they become unthinkable.” Calloway argues that AI systems perform a structurally analogous operation in the professional domain by replacing “diverse professional reasoning traditions — the way a seasoned trial lawyer reads a courtroom, the way an experienced diagnostician synthesizes contradictory symptoms, the way a compliance officer detects a transaction that is technically clean but substantively wrong — with a single algorithmic monoculture.” Importantly, “professional reasoning traditions” are often not written down. “They live in practitioners.” Calloway emphasizes that traditions of reasoning, “transfer through mentorship, apprenticeship, and practice. They are exactly the kind of embodied, context-dependent, practice-built knowledge that cognitive offloading degrades and that no training dataset can replicate” (Calloway, 2026, 12). Being decontextualized and text-based, LLMs cannot model via prediction on “practical reason” (Sayer 2011).

The question is: How will “AI” adoption in education effect knowledge traditions of professional educators, their “embodied, context-dependent, practice-built knowledge”? As is the case with the professions mentioned by Calloway, educators and university researchers have professional reasoning traditions that are neither formalized nor solely discursive. Calloway (2026, 12) emphasizes that a community of professionals that loses their professional reasoning traditions cannot reconstruct them “from the archive because the archive never contained it. The knowledge lived in practice, and when the practice dies, the knowledge dies with it.” Thus, a key question to ask is: What specific forms of practical reason are possibly displaced by AIED? AI educational initiatives such as Alpha School offer a glimpse into the educational future AI boosters imagine, and how the role of teachers and meaning of school is radically altered. In the Alpha School model, there are in fact no teachers, there are only “guides.” Guides are given the role of, essentially, an emotional support animal. Thus, AI advocates envision a central role for automated technologies in education, or rather, “learning.” In fact, Biesta’s insistence that

education be distinguished from learning, and that *learnification* be interrogated, gains central importance in the context of evaluating “AI” in education. “Put briefly,” Biesta (2024, 3) explains, *learnification* “is the tendency to assume or claim that education is ‘all about learning,’ and that the best way to grasp what education is and what it is about is by using the language of (learners and their) learning, rather than to understand education in terms of, say, teaching or curriculum....”

Biesta offers evidence of the trend towards learnification by pointing to the increasing influence of the learning sciences in how educators are to think about their work (such as cognitive psychology and neuroscience, which are implicated in AI development and deployment). Contrasting education and teaching with learning reveals what might be a key component of AI boosters’ imagination: the elimination of education (and thus teaching), and a move toward what might be called, *total learnification* (which is essentially radical behaviorism via AI-branded edtech). Put differently, the concern might be not so much that robots will replace teachers, but that schools (as educational institutions) will be eliminated altogether (i.e., “education” embodies different “professional reasoning traditions” and so education becomes “unthinkable”). Core functions once performed by teachers (grading, course design, communication) are also practices embodying professional reasoning. Once the functions are transferred to the machines (and those who own the machines) practical knowledge shared by educators dies. Demise of practical reasoning in the field of education will require “educators” be socialized to accept and perform their new role as “emotional guides” for students and “partners” with machines while value in the form of data is extracted from students (Saltman 2026). As the role of educators shrinks under AI hegemony, more power is shifted to those controlling the machines and the data that powers them.

From Democratic to Authoritarian: A Technology Rubric

To evaluate “AI” in education, specific conceptual challenges need to be overcome, including mythical and apolitical presentations of technology *as such*. For evaluation of any educational technology (such as “AI”), ideological considerations are thus very important. Evaluation also includes adopting a broad definition of “AI” as technology transferring any cognitive labor to machines as part of systemic evaluation of what such transfer entails (e.g., enhanced vision as with the camera, or skill atrophy and loss of professional judgment with widespread use of chatbots to construct courses and grade essays). Thus, consideration must be given to how technologies often bring with them specific ways of thinking about and doing teaching and learning. What is not central to the evaluation proposed here is also worth noting: nowhere is it suggested that benchmarks comparing humans to an AI model’s performance on, say, law exams, are all that significant or helpful (Guess 2025). While some of the claims made here are empirical and thus could be tested (e.g., the degree of skill atrophy among specific types of students or teachers using a chatbot, or the degree to which a teacher’s workload remains reduced once widescale adoption has occurred) my critique of AI aims for a more holistic understanding. That is, even if in a particular instance no atrophy is observed during a specific period, that alone would not be sufficient to evaluate “AI” as harmless in education. Rather, we are interested in trends and patterns. In that sociologically oriented spirit, it may be useful to conclude with a list of seven key questions to ask. An “authoritarian technology rubric,” if you will.

Does the technology reduce the autonomy and dignity of persons?

Does the technology *tend to* increase the amount and intensity of work for those who do not control the technology?

Does transfer of cognitive or emotional labor negatively affect ability or outcome?

More generally, does the technology injure, devalue, deskill, cheapen, or inhibit the general intellect of humanity?

Does the technology homogenize and debase cultural forms and productions?

Does the technology mediate relations among persons for the narrow social, political, and economic benefit of those controlling the technology?

Does use of the technology tend to contribute to anxious, dependent, dogmatic, manipulative and servile personalities?

As affirmative answers to the questions composing the rubric pile up, technologies take on a stronger and stronger authoritarian cast. However, as negative answers accumulate or, better, as answers may be given that indicate the technology achieves the opposite effect, that is, the technology promotes the flourishing of humans who use it, then the technology becomes more and more democratic and of personal and social value to its users. AI fails the rubric miserably. Thus, we must look for alternative technologies that earn strong democratic scores on the rubric, if we wish to enhance human existence.

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