#### MAIN PAPER



# Embracing liberatory alienation:AI will end us, but not in the way you may think

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Received: 20 May 2024 / Accepted: 15 July 2024  $\ensuremath{\textcircled{O}}$  The Author(s) 2024

#### Abstract

This paper introduces the concept of "liberatory alienation" to explore the complex relationship between technologicaladvancement, particularly artificial intelligence (AI), and human essence. Building upon and critiquing Marx's theory of alienation, we argue that the externalization of human abilities through technology, while potentially disorienting, canultimately lead to societal liberation and a redefined conception of humanity. The paper examines how AI and automationare reshaping our understanding of labor, skills, and human nature, challenging traditional notions of what it means to behuman.

We propose that as AI increasingly takes over both manual and routine cognitive tasks, humans are liberated to focus onuniquely human qualities such as creativity, agency, and the capacity for joy. This transformation is likened to anevolutionary process, where humans shed layers of false humanity tied to productive labor, revealing a more authenticcore. The implications of this shift for education are discussed, advocating for a fundamental reassessment of educationalpriorities to cultivate these essential human qualities.

The paper also addresses potential challenges, including the environmental impact of AI development and the need forhuman control over AI systems. By reframing alienation as a potentially liberating force, this work contributes to ongoing debates about the future of work, human identity, and the role of technology in society, offering a nuanced perspective onhow we might navigate the profound changes brought about by AI and automation.

Keywords Liberatory alienation  $\cdot$  AI education  $\cdot$  Human essence  $\cdot$  Skill obsolescence  $\cdot$  Educational priorities  $\cdot$  Cognitive labor  $\cdot$  Post-scarcity learning

Upon first interacting with ChatGPT, a well-educated person may experience a complex emotional trajectory. Initial curiosity and fascination with the machine's capabilities soon give way. They are replaced by a sense of disquiet. This unease stems from two primary realizations. First, there is a machine's potential to render years of learning to write worthless. It also threatens to disrupt traditional markers of social status. These include the distinction between the educated and the uneducated. Second, there is imperative to revamp existing pedagogical frameworks. Students will inevitably employ such bots to generate acceptable assignments.

The AI technologies envisioned to bring about this transformation include not only narrow AI systems like ChatGPT but also the potential development of artificial general intelligence (AGI). AGI, a hypothetical machine capable of performing any intellectual task that a human can, could automate a significant portion of both manual and cognitive labor across various fields and domains. The impact of such systems would extend far beyond the realm of language and writing, potentially reshaping industries, economies, and societies as a whole.

This paper posits that the mass introduction of AI exemplifies a larger trend termed "liberatory alienation". In this phenomenon, abilities once deemed uniquely human are externalized, becoming tools that reshape our understanding of human essence. While this externalization can induce individual alienation, it simultaneously offers societal liberation. The process can be interpreted as the divestment of mechanistic aspects of human life, paving the way for a redefined conception of what it means to be human. The shift will have profound implications for education.

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In the following sections, this essay will explore the concept of liberatory alienation in depth, beginning with an examination of Marx's theory of alienation and its limitations. It will then introduce the concept of liberatory alienation, discussing its manifestation in various aspects of life and its potential to redefine the human experience. The essay will also delve into the role of technology in this process, considering the implications of artificial intelligence and robotics for the future of work and human skills.

Furthermore, the essay will explore the educational implications of this shift, arguing for a fundamental reassessment of educational priorities in light of the increasing automation of both manual and cognitive tasks. It will propose a new focus for education, emphasizing the cultivation of uniquely human qualities such as creativity, agency, and the capacity for joy, as well as the appreciation of beauty, love, and play. Finally, the essay will consider the challenges and opportunities presented by this transformative process, highlighting the importance of human control over AI systems and the potential for a more liberated and fulfilling human existence.

## 1 Marx's alienation

I will initiate the discussion with an examination of Marx's concept of alienation, a theory that is not singular but resonates with various other interpretations. What distinguishes Marx's perspective is its direct linkage between alienation and work. This notion reverberates in other theories that attribute alienation to diverse factors: technological society as in Baudrillard, excessive societal rationalization as in Weber, or the oppressive nature of advanced industrial society as in Marcuse. While acknowledging the nuances and unique contributions of these theorists, my focus will be on Marx's underdeveloped yet influential theory that associates productive labor with human essence.

In his book "Alienation: Marx's Conception of Man in Capitalist Society," Bertell Ollman provides a detailed analysis of Marx's theory of alienation, discussing how, according to Marx, the worker becomes alienated from the product of their labor, the act of production, their species-being, and other workers under the capitalist mode of production (Ollman 1971).

Marx argued that human creations serve as mirrors reflecting their nature, while simultaneously shaping and transforming their creators. This productive activity establishes a connection between individuals and their collective human identity, or species-being (Gattungswesen). In Marx's view, humans not only intellectually but also actively and actually produce themselves through labor. He asserted, "The object of labour is, therefore, the objectification of the species-life of man: for man produces himself not only intellectually, in his consciousness, but actively and actually, and he can therefore contemplate himself in a world he himself has created".

According to Marx, the way humans engage in production has far-reaching implications for their well-being. He posited that an economic system rooted in private ownership of production means results in alienated labor. The crux of this alienation lies in the distorted relationship between the laborer and multiple facets: the products they create, the act of production itself, and ultimately, their own species-being. To elucidate the concept of alienation, Marx introduces its antithesis: non-alienated labor.

Let us suppose that we had carried out production as human beings. Each of us would have in two ways affirmed himself and the other person. (1) In my production I would have objectified my individuality, its specific character, and therefore enjoyed not only an individual manifestation of my life during the activity, but also when looking at the object I would have the individual pleasure of knowing my personality to be objective, visible to the senses and hence a power beyond all doubt. (2) In your enjoyment or use of my product I would have the direct enjoyment both of being conscious of having satisfied a human need by my work, that is, of having objectified man's essential nature, and of having thus created an object corresponding to the need of another man's essential nature. Our products would be so many mirrors in which we saw reflected our essential nature (Karl Marx 1844).

In Capital, Volume I, (Failed 2023) Marx delves into the concept of deskilling and the resulting alienation experienced by industrial workers. He underscores how the capitalist mode of production relegates skilled laborers to the role of mere cogs in the machinery they operate.

Marx contends that the industrial era's division of labor and mechanization led to a simplification of work tasks, thereby diminishing the need for skill and expertise. This deskilling process exacerbated workers' alienation, as they lost both control over the production process and the fulfillment derived from crafting a complete product.

The worker becomes an ever cheaper commodity the more commodities he creates. With the increasing value of the world of things proceeds in direct proportion the devaluation of the world of men. Labour produces not only commodities; it produces itself and the worker as a commodity—and this at the same rate at which it produces commodities in general (Marx 1844).

Moreover, Marx posited that the worker became merely an extension of the machine, relegated to repetitive tasks while the machine assumed the more intricate aspects of production. This dynamic dehumanized the workers, stripping them of their creative and intellectual faculties and rendering them subservient to both the machinery and the capitalist mode of production. In summary, Marx attributed the deskilling of industrial workers and their reduction to mere machine appendages to the capitalist system, which valued profit and efficiency over human well-being and development. This devaluation and alienation of workers formed a cornerstone of Marx's broader critique of capitalism.

The core argument posits that an individual's relationship with herself, her human essence, and her social interactions are intrinsically mediated by her productive activities. It is at this juncture that Marx's theory falters. Marx's analysis may have missed a crucial point: machines are not intrinsically deskilling. Technological advancements have led to monotonous and deskilled labor in some contexts, but not in others.

A significant critique of Marx's conceptualization of productive activity and alienation is its failure to adequately account for the role of technology in shaping the nature of labor. Marx was writing in the context of the Industrial Revolution, a period marked by transformative technological innovations that altered the landscape of work in ways he did not fully foresee.

Historically, humans have gained and lost complex skills, only to replace them with different forms of expertise. Roman soldiers, for instance, were adept at crafting functional caligae from leather and nails, a skill now virtually extinct. Likewise, the intricate navigation skills of Pacific Polynesian sailors, honed through a deep understanding of celestial bodies and oceanic patterns, have largely vanished, along with the rich knowledge base they represented. The shift from a craftsman to an industrial worked was not by any means unique.

While it is not my intent to trivialize the emotional toll of skill attrition, which can indeed be devastating for those heavily invested in now-obsolete expertise, it is crucial to recognize that technological shifts have not universally eroded human dignity. On the contrary, these advancements have often led to liberation and opened up previously unimaginable possibilities. This trend is likely to persist, even as automation encroaches upon professions once considered secure, such as writing. While some may face job loss and experience genuine, distressing alienation, others will adapt, learning to collaborate with AI in writing and thereby creating new professional avenues.

Marx's framework, seems to neglect a fundamental human inclination: the drive to avoid labor, especially tasks that are tedious or physically demanding. This instinct, arguably more compelling than the desire to see one's labor benefit others, fuels technological innovation. It raises questions about the extent to which Marx, in his theoretical deliberations, considered the lived experiences of those engaged in manual labor, such as his washerwoman. These considerations add layers of complexity to the relationship between labor, technology, and well-being.

#### 2 Liberatory alienation

This paper introduces the concept of "liberatory alienation". It captures the nuanced relationship between technology and human skills, a relationship that is both freeing and disorienting. This duality is not merely a theoretical construct but a lived experience, where the emotional weight of loss is counterbalanced by the exhilaration of newfound possibilities. In this context, it is crucial to scrutinize the nature of the labor or skills from which one is being alienated. Marx astutely observed that not all labor is created equal; some forms of work are more fulfilling and humanizing than others. His error lay in attributing alienation to technological advancements and the rise of industrial capitalism, implying a deterministic relationship that is neither necessary nor inevitable.

Expanding on this, it is worth noting that the phenomenon of "liberatory alienation" is not confined to the realm of labor. Life itself presents multiple instances where loss serves as a catalyst for growth or liberation. The transition from childhood to adulthood, for example, involves the loss of certain freedoms and innocence but also bestows greater autonomy and self-determination. Similarly, the end of a relationship, while painful, can offer invaluable insights into one's own needs and character, paving the way for more meaningful connections in the future. Even disruptions caused by natural events, such as a pandemic, can force a reevaluation of priorities and lead to a more intentional life.

It is important to acknowledge that the process of training AI systems often involves labor from the Global South, where workers are paid minimally for tasks such as manually tagging pictures and text. As AI tools become more powerful and accurate, the demand for this type of work may increase, potentially leading to the exploitation of these workers. While AI may be liberating for end-users in the Global North, it is crucial to consider the potential negative impact on those involved in the training process. This raises the question of "Cui bono?" or "Who benefits?" when discussing the liberatory potential of AI and other technologies.

In sum, the concept of "liberatory alienation" offers a more nuanced lens through which to view the impact of technology on human skills and labor. It challenges us to consider the quality of the skills or labor being lost and gained, and to recognize that alienation can coexist with liberation. This perspective allows for a richer understanding of the complexities involved in the interplay between technology and human experience.

In Marx's critique of alienation, there is an implicit ideal of human essence that alienation purportedly tarnishes. Phrases like "Let us suppose that we had carried out production as human beings" suggest an idealized conception of human nature. Marx employs the term "species-being" (Gattungswesen) to describe this essence. According to him, the defining characteristic of human species-being is the conscious ability to produce and transform material conditions, including the socio-economic structures that govern existence. Capitalism, however, disrupts this capacity by severing individuals from the products of their labor, from their social fabric, and from their intrinsic nature as species-beings. This disconnection engenders a pervasive sense of alienation and dissatisfaction in both life and work.

By acting on the external world and changing it, [man] at the same time changes his own nature. He develops his slumbering powers and compels them to act in obedience to his sway. We are, therefore, confronted with a double result: (1) the production of material objects, which satisfy our needs, and (2) the development of human powers in the process of producing. Without production, neither the object of labor nor its subject [the worker] would exist. Labor is the primal condition for the humanization of nature, the condition for the existence of [human beings] as producers of their own material life (Karl Marx 1844).

Discussions about human nature and essence are inherently fraught with challenges. They often serve as crude templates for what real human beings should ideally be, invariably excluding certain groups in the process. Every articulation of what it means to be human implicitly names those who do not qualify, thereby marginalizing them. This limitation is not unique to Marx but is a general vulnerability in such discourses.

Nonetheless, the concept of essence serves a pragmatic function when analyzing trends and their probable outcomes. It allows for the categorization of trends as either revealing a "true essence" or leading us away from it, functioning as a normative rather than ontological concept.

Marx's errors are all traced down to emphasis on productive labor as central to human essence. It paints a picture of humanity eternally engaged in ceaseless production, forever bound by the constraints of scarcity. Marx overlooks the evident reality that human production is mediated by tools and, subsequently, machines. The human experience varies significantly between one who manually digs a ditch and another who operates heavy machinery. The loss of certain skills is as integral to human existence as their acquisition. In this light, alienation from labor can be liberatory in the long term, even if it feels oppressive in the short term to those navigating a transitional phase. We may shed layers of false humanity tied to productive labor, only to uncover an indelible core that defines us.

Marx's mistake in equating human essence with productive labor is not an isolated instance. Humanity has long been captivated by its own transformative abilities, primarily because these skills were essential for survival. While this illusion has evolutionary utility, it casts our species' progression in a less favorable light. This skewed perspective, rooted in the notion of labor, distorts our understanding of human advancement. Let us examine one aspect of progress.

### 3 From homo habilis to homo liberatus

The trajectory of human evolution is marked by a paradoxical and yet profound relationship with technology. AI and other advancements are poised to "end us" only in the sense that they will transform us into a different, perhaps happier, species. These technologies promise to dismantle our obsessive preoccupation with productive labor, liberating us from an outdated conception of human essence and ushering in a new one. The increasing sophistication of our tools will not only render *Homo habilis* obsolete but also facilitate the emergence of *Homo liberatus*.

In this transformation, robotics plays a crucial role, particularly in the automation of manual labor. Just as the washerwoman in Marx's example could be liberated from the drudgery of her work by the introduction of washing machines, advanced robotics could free countless individuals from repetitive and physically demanding tasks. This liberation extends beyond the factory floor, with the potential to revolutionize agriculture, construction, transportation, and various other sectors, allowing humans to focus on more creative and intellectually stimulating pursuits.

This transformation is fraught with a paradox: the perceived erosion of abilities. As we increasingly offload mundane tasks to automation and AI, there is a growing sentiment that we are relinquishing essential skills that once defined our human essence. The ability to physically interact with and manipulate our environment, a defining characteristic of *Homo habilis*, appears to be waning. Yet, interpreting this shift as a loss or alienation from our essence is a limited viewpoint. Instead, this should be seen as an unburdening, a liberation from the constraints of manual labor that allows us to channel our energies into more intellectually stimulating, creative pursuits. This repurposing of abilities is what truly characterizes *Homo liberatus*.

Consider the act of writing, traditionally viewed as a quintessentially human skill involving the creation of intentional, structured discourse with complex conventions. This skill is now bifurcating into what is suitably called "the mechanics" of writing and the higher-order skill of original, discerning thought. The former is increasingly delegable to machines, while the latter remains inherently human.

Stephen Wolfram, a renowned computer scientist and mathematician, expressed perhaps one of the most profound observations about the large language model technology: The specific engineering of ChatGPT has made it quite compelling. But ultimately (at least until it can use outside tools) ChatGPT is "merely" pulling out some "coherent thread of text" from the "statistics of conventional wisdom" that it is accumulated. But it is amazing how human-like the results are. And as I have discussed, this suggests something that is at least scientifically very important: that human language (and the patterns of thinking behind it) are somehow simpler and more "law like" in their structure than we thought. ChatGPT has implicitly discovered it <sup>1</sup>.

This is not just a comment on the linguistic structure but also a deep philosophical reckoning on the nature of human intellect. Interactions with artificial minds can be unnerving not only because of the reasons listed in the opening of this essay. They are such also because they hold up a mirror to our own intellectual capacities, compelling us to question the bounds of our exceptionalism. We turned out to me much more like machines than we would care to admit. That is a concrete manifestation of liberatory alienation—the act of revealing an unpleasant truth about ourselves, causing loss, and yet ultimately liberating.

For eons, humans have been mightily impressed by their own intellectual and linguistic prowess (perhaps because we happen to be the only species with fully syntactic languages). We have often attributed these capabilities to divine influences, enshrining ourselves as the centerpiece of a cosmic masterpiece. This sense of self-importance has culminated in the belief that we were cast in the divine image, positioning ourselves on a unique pedestal. First, advancements in zoo psychology, and now, the neural networks puncture our inflated sense of self. Language generation, the crown jewel of human cognition, is now being replicated by AI-powered tools. This ability to mimic human language suggests that our linguistic prowess is not as enigmatic or complex as we once thought. Indeed, much of our communication is more patterned and predictable than we would like to admit, often reflecting a tendency to recycle and rephrase ideas and thoughts that we have heard or read before.

However, there is an enlightening side to this humbling realization. It helps us redefine our understanding of what it means to be human. Perhaps our essence, contrary to our previous grandiose self-perception, lies not in our linguistic abilities or intellectual prowess but rather in higher-level creative and discerning thinking and advanced ethical reasoning. These are qualities that, at least until now, have remained uniquely human, untouched by both the animal kingdom and the realm of AI. Machines help us notice and then discard what is machine-like in us.

### 4 Taking technology seriously

The process of technological advancement and its impact on human skills can be likened to the shedding of skin, a natural but unsettling transformation. What we once considered integral to our identity—akin to a limb—reveals itself to be more like a layer of dead skin, something that can be shed without compromising our core being. This shedding process is disconcerting because it forces us to confront existential questions about the nature of our true self. Is there a core that remains unshed, and if so, what does it consist of? Will we find this core to be as fulfilling and meaningful as we hope?

It is important to clarify that the claims made in this paper are not limited to narrow AI systems like ChatGPT but also encompass the potential impact of AGI. In Searle's terms, the focus is not merely on weak AI, which simulates intelligent behavior, but also on the possibility of strong AI, which would possess genuine understanding and cognitive capabilities (Searle 1980). The implications of such systems would be far-reaching, potentially automating not only routine cognitive tasks but also more complex and creative endeavors. However, even in the absence of strong AI, the increasing sophistication of narrow AI systems across various domains could still bring about significant changes in the nature of work and human skills.

This paper argues that there is indeed a core, albeit smaller and more precious than we might have initially believed. However, this core is not something always already there, but a result of the gradual process of revelation that can also be understood as a process of construction. What is revealed/constructed is robust and possesses a beauty that transcends the layers we shed. As we continue to shed layers—whether they be manual skills or certain types of cognitive labor—we are not becoming less human but more human, defining our humanity against the tools we create. The shedding process, therefore, should not be viewed solely as a loss but as a form of liberation, a journey toward discovering the most authentic version of our collective self.

It is important to note that the argument here is not that higher capacities like creativity and agency cannot be technically automated. Rather, in the process of shedding mechanical layers and delegating tasks to AI, we are making the remaining human core increasingly pure, distilling the essence of what it means to be human. The tools may eventually develop human-like capabilities, but we will not necessarily need to delegate these core capacities to them. Instead, we will likely engage with art, music, and other creative pursuits produced by both humans and machines, appreciating the unique qualities of each. The small, irreducible human core is not subject to simple comparisons of

<sup>&</sup>lt;sup>1</sup> Stephen Wolfram, "What Is ChatGPT Doing ... and Why Does It Work?" https://writings.stephenwolfram.com/2023/02/what-is-chatg pt-doing-and-why-does-it-work/

better or worse; these are non-competing capabilities that we will retain even as AI advances (Margaret A. Boden 2016).

Our ancestors were confined by the limitations of their physical environment, but we stand on the cusp of transcending such constraints. The shift from physical to intellectual labor, from manual dexterity to cognitive flexibility, marks not an alienation from our abilities but their adaptation and evolution to meet the demands of our time. This metamorphosis signifies not a loss but a gain, a step toward a more liberated, intellectually engaged human existence.

It is important to acknowledge the significant energy demands and potential environmental impact associated with the development and deployment of AI systems. The computing power required to train and run these systems can contribute to the stress on an already heating planet. However, it is also worth noting that AI may have the potential to contribute to energy conservation and the production of cleaner energy. AI-powered systems could help optimize energy usage, improve the efficiency of renewable energy sources, and assist in the development of new, sustainable technologies. While the environmental concerns surrounding AI should not be overlooked, a balanced perspective that considers both the challenges and the potential benefits is necessary.

The dialectical concept of becoming, foundational in various philosophical traditions, asserts that evolution requires shedding one's current self. Nietzsche is "Übermensch" advocates for self-overcoming as a route to a higher existence. Kierkegaard conceptualizes becoming as a ceaseless, self-driven transformation, urging individuals to transcend their current limitations. Sartre's "Existence precedes essence" implies that individuals continually redefine their essence through choices and actions. These diverse philosophies converge on a singular truth: to evolve into the person one aspires to be, one must transcend their current self.

Yet, these and other philosophical frameworks often overlook the liberatory potential of technology and its economic consequences. Technology offers liberation as a process of shedding not just physical labor but also routine cognitive tasks, thanks to increasingly advanced tools. Technology is not just a byproduct of this transformation; it is a critical catalyst. As we develop increasingly advanced tools, we are not just changing the way we interact with the world; we are fundamentally altering what we consider to be our own essence. These shifts are especially impactful because they touch upon productive labor, a concept deeply ingrained in our ontology as a species.

One possible exception is Martin Heidegger. In "The Question Concerning Technology," he argues that technology is not merely a set of tools, but a way of thinking that reveals the world as a "standing reserve" of resources to be exploited. He introduces the concept of "enframing" (das Gestell) as the essence of modern technology, which transforms not only nature but also humans into resources. Heidegger contends that this mode of revealing poses a danger because it limits our understanding of the world and ourselves, but also suggests that a more thoughtful engagement with technology could offer a "saving power" (Heidegger et al. 1977).

The first point of contention with Heidegger's analysis is his assertion that technology serves as a mode of revealing nature. He posits that enframing reduces the natural world to a "standing reserve," a resource for human exploitation. However, this perspective overlooks how technology often reveals more about humanity itself than it does about nature. Wolfram's argument is very compelling; indeed, AI has shown us something about ourselves.

Second, Heidegger's notion of "enframing" places an undue emphasis on the objectification and exploitation of nature, making it seem as if humanity's primary interaction with technology is to manipulate the natural world. This argument lacks a holistic view of the myriad ways in which technology is employed. In areas like healthcare, education, and communication, technology primarily facilitates human interactions and societal functions. Virtual classrooms, telemedicine, and instant messaging are not revealing anything about nature; rather, they are enhancing the scope and quality of human relations. By focusing solely on the natural world, Heidegger fails to address the comprehensive impact of technology on human culture and interpersonal relationships.

Lastly, the assumption that understanding the "essence of technology" will lead us to a more authentic way of revealing can be challenged on the grounds that it presumes a singular essence exists to be discovered. Technology is an ever-evolving construct, shaped by the cultural, ethical, and practical needs of its time. What it "reveals" is not fixed but varies with its application, purpose, and the societal context in which it operates. It is not so much a static entity that enframes nature but a dynamic one that frames, and is framed by, human choices and values. Hence, the true essence of technology might well be its ability to reveal the changing tapestry of human civilization, not the static tableau of nature that Heidegger suggests.

Focusing on our relationship with technology shows that these tools—ranging from simple stone implements to complex artificial intelligence systems—are not passive artifacts but active extensions of our evolving selves. They embody the skills and capacities we have externalized and shed, serving as repositories for our relinquished responsibilities. In doing so, they liberate us from not only the drudgery of manual labor but also from the constraints of routine cognitive tasks. This liberation allows us to focus on what remains at our core after these layers are shed: uniquely human traits like creativity, agency, and the capacity for joy. When machines liberate us from the constraints of scarcity, they also mitigate a significant source of malice in the world. The species that evolved to collaborate and compete, to work and survive, will also undergo a transformation in its desires and habits. To sustain its zest for life, this new species—*Homo liberatus*—will draw upon what it has already discovered along its evolutionary path: beauty, love, play, and other non-utilitarian skills. These are not mere luxuries but essential components of a fulfilling existence, elements that elevate us beyond mere survival and into a realm of meaningful engagement with the world. This metamorphosis signifies not just a liberation from manual tasks but also from routine cognitive labor, allowing us to refocus our energies on more complex, creative, and intellectually stimulating endeavors.

It is important to consider the role of human control in shaping the impact of AI on society. As theorists like Stuart Russell argue, AI systems should be aligned with human values and goals to ensure that their development and deployment serve the interests of humanity (Russell 2019). This raises the question of whether AI, if properly aligned, could potentially empower rather than threaten Marx's conception of species-being. In Marx's vision of a communist society, individuals would have the freedom to engage in a variety of activities without being reduced to any single role. The advanced capabilities of AI systems, particularly AGI, could potentially expand the means by which humans can achieve their ends, enabling a greater diversity of pursuits and experiences. However, it is crucial to recognize that this liberatory outcome is not predetermined. The realization of a world in which AI empowers human agency and creativity depends on the active struggle to ensure that the development and control of these technologies serve the collective interests of humanity, rather than the narrow interests of a few. As such, the political struggle over the control of AI remains a precondition for the liberatory potential of these technologies to be realized.

### 5 Educating homo liberatus

Labor has long been a defining aspect of human life, serving both as a source of fulfillment and a burden. This dual role not only reshapes our relationship with work but also carries significant implications for education. Traditional education systems have been built on the premise that humans are primarily defined by their productive capabilities. This perspective, held by various schools of thought including Marxists, Pragmatists, and Human Capital theorists, places an undue emphasis on skill acquisition and professional competency. However, this viewpoint is increasingly inadequate, as it fails to account for the broader dimensions of human existence that extend beyond labor. The advent of AI, particularly text-generating AI, serves as a watershed moment in the ongoing evolution of our species. The shedding of skills, once considered quintessentially human, can also be a liberating process. In this emerging landscape, the drudgery of both manual and cognitive labor is gradually diminishing. Consequently, education must pivot to prepare students for a world where human creativity and the capacity for joy are the primary existential features worth preserving. Shifting the focus away from productive ability will change education.

In an AI-transformed world, the educational focus may shift towards qualities that are less likely to be externalized by machines, such as agency, creativity, will, desire, and values. These qualities could potentially foster resilience, adaptability, and moral guidance in a rapidly changing world. As the importance of producing utilitarian objects recedes, education may place greater emphasis on cultivating appreciation for beauty, love, and play. However, it is important to acknowledge that the precise content of flourishing and the most appropriate educational focal points in an AI-driven future remain open to debate and may require ongoing re-evaluation.

While the exact set of qualities that will define human flourishing in an AI-transformed world remains uncertain, it is clear that educational curricula will need to evolve. The traditional linear construction of curriculum, which emphasizes mastery of basic skills before progressing to more advanced ones, may need to be re-evaluated. As lower-level skills become increasingly delegable to computers, education may need to focus more on nurturing higherorder attributes and competencies. However, the specific nature of these attributes and the best ways to cultivate them will likely be the subject of ongoing discussion and experimentation.

As we approach an AI-induced paradigm shift, the role of education becomes increasingly pivotal. An education that nurtures human qualities transcending labor and production serves as our guiding light in this new era. By focusing on these aspects, we not only adapt to AI-induced changes but also reaffirm our commitment to uphold the value and dignity of the human spirit.

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