

AI Empire: Unraveling the interlocking systems of oppression in generative AI's global order

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Abstract

As artificial intelligence (AI) continues to captivate the collective imagination through the latest generation of generative AI models such as DALL-E and ChatGPT, the dehumanizing and harmful features of the technology industry that have plagued it since its inception only seem to deepen and intensify. Far from a “glitch” or unintentional error, these endemic issues are a function of the interlocking systems of oppression upon which AI is built. Using the analytical framework of “Empire,” this paper demonstrates that we live not simply in the “age of AI” but in the age of *AI Empire*. Specifically, we show that this networked and distributed global order is rooted in heteropatriarchy, racial capitalism, white supremacy, and coloniality and perpetuates its influence through the mechanisms of extractivism, automation, essentialism, surveillance, and containment. Therefore, we argue that any attempt at reforming AI from within the same interlocking oppressive systems that created it is doomed to failure and, moreover, risks exacerbating existing harm. Instead, to advance justice, we must radically transform not just the technology itself, but our *ideas* about it, and develop it from the bottom up, from the perspectives of those who stand the most risk of being harmed.

Keywords

AI Empire, generative AI, critical AI, intersectionality, algorithmic oppression, and data colonialism

Introduction

Astonishment over multimodal algorithms capable of “interpreting” text and images and generating “original” content, thus giving rise to the concept of *generative artificial intelligence (AI)*, coupled with marveling at AI responses so “convincing” they ignite debates over “machine consciousness” and “sentience,” amid growing concerns about the impending obsolescence of humans across multiple industries—these are just some of the reactions to OpenAI’s recent launch of ChatGPT and its subsequent model updates (Coeckelbergh and Gunkel, 2023). The idea that we are teetering on the edge of a profound and potentially catastrophic transformation has become a prevalent sentiment echoed by media narratives and Big Tech executives. However, amid the trumpets lauding the “superhuman” abilities of this latest generation of AI algorithms, deep-seated systemic issues of algorithmically induced inequality and injustice have not been mitigated. Rather, according to a growing number of voices in the emerging field of critical AI (Raley and Rhee, 2023; Roberge and Castelle, 2021), these problems have deepened and amplified (Aradau and Bunz, 2022; Benjamin,

2019; Eubanks, 2018). Yet, those who challenge the origins, trajectory, and pace of AI evolution—even when they themselves are AI experts—are routinely being harassed and accused of standing in the way of (technological) progress (Troy et al., 2023).

Technological progress is the idea that despite “temporary disruptions” such as job displacement, technological advancements are fundamentally positive because they directly contribute to improving key aspects of human life, such as productivity and wages (Romer, 1990). Often unquestioningly embraced by Western liberal societies, technological progress has been characterized by critical scholars as a harmful ideology that, despite its claims of fostering a more equitable and interconnected world,

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perpetuates and intensifies long-standing systems of oppression (Loughead, 2023; Shiva, 2014). Generative AI, with ChatGPT often standing in for its “incredible” potential, has emerged as the latest poster child of this ideology. Yet, the important work of community groups and critical scholars and experts, especially women of color—who are often the most disproportionately affected by AI biases (Buolamwini and Gebru, 2018)—clearly demonstrates that a comprehensive understanding of AI needs to extend beyond mere technical considerations and the technologically determinist assumption that there is one single predetermined path for the development of technology and there are no alternatives, regardless of the costs to human and non-human species and the environment (Haraway, 1985). Instead, it requires examining AI as a product of historical, geopolitical, economic, environmental, cultural, racial, gender, and class factors (Bender et al., 2021; Benjamin, 2019; Crawford, 2021; Noble, 2018). While significant strides have been made in this direction within critical data studies (Kitchin and Lauriault, 2014) and emerging fields such as critical AI (Roberge and Castelle, 2021), disciplinary divides and silos persist within and across these areas, as well as between academic work and grassroots communities. This poses a challenge to developing comprehensive theory and, even more crucially, to informing political struggles, supporting inclusive social movements, and advocating for policy changes that can counteract the harms of AI. To address these issues and create a shared analytical foundation capable of uniting diverse critical perspectives without oversimplifying them, we propose an examination of AI through the analytical framework of “Empire.”

We use the term “Empire” not in the conventional sense of a colonizing nation-state but rather as a networked entity comprising multiple axes, agendas, and forces (Hardt and Negri, 2001). Specifically, we demonstrate how AI, used here as a metonymy representing the entire lifecycle of AI algorithms, as well as the associated material, knowledge, data, logistical, labor, and political, cultural, economic, and ideological infrastructures behind them (Raley and Rhee, 2023), functions as an empire. This theoretical contribution to the areas of critical AI and critical data studies allows us to interrogate the heterogenous aspects of AI without homogenizing their unique characteristics while also making it possible to analyze their intersections. We further illustrate how this intersectional approach (Crenshaw, 1990) reveals that the interlocking roots of AI Empire are deeply steeped in heteropatriarchy, racial capitalism, white supremacy, and coloniality. Just as AI Empire is distributed, networked, and intersectional, so too are the struggles people, communities, and coalitions have been waging against its dominance.

The rest of this paper is organized as follows: the section “Theorizing AI Empire” presents the theoretical framework of AI Empire. The section “The roots of AI Empire” traces its roots in heteropatriarchy, racial capitalism, white

supremacy, and coloniality. The section “Mechanisms and practices in AI Empire” explores the mechanisms of control spurred by these intersecting systems of oppression. The “Conclusion: resisting AI Empire” section summarizes the theory of AI Empire and discusses the possibilities of resistance and refusal.

Theorizing AI Empire

The framework of Empire has a rich but often overlooked history in the study of algorithms, data, and the digital. In examining the formation of technological hubs in post-socialist Romania and the resulting violent dispossession, for example, McElroy (2019) writes of a “new empire—that of Silicon Valley,” where digital nomads and sharing economy platforms emerge from and are driven by Silicon Valley imperialism, which “refuses normative narratives of linear time and relies on technologies of gentrification, racial dispossession, colonial desire, and surplus capital accumulation” (McElroy, 2019). Similarly, Kwet (2019) sees Big Tech, as well as state intelligence agencies such as the National Security Agency, as the “new imperialists in the international community,” having “direct power over political, economic and cultural domains of life,” particularly in majority-world regions (Kwet, 2019).

While using the concept of Empire to discuss AI may seem pretentious, we argue this choice is necessary to explore the global and distributed histories, mechanisms, politics, and implications of AI. Political activists and theorists Michael Hardt and Antonio Negri use the concept of Empire (Hardt and Negri, 2001) to describe what they saw as an emerging global system of domination fueled by the rise of neoliberal globalization. This decentralized system is better thought of as a network of “self-referential and complementary political decision-making units,” often transcending nation-state authority as “the sovereign power that governs the world” (Hardt and Negri, 2001; Prozorov and Rentea, 2017). Empire relies not only on the exploitation of material labor but also increasingly on new forms of immaterial labor—a concept described by Hardt and Negri as “cognitive capitalism”: an “informatized, automated, networked, and globalized production process [which puts] knowledge and creativity, language and emotion” at the center of society (Hardt and Negri, 2001; Prozorov and Rentea, 2017). While Hardt and Negri do not extensively explore the role of the digital and AI as the primary catalyst behind Empire’s cognitive capitalist production, they do acknowledge the computer as “the universal tool ... through which all activities might pass,” which has transformed laboring practices “in such a way that they all tend toward the model of information and communication technologies” (Hardt and Negri, 2001). It is precisely in the enabling of the continual interactivity required to maintain and expand these processes Empire depends on that Hardt and Negri see the significance of AI. And yet, AI

is more than just the information and communication engine of Empire—it has become a totalizing ecosystem, prompting us to refer not simply to “Empire” but rather to *AI Empire*.

To say that only the West is part of this growing system would be remiss: Hardt and Negri’s (2001) conceptualization of the Empire underscores the system’s *distributed* and *multifocal* constitution. To the Big Tech “technological empires” of the USA, we can add those of Europe—Mimecast and Spotify—as well as China’s Alibaba and TikTok’s parent company, ByteDance (Kakar, 2021). Keane and Yu (2019), for example, examine China’s “digital empire in the making,” defined by “government control over vast amounts of data” (Keane and Yu, 2019). Beyond nation-states and supranational alliances, Aouragh and Chakravartty (2016) discuss the “infrastructures of [data and information] empire,” which they define as “both the material stuff of cables and wires that have long been seen as modern public goods as well as the ‘soft’ and more amorphous networks of cultural exchange shaped by European (and American) colonial power” (Aouragh and Chakravartty, 2016). These infrastructures encompass the totality of “both technical and cultural systems that create institutionalized structures whereby goods of all sorts circulate” and are “both central as digital nodes for financial transaction and trade, and key in squeezing down dissent or co-opting social movements” (Aouragh and Chakravartty, 2016). A similar concept, “data empire,” has been proposed to describe the “assemblages of actors, arrangements, technologies, and logics” that cannot be confined or limited to a given territory and operates through “identifying attributes or features” and “monitoring and evaluating those features over time” (Isin and Ruppert, 2019). This is precisely what AI makes possible: using vast amounts of data, it is routinely used to identify patterns or trends and influence decision-making (Crawford, 2021). In fact, decision-making processes in many areas of life, such as insurance, banking, and health-care, are increasingly being automated and outsourced to AI (Eubanks, 2018; Kakar, 2021). In many ways, AI acts as the glue binding together the complex ecosystems of data, algorithms, and the computer. It is precisely what enables “financial transaction and trade” through the predictive and classification models in fintech and digital marketing, as well as the “key in squeezing down dissent or co-opting social movements” (Aouragh and Chakravartty, 2016) through facial recognition and surveillance models, along with the AI-curated viral spread of disinformation.

It is thus not surprising that the “AI race” has become a matter not simply of technological progress but of world dominance (Hull et al., 2022). This race is evident across several layers: among Big Tech companies such as Google/Alphabet, Microsoft, and Tencent (Knight, 2016); in the competition between nation-states (including their security agencies) such as the USA and China (Hull et al., 2022); and even more broadly, at a supranational level,

such as Russia’s war on NATO-supported Ukraine, which has been dubbed “the first AI war,” due to the intensive use of AI-enabled drones and cyber warfare (Wyrwał, 2022).

Thus, the multifocal, distributed imperialistic formation of AI encompasses much more than its technological infrastructure. It includes geographically and temporally dispersed and decentralized “assemblages of actors, arrangements, technologies, and logics” (Isin and Ruppert, 2019) comprising new and existing mechanisms of domination enacted through continuous surveillance, exploitation of material and immaterial labor, sensory capture, and recording of biological and social processes, which become datafied and fed into classification, prediction, and generative AI models for the purpose of behavior control and engineering. We argue that this is, however, only a partial definition of AI Empire: it leaves out both its effects and its roots—the interlocking systems of oppression underlying its ideology. Using the framework of AI Empire, we focus on these origins and their consequences in the next section.

The roots of AI Empire

At the heart of AI Empire are the continuing and enduring histories of racism and colonialism fueled by the largely Western understanding of technology (Aouragh and Chakravartty, 2016; Arora, 2016). These histories shape, among others, the way transnational tech companies, nation-states, and supragovernmental organizations extract and commodify data (Isin and Ruppert, 2019), our ideas about privacy and digital access concerns (Arora, 2016), as well as enduring tropes such as that of the “digital nomad,” which can be traced back to the racist and colonial orientalization of Roma people (McElroy, 2019). AI Empire is deeply intertwined with heteronormativity as well, exemplified by the toxic masculinity dominating Silicon Valley culture (Chang, 2019; D’Ignazio and Klein, 2020), which translates into the technologies developed through this ethos—technologies that are often sexist and racist (Noble, 2018), as well as homophobic and transphobic (Amore, 2022). The machinery of capitalism with its focus on profit and growth is also evident, powering both the Western neoliberal model of data, information, and technology (Aouragh and Chakravartty, 2016; McElroy, 2019) and the seemingly noncapitalist model of China’s “digital empire,” which nonetheless relies on insatiable capitalist market growth (Keane and Yu, 2019).

Abolitionist philosopher-activist Angela Davis has long pointed to the inextricable connections between race, class, and gender (Davis, 1983) and has recently talked about the lasting oppression of “racial capitalism, heteropatriarchy, internationalism, and transphobia” (Davis et al., 2022). Feminist scholar-activist bell hooks expressed a similarly intersectional approach in her critique of “white supremacist capitalist [hetero]patriarchy” (hooks, 2014), and Indigenous studies scholars such as Maile Arvin, Eve Tuck, and Angie

Morrill show that no analysis of the heteropatriarchy will be complete without also critically interrogating settler colonialism (Arvin et al., 2013). Within critical AI, feminist decolonial scholar-activists such as Joana Varon, Paz Peña, and Paola Ricaurte Quijano have continued this tradition of rigorous intersectional analysis and have developed models of oppressive and hegemonic AI, illustrating the role of AI in perpetuating capitalism, colonialism, and patriarchy (Peña and Varon, 2021; Ricaurte, 2022). We thus argue that single-axis analyses of AI, such as evaluating AI systems only through the lens of race or gender without considering their embeddedness in deep histories of colonialism and capitalist accumulation and vice versa, are inherently incomplete. Instead, these systems of oppression should be seen as an interlocking assemblage whose parts intensify and reinforce each other in the context of AI. Specifically, we focus on racial capitalism and white supremacy, modernity/coloniality, and heteropatriarchy as the central axes through which AI Empire functions as a set of technologies, a mode of production, a web of social relations and material resources, a culture, a knowledge base, and a worldview.

There are many other important systems of oppression and axes of identity AI Empire is implicated in, such as *religion* and *ethnicity*—consider, for instance, the genocidal level of AI-powered surveillance Uyghurs in China’s Xinjiang region are subjected to, *casteism*, numerous Indian-born AI professionals in the US report experiencing continuous caste-based discrimination (Tiku, 2020), or *disability*, social media platforms such as TikTok have been reported to restrict the visibility of posts by people the AI algorithm classifies as “having a disability” (Köver and Reuter, 2019), not to mention *environmental destruction* and *speciesism* (Crawford, 2021; Haraway, 1985; Shiva, 2014). We recognize that any attempt to form a framework of AI harms must necessarily remain open, as new or previously overlooked forms of oppression appear on the horizon (Davis, 2016). Acknowledging the inherent flaws of our framework, we offer it not as an ultimate theory of AI Empire, but as a starting point that invites further development and critique. In presenting the roots of AI Empire, we rely on a distinctly queer-feminist transnational and intersectional perspective that helps us uncover their interconnectedness as interlocking systems of oppression (Collective, 1983) and examine their material, historical, and political interdependencies. We start with an examination of the heteropatriarchy because, as the work of feminist scholar-activists shows, the origins of colonialism and capitalism can be traced back to the patriarchal order and its logic of accumulation (Federici, 2004; Mies, 2014; Segato, 2016).

Heteropatriarchy

In both theory and practice, there has been a connection between structural sexism (the *patriarchy*) and structural discrimination against queer and nonbinary populations (a heterosexual/heteronormative social order), jointly referred

to as *heteropatriarchy*. In this system, “heterosexuality and patriarchy are perceived as normal and natural,” while “other configurations are perceived as abnormal, aberrant, and abhorrent” (Arvin et al., 2013). Since it relies upon “very narrow definitions of the male/female binary, in which the male gender is perceived as strong, capable, wise, and composed and the female gender is perceived as weak, incompetent, naïve, and confused” (Arvin et al., 2013) and virtually erases other forms of gender expressions, the heteropatriarchy fuels gender and sexual violence (Davis et al., 2022). In fact, feminist accounts of anthropology demonstrate that the bodies of women have historically served as the “first colony,” suggesting that colonialism and capitalism are both deeply rooted in heteropatriarchal hierarchies and binaries (Segato, 2016; Valle, 2023).

It is thus not surprising that AI systems are similarly marked by heteropatriarchal exclusions, erasures, violence, and discrimination (D’Ignazio and Klein, 2020). Sasha Costanza-Chock argues that in Big Tech culture, “white male geek culture, replete with heteropatriarchal cultural structures, forms of humor, and mechanisms for normalizing white cis male standpoints, came to rule the roost” (Costanza-Chock, 2020). This has led, among other things, to the entrenchment of predictive models supporting the patriarchal punitive state with its carceral logics in virtually every aspect of life (Ricaurte, 2022), the racist and sexist classification of women of color by AI algorithms (Crawford, 2021; Noble, 2018), and discrimination against women AI experts, especially women of color, who routinely report being perceived by their male colleagues as nontechnical and incompetent (Kantayya, 2020).

Examining AI from the perspective of the heteropatriarchy can help not only call out but perhaps even anticipate misogynist, homophobic, or transphobic practices related to AI Empire. With the mainstream adoption of generative AI tools, false accusations based on fake yet convincing evidence and the amplification of misogynist, homophobic, or transphobic rhetoric are proliferating, and AI assumes the role of being both the problem and the cure. For example, on a page titled “Safety for India,” the Meta-owned platform WhatsApp boasts its “advanced learning technology” has identified and banned over two million accounts involved in mass or automated messaging, most of which were not reported by users (Banaji and Bhat, 2022). Deplatforming accounts, however, is not the same as explicitly committing to address hateful content and as a result, LGBTQIA+ people, especially Black and Brown trans women, continue experiencing the highest online and offline violence at the hands of “organized trolls” (Banaji and Bhat, 2022).

Racial capitalism and white supremacy

The racist implications of AI such as the disproportionately negative impact on Black people in predictive policing (Richardson et al., 2019), recidivism likelihood prediction

(Angwin et al., 2016), and mortgage application evaluation (Zou and Khern-am-nuai, 2022), among others, have become textbook examples of algorithmic harm. These AI-facilitated types of discriminatory oversurveillance and exclusion that serve to perpetuate inequities and amplify racial hierarchies have been theorized as the “New Jim Code” (Benjamin, 2019) or “algorithmic racism” (Ali, 2016). They give rise to new forms of race-based discrimination, while reinforcing entrenched structures of systemic oppression and capital accumulation by commodifying Blackness in digital spaces (Browne, 2015). The last few years have also seen a disturbing rise in white supremacist ideology on AI-curated social media platforms directly linked to racially motivated acts of violence both online and on the ground. Many of these crimes, such as the Buffalo, NY shooting in which 13 people in a predominantly Black area of town were shot and ten of them lost their lives, as well as the mass shooting in two mosques in Christchurch, New Zealand, which left 51 people dead, were directly attributed to the AI-curated networked proliferation of white supremacist propaganda in digital spaces (Beckett and Wilson, 2019; Stanley, 2022).

The connection between racism, white supremacy, and capitalism in the age of AI Empire has been referred to as digital or computational racial capitalism (Noble, 2018), where “[c]omputers organize the whips and chains while humans watch and help,” with the Internet distributing resources along racial lines (Beller, 2021). This concept can be traced back to “racial capitalism,” or the idea that racism and capitalism are mutually reinforcing and that capitalism grew out of racism as a system dependent on “slavery, violence, imperialism, and genocide” (Kelley, 2017; Robinson, 2020). As it vehemently extracts social and economic value from people of marginalized racial identities, racial capitalism acts “not to homogenize but to differentiate—to exaggerate regional, subcultural, and dialectical differences into ‘racial’ ones” (Robinson, 2020). Scholar-artist Hito Steyerl offers an eerie example of this principle at work in generative AI by discovering that her name and face were used to “optimize machine vision for racial classification” to track Uyghurs in China (Steyerl, 2023). Recognizing that AI mimics a casino logic, in which “reality is permanently at auction,” and that the fact of her existence on the Internet was enough to turn her face “into a tool of literal discrimination wielded by an actually existing digital autocracy,” she concludes that “[b]y now, the majority of the faces that have appeared on the internet have probably been included in such operations” (Steyerl, 2023).

Modernity/coloniality

Steyerl’s example illustrates the “mutually constitutive natures of capitalism, imperialism, and racialism under the modern capitalist world system” (Kalema, 2023), where the hierarchical racial relations white supremacy forged became the foundation of colonial power (Fanon,

1967). The concept of coloniality follows from *colonialism*—“the control by individuals or groups over the territory and/or behavior of other individuals or groups” (Horvath, 1972), which includes “a systematized negation of the other” (Fanon, 1963). Postcolonial and decolonial scholars have argued that even with the formal end of colonialism, the consequences and informal structures of centuries-long colonial practices are still in place (Quijano, 2000). Some have referred to these lasting structures, for instance, when capitalism is combined with imperialism to establish “free” markets, as *neocolonialism* (Spivak, 1991). Others have used *coloniality* to describe how colonialism’s instruments for social domination continue shaping power and knowledge and upholding Western perspectives (De Lissoy and Bailón, 2019; Quijano, 2000). Moreover, it has been argued that coloniality is inseparable from the narrative of *modernity*, which has served as the epistemological framework of the European colonial project to reinforce the ideology of its superiority and that this connection is better expressed through the double concept of *modernity/coloniality* (Mignolo, 2007; Quijano, 2007).

We focus on modernity/coloniality because it captures both the ongoing legacy of colonialism and its ideology of racial and technological supremacy, with the understanding that the categories of colonialism and neocolonialism, among others, are also regularly invoked in the context of AI. For example, *data colonialism*—“the colonization of the lifeworld ... through the panoply of sensors, devices, and [end-user license agreements]” (Thatcher et al., 2016) or the combination of “the predatory extractive practices of historical colonialism with the abstract quantification methods of computing” (Couldry and Mejias, 2019) has been a fruitful framework for analyzing the extractive practices of Big Tech, which increasingly relies on “the capture and control of *human life itself* through appropriating the data that can be extracted from it, for profit” (Couldry and Mejias, 2020). The various forms of the extraction and appropriation of social resources through data are crucial to understanding the accumulation of wealth and power by companies which often started as social media sites (Meta’s Facebook and Instagram) or search engines (Google Search and Microsoft Bing) but have since entered the generative AI race (Mackenzie, 2019).

Modernity/coloniality can help illuminate parts of AI Empire beyond data colonialism’s focus on datafication and data extraction (Mumford, 2022). For example, the extremely labor-intensive processes of mining and refining the rare earth minerals used to build the hardware infrastructure powering AI often take place in zones of active conflict such as the Democratic Republic of the Congo (Crawford, 2021). These processes reproduce old colonial/imperialist logic and place the burden of climate change disproportionately on the shoulders of the majority world as a form of climate coloniality (Sultana, 2022). Similarly, content moderation, data annotation, and the evaluation of AI output—

processes that, as AI companies admit, are essential for the uncannily realistic responses generated by systems such as ChatGPT,¹ often function in settings reminiscent of colonial practices (Miceli and Posada, 2022). They are performed for poverty wages and at great psychological detriment by data workers in majority-world countries; in ChatGPT's case for instance, the "human guidance" part of the training and evaluation process was mainly performed by Kenya-based Sama and Majorel subcontractor workers for less than \$2 per hour (Perrigo, 2023c). Sama and Majorel have been hired by Meta and TikTok as well—a sober reminder that despite the two-track AI system between the USA and China identified by some (Webb and Euchner, 2020), these two foci of AI Empire are deeply intertwined.

The generative AI output companies such as Meta and OpenAI seek to optimize along with other data work only deepens the "precarization, alienation, and surveillance" of data workers (Miceli and Posada, 2022), as their labor, expertise, psyche, and infrastructures are exploited for this optimization. Such practices bear the hallmark of coloniality, but *modernity* is at play as well, with the West's "self-delusion that it occupies an epistemic objectivity and thus may treat all other pieces of knowledge and ways of being as expendable peculiarities" (Mumford, 2022). A key example of such *epistemic supremacy* is the rise of "algorithmic governmentality" whereby our reality becomes shaped and controlled through the statistical probabilistic logic of AI which can be traced back to Enlightenment-era scientific principles (Rouvroy et al., 2013).

Another example are the so-called emergent properties of generative AI large language models extolled by media commentators and Big Tech executives, such as the alleged ability of ChatGPT's rival Bard to "learn" Bengali with no explicit instruction (Pichai, 2023). Despite all the praise, these systems do not inherently prioritize or appreciate linguistic diversity—any resulting "diversity" is merely a fortuitous side effect, not a deliberate outcome. The fact that the language of AI Empire is English is not inconsequential; on the contrary, language is a cornerstone of a community's identity, shaped by and actively shaping its culture, worldview, and history (Fanon, 1967; Wa Thiong'o, 1992). As such, the imposition of English on traditionally non-Anglophone societies effectively serves to perpetuate colonial ways of thinking and being, stifling creativity and self-determination (Wa Thiong'o, 1992). Today, the pervasive influence of ChatGPT—"the fastest-growing consumer application in history" (Hu, 2023)—and other generative AI technologies seems to be doing this even more effectively than colonial mandates of the past.

Mechanisms and practices in AI empire

Each of the categories listed in the previous section is in one way or another a double concept—race and capitalism,

coloniality and modernity, heteronormativity, and patriarchy. While the previous section sought to delineate the interconnectedness within each pair in the context of AI, it also pointed to the connections *across* these categories. The Combahee River Collective recognized that racial, sexual, heterosexual, and class oppression is "interlocking" and "simultaneous" (Collective, 1983), even before the term "intersectionality" (Crenshaw, 1990) was coined, and feminists of color such as those in the Third World Women's Alliance added an important transnational dimension to this framework (Davis et al., 2022). Queer/nonbinary, feminist, and non-white scholars have been calling for an explicitly intersectional perspective in data and technology since the inception of critical data studies. Simone Browne's concept of "intersecting surveillances," or the "interdependent and interlocking ways" that practices, performances, and policies regarding surveillance operate (Browne, 2015), is an important example of this stream of work. Safiya Noble and Brendesha Tynes have also used an explicitly intersectional framework in their conceptualization of the "intersectional Internet" (Noble and Tynes, 2016). Even though more recent critical data studies work such as D'Ignazio and Klein's *Data Feminism* (2020) continues to strive to develop an intersectional framework (D'Ignazio and Klein, 2020), intersectionality remains a "flattened, fashionable term" without sufficient self-reflexivity and commitment to praxis (Gajjala et al., 2022), lacking a transnational perspective (Tacheva, 2022). This is disappointing, especially given that as early as the 1980s and 1990s, feminist technology scholars were already theorizing the multiply oppressive power of technology, calling for an equally intersectional resistance to it, and clearly pointing to the role of colonialism and capitalism in these developments (Haraway, 1985; Sandoval, 1995). Fortunately, alongside the depoliticized and ahistorical mainstream narratives of data feminism, there has been a growing emphasis on majority-world feminist decolonial perspectives regarding technology and AI, in particular, which center AI's entanglement with heteropatriarchy, racism, capitalism, and colonialism in their analysis of its origins and associated harms (Peña and Varon, 2021; Ricaurte, 2022).

Using AI Empire as a framework allows us to trace the mechanisms of these interconnected oppressive regimes in a way that doesn't flatten the unique features of each system but sheds light on their intersections. It is precisely at these intersections that the most harmful mechanisms of AI Empire emerge. As with AI Empire's roots, we acknowledge the openness and incompleteness of the mechanisms presented next and call for their continuous re-evaluation. Specifically, we demonstrate how the interconnected systems of heteropatriarchy, racial capitalism, white supremacy, and coloniality converge in AI Empire's mechanisms of extractivism, automation, essentialism, surveillance, and containment. Each of these principles fosters

oppressive AI practices such as biometric mass profiling and technological apartheid. Figure 1 shows a visual representation of the framework of AI Empire, situating its roots at the bottom, the mechanisms arising from these roots at level 2, and the practices AI Empire's mechanisms give rise to at level 3. We explore each of these aspects in greater detail in the subsections that follow.

Extractivism

In discussing data colonialism, Couldry and Mejias (2019) point to the continuities between colonialism and today's unbridled Big Tech capitalism which relies on illegitimate appropriation, exploitation, and dispossession. Similarly, Crawford (2021) positions the extraction of labor, materials, data, and affect at the center of AI and traces it back to the West's colonial past. Atanasoski and Vora (2019) further show how far from reducing the toil of human labor, the goal of profit-driven technological enterprise has always been to imagine and create technologies that exploit labor and deflate its cost to maximize profitability. While "exploitation" and "extraction" denote the *practice* of seizing natural, human, or cultural resources, the underlying operative *logic* is referred to as "extractivism" (McNeish, 2022). Therefore, we use the latter to capture the mechanism underlying various practices of resource appropriation in AI Empire.

One of the central facets of extractivism in this context is *datafication*, or the "quantification of human life through digital information, very often for economic value" (Mejias and Couldry, 2019). Through this process, data is turned into a commodity to be bought and sold in the big data marketplace of AI Empire as just another product in the hands of the data brokers responsible for "the Costcoization of data," where acquiring even the most personal data and analyzing it using advanced AI technologies is akin to going to a big-box store to purchase everything you need in one place (Lamdan, 2022). Extractivism does not stop at appropriating data; however, the exploitation of labor, natural resources and effects, and climate degradation are also an inextricable part of this logic (Crawford, 2021; Miceli and Posada, 2022; Sultana, 2022).

In AI Empire's modernity/coloniality paradigm, even the process of *giving* (e.g., through "social good" tech initiatives in majority-world countries) as opposed to taking away is inevitably extractivist because it reconfigures social good as "datafied, probabilistic, and profitable" (Viera Magalhães and Couldry, 2021). The "bestowment" of technological progress upon "underdeveloped" areas is inextricably bound up with extractivism and dispossession, as in the case of what McElroy (2020) calls the "siliconization" of cities, or the process of "becoming Silicon Valley, through cooptation and absorption of [local] technoculture and infrastructure into Silicon Valley and Western tech companies" resulting in gentrification and displacement

(McElroy, 2020). The extractive risks of siliconization are also evident in the concept of *corporate capture* or Big Tech's influence over AI research and its economic and legal regulation (Whittaker, 2021). Representing some of the "most data- and compute-demanding methods in AI," large language models such as ChatGPT are among the "most industry-captured" (Whittaker, 2021), as evidenced by the news about OpenAI's CEO, Sam Altman, advocating for European regulators to lighten the European Union regulatory burden on generative AI, thereby avoiding its classification as "high risk" (Perrigo, 2023b).

Automation

The increasing dominance of AI systems such as ChatGPT in our lives has led to the ever-growing automation of decision-making processes previously made by human judgment, such as determining eligibility for housing or welfare benefits (Eubanks, 2018). Along with extractivism, automation, especially of cognitive labor, has become a key feature of AI Empire. This focus on automation is not new; finding ways to "take the human out of the loop" was the cornerstone of the Industrial Revolution and fueled the growth of capitalism (Atanasoski and Vora, 2019; Crawford, 2021). However, the current phase of automation is characterized by a distinct, expansive ambition to create machines that surpass mere efficiency with the aim of achieving superintelligence, enabling them to supplant not just physical labor but cognitive labor as well (Crawford, 2021).

While AI discourse would traditionally ascribe primacy to human intelligence over algorithms, especially in areas such as expert judgment, after the rise of large language AI models, there has been a notable shift from regarding such models as just another "step in the pipeline" to AI as a "godlike" substance, showing signs of sentience and "artificial general intelligence" (AGI) (Troy et al., 2023). This overreliance on algorithmic decision-making has been shown to be particularly harmful when it comes to marginalized communities, for instance, in automated risk assessment (Angwin et al., 2016) or when certain racial and gender groups are not recognized by the system at all due to lack of representation in the underlying data (Buolamwini and Gebru, 2018; Torres and Gebru, forthcoming).

Prominent voices in critical AI have consistently underscored a crucial reality: AI systems are far from neutral or objective (Benjamin, 2019; Noble, 2018). On the contrary, they embody the biases of their creators, a relatively homogeneous group predominantly comprised of young, white, male, heteronormative, able-bodied, libertarian, and affluent engineers and entrepreneurs (D'Ignazio and Klein, 2020; Noble, 2018). These creators bring their unique worldview to the table, which can be traced back to harmful ideologies such as transhumanism and long-termism, both of which have roots in eugenics (Torres

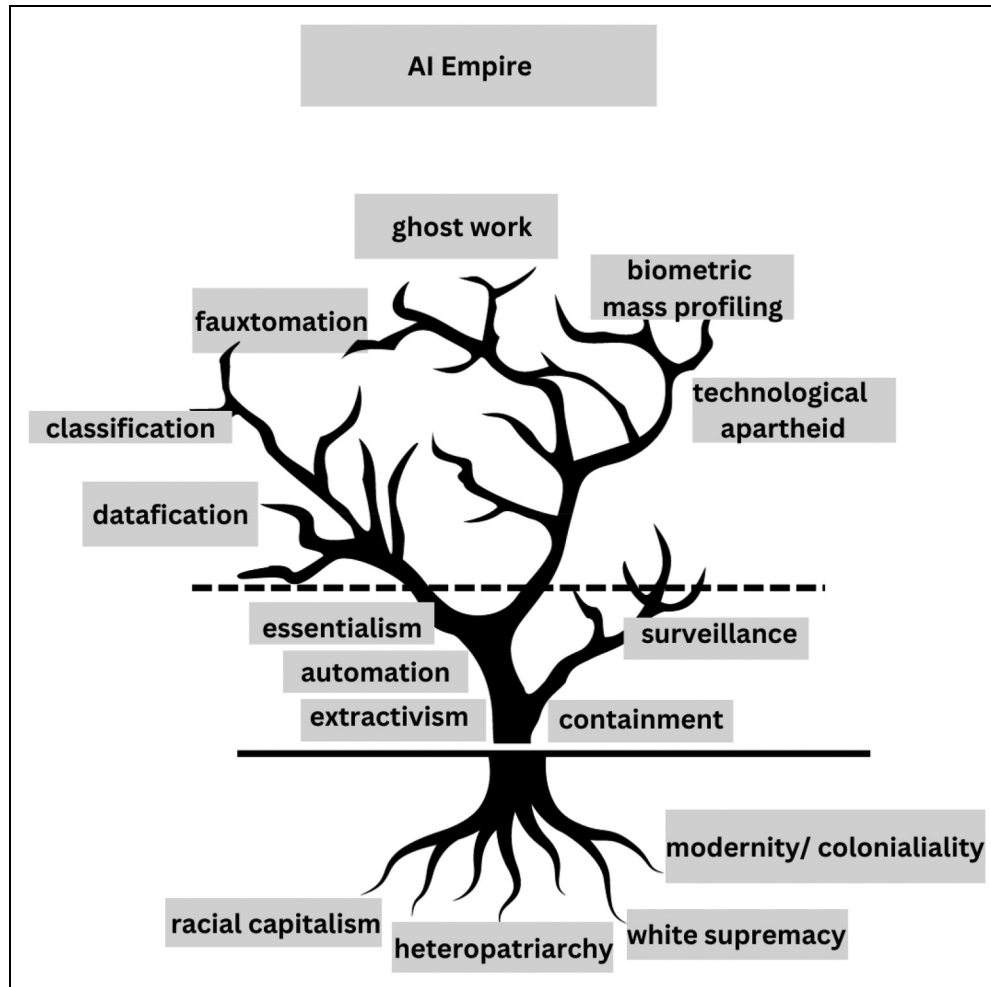


Figure 1. The roots, mechanisms, and practices of AI empire.

and Gebru, forthcoming). These ideologies, often unchallenged, permeate the design, development, and deployment of AI systems (Costanza-Chock, 2020), which not only carry but also amplify biases and discrimination (Benjamin, 2019).

The automation logic that underpins ChatGPT and other generative AI systems has dangerous consequences. One such consequence is their potential to intensify discrimination and inequality (Nkonde, 2023), mirroring the issues seen in areas where algorithmic decision-making is now commonplace (Eubanks, 2018). The misguided belief that AI, because of its assumed objectivity, can make superior and more equitable decisions than we can as a society is another harmful trend. This belief doesn't just risk undermining democracy but also subtly relieves us from the responsibility to better ourselves by suggesting that as long as we can outsource "tasks" to AI, we don't need to change. This is a dangerously misleading assumption, since AI systems are not independent, naturally occurring entities, but the direct results of our society (Benjamin,

2019). Moreover, despite their seemingly "magical" performance, AI algorithms such as ChatGPT are far from fully automated. They rely heavily on the "ghost work" of human annotators and moderators, often in majority-world regions (Gray and Suri, 2019; Miceli and Posada, 2022), as well as on massive media hype which tends to greatly overstate their actual capabilities or level of automation—a phenomenon known as "fauxtomation" or fake automation (Taylor, 2018). Another problematic trend is the perilous shift in focus away from the urgent real-world problems humanity is facing. Critical AI scholars caution that the obsessive focus on hypothetical future threats posed by superintelligent AGI distracts us from the pressing dangers of extractivism, environmental degradation, discrimination, and erasure (Torres and Gebru, forthcoming).

Essentialism

The erasure of identities, cultures, pieces of knowledge, people, and communities by AI Empire is associated with

its inherent *essentialism*—the process of reducing complex and diverse social categories to a set of predefined measurable “inherent traits” such that “heterogeneous people whose values, interests, ways of life, and moral and political commitments are internally plural and divergent” are represented as “homogenous groups” (Narayan, 1998). A byproduct of the confluence of heteropatriarchy, racial capitalism, white supremacy, and coloniality (Chang, 2019; Couldry and Mejias, 2019; Whittaker, 2021), essentialism favors a narrow perspective—that of white, male, middle-class, cisgender, able-bodied, value-free math and engineering—while erasing diverse identities and cultures (D’Ignazio and Klein, 2020). This reductionist view has facilitated harmful attitudes such as the toxic racializing transphobic right-wing masculinity exhibited by powerful AI Empire voices such as Elon Musk who openly calls for the erasure of trans people, especially trans women (Selvaraj, 2023).

Beyond seeking to set the definitional boundaries for various identities, such as “women,” essentialist ideologies often foster false dichotomies such as technological progress versus “the establishment.” This not only undermines but also outright negates legal and ethical norms, advocating instead for a mentality of “moving fast and breaking things” (Crawford, 2021). Despite the romanticized narrative of small antiestablishment teams disrupting industries, the reality of AI Empire often involves significant family and venture capital backing, concealed by the myth of the “self-made” entrepreneur (Chang, 2019). This misleading narrative can lead to an unchecked accumulation of capital, power, and influence, funneled into developing technologies with a profit-driven agenda, as exemplified by Microsoft’s \$13 billion investment in OpenAI. Such entities, deeply resistant to criticism and dissent, are actively shaping societal and legal norms (Perrigo, 2023b) according to their essentialist vision—white, capitalist, heteropatriarchal, Western, and colonizing (Troy et al., 2023). They do so with the self-proclaimed messianic mission to “save the world” (Chang, 2019; Torres and Gebru, forthcoming)—a world of their own creation where every individual and every aspect of our lives is classified—neatly compartmentalized into distinct categories, perfectly tailored for predictive modeling and algorithmic manipulation of behavior.

Surveillance

To determine everyone’s role and place in the world, AI Empire relies on constant surveillance. In tracing the connection between technology and surveillance, Simone Browne quotes Jeremy Bentham’s principle of “control by design,” where population management and the transmission of knowledge could be achieved “all by a simple idea of Architecture!” (Browne, 2015). The same logic is baked into today’s “surveillance capitalism,” where, as

Shoshana Zuboff shows, “smart homes” enhanced by “AI capabilities” serve the function of “constantly monitoring the occupants” by design (Zuboff, 2019). Not surprisingly, marginalized identities and communities bear the brunt and the cutting edge of this ubiquitous AI-fueled surveillance. The experiences of the Uyghur population in China, for instance, are more properly understood as *biometric mass surveillance*, an extreme type of *biometric profiling*, used to collect, analyze, or generate data (including biometric data) on entire communities instead of focusing on individuals about which there is “reasonable suspicion” of wrongdoing (De Hert and Bouchagiar, 2022). Various streams of personal data such as skin color, height, face scans, and voiceprints from street surveillance cameras, and recently also mandatory DNA samples, are all fed into integrated joint operations platforms where they can be linked to people’s national identification numbers to yield a unique and comprehensive personal profile (Xu et al., 2022). Similar human rights concerns have been raised with respect to the introduction of the Unique Identification Authority of India’s *Aadhaar*, the world’s largest biometric surveillance system, which has been exposed as embodying Hindutva and neoliberal ideology aimed at surveilling and controlling Muslim, caste-oppressed, and Indigenous minorities such as Dalits and Adivasis (Prabhakar, 2020).

The adoption of cutting-edge AI-powered technology for population management and control by majority-world regions is often cloaked in the language of technological progress, such as the United Nation’s enthusiastic welcome of Zimbabwe and Kenya’s decision to introduce biometric-based identification to “leapfrog outdated tools and progress to modern innovations” (Toesland, 2021). However, when a government-commissioned study of HIV in Kenya attempted to collect study participants’ fingerprint data in 2018, it was met with nearly unanimous opposition, due to concerns over its potential use to criminalize and prosecute vulnerable study participants, especially sex workers, queer and trans people, people who inject drugs, and incarcerated people (Davis and Maleche, 2018). And yet, the West celebrates these instances as prime examples of win-win technological progress: the countries adopting such technological solutions see an “increase in productivity” and “leapfrog” their way to joining the ranks of the “developed” world, while tech companies gain new markets for their products. Although it is tempting to ascribe the use of biometric mass surveillance practices to authoritarian, ethnonationalist, or otherwise “underdeveloped” regions, the logic of total surveillance aided by AI can be found in the “developed” world as well, albeit in a less conspicuous fashion (Zuboff, 2019). In fact, far from being “undertechnologized,” majority-world countries often function as the testing grounds for the latest AI surveillance technology, which is subsequently exported throughout the world (Benjamin, 2022). It is therefore important to remember that we all live in a state of

precarity, albeit to a different degree (Loughead, 2023). Within the European Union, for instance, AI-based facial recognition technologies are used in public spaces to capture bystanders' facial proportions and classify them into racial and ethnic categories such as Roma and Sinti, implying that non-white people are automatically suspect and unwanted (Rights, 2021).

Containment

Roma and Sinti residents in Europe, religious and ethnic minorities in China, members of marginalized castes in India, and Black, Brown, and Indigenous people practically everywhere, among others, are not simply constantly surveilled—they are marked as surplus populations “to be warehoused and contained” (Veracini, 2019). A type of dispossession where what counts is not so much one's labor to be exploited but rather the space one inhabits, the settler-colonial practice of containment is characterized by “a logic of elimination,” with some contending that “[c]ontainment is elimination, if one thinks spatially” (Veracini, 2019). While elimination and containment are not growing everywhere equally, they are growing globally (Veracini, 2019)—a sign of AI Empire as a global world order. Indigenous populations have been subjected to containment practices for centuries, but today's AI systems are facilitating, expanding, and intensifying similar processes, often by design, without the need for physical enforcement, albeit in a no less violent and dehumanizing fashion.

The formation and policing of communities, including determining who belongs or doesn't belong there and which communities are worth investing in versus those that are perceived as a risk, often associated with racist practices such as redlining, are now taking on a digital form with applications such as Nextdoor, which serve as informal community policing mechanisms (Lambright, 2019). Digital and algorithmic forms of censorship as well as unfair technological policies and practices that deepen the inequalities of access to Internet services, technologies, and content (Gilliard, 2017) are also commonly used to contain and control populations. Who gets to connect to the Internet and on what terms is often used as a tactic to contain civil protest, for example, in Kashmir (Nadaf, 2021) and amidst the women-led fight for human rights in Iran (Torbaty, 2023). The profound inequality between those who design AI technology and those upon whom these technologies are deployed has ignited debates about “technological apartheid”—“deliberately designed, developed and spread” by the “educational, cultural, economic and political institutions” of dominant powers (Adebisi, 2014).

Rooted in heteropatriarchy, racial capitalism, white supremacy, and coloniality, AI Empire is built on the still insidiously potent belief that some lives, cultures, and

ways of being are more valuable than others. This toxic supremacy allows the architects of AI Empire to view certain humans as an expendable and disposable resource ripe for extractivism, automation, essentialism, surveillance, and containment. AI Empire's distributed and networked control seeps into every aspect of our lives, delivered through the hidden and deliberately abstracted-away veins of its infrastructures ranging from natural resources to logistical networks (Crawford, 2021), labor and capital to data (Gray and Suri, 2019), and politics to affect and social relations (Hardt and Negri, 2001). These hidden conduits of AI Empire are as opaque and “black-boxed” as the AI algorithms they power. With invisible ubiquity, managerial efficiency, fake accuracy, and simulated objectivity, they orchestrate a chilling symphony of oppression, with marginalized communities worldwide bearing the brunt of AI Empire's automated violence. And yet, with the power of collective intersectional transnational organizing, communities in both the centers and peripheries of AI Empire are charting ways of resistance and refusal, defying its proclaimed inevitability.

Conclusion: resisting AI empire

In the face of the unchecked expansion of AI Empire, marginalized identities and communities endure the harshest impact of its roots, mechanisms, and practices. Generative AI cannot dissociate itself from the processes of extractivism, automation, essentialism, surveillance, and containment, which perpetuate historic structures of heteropatriarchal, colonial, racist, white supremacist, and capitalist oppression—it has always already been built on them. It cannot be changed; it cannot be “reformed” or made more “fair,” “ethical,” or “responsible”—even the most thoughtful and thoroughgoing intervention cannot come close to confronting its deep roots. This seems to be a revelation only for those of us with privileged identities, especially in the West; for the rest of us, it is an urgent reality we grapple with daily, often united across transnational borders in the fight to resist and refuse AI's imperial incursions.

As history continues to show, liberation is a process brought about by collective organizing and solidarity as opposed to the short-term intervention of an outside force (Davis, 2016). In a pivotal moment for the global tech industry, 184 African content moderators performing work for Facebook and TikTok voted to form a union in May 2023 (Perrigo, 2023a). This decision marked the culmination of a journey that began in 2019, when Daniel Motaung, a Facebook content moderator, was dismissed from his position at Sama for attempting to establish a workers' union (Perrigo, 2023a). Many of the data workers ChatGPT owes its superior performance to were reportedly present at the event in Nairobi and said they would also join the union (Perrigo, 2023a). Dissatisfied with the infrastructures, methods, and practices of AI

Empire, these workers are refusing to participate in technology creation *on these terms*. Instead, they are banding together to build international resistance networks, partnering with communities such as SUPERRR Lab—a feminist and nonbinary tech collective. Their actions demonstrate the need for a truly intersectional resistance—one that challenges racial capitalist and colonial labor practices, business models, and social implications while recognizing the importance of queer, feminist, and transnational perspectives.

The formation of the union also underscores the inadequacy and performativity of signing open letters to halt AI development, as Elon Musk and other AI Empire architects famously did earlier this year. It demonstrates that such measures will amount to nothing if the deeply entrenched roots and operating mechanisms of AI Empire continue to go unchallenged and unopposed. This is no time for reforms and superficial remedies that only address the tips of the problem. As long as the roots of AI Empire—heteropatriarchy, racial capitalism, white supremacy, and modernity/coloniality—and its mechanisms, extractivism, automation, essentialism, surveillance, and containment, remain intact, any proposed solution will merely serve as a cosmetic fix. Such an approach would only enable the further entrenchment of AI Empire, rather than contribute to its dismantling. Instead, we must form collective movements to dig deep, uproot these intersecting systems, and critically evaluate the often-unquestioned assumption that technological progress is synonymous with social and planetary good. No piece of generative AI technology, no matter how advanced, can ever do this critical work for us.

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1. Sam Altman, OpenAI's CEO, in a podcast conversation with Lex Fridman, refers to the model architecture of ChatGPT as "magic with little data input and human guidance." Link: https://www.youtube.com/watch?v=L_Guz73e6fw.

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