## By Aswathi Thilak

Kate Crawford's *Atlas of AI* dismantles the façade of artificial intelligence, revealing a complex and often troubling system rooted in human exploitation, environmental degradation, and social inequity. Far from being a neutral, futuristic force, Crawford demonstrates that AI is deeply entangled with the structures of power that shape our world. Her central thesis—that AI amplifies the biases and inequalities of the societies that create it—serves as a sobering reminder that technology is never independent of its human creators. The book pulls back the curtain on AI's hidden costs, revealing an industry that thrives on the extraction of resources, labor, and data while obscuring the human and environmental toll.

Crawford begins by dismantling the myth of AI as a purely intellectual or computational achievement. She compares it to Clever Hans, the early 20th-century horse that appeared to solve arithmetic problems but was actually responding to subtle human cues. This analogy serves as a powerful reminder that AI is far from the autonomous and objective marvel it is often portrayed to be. Instead, it is a system heavily dependent on human input—data, labor, and interpretation. Crawford makes it clear that the "intelligence" of AI is an illusion, reflecting not some inherent genius but the manipulation of human and computational resources at a massive scale. This analogy resonated deeply, reframing my understanding of AI's operations as being fundamentally human rather than superhuman.

One of the book's most compelling insights is its examination of the phrase "ask forgiveness, not permission," a mantra that has come to define the ethos of Silicon Valley. Crawford explores

how this principle is central to the development of machine learning in modern AI, particularly in the way it relies on enormous datasets. These datasets, essential for training AI models, are almost always compiled without the explicit consent of the individuals whose data is used. Web scraping, data mining, and other forms of extraction are justified under the guise of innovation, but Crawford points out that this approach raises serious ethical questions. The data emitted by people daily—whether through social media, online searches, or even medical records—is often harvested without their knowledge or permission. This practice, she argues, turns people into unwitting sources of value, their lives commodified for the benefit of corporations and governments.

The unregulated nature of this data collection has profound implications. Crawford then delves into the implications of using these "scraped" datasets, revealing how they often contain deeply personal and private information. This data, once incorporated into machine learning models, becomes the foundation for systems that can influence everything from hiring decisions to credit scores. Yet the individuals whose data fuels these systems have no say in how their information is used, nor do they benefit from the profits it generates. Crawford's critique shows the asymmetry of power in the AI industry: corporations reap enormous rewards while individuals bear the risks, from invasions of privacy to discriminatory outcomes. For instance, hiring algorithms based on biased datasets perpetuate discrimination in recruitment, while credit-scoring systems amplify financial inequalities. Corporations reap immense profits by monopolizing data, yet individuals bear the brunt of it—privacy invasions, economic loss, and social harm. By highlighting these asymmetries, Crawford reinforces her thesis statement that AI systems exacerbate existing societal inequalities.

The consequences of this lack of consent go beyond individual privacy violations. Crawford describes how data scraped from the internet often reflects the biases embedded in the societies that produced it. For example, facial recognition datasets disproportionately misidentify people of color, while predictive policing tools exacerbate racial profiling. A similar theory is explored by Joy Buolamwini, in *Unmasking AI*, where she delves further into this issue through her Gender Shades research, which tested facial recognition technologies from prominent companies like Google and IBM. She revealed significant disparities in accuracy, particularly for women of color, highlighting how these technologies perpetuate systemic inequalities. Both Crawford and Buolamwini show the harmful effects of AI technologies on marginalized communities, emphasizing that these biases are not mere oversights but structural flaws inherent in systems built on unregulated and often discriminatory data. Crawford calls these datasets "bloodless words," emphasizing how they strip away context, humanity, and consent to fit the needs of AI developers. Together, their work illustrates the deeply dehumanizing nature of these processes, where marginalized individuals bear the brunt of AI's limitations, further entrenching societal inequities.

This disregard for consent is not an isolated issue but part of a larger pattern of exploitation that defines the AI industry. Crawford moves on to describe the labor that underpins AI systems, exposing the myth of automation as a seamless, self-sufficient process. She introduces the concept of "fauxtomation," where tasks attributed to AI are often performed by low-wage workers in precarious conditions. Content moderation, for example, is frequently outsourced to workers who must sift through graphic and disturbing material to ensure platforms remain "clean" for users. Similarly, the data labeling essential for training machine learning models is often done by workers in the Global South, where labor protections are minimal, and wages are

low. These invisible laborers are the backbone of AI systems, yet their contributions are rarely acknowledged or compensated fairly. This lack of fair compensation directly impacts their quality of life, perpetuating cycles of poverty and reinforcing the dehumanizing nature of their work. As someone from the Global South, I found it deeply unsettling to read, as I could relate to the very conditions I witness in India where these corporations have set up exploitative practices.

Crawford's exploration of labor exploitation also extends to the mining of rare earth metals used in AI hardware. The book provides detailed accounts of how materials like lithium and cobalt are extracted, often under hazardous conditions in resource-rich but economically disadvantaged regions. The human cost of these practices is staggering, with workers facing dangerous conditions, low pay, and limited rights. Crawford draws a direct line between colonial resource extraction and the current practices of tech companies, showing how historical patterns of exploitation persist. This perspective is particularly striking, as it reframes AI not as a futuristic innovation but as a continuation of extractive systems that have long marginalized vulnerable populations.

The energy it takes to sustain AI is another hidden cost that Crawford brings to light. Training large machine learning models requires massive amounts of energy, with some systems consuming as much electricity as entire towns. Data centers, the physical infrastructure of AI, depend on continuous cooling and enormous amounts of water and electricity, contributing significantly to global carbon emissions. Crawford connects this environmental impact to the broader extractive practices of the tech industry, drawing parallels between the mining of rare earth metals for hardware and the colonial systems of resource extraction that have long enriched the Global North at the expense of the Global South.

Crawford's ability to weave together these threads—data exploitation, labor, and environmental impact—creates a compelling critique of AI as a deeply political and economic phenomenon. She argues that AI systems are not neutral tools but products of the same capitalist and colonial systems that drive inequality in other sectors. This perspective is particularly striking in her discussion of how tech companies have amassed power through the monopolization of data. Crawford highlights the role of corporations like Google, Amazon, and Microsoft in shaping the AI landscape, showing how their control over data and resources allows them to dictate the terms of technological development. This concentration of power raises urgent questions about accountability, equity, and the future of democracy in a world increasingly dominated by AI.

One of the book's most striking revelations to me is how AI systems exacerbate existing inequalities rather than addressing them. Crawford provides numerous examples of how biased data leads to biased outcomes, from facial recognition systems that misidentify people of color to predictive policing tools that disproportionately target marginalized communities. These systems, she argues, do not simply reflect societal biases—they actively amplify them. This critique resonates throughout the book, challenging the narrative of AI as a democratizing force and revealing its role in perpetuating harm.

Crawford's writing style is another strength of the book, making complex topics accessible without sacrificing depth. Her use of vivid metaphors and storytelling brings the abstract concepts of AI down to earth, allowing readers to grasp their real-world implications. For instance, she describes the internet as a "natural resource" to be mined for data, likening the process to colonial systems of extraction. This metaphor is both evocative and unsettling, forcing readers to confront the parallels between digital exploitation and historical patterns of resource extraction.

Crawford also frequently juxtaposes technical jargon with human experiences, ensuring her analysis remains grounded in the social and ethical implications of AI. Her comparisons are not just illustrative but strategic, exposing the power dynamics and human costs hidden behind seemingly neutral systems. For example, her portrayal of AI's demand for energy mirrors the environmental toll of industrialization, further connecting contemporary AI practices to exploitative systems of the past. Through such connections, Crawford ensures that the reader doesn't just learn about AI but sees its consequences unfolding across economic, social, and ecological landscapes.

This approach not only makes the material engaging but also encourages critical thinking, compelling the audience to question the ethics and accountability of AI development. By weaving storytelling with analysis, Crawford transforms her book into a compelling narrative that is as thought-provoking as it is informative. In doing so, she elevates the conversation around AI, making it clear that these technologies are not just tools but deeply entrenched in systems of power and inequality.

Throughout the book, Crawford maintains a balance between academic rigor and compelling narrative. She draws on a wide range of sources, from investigative journalism to scholarly research, to build her arguments. This interdisciplinary approach enriches the book, providing a holistic view of AI's impact on society. However, the book's relentless critique can feel overwhelming. Crawford's focus on AI's hidden costs and inequalities, while necessary, may exhaust readers. At times, the negativity overshadows potential avenues for reform, leaving readers longing for a more balanced perspective. Acknowledging potential solutions or highlighting positive efforts in AI development could have mitigated this fatigue.

Atlas of AI challenges readers to see artificial intelligence not as a futuristic marvel but as a deeply human construct, shaped by the values and inequalities of its creators. Crawford's critique is both illuminating and necessary, offering a sobering counterpoint to the uncritical enthusiasm that often surrounds AI. By exposing the hidden costs of AI—its environmental toll, its reliance on exploited labor, and its amplification of bias—she forces us to reckon with the true nature of this technology and its implications for our world. For anyone seeking to understand the intersection of technology, power, and society, Atlas of AI is an essential read. It is not a book that offers easy answers but one that demands reflection, challenging us to envision a more just and equitable technological future.

## Reference

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