

Deconstructing AI Power: Beyond Anthropomorphizing Narratives

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Abstract

This article is an attempt to demystify the power of artificial intelligence by reflecting on the conceptions of power in the works of Michel Foucault, Michel De Certeau and Georgios Agamben, who offer diverse yet complementary frameworks for explaining how power, often invisible, is exercised, transformed and contested by groups and individuals in the society. The article highlights the importance of technological imaginaries in predicting the future of technology and its acceptance in the society. It argues that the anthropomorphizing language used to describe AI in scientific discourse and science fiction alike is distracting from its main features, and thus, it hinders the efforts to understand the nature of its power and the ability to address its potential risks. The article concludes that the power of artificial intelligence is characterized by two main features: it hides the role and responsibility of the human configurator through the illusion of algorithmic impartiality, and it is symbiotically sustained through systems of Knowledge. In de Certeau's terms, this dynamic exacerbates existing power imbalances between the strong configurators who set the strategies of the AI systems and the weak subjects who resort to subversive tactics.

Keywords: Algorithmic states of exception, strategy and tactics, regulation by design

0. Introduction

Artificial intelligence (AI) has permeated our daily lives, revolutionizing all aspects of contemporary living from entertainment, education, healthcare and governance. The integration of AI in the technologies of everyday life is increasingly growing; yet, the nature of its power and its social implications are still to be fully understood. Central to this exploration is the idea the power of AI acquires its efficacy and legitimation from the assumption of algorithmic impartiality, which is propagated by the language used to describe it. As Flichy points out, the technical object is not only a technical or material entity, but also a symbolic entity, because it conveys meaning (2008). Stories and narratives on AI are infused with powerful myths, beliefs and assumptions from humanity's greatest existential threat to the solution for the world's most difficult problems. These narratives are understood as technological imaginaries, and they offer great insight into the future of technological development. The technological imaginary encompasses "the myths, attitudes and values that a culture attaches to new technologies, sometimes in terms of their perceived abilities to fix what's wrong with society, and sometimes in terms of their perceived destruction of social cohesion" (Lister et al., 2003 as cited in Fry, 2011, p. 14). Imaginative thinking of AI has been the subject of numerous studies that offer insights into the hopes and fears surrounding the technology (Cave & Dihal, 2019; Li & Huang, 2020). Narratives around AI in scientific discourse and science fiction alike are often simplistic; the common use of human characteristics such as consciousness and free will can be distracting from the real nature of AI power, which is more complex and multifaceted (Hermann, 2023). AI is powerful not only due to its tremendous capabilities, but also due to its ability to seamlessly integrate with other technologies in ways that are not always noticeable or fully understood by all the stakeholders.

The ambiguity of AI power, which is evident in the narratives surrounding the technology, can be a good starting point for exploring several important philosophical questions: What are the fundamental characteristics and mechanisms that define the power of AI? How is it deployed and how is it contested in the society? The article aims to address these questions and to highlight relevant complexities to inspire more informed narratives that consider the technological limitations and the instrumental role of its human configurator which is often missing (Epstein et al., 2020).

The focus of this article intersects with three identified knowledge gaps: explainability (Gerlings et al., 2020), fairness (Köchling & Wehner, 2020) and societal impact (El Morr, 2023). The ability to build explainable, fair AI systems with positive social impact is contingent on developing an accurate understanding of the nature of AI power. This effort requires the adoption of transdisciplinary approaches that combine philosophical, cultural and technical insights and consider the diversity of stakeholders. From this perspective, this conceptual article seeks to contribute to bridging the identified knowledge gaps by investigating the nature of AI power from the perspectives of two stakeholders: the user of the technology and the subjects of its use. Rather than theorizing top-down solutions to the challenges of AI, the article attempts to describe the dynamics of power drawing on various concepts in cultural studies and sociology as discussed by Michel Foucault, Michel De Certeau and Georgios Agamben.

This article is comprised of five sections. In the first section, the problem is introduced. In the second section, the article explores the nature of AI power. It contemplates on the dispersed and nuanced nature of AI power and its interconnectedness with the meanings and values of the configurator in reference to Foucault's concept of knowledge/power. In the third section, the article explores the social implications of AI. It explores the concept of regulation by code and its potential implications in reference to Agamben's ideas on the state of exception. In the fourth section, the article discusses strategies and tactics for using and contesting AI power in reference to de Certeau's ideas (1984). Finally, the fifth section presents the conclusions and recommendations for further research.

1. The Nature of AI Power

This paper argues that AI power is characterized by two main features: it is hidden and symbiotically sustained through systems of knowledge. Its invisibility and interdependency with knowledge systems are both the sources of its strength and weakness.

Power, as Foucault argues, "is not an institution, and not a structure; neither it is a certain strength we are endowed with; it is the name one attributes to a complex strategical situation in a particular society" (Foucault 1979, as cited in Zeiher & Grimshaw, 2022, p. 4). As the role of AI continues to grow, it is increasingly situated as a decision-making mechanism in the society. This emerging status quo is not sufficiently understood by the subject of the AI decision-making process; neither are the paths for challenging it. This ambiguity, which is exacerbated by the anthropomorphizing language used to describe AI, is what makes it dangerous. As Liu (2018) explains, AI introduces new power relationships while it simultaneously erodes the efficacy of existing procedures and institutions for resisting power disparities (p. 1). In other words, the traditional channels for implementing accountability of human bureaucracy is no longer effective when the decisions are intermediated and masked by computerized systems.

The development of an AI system requires a wide range of resources, which include technical and infrastructural. Meanwhile, the ability to mobilize these tangible resources requires a form of

power. Power can take many other intangible forms. In Foucault's view, power and knowledge are inseparable. The two are intertwined and they reinforce each other:

No body of knowledge can be formed without a system of communications, records, accumulation and displacement which is in itself a form of power and which is linked, in its existence and functioning, to the other forms of power. Conversely, no power can be exercised without the extraction, appropriation, distribution or retention of knowledge. On this level, there is not knowledge on one side and society on the other, or science and the state, but only the fundamental forms of knowledge/power (Foucault, as cited in Gaventa, 2003, p. 2).

In the context of AI, power reproduces what the configurator counts as knowledge by shaping knowledge according to their internal objectives. As the capabilities of AI systems grow and as AI's role in the society increases, so as AI's impact. "The more sophisticated and widespread data analysis practices become through techniques such as machine reading, sentiment analysis and algorithms, the more the cultural norms and assumptions of those who program and devise them become embedded in society" (Powell, as cited in Whitemore, 2017). AI power cannot be separated from the meanings and values of the dominant actors who configure the systems. "These kinds of knowledge, if their assumptions and structures are left unexamined and unchallenged, may result in continued forms of bias against historically oppressed bodies" (Nemorin et al., 2023, p. 39).

2. Society in the Age of Code

The interplay between technological innovation and social development is often discussed in terms of ages or eras. While these eras might vary across disciplines, as seen in the work of Marshall McLuhan (1967), Manuel Castells (1996) and Klaus Schwab (2017), the core ideas are relatively consistent; it emphasizes the power of technology in accelerating social and cultural changes and its relevance as a reference for understanding societal progress. In reference to Schwab's framework, current technological advancements can be understood as part of the fourth paradigm of industrialization, also known as the fourth industrial revolution (4IR). This era, as discussed by Plonka et al. (2023), is marked by digitization, artificial intelligence and augmented reality (p.1). The integration of these technologies in the form of smart devices and later smart cities will only increase technological dependency and thus the significance of the role of computer codes in social regulation. The idea of regulation by design is a well-discussed concept in architecture and city planning which is often discussed as unpleasant design. As Savic & Savicic (2014) explain, the term refers to an aggregation of techniques and strategies in urban design where social control is an inherent property of objects and places. As they maintain, it recognizes the "desire for controlled environments amongst different authorities but it also accounts for the way citizens react to it. Unpleasant Design is manifested in the form of "silent agents" which manage the behaviour of people without explicit presence of officials" (p.1). The management of behavior by means of design is applicable to the cyber world as much as it is in the physical world if not more due to the lack of physical constraints. As the borders between the cyber and the physical world diminish due to the integration of technology in all aspects of contemporary living, it is important to investigate the consequences of the invisible regulation by means of code. While the idea of automating social regulation by means of design might seem attractive due to efficiency and perceived impartiality

of AI systems, it encompasses several potential risks such as the lack of contrarianism and the potential emergence of algorithmic states of exception.

2.1 The Lack of Contrarianism

While contrarianism is generally understood as deliberately opposing the prevailing choice of others, whatever this choice is (Galam, 2004), in this study, in the context of regulation by code, contrarianism is discussed as the ability to express ideas or actions that are inconsistent with the imperatives of the algorithm. Historically, legislation is a dialectical process that is to a large extent transparent and accessible to a range of stakeholders. Moreover, its enforcement is constrained by a variety of factors. Regulation by code, on the other hand, is private and totalizing. In his explanation of the concept of regulation by code, Lessig states:

Code, or architecture, sets the terms on which life in cyberspace is experienced. It determines how easy it is to protect privacy, or how easy it is to censor speech. It determines whether access to information is general or whether information is zoned. It affects who sees what, or what is monitored. In a host of ways that one cannot begin to see unless one begins to understand the nature of this code (2000, p.1).

As the principals of unpleasant design are applied to code, and as code assumes larger role in everyday life due to the diminishing of the borders between the cyber and the physical world and the increased technological dependency, spaces of autonomy are gradually decreasing.

2.2 Algorithmic States of Exception

The state of exception, as discussed by Carl Schmitt and later theorized by Agamben, is not a modern problem. The theoretical exploration of the problem can be traced to the writings of Micaville (Rusciano, 2019, p. 241). What is uniquely modern is the advent of AI power and the notion of regulation by code. Agamben's state of exception can be characterized by three main elements: "it demonstrates the possibility of going outside the normal legal order, it lies between legality and illegality, and many governments use it as an instrument of rule" (Rehamo, 2022, p. 183). As McQuillan (2015) argues, new technological capabilities, such as data mining and machine learning, are leading to shifts in governmentality that can be characterized as algorithmic states of exception where technological decision-making escapes legal constraints such as the right to privacy and due process. In this new apparatus, predictability models are gradually replacing long-established judicial proceedings leading to potentially totalizing effects (p. 1). The advent of predictive lawmaking, predictive policing and predictive justice highlights the problem of the infusion of AI power in legislative, executive, and judicial processes. This infusion raises important questions about the relationship between the notions of power and rights. The pervasive use of AI in an increasingly technologically dependent world has the potential of transforming the state of exception to a new normal. In order to mitigate the risks of new states of exception, it is important to think about the nature of algorithmic states of exception and its main features such as panopticism and centralization.

Panopticism

The panopticon is an example of regulation by design. As a dynamic, it can be implemented in the physical and technologically mediated environment. As Sulistyowati (2023) explains, the concept was introduced by Jeremy Bentham and later discussed by Foucault as a symbolic architecture for social control in modern society; it refers to the layout of a prison whereby a few numbers of guards or arguably no guards at all can monitor and discipline a large number of inmates by creating the illusion that they are exposed at all times and thus self-discipline is imposed by means of design alone (p. 2). The concept is well-researched across the spectrum of social sciences. In the context of AI, the concept offers insight into the potentially totalizing capabilities of the smart technologies. As Baranov (2020) argues:

Thanks to the spread of these technologies, we are moving into a world in which all data about us is collected, stored and tested through artificial intelligence algorithms. Digital technology provides an unprecedented level of control over societies. In socio-political practice, the term “digital totalitarianism” has appeared, which is understood as total digital control with the help of cameras, gadgets, digital applications, artificial intelligence programs for human behavior and actions to further build its rating in society. The most famous practice of digital totalitarianism is the social credit system in China, which was introduced in 2014. Analogues of the social credit system are also used in other countries, for example, in the USA, Germany, Great Britain, and France. The danger of an invasion of the state and society into the private life of a person in the context of digitalization does not decrease, but rather increases (p. 530).

With this understanding, AI has the potentiality of transforming all digitally mediated environment into panoptic spaces.

Centralization

Technological choices are not merely technical variations; they also encompass ethical and political choices to be taken at both ends of the user/configurator continuum. To illustrate this point, one may consider the social implications of different types of energy. As technological choice, nuclear energy by its inherent nature cannot be adopted without the creation of a hierarchal chain of command and militarized protection. From this perspective, adopting nuclear energy enforces a more centralized power dynamic in the society. The use of solar panels, on the other hand, empowers more decentralized power dynamics since the panels, which are largely distributed, do not require militarized protection.

While the idea of decentralized AI has been researched since the 90s (Demazeau & Müller, 1990), AI development remains largely centralized (Montes & Goertzel, 2019). In the context of power, the centralized nature of AI today can lead to unhealthy monopolies where the interests and values of a small group are built into these systems. As Nemitz (2018) argues: “one must differentiate between the theoretical potential of AI for good and the context and purposes for which it is actually developed by those who largely control its development”. (p.2) The development of AI is dominated by mega corporations and governments; given the nature of the technology, the centralized architecture of AI is further exacerbating power imbalances, leading to a dynamic of few powerful configurators setting the strategies and weak subjects resorting to innovative tactics to navigate it.

3. The Strategies and Tactics of Utilizing and Contesting AI Power

In the practice of everyday life (1984), de Certeau explores various mechanisms for exercising and contesting power which offer great insights on the power dynamics of AI.

3.1 Strategies of Power

De Certeau discusses the term strategy as a hidden means by which those who have access to resources use space and infrastructure to exercise their power:

I call a strategy the calculation (or manipulation) of power relationships that becomes possible as soon as a subject with will and power (a business, an army, a city, a scientific institution) can be isolated. It postulates a place that can be delimited as its own and serve as the base from which relations with an exteriority composed of targets or threats (customers or competitors, enemies, the country surrounding the city, objectives and objects of research, etc.) can be managed. As in management, every "strategic" rationalization seeks first of all to distinguish its "own" place, that is, the place of its own power and will, from an "environment." A Cartesian attitude, if you wish: it is an effort to delimit one's own place in a world bewitched by the invisible powers of the Other. It is also the typical attitude of modern science, politics, and military strategy (p. 36).

Strategies are exercised in a defined place of power and will to power. The place of AI power is evermore increasing, whether the use of AI is consensual, such as in the informed interactions with the growing number of AI systems, or non-consensual, such as in the use of AI in the processing of human data and the resulting critical decisions, or in situations where consent is not informed due to the complexities explored in this paper. The place of AI power can be a platform or a zone where it is apparent, or it can be a matrix of socio-technical relationships that is difficult to navigate and resist. In the context of AI power, this matrix manifests itself in the notion of smart space, objects and processes.

3.2 Tactics of Resistance

This paper is not arguing for restricting AI or containing it, which may not be beneficial or even possible. It aims to highlight systemic challenges inherent to the nature of the technology itself and how it is being challenged. First, while AI is discussed in terms of human attributes, this only creates the illusion of agency and conceals the role of the human configurator. Second, AI cannot be separated from the systems of knowledge that both enables it and are reinforced by it. Third, the increasing integration of AI in every aspect of contemporary life creates a reality where contrarianism is not possible through the traditional means, which may lead the subjects of AI decision-making to adopt new tactics to navigate the new reality. This section reflects on AI users/consumers in reference to three of the concepts discussed by de Certeau (1984) in the practice of everyday life: Trickery, subversion and retreat.

Trickery

As de Certeau states, the "weak" use clever tricks to navigate the order established by the "strong". In the context of AI, it can be understood as feeding the system false information to mislead or disrupt its functioning. A number of studies investigate how AI users are inserting misleading

prompts to trick the algorithms; in a study of AI personality profiling systems, the researchers identified 41 different ways users employ to mislead the system and construct false profiles (Völkel et al., 2020). Other creative tactics are also used to trick face recognition systems (Caldwell et al., 2020). The increase in this phenomenon is inspiring debates on the relevance of the legal definition of hacking as manipulating systems can take more passive forms (Calo et al., 2018). Trickery can be employed to achieve all sort of legitimate and illicit goals. Examples include protecting privacy, avoiding tax, and circumventing plagiarism detectors.

Subversion

In this context, subversion refers to actions taken to undermine the power and authority of the system. Technology users engage in an array of techniques to subvert and appropriate devices, platforms and services. A survey of 180 laptop users in Münster, Germany found that 36% of the sample use tape to cover their laptop camera (Machuletz et al., 2018). This tactic effectively undermines the digital trespassers' ability to infringe on the users' privacy. Another example includes using a pseudonym on Facebook and other platform requiring the use of one's legal name, a growing trend as Dey et al. (2012) discussed. In their study, they analyzed 1.4 million NYC Facebook profiles and found that users are becoming substantially more private about their personal data, and users are hiding more info than before.

Retreat

Tendencies to resist technological change cannot be separated from technological development. Historically, the resistance of technology took many forms and justifications. Medieval guilds often opposed new technologies for their perceived economic danger. As Ogilvie explained, "Many guild members thought there was a limited lump of labor to go around. Innovations that squeezed more output from existing inputs would flood markets, depress prices, and put guild masters out of work" (2014, p. 183). In the context of modern digital technology, the opt out movement is a growing trend that aims to encourage people to take back control of their lives from pervasive technology (Brennen, 2019). In relation to AI, the right to request human processing is granted in the European General Data Protection Regulations (General Data Protection Regulation [GDPR], 2016, Art. 22). While the European Union is taking proactive legislative measures to protect privacy, the extent to which this right is protected and the scope of this protection should be a subject of questioning due to the technical and practical complexities involved. This problem is more complicated in other parts of the world where privacy protection regulations do not accommodate pace of technological change.

4. Conclusion

Technological progress is influenced by the way technology is imagined and understood in the society. Thus, it is important to understand that AI is just one of the technologies of the cyber-physical paradigm of technological development. To fully understand the scope of its power, it is necessary to have a comprehensive understanding of the core technologies of the cyber-physical paradigm, which is expected to generate an unprecedented amount of data that was not even conceivable few years ago. Keeping AI power in check requires new legal frameworks that take into consideration new ethical and political challenges, such as the pioneering Chilean neuro-rights law of 2021 which aims to protect the privacy of brain data as the vulnerability to deciphering it is gradually increasing (McCay, 2022). Chile was the first country to modify its constitution to

accommodate for the right to the privacy of thoughts. As the world enters the cyber-physical era, the relationship between the notions of power and rights should be reconsidered as technology continues to assume a more pervasive role in everyday life.

In reflecting on the conceptions of power in the works of Michel Foucault, Michel De Certeau and Georgios Agamben, the article concludes that the Power of AI is both hidden and symbolically sustained though to systems of knowledge. The anthropomorphizing language used to discuss AI does not reflect this reality and should be replaced with more descriptive language that uncovers the hidden role and responsibility of the human configurator who sets the AI strategies which are often contested by subversive tactics. The pervasive use of AI in a technologically dependent society may potentially lead to situations where it is not possible to oppose the imperatives of the configurator or even to algorithmic states of exception where privacy and due process are replaced with predictive models. As a direction for further studies, it would be insightful to apply de Certeau's analogy of the strategies and tactics to specific case studies; for example, to explore how AI power is utilized and contested in the context of the smart city. This is especially useful as the concept of AI-powered smart cities is evermore close to realization.

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