Monopolies and AI Autocracies

The Pursuit of Power in the Age of Artificial Intelligence



An Al Generated Overview of Monopolies and Al Autocracies - - - (WARNING - Hallucinations are possible)

Microsoft Copilot (ChatGPT 4) - 11/11/2024 ... Monopolies and Al Autocracies

(Prompt - Please provide an overview that considers the impact of AI on the balance of power in business and geopolitics - in particular consider how the ongoing development of AI might create monopolies and be misused by autocracies. Please make your response roughly 800-1000 words in length and appropriate for a college audience.)

The Impact of AI on the Balance of Power in Business and Geopolitics

Artificial Intelligence (AI) is rapidly transforming the landscape of business and geopolitics, reshaping power dynamics in unprecedented ways. This overview explores how AI's development might lead to monopolistic practices in business and its potential misuse by autocratic regimes, highlighting the implications for global power structures.

AI and Business Monopolies

Al's integration into business operations has the potential to create significant economic advantages, but it also raises concerns about monopolistic practices. Large technology companies, particularly those in the United States and China, are at the forefront of Al development. These companies possess vast amounts of data, substantial financial resources, and advanced computational capabilities, enabling them to develop and deploy Al technologies at a scale that smaller competitors cannot match.

1. **Data Dominance**: Data is the lifeblood of AI. Companies like Google, Amazon, and Alibaba have access to enormous datasets, which they use to train sophisticated AI models. This data dominance creates a barrier to entry for smaller firms, as they lack the resources to gather and process comparable amounts of data.

- 2. **Economies of Scale**: The development and deployment of AI require significant investment in infrastructure, such as data centers and specialized hardware. Large corporations can leverage economies of scale to reduce costs, further entrenching their market position.
- 3. **Network Effects**: Al technologies often benefit from network effects, where the value of a service increases as more people use it. For example, social media platforms use Al to enhance user experience, attracting more users and generating more data, which in turn improves the Al algorithms.
- 4. **Regulatory Capture**: Dominant firms can influence regulatory frameworks to their advantage, lobbying for policies that protect their interests and stifle competition. This regulatory capture can lead to a less competitive market, where a few firms hold disproportionate power.

Al and Geopolitical Power

The geopolitical implications of AI are profound, as nations vie for technological supremacy. The development and deployment of AI can enhance national power in several ways, but it also poses risks, particularly when used by autocratic regimes.

- 1. **Military Applications**: Al has significant potential in military applications, from autonomous drones to advanced surveillance systems. Nations that lead in Al development can gain a strategic military advantage, potentially destabilizing global power balances.
- 2. **Economic Influence**: Al-driven innovations can boost economic productivity and growth. Countries that excel in Al can enhance their economic influence, attracting investment and talent. This economic power can translate into greater geopolitical leverage.
- 3. **Surveillance and Control**: Autocratic regimes can misuse AI to enhance their control over populations. Advanced surveillance systems powered by AI can monitor and suppress dissent, reinforcing the power of authoritarian governments. For example, China's use of AI in its social credit system exemplifies how technology can be used to enforce conformity and control.
- 4. **Cybersecurity Threats**: All can be weaponized in cyber warfare, with nations using All to launch sophisticated cyber-attacks. These attacks can disrupt critical infrastructure, steal sensitive information, and undermine the security of other nations.

The Risk of AI Monopolies and Autocratic Misuse

The concentration of AI capabilities in a few dominant firms and nations poses significant risks. Monopolistic practices in business can stifle innovation, reduce consumer choice, and lead to economic inequality. In geopolitics, the misuse of AI by autocratic regimes can threaten human rights and global stability.

- 1. **Innovation Stagnation**: When a few firms dominate the AI landscape, they may have less incentive to innovate, leading to stagnation. Smaller firms, which often drive innovation, may be unable to compete, resulting in fewer breakthroughs and slower technological progress.
- 2. **Economic Inequality**: The economic benefits of AI are likely to be unevenly distributed, with dominant firms and nations reaping the most rewards. This concentration of wealth and power can exacerbate economic inequality, both within and between countries.
- 3. **Human Rights Abuses**: Autocratic regimes can use AI to violate human rights, employing surveillance and predictive policing to suppress political opposition and control populations. This misuse of technology can lead to widespread abuses and undermine democratic values.
- 4. **Global Stability**: The strategic advantages conferred by AI can lead to an arms race, with nations investing heavily in AI to avoid falling behind. This competition can increase tensions and the risk of conflict, destabilizing global security.

Mitigating the Risks

To mitigate these risks, it is essential to develop robust regulatory frameworks and international agreements that promote ethical AI development and use.

- 1. **Regulation and Oversight**: Governments should implement regulations that promote competition, protect consumer rights, and ensure transparency in AI development. This includes antitrust measures to prevent monopolistic practices and data protection laws to safeguard privacy.
- 2. **International Cooperation**: Nations should collaborate to establish international norms and agreements on the ethical use of AI. This cooperation can help prevent the misuse of AI in surveillance and warfare, promoting global stability.
- 3. **Ethical AI Development**: Companies and researchers should prioritize ethical considerations in AI development, ensuring that technologies are designed and used in ways that benefit society. This includes addressing biases in AI algorithms and ensuring accountability for AI-driven decisions.
- 4. **Public Awareness and Engagement**: Increasing public awareness of Al's implications can empower citizens to advocate for responsible Al policies. Engaging diverse stakeholders in discussions about Al can help ensure that its benefits are broadly shared and its risks are minimized.

The ongoing development of AI has the potential to reshape the balance of power in business and geopolitics. While AI offers significant benefits, it also poses risks, particularly in terms of monopolistic practices and misuse by autocratic regimes. By implementing robust regulatory frameworks, fostering international cooperation, and prioritizing ethical AI development, we can harness the power of AI for the greater good, ensuring that its benefits are widely distributed and its risks are effectively managed.

Human Views on Monopolies and AI Autocracies - - - (WARNING - Humans are fallible)

Shorter Podcasts and Videos

AI with Chinese Characteristics: Will China's Authoritarian Model Triumph in the Technological ...

A Beginner's Guide to AI (16:00)

(October 28, 2023) [Podcast]

 $\frac{\text{https://podcasts.apple.com/us/podcast/ai-with-chinese-characteristics-will-chinas/id1701165010?i=100}{0632941398}$

How US Antitrust Investigations Into Nvidia, OpenAI and MSFT Could Make Things Worse Not Better

The AI Daily Brief - Nathaniel Whittemore (8:10)

(June 7, 2024) [Video]

https://www.voutube.com/watch?v=CqSR6pEs5Mk

Longer Podcasts and Videos

Antitrust/Pro-Internet

How to Fix the Internet - Cindy Cohn, Jason Kelley, Jason, and Tim Wu (38:37) (April 9, 2024) [Podcast]

https://www.eff.org/deeplinks/2024/04/podcast-episode-antitrustpro-internet

DOJ's Jonathan Kanter says the antitrust fight against Big Tech is just beginning

Decoder - Nilay Patel, and Jonathan Kanter (34:29)

(February 12, 2024) [Podcast]

 $\frac{https://podcasts.apple.com/us/podcast/dojs-jonathan-kanter-says-the-antitrust-fight-against/id1011668}{648?i=1000645019215}$

Emilia Javorsky on how AI Concentrates Power

Future of Life Institute Podcast - Gus Docker and Emilia Javorsky (1:03:35) (July 16, 2024) [Podcast].

https://futureoflife.org/podcast/emilia-javorsky-on-how-ai-concentrates-power/

The future of AI is human-centered, with Kanjun Qiu

Pioneers of AI - Rana el Kaliouby & Kanjun Qiu (38:00) (February 5, 2025) [Podcast]

https://podcasts.apple.com/us/podcast/the-future-of-ai-is-human-centered-with-kanjun-qiu/id1763085 968?i=1000689254797

Implications of AI on the Global Balance of Power

The Cognitive Revolution - Nathan Labenz, Andrew Ng, Alex Wang, Jack Clark, Cory Booker (31:04) (June 4, 2024). [Video/Podcast]

https://www.cognitiverevolution.ai/implications-of-ai-on-the-global-balance-of-power-w-alex-wang-andrew-ng-jack-clark-cory-booker/

Open Source Beats Authoritarianism

How to Fix the Internet - Cindy Cohn, Jason Kelley, and Audrey Tang (0:39:22) (February 27, 2024). [Podcast]

https://www.eff.org/deeplinks/2024/02/podcast-episode-open-source-beats-authoritarianism

Regulatory Capture? Meta Al Chief Accuses OpenAl, Anthropic of Stoking Fears

The AI Daily Brief - Nathaniel Whittemore (15:24) (November 3, 2023) [Video] https://www.youtube.com/watch?v=5e1J-58nxml

Will AI Increase Freedom or Help Authoritarians?

The AI Daily Brief - Nathaniel Whittemore (22:41) (July 4, 2023) [Video]

https://www.youtube.com/watch?v=5clOHBo8HP8&t=38s

Newspaper and Magazine Articles

[UNI only] Barr, William. (2024, May 28). Big tech's budding AI monopoly. Wall Street Journal. https://login.proxy.lib.uni.edu/login?url=https://www.proquest.com/newspapers/big-techs-budding-ai-monopoly/docview/3060675780/se-2?accountid=14691

[UNI only] Edsall, Thomas. (2024, June 5). Will A.I. be a creator or a destroyer of worlds? New York

 $\frac{\text{https://www.nytimes.com/2024/06/05/opinion/will-ai-be-a-creator-or-a-destroyer-of-worlds.html?searc}{\text{hResultPosition} = 5}$

[UNI only] McCabe, David. (2024, June 5). U.S. clears way for antitrust inquiries of Nvidia, Microsoft and OpenAI. New York Times.

https://www.nytimes.com/2024/06/05/technology/nyidia-microsoft-openai-antitrust-doi-ftc.html

Articles from Scholarly Journals and Preprint Archives

[UNI only] Feldstein, S. (2019). The road to digital unfreedom: How artificial intelligence is reshaping repression. *Journal of Democracy*, 30(1), 40-52.

https://cvlc-uni.primo.exlibrisgroup.com/permalink/01NRTHIOW_NRTHIOW/1btvbkf/cdi_proquest_journals_2177203569

Abstract: Around the world, artificial-intelligence (AI) systems are showing their potential for abetting repressive regimes and upending the relationship between citizen and state, thereby accelerating a global resurgence of authoritarianism. China is driving the proliferation of AI technology to authoritarian and illiberal regimes, an approach that has become a key component of Chinese geopolitical strategy. The significance of this technology for authoritarians around the globe, as well as for their democratic opponents, is growing ever clearer. To counter not only the spread of high-tech repression abroad, but also potential abuses at home, policy makers in democratic states must think seriously about how to mitigate harm and to shape better practices.

Hua, S. S., & Belfield, H. (2020). AI & antitrust: Reconciling tensions between competition law and cooperative AI development. Yale Journal of Law & Technology 23(Sring), 415. https://violt.org/sites/default/files/23_vale_j.l._tech._415_ai_antitrust_nov_0.pdf

Abstract: Cooperation between companies developing artificial intelligence (AI) can help them create AI systems that are safe, secure, and with broadly shared benefits. Researchers have proposed a range of cooperation strategies, ranging from redistributing "windfall" profits to assistance to address the harmful dynamics of a competitive race for technological superiority. A critical tension arises, however, between cooperation and the goal of competition law, which is to protect the very process of competition between rival companies. Whilst these potential conflicts are significant, they are currently underexplored in the literature. This paper examines the relationship between proposed forms of AI cooperation and competition law, focusing on the competition law of the European Union (EU).

[UNI only] Kendall-Taylor, A., Frantz, E., & Wright, J. (2020). The digital dictators: How technology strengthens autocracy. Foreign Affairs 99(2), 103-115.

https://cvlc-uni.primo.exlibrisgroup.com/permalink/01NRTHIOW_NRTHIOW/1btvbkf/cdi_gale_b usinessinsightsgauss_A614537660

Abstract: new technologies now afford rulers fresh methods for preserving power that in many ways rival, if not improve on, the Stasi's tactics. Surveillance powered by artificial intelligence (ai), for example, allows despots to automate the monitoring and tracking of their opposition in ways that are far less intrusive than traditional surveillance. Not only do these digital tools enable authoritarian regimes to cast a wider net than with human-dependent methods; they can do so using far fewer resources: no one has to pay a software program to monitor people's text messages, read their social media posts, or track their movements. And once citizens learn to assume that all those things are happening, they alter their behavior without the regime having to resort to physical repression

McIntosh, D. (2018). We need to talk about data: How digital monopolies arise and why they have power and influence. *Journal of Technology Law & Policy, 23,* 185. https://scholarship.law.ufl.edu/jtlp/vol23/iss2/2

Abstract: Over the last 10 years, while we have seen the emergence of digital technologies able to improve human welfare, we have also seen the unparalleled concentration of that technology into the hands of a few global behemoths such as Microsoft, Google, Amazon, Facebook, and Apple (Big Tech). However, we would be wise to tame this runaway concentration of power in Big Tech; the recent revelations about the role that Facebook data played in the United States presidential election provides a stark illustration as to why.

This Article will analyze how and why the monopolization of digital technology occurred. In particular, this Article examines the role of intangible property, such as data and intellectual property, as well as the phenomenon known as the "network effect." Intellectual property has been suspected of driving the monopolization of digital platforms. However, intellectual property is normally an afterthought and does little to prevent competition with the core business of Big Tech companies. Rather, what allows these companies to monopolize their business is the network effect acting on data in a positive feedback loop.

Dealing with the problems of a network affected market has always been difficult. In the past, competition regulations were the go-to tools. However, such regulations have so far proven largely ineffective because data does not fit squarely into traditional economic models. The other traditional alternative was consumer law. Even though we will soon see the implementation of stricter data protection laws with the introduction of the GDPR in Europe, its primary focus is on individual privacy, not monopolized power.

This Article will argue that the reason for the ineffectiveness of laws to deal with some of the harmful effects of Big Tech monopolies is that there is something about monopolies on data that is inherently different from other more benign goods or services. Data is information. It is this distinctive characteristic of data that has implicated Big Tech monopolization across such a broad range of fields, including personal privacy, democracy, security, innovation stifling, hacking, political influence, and media. So, while re-imagined competition and consumer regulations may work to prevent inflated prices and Draconian privacy policies, they will not address the more pressing problems of Big Tech monopolies on data.

Mulligan, C. E., & Godsiff, P. (2023). **Datalism and data monopolies in the era of AI: A research agenda**. *arXiv* preprint arXiv:2307.08049. https://arxiv.org/abs/2307.08049

Abstract: The increasing use of data in various parts of the economic and social systems is creating a new form of monopoly: data monopolies. We illustrate that the companies using these strategies, Datalists, are challenging the existing definitions used within Monopoly Capital Theory (MCT). Datalists are pursuing a different type of monopoly control than traditional multinational corporations. They are pursuing monopolistic control over data to feed their productive processes, increasingly controlled by algorithms and Artificial Intelligence (AI). These productive processes use information about humans and the creative outputs of humans as the inputs but do not classify those humans as employees, so they are not paid or credited for their labour. This paper provides an overview of this evolution and its impact on monopoly theory. It concludes with an outline for a research agenda for economics in this space.

Norteman, C. (2024). Repression or progression: The impact of AI surveillance on political crackdowns. London School of Economics Undergraduate Political Review, 7(1), 75-83. https://upr.lse.ac.uk/articles/120/files/66eec8621419c.pdf

Abstract: Political repression has significant consequences for citizens and countries globally. Existing research focuses on various causes of repression, yet fails to fully consider AI surveillance as a contributing factor. I generate hypotheses pertaining to AI surveillance's ability to increase or decrease government repression, according to the extent to which it is implemented. My data, drawn from news and Amnesty International reports, reveals that in general, AI surveillance is not a statistically significant cause of political repression in the Middle East and North Africa. Other variables like population, the cumulative intensity of conflicts, and regime type could be more important in determining instances of repression. Yet further analysis also suggests AI surveillance applied to private devices and social media contributes to higher levels of repression. As a whole, the form of repression that AI surveillance most strongly affects is the number of politically motivated charges that a government levies against citizens. My results contribute to the conversation of AI's role in the modern world, how the global community can better address political repression, and the intersection of how AI surveillance can influence government crackdowns.

Rikap, C. (2023). Capitalism as usual? Implications of digital intellectual monopolies. *New Left Review,* 139, 145-160.

https://discovery.ucl.ac.uk/id/eprint/10185469/1/Cecilia%20Rikap%2C%20Capitalism%20as%20Usual%20%2C%20NLR%20139%2C%20January%20February%202023.pdf

Abstract: What kind of regime of accumulation is taking shape today? The distinguishing features of the contemporary Atlantic economy—prolonged stagnation, globalized production, financialization, upward redistribution, the ongoing digital revolution—have provoked a range of responses. In Technoféodalisme, Cédric Durand argued that a qualitative mutation is occurring at capitalism's digital frontier, whereby profits are accrued by predatory means—politically enabled rents and monopolies—in a manner analogous to feudal relations of expropriation, rather than the economic compulsion to 'accumulate via innovation' that drives capitalist exploitation. Evgeny Morozov has responded with a wide-ranging critique of attempts on right and left to understand contemporary developments, both in the digital sector and beyond, by reference to the feudal era. 'Capitalism', he insists, 'is moving in the same direction it always has been, leveraging whatever resources it can mobilize—the cheaper, the better.' It has always depended to some extent upon extra-economic means of accumulation, so there is no need to reach for novel—or not so novel—concepts to understand its contemporary dynamics. Are we witnessing a shift to non-capitalist forms—a new mode of production? Or is this, as Morozov would have it, just the latest round of capitalism as usual?

Rikap, C. (2023). The expansionary strategies of intellectual monopolies: Google and the digitalization of healthcare. *Economy and Society, 52*(1), 110-136.

Abstract: As big tech companies are entering new industrial sectors, an open question concerns the drivers of their expansionary strategies. This paper proposes that these companies are currently entering sectors based on their data-driven intellectual monopoly power, thereby complementing the preliminary answer provided by political economy research which has argued that expansion is driven by their infrastructural power. This approach is developed through a historical analysis of tech giants as companies that systematically turn knowledge and data into intangible assets, showing their expansionary strategies in the healthcare sector to be mainly driven by insights obtained from those intangible assets (a monopolized intangibles driver) and by a quest for conquering new knowledge and data to perpetuate their intellectual monopolies (an intangibles prospecting driver). The paper further illustrates its arguments through a case study of Google's expansionary strategy and its prioritized incursion into healthcare.

[UNI only] Yang, E., & Roberts, M. E. (2023). The authoritarian data problem. *Journal of Democracy*, 34(4), 141-150.

https://cvlc-uni.primo.exlibrisgroup.com/permalink/01NRTHIOW_NRTHIOW/1btvbkf/cdi_proquest_journals_2884501763

Abstract: As the race to develop artificial intelligence (AI) accelerates, access to more and higher quality data is becoming increasingly crucial for AI systems. Yet the search for more data for AI facilitates information flow between authoritarian and democratic states in a way that has important implications for the behavior and output of AI. In particular, the homogenization of data, through institutions such as censorship and propaganda in authoritarian regimes can influence the output of AI developed in democracies. On the other hand, data from democracies provide valuable information for AI that is used for repressive purposes in authoritarian regimes. The authors call for greater scholarly and policy attention on the dual effect of the two-way AI-mediated data flow between democratic and authoritarian states and lay out a research agenda that would enable us to better understand the political influences on AI.

Policy Papers

Huddleston, Jennifer. (2024, July 12). **No, the AI industry Is not monopolized**. *CATO Institute*. https://www.cato.org/commentary/no-ai-industry-not-monopolized

Abstract: Federal Trade Commission chair Lina Khan, Assistant Attorney General for Antitrust Jonathan Kanter, and former Trump administration attorney general Bill Barr have all made comments alleging the need for government intervention in the AI market to prevent another "Big Tech monopoly." Not only do such arguments misunderstand the current state of the tech sector, but they risk the government intervening in a complicated and incredibly dynamic market.

The reality of the AI ecosystem is perhaps more competitive and disruptive than these regulators realize, and government intervention via antitrust action could both prevent consumers from having access to beneficial innovations and further harm the small players it aims to protect.

Larsen, Benjamin Cedric. (2022, December 8). **The geopolitics of AI and the rise of digital sovereignty**. *Brookings Institution*.

https://www.brookings.edu/articles/the-geopolitics-of-ai-and-the-rise-of-digital-sovereignty/

Abstract: On September 29, 2021, the United States and the European Union's (EU) new Trade and Technology Council (TTC) held their first summit. It took place in the old industrial city of Pittsburgh, Pennsylvania, under the leadership of the European Commission's Vice-President, Margrethe Vestager, and U.S. Secretary of State Antony Blinken. Following the meeting, the U.S. and the EU declared their opposition to artificial intelligence (AI) that does not respect human rights and referenced rights-infringing systems, such as social scoring systems. During the meeting, the TTC clarified that "The United States and European Union have significant concerns that authoritarian governments are piloting social scoring systems with an aim to implement social control at scale. These systems pose threats to fundamental freedoms and the rule of law, including through silencing speech, punishing peaceful assembly and other expressive activities, and reinforcing arbitrary or unlawful surveillance systems."

Schmid, J., Sytsma, T., & Shenk, A. (2024, September 12). **Evaluating natural monopoly conditions in the Al foundation model market**. *RAND*.

https://www.rand.org/pubs/research_reports/RRA3415-1.html

Abstract: Because of the wide variety of tasks they can be used to perform, foundation models — a class of artificial intelligence (AI) models trained on large and diverse datasets and capable of performing many tasks — have the potential to have a large effect in shaping the economic and social effects of AI. The authors of this report examined the economic and production

attributes of pre-trained foundation models to answer the following questions: Does the market for foundation models have the characteristics of a natural monopoly, and, if so, is regulation of that market needed?

Vipra, Jai, & Korinek, Anton. (2023, September 7). Market concentration implications of foundation models: The invisible hand of ChatGPT. Brookings Institution.

https://www.brookings.edu/articles/market-concentration-implications-of-foundation-models-th-e-invisible-hand-of-chatgpt/

Abstract: Foundation models are large artificial intelligence (AI) models that can be adapted for use in a wide range of downstream applications. As foundation models grow increasingly capable, they become useful for applications across a wide range of economic functions and industries. Ultimately, the potential market for foundation models may encompass the entire economy. This implies that the stakes for competition policy are tremendous.

We find that the market for cutting-edge foundation models exhibits a strong tendency towards market concentration: The fixed costs of training a foundation model are high, and the marginal cost of deploying them are very low. This means that there are large economies of scale in operating foundation models—the average cost of producing one unit of output declines the greater the scale of deployment. There are also some economies of scope—it is cheaper for one AI company to produce multiple foundation models for different uses than for multiple AI companies to cater to these uses separately. First-mover advantages in the market for foundation models are high, although they require large ongoing investments in product deployment, marketing, and distribution. Other barriers to entry, such as limited resources like talent, data, computational power, and intellectual property protections also create forces that point towards natural monopoly.