Critiquing Technology: An Ideological Myth Masking Social Power Relations

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Introduction

"Technological development is objective and neutral" - in contemporary global discussions regarding innovation and development, this assertion is often treated as a self-evident truth. However, I argue that technological neutrality is an ideological myth. This insight does not arise from a vacuum; it stems from an extension of the debate between "growth" and "development" in development sociology and is rooted in the theoretical lineage of Marxist critique of ideology.

In recent years, as artificial intelligence (AI) has moved to the forefront of development, one can observe that after Western nations completed their primitive accumulation of data and computing power, they began to vigorously promote strict data privacy and algorithmic transparency standards. They have shaped a universal "civilizational yardstick" and utilized it to critique the technological development paths of developing countries such as China and India. A fundamental question thus emerges: Who constructs this system of judging what is "advanced" versus "backward," or "democratic" versus "authoritarian" in technology, and whom does it serve? Beneath the banner of objectivity and neutrality, are there hidden, deep-seated objectives to maintain specific interests and the global power structure?

The criticality of this insight lies in its piercing of the illusion of technology as an "objective tool," revealing the social power structures ignored by mainstream discourse. This disclosure holds significance from personal, social, and global perspectives. It allows us to recognize that beyond the reactive logic of adapting to technological change and constantly learning new skills, we must interrogate "who sets the rules" and "who benefits from them."

Therefore, I aim to connect this insight with foundational theoretical literature. Within the Marxist theoretical framework, I will center my critique on the myth of "technological neutrality" to cultivate a profound understanding of development and inequality. Specifically, I will revisit foundational theories from three dimensions: first, the theoretical origins of ideology critique; second, the evolution of critical theory of technology; and third, power discourse and the challenge of the Global South. Finally, focusing on information technology, I will engage in a dialogue with a frontier academic paper to explore the contemporary practice of technology critique and propose the practical

significance of my thesis.

Theoretical Origins of Ideology Critique

In *The German Ideology*, Karl Marx and Friedrich Engels use concepts such as the production of ideas, conceptions, and consciousness, as well as the mental intercourse of men, to explain ideology. They note:

> *"The production of ideas, of conceptions, of consciousness, is at first directly interwoven with the material activity and the material intercourse of men, the language of real life... Men are the producers of their conceptions, ideas, etc. - real, active men, as they are conditioned by a definite development of their productive forces and of the intercourse corresponding to these, up to its furthest forms." (Marx & Engels, 1961, p. 19)*

Simultaneously, they point out that ideology invertedly views specific systems of ideas as independent and dominant forces. The ideas of the ruling class are in every epoch the ruling ideas, and their thinkers are responsible for weaving systems of ideas that take on a universal form (Marx & Engels, 1961). Their perspective not only reveals the dialectical relationship between material production and ideology — that is, ideology is rooted in material production relations — but also trenchantly points out the brutal reality that the ruling class controls material hegemony and thereby intellectual hegemony, closing the loop of the critical logic of production relations, class rule, and ideological construction. Marx's critique of ideology provides a sharp sword for analyzing and critiquing technological myths, teaching us that true technological liberation is inseparable from revolutionary changes in social relations.

Therefore, we must delve into social, realistic, and global production relations and class rule to shatter the halo of "neutrality," "progress," and "civilization" surrounding technological discourse. Scholars who follow Marxism to conduct analyses of ideology and development sociology have done precisely this. Based on their social environments and geographic locations, they have supplemented Marxism with contemporary practical developments. However, it must be noted that Western

Marxism, immersed in capitalist society, has increasingly deviated from socialist practice and communist ideals; meanwhile, China, the former Soviet Union, and other Third World countries have had their own distinct development paths, generating different theoretical viewpoints. I hope to seek common ground while reserving differences among these numerous theories and conduct an analysis based on my own socialist stance.

The Evolution of Technology Critique Theory

From a historical perspective, the critique of technology inevitably evolves in entanglement with technological and social development. Therefore, we must follow the dynamic iteration of the times and social issues to analyze the evolution of the theory. In the past, theories regarding technology primarily manifested as instrumental theories—an ecological view based on a biocentric perspective that defining the human essence is the ability to make tools (Mumford, 1967). However, within the modern history of technology since the 16th century, we can discover a clearer perspective of technology critique.

Worker vs. Capital: The Source of Technology Critique

In the early 19th century, after the First Industrial Revolution radically transformed the world, technology was no longer an abstract symbol of progress but a direct threat to survival. Workers at the time discovered that while the newly introduced automatic looms increased production, they drastically reduced wages and destroyed traditional craft community structures (Fox, 2002). Consequently, workers initiated the "Luddite movement." They did not oppose new technology per se, but rather the social changes imposed upon them from the top down by technology advocates, rising up against oppression and exploitation (Bodner, 2012).

In *Capital: Critique of Political Economy, Volume 1*, Marx expanded the critique of exploitation as the essence of capitalism through the theory of surplus value. He proposed that technology simplified workers' skills, reducing them to appendages of machines, leading to spiritual emptiness and alienation. In this developmental process, capitalists grew increasingly wealthy and powerful, while the working class experienced "immiseration" (Marx, 2024). Marxism laid the cornerstone for technology critique, analyzing technology not in isolation but with restraint within the theoretical

framework of the ownership of the means of production.

Max Weber, distinct from Marx's "single economic perspective" under the class view, emphasized the importance of subjective factors in social research, arguing that they drive social change alongside economics. Weber believed that the rational order of capitalism had become an "Iron Cage" maintained by bureaucracy, with market competition as its core driving force (Douglass, 2018). Although we can easily identify limitations in his explanatory power—whether regarding his understanding of ideology restricted to the Eurocentric "Protestant Ethic" or his market-centrism, which fails to address the paradox that highly centralized organizations do not necessarily improve efficiency—he provided a platform for later researchers to extend the boundaries of knowledge within critique.

Technological Rationality Critique: The Frankfurt School

As research deepened, scholars began to examine technology within a broader socio-cultural context. In the 1920s, following the end of World War I, the Institute for Social Research at the University of Frankfurt was established. In an era where information technology began to develop and cultural products were industrialized, the Frankfurt School was born. It synthesized Marxist critiques of capitalism, Hegelian dialectics, and thoughts from various other pioneers, establishing a social philosophy tradition of "negation" and "critique" focused on human material and spiritual culture (Bottomore, 1992). They provided crucial perspectives on technology critique.

Max Horkheimer and Theodor W. Adorno, in *Dialectic of Enlightenment*, argued that the Enlightenment, intended to bring liberation to humanity, ultimately led people to sink into a new kind of "barbarism." When science is detached from practical life, and formalization and the culture industry manipulate technology, rationality "reverts to mythology" (Horkheimer & Adorno, 2020).

Herbert Marcuse and Jürgen Habermas also explored these themes based on Weber's "rationalization." While their early attitudes toward technology critique were generally consistent, their specific viewpoints and intensity of critique differed. In *One-Dimensional Man*, Marcuse (2002) proposed a core argument: advanced industrial society suppresses critical and negative thinking within society through a new, more effective form of totalitarianism, creating a "one-dimensional society."

Habermas (1991), in *Technology and Science as "Ideology"*, inherited and modified Marcuse's views, proposing that science and technology function not only as productive forces but also assume the ideological function of legitimizing political power.

Compared to his colleagues who focused more on critiquing the nature of social movements and inherited Weber's concept of "rationality," Walter Benjamin analyzed culture from a Marxist perspective in his major mature works (Eagleton, 1981). In *The Work of Art in the Age of Mechanical Reproduction*, he elucidated that "art" as a product cannot be separated from its technological and social class environment. This essay is critical to the development of technology theory and to understanding his adherence to the Marxist view that thought and culture have no independent history (Bottomore, 1992).

Thus, while the Frankfurt School enriched critical theory of technology, there was internal controversy regarding the thought and practice of liberation struggles. While employing critical theory, they also attempted to explain why the revolution envisioned by Marx did not occur in the West (Bottomore, 1992). Dialectically speaking, their works on technology are an important component of technology critique theory within the Marxist lineage, although we cannot currently accept many of their views without critique — such as the degrowth and anti-progress stances bred from their developed welfare state environments. This is because their framework of technology critique is flawed by its detachment from concrete proletarian revolutionary practice. I must seriously question and reserve my opinion on their successors, post-Marxists, especially scholars like Feenberg who, premised on the "end of history," shift technology critique toward technological democratization, thereby attempting to dissolve class consciousness into citizenship.

China's Reform and Opening Up: After Development, What?

So, where does the most powerful rebuttal to post-Marxist views take root? The answer is obvious. As China raced along the path of Reform and Opening Up after the 1970s, the possibility of a concrete socialist philosophy of technology attracted the attention of North American critical communication scholars. In 1971-1972 and 1979, Dallas Smythe visited China twice to study ideology, technology, and China's development path (Zhao, 2007). Smythe observed that the Chinese

viewed technology and science stubbornly and evasively, considering them autonomous and depoliticized. In his view, consumer goods were a trap set by capitalism for this socialist system, warranting vigilance from the Chinese proletariat. If Chinese manufacturing were to mass-produce capitalist luxury goods, it would imply that these many ideological tools would guide Chinese society onto a capitalist cultural path (Smythe, 1994). Smythe's warning transcended technological determinism and McLuhan's media views, pointing out the political nature of technology.

Furthermore, an Autonomous Marxist perspective began to form. Langdon Winner's (1978) theory of technological politics broke the technological realism theory that technology possesses natural forces, proposing that people are the driving force determining world history. Michèle Martin (1991) analyzed the social struggles of information technology development and use from gender and cultural perspectives. Dan Schiller (2007) proposed "information fetishism," responding to Benjamin's analysis of mechanical reproduction and extending it to a perspective of reproduction where technology serves capital accumulation.

However, North American critical scholars like Smythe held detached and somewhat fantastical deviations in their understanding of China's political environment. In the early 21st century, as information technology developed rapidly—or as the contours of the Fourth Industrial Revolution were clearly outlined—Smythe's student, Zhao Yuezhi (2007), pointed out that his research wrongly ignored realities inside and outside China, such as the urgent "rice bowl" (subsistence) problem before rural reform in the early Reform era, the differences between the "mass line" and Western democratic processes, and China's necessity to concentrate on military development during the Cold War. Accordingly, she proposed that under specific conditions, collective needs and individual needs cannot be sharply separated. When information technology serves as critical infrastructure, an important commodity for export-oriented growth, and wields significant influence in modern warfare, Smythe's question should be accurately revised to: "What comes after the mobile phone?"

The answer to this question is still unfolding. The development and use of information technology over the past 50 years have enabled China to achieve remarkable economic progress. However, in this country of the dictatorship of the proletariat, whether technology can effectively counter the development traps laid by Western capitalism and accurately reflect the fundamental

interests of the vast majority of the people awaits the practice and verification of the new era. We emphasize that social practice and class critique from a proletarian stance make China an important practical site fitting the Marxist technology critique framework. What comes after the mobile phone, after 5G, and after AI in China's development has become a major topic relevant to the whole world.

Power Discourse and the Global South Challenge

Beyond the historical perspective spiraling through social development, the ideological critique of technology should also be unfolded from a horizontal global perspective. Neocolonialism is closely linked to the emergence, development, and global expansion of Western European capitalism (Bottomore, 1992). Within this colonial context, technology has never been a pure tool; rather, it is embedded in the power relations of colonial history and capitalist global expansion.

Following Marx and Engels, figures like Luxembourg and Lenin systematically studied the world structure under imperialism, generating profound historical influence. In the 1970s, Immanuel Wallerstein (2001), absorbing Marxist intellectual resources and combining them with the "Core-Periphery" dependency theory emerging in the Global South during the 1950s and 60s, founded World-Systems Theory to protest and oppose the Modernization Theory produced in the West during the same period as dependency theory. Although he analyzed fluctuations in supply and demand in economic cycles (Wallerstein, 2011), he overlooked the role of science and technology. Nevertheless, this global system provides a structural perspective for understanding technological discursive hegemony: technological discourse is not an isolated cultural phenomenon but a crucial means for core nations to maintain their dominant position in the global division of labor.

Edward Said's (2014) analysis of Orientalism proposed a constructive system of discursive hegemony, where knowledge and power conspire through "othering" and epistemic violence. In the technological realm, the West places the future above tradition and the past, describing their imagined technological development path as universal and advanced, while stigmatizing the technological choices of Southern nations as backward or authoritarian—this is a manifestation of Orientalism in technological discourse.

Arjun Appadurai (1990) challenged the then-popular notion of globalization as convergence,

arguing that "technoscapes" are not neutral tools but political and economic acts of global capital. They can empower, but they can also reproduce the power structures of colonialism and capitalism through technological dependence and unequal distribution. Boaventura de Sousa Santos (2024), from the perspective of "Epistemologies of the South," points out that Artificial Intelligence (AI) technology reinforces the three main pillars of modern domination: capitalism, colonialism, and patriarchy. He also candidly suggests that in the context of highly concentrated and monopolized AI infrastructure, envisioned alternatives of "counter-hegemonic use" and "exit and liberation" face enormous challenges in implementation.

Thus, we have further explored the development of technology critique under the perspective of global discursive hegemony. Global South studies have further expanded the boundaries of technology critique, combining it with knowledge production, positionality, and global diversity perspectives. As Santos stated, this covert mechanism of power reproduction is particularly evident and concrete in the development of contemporary artificial intelligence.

Dialogue with Frontier Paper: AIdeology

AIdeology: Unpacking the Ideology of Artificial Intelligence and Its Spaces is an article published in the journal Antipode by Federico Cugurullo in 2025. Rooted in the widespread penetration of AI technology in cities and their governance, this study focuses on the legitimacy issues triggered by its spatialization trends. Drawing on interdisciplinary knowledge fusing Marxist philosophy and human geography, the author constructs a framework for ideology critique. The author argues that AI is not merely a technology but an ideology shaping the cultural-political landscape. It possesses a dual spatial attribute: it is (re)produced and diffused within urban space, and it further solidifies social influence through spatial practices.

At the level of Marxist ideology critique, the article proposes that the core of AIdeology consists of three major ideas: AI as a theory leading to sustainability, a tool fitting post-human imagination, and an imagination abolishing labor and capital. These three ideas possess strong spatial attributes and, together with the fourth idea of AI as an autonomous entity, support the operation of AIdeology. The article also points out that the diffusion of AI relies on the production of space, where space itself

becomes the materialization of power. Algorithms transform the city into quantified space, thereby reinforcing the "geographization" of inequality (Cugurullo, 2025). Quantified space is no longer an abstract rule but becomes measurable geographical boundaries. This analysis sharply points out the technological entity view of AIdeology while critiquing it with ease: claiming the autonomy of technology is, in reality, power holders hiding behind this spatial "yardstick."

This article unfolds technology critique from the specific entry point of human geography, suggesting that in the AI era, the operation of ideology can be realized through reshaping physical space in addition to controlling the means of production. This provides a "spatial dimension" supplement to my insight. In fact, this aligns with Henri Lefebvre's theory of the production of space and can be viewed as a development and adaptation of Marxism. Furthermore, while I emphasized the need to ask "who sets the rules" and "who benefits," Cugurullo's research provides micro-level empirical evidence and operational mechanisms for these grand inquiries. This frontier research tells us that technology critique must focus not only on the international order of culture and development but also on how the urban spaces we inhabit are influenced by technology.

Conclusion

This paper has revisited critical theories of technology within the Marxist theoretical lineage, revealing that the ideological myth of "technological neutrality" conceals complex social, class, and international power relations. It calls for deeper social and political reflection on technological development. Thinking about "technological neutrality as an ideological myth" has changed the way I view technological development, moving technology from "below the iceberg" of social analysis to the "arena of struggle." This is both a contemporary deepening of Marxism, inspiring my further study of political economy, and an indispensable survival wisdom for understanding a world deeply influenced by technology. It reminds us that before asking and evaluating development issues, we must first consider how to evaluate and who evaluates, thereby reclaiming the right to define our shared ideal future.

Starting from Marxist roots and primarily following a research stance utilizing China and the Global South as method, this paper has conducted a relatively detailed analysis of one lineage of

technology critique theory and engaged in dialogue with a frontier paper. In this process, some theorists related to technology critique, such as Michel Foucault and Neil Postman, were not reviewed, while the views of some Western Marxists were questioned by me. This reflects my own theoretical stance and choices, though it does not imply their critical theories of technology are without merit. I believe that different theories are rooted in different histories, societies, and eras. However, for Socialism with Chinese Characteristics in the new era, the path of technology critique should be as follows: revisit Marx, transcend technological neutrality and technological determinism, understand Smythe's deviations, and develop a technology of the people.

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Appendix

I acknowledge the use of Gemini-3-Pro-Preview(https://generativelanguage.googleapis.com) and DeepSeek-V3.2(https://api.deepseek.com) to guide literature search and summarize text.

批判技术：一个掩盖社会权力关系的意识形态神话

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引言

“技术的发展是客观中立的”——这一论断在近当代关于创新与发展的全球讨论中，几乎被视为不证自明的真理。然而，我却认为技术中立是一个意识形态神话。这一启示并非凭空而来，它源自于对发展社会学中“增长”与“发展”之辩的延展，生根于马克思主义意识形态批判的理论脉络。

近年来随着人工智能技术成为发展的风口，我们可以注意到西方国家在完成了数据与算力的原始积累后，便开始大力推行严格的数据隐私与算法透明标准，塑造普世的“文明标尺”，并以此指责中国、印度等发展中国家的技术发展路径。一个根本性的问题便浮现出来：这套评判发展“先进”与“落后”、技术“民主”与“威权”的体系，究竟由谁构建、为谁服务？其宣扬客观中立的旗帜之下，是否正隐藏着维护特定利益诉求与全球权力格局的深层目的？

这一启示之所以关键，正在于它刺破了技术作为“客观工具”的幻象，揭示了被主流话语所忽视的社会权力结构，并且这一披露在个人、社会乃至全球化的视角下都是有意义的。它让我们能够认识到，在遵循着适应技术变革、不断学习新技能的应对逻辑之外，还需要追问“谁在制定规则”、“谁会因此受益”。

因此，我希望将这一启示与基础的理论文献联系起来，在马克思主义的理论脉络下，围绕对“技术中立”神话的批判，滋养起我们对发展与不平等的深刻认知。具体而言，我将从三个方面重访基础理论：一，意识形态批判的理论溯源；二，技术批判理论的演进；三，权力话语与全球南方挑战。最后，我将聚焦到信息技术层面，与一篇前沿论文进行对话，探索技术批判的当代实践，提出我之启示的现实意义。

意识形态批判的理论溯源

马克思(Karl Marx)与恩格斯(Friedrich Engels)在《德意志意识形态》(*German Ideology*)中使用思想、观念、意识的生产、人们的精神交往等概念解释意识形态。他们提到：

> 思想、观念、意识的生产最初是直接与人们的物质活动，与人们的物质交往，与现实生活的语言交织在一起的……人们是自己的观念、思想等等的生产者，但这里所说的人们是现

实的，从事活动的人们，他们受着自己的生产力的一定发展以及与这种发展相适应的交往(直到它的最遥远的形式)的制约。(Marx & Engels, 1961, p. 19)

同时，他们还指出意识形态将某种特定的观念体系颠倒性地视为独立和主导的力量，而统治阶级的思想始终占领统治地位，其思想家负责编织具有普遍性形式的观念体系(Marx & Engels, 1961)。他们观点不仅揭示了物质生产与意识形态的辩证关系，也即意识形态是根源于物质生产关系中的，又辛辣地指出统治阶级掌握物质霸权进而掌握思想霸权的残酷现实，闭环了生产关系、阶级统治和意识形态建构的批判逻辑。马克思的意识形态批判为我们分析与批判技术神话提供了一把锐利的剑，告诉我们真正的技术解放，与社会关系的革命性变革是不可分割的。

因此，我们必须深入到社会的、现实的、全球的生产关系与阶级统治中去，才能打破技术话语“中立”、“进步”、“文明”的光环。而沿袭着马克思主义展开意识形态与发展社会学分析的学者们正是这么做的，他们根据自身所处的社会环境与地理位置，为马克思主义补充了现当代的实践性发展。然而，我们需要指出，西方马克思主义浸润在资本主义社会中，已越来越背离社会主义实践与共产主义理想；而中国、前苏联以及其他第三世界国家也各有其特色的发展路径，因此产生了不同的理论观点。我希望能够在众多理论中求同存异，并基于我自身的社会主义立场展开分析。

技术批判理论的演进

从历史的角度来看，技术批判必然是同技术发展、社会发展纠缠演进的。因此，我们也必须跟随时代与社会问题的动态迭代，分析其理论的演进。关于技术(Technology)的理论在过去主要表现为工具理论，也即基于生命中心的视角，基于能够制造工具是人类本质属性的生态学观点(Mumford, 1967)。然而，在 16 世纪以来的现代技术史发展进程中，我们能够发现更清晰的技术批判视角。

工人资本之争：技术批判的源头

19 世纪初，在第一次工业革命将世界进行了一场翻天覆地的改造之后，技术不再是抽象的进步符号，而是而是直接的生存威胁。当时的工人发现，新引入的自动织布机虽然提高了产量，但大幅降低了工资水平，并摧毁了传统的手工艺社区结构(Fox, 2002)。由此，工人们发起了“卢

德运动”(Luddite movement)。他们不反对新技术，而是反对那些有技术倡导者自上而下强加给他们的社会变革，针对压迫和剥削奋起反抗(Bodner, 2012)。

马克思在《资本论》的第一卷(*Capital: Critique Of Political Economy, Volume 1*)中则从剩余价值理论展开了对作为资本主义本质的剥削的批判，提出技术简化了工人的技能，使工人沦为机器的附属品，导致了精神上的空虚与异化。在发展过程中，资本家日益富裕强大，工人阶级则经历“贫困化”(Marx, 2024)。马克思主义奠定了技术批判的基石，不将孤立的看待技术，而是围绕生产资料的所有制，克制地为分析技术提供了理论框架。

韦伯(Max Weber)区别于马克思的阶级观下的“单一经济视角”，强调主观因素的对社会研究的重要性，认为其与经济共同推动社会变革。韦伯认为资本主义的理性秩序已成为科层制维系的“铁笼”(Iron cage)，其核心驱动力是市场竞争(Douglass, 2018)。虽然无论是从其对意识形态的认识局限于“新教伦理”的西方中心视角，还是其无法回应高度集中的组织未必提升效率的悖论的市场中心论，我们都能很容易地发现其在解释力方面的局限性，但是他为后世研究者提供了一个在批判中延伸知识边界的平台。

在技术站上历史舞台的初期，社会实践、阶级批判与思想观念构建起了技术批判的整体框架，也为我们理解技术与批判技术中理论提供了一条清晰的脉络和实用的思维工具。

技术理性批评：法兰克福学派

随着研究的深入，学者们开始将技术置于更广阔的社会文化语境中进行考察。19 世纪 20 年代，随着第一次世界大战的结束，法兰克福大学社会研究所为核心成立。在这个信息技术开始发展，文化产品工业化的时代，一个融合了马克思资本主义批判、黑格尔辩证法以及其他各领域先贤的思维，在碰撞中确立了“否定”和“批判”的社会哲学传统，以人类物质与精神文化为对象的法兰克福学派诞生(Bottomore, 1992)。他们在技术批判上也提供了至关重要的观点。

霍克海默(Max Horkheimer)与阿多诺(Theodor W. Adorno)在《启蒙辩证法》(*Dialectic Of Enlightenment*)一书中认为，启蒙运动本意是给人类带来解放，最终却导致人们沉沦在了一中新的“野蛮状态”。当科学与实践生活脱离，形式化与道德、娱乐文化操控技术，理性便又“回归神话”(Horkheimer & Adorno, 2020)。

马尔库塞(Herbert Marcuse)和哈贝马斯(Jürgen Habermas)同样基于韦伯的“理性化”展开了探讨，两人早期对技术批判的态度基本一致，但具体观点和批判强度有所差异。马尔库塞(2002)

在《单向度的人》(*One-Dimensional Man*)中提出了一个核心论点：发达工业社会通过一种新型的、更为有效的极权主义形式，压制了社会内部的批判和否定性思维，创造了一个“单向度的社会”。哈贝马斯(1991)则在《技术与科学作为“意识形态”》(*Technology And Science As “Ideology”*)中继承并修正了马尔库塞的观点，提出科技不仅作为生产力，更承担了为政治权力提供合法化的意识形态功能。

相比于更多聚焦于批判社会运动本质并继承了韦伯的“理性”概念的同事，本雅明(Walter Benjamin)则在其成熟时期的主要著作中以马克思主义观点对文化展开分析(Eagleton, 1981)。在《机械再生产时代的艺术作品》(*The Work Of Art In The Age Of Mechanical Reproduction*)中，他阐述了“艺术”作为一种产品，是不能和它的技术和社会阶级环境分隔开来的。这篇文章对技术理论的发展，对理解他遵循思想和文化没有其独立的历史这一马克思主义观点，是很关键的(Bottomore, 1992)。

因此，法兰克福学派虽然丰富了技术批判理论，但其内部对于解放斗争的思想与实践是有争议的，他们在使用批判理论的同时也在试图解释为什么马克思所设想的革命没有在西方发生(Bottomore, 1992)。辩证的说，他们在技术方面的著作是马克思主义脉络下技术批判理论的重要组成部分，尽管我们目前还不能不带批判地接受他们的许多观点，比如他们孕育自发达的福利国家环境而产生的去增长和反进步立场。这是因为他们脱离了具体的无产阶级革命实践，技术批判的框架存在缺失。他们的后继者，后马克思主义者，尤其是以历史终结论为前提，将技术批判转向技术民主化，从而企图将阶级意识消解为公民身份的学者，如芬伯格(Feenberg)，我必须严肃地对他们的技术批判理论提出质疑并保留我的观点。

中国改革开放：发展之后是什么

所以，对后马克思主义观点最有力的回击在哪里生根呢？答案显而易见。随着 20 世纪 70 年代后中国在改革开放的发展道路上一路狂奔，具象化的社会主义技术哲学的可能性，吸引了北美传播批判领域学者的关注。在 1971 年到 1972 年与 1979 年，斯迈思(Dallas Smythe)两次访问中国研究意识形态、科技和中国的发展道路(Zhao, 2007)。斯迈斯发现，中国人固执而逃避地看待工艺与科技，认为它们是自治和去政治化的。在他看来，消费品是资本主义给这个社会主义体系的一个陷阱，应当引起中国无产阶级的警觉。如果中国制造业同样大量生产起资本主义的奢侈品，也就意味着这许多的意识形态工具，将会把中国社会导向资本主义的文化道路

(Smythe, 1994)。斯迈斯的警示，超越了技术决定论与麦克卢汉媒介观，指出了技术的政治性。

更进一步地，一种自主马克思主义(The Autonomous Marxist)的观点开始形成。温纳(Langdon Winner, 1978)的技术政治理论打破了认为技术拥有其自然力量的技术实在理论，提出人民才是决定世界历史的动力。马丁(Michèle Martin, 1991)也从性别与文化角度分析了信息技术发展和使用的社会斗争。席勒(Dan Schiller, 2007)提出“信息拜物教”，回应本雅明的机械化再生产分析，将其拓展到了一个技术为资本积累服务的再生产视角。

不过，斯迈斯等北美批判学者对于中国政治环境的理解存在脱离与幻想的偏差。在信息技术快速发展或者说第四次信息技术革命的轮廓被明显勾勒出来的 21 世纪初期，斯迈斯的学生赵月枝(2007)指出，其研究错误地忽视了改革开放初期农村改革前“吃饭问题”仍十分紧迫、“群众路线”与西方式民主过程存在差异、中国在冷战中不得不集中发展军事等中国内外的现实条件。她据此提出，在特定条件下，集体需求和个体需求并不能截然分开。当信息技术作为重要基础设施、成为出口导向重要商品、在新型战争中发挥重要影响力，斯迈斯的问题更应该被准确地修正为“手机之后，是什么？”

对这一问题的回答仍在进行，信息技术在过去 50 年间的发展和使用令中国取得了令人瞩目的经济进步，但是在这个无产阶级专政的国家，技术是否能够有效应对西方资本主义埋下的发展陷阱，准确反映出了最广大人民群众的根本利益，还有待新时代的实践与检验。我们强调，无产阶级立场的社会实践与阶级批判，使得中国成为符合马克思主义技术批判框架的重要实践场所，中国的发展在手机之后、5G 之后、AI 之后是什么，已成为与全世界有关的重大话题。

权力话语与全球南方挑战

除了在社会发展中螺旋演进的历史视角，技术的意识形态批判还应当从全球化的横向视角展开。新殖民主义同西欧资本主义的产生、发展和全球扩张紧密关联(Bottomore, 1992)，在这一殖民主义背景下，技术从来不是纯粹的工具，而是嵌入在殖民历史与资本主义全球扩张的权力关系之中。

自马克思、恩格斯之后，卢森堡和列宁等人比较系统地研究帝国主义条件下的世界格局，产生了深远的历史影响。20 世纪 70 年代，沃勒斯坦(Immanuel Maurice Wallerstein, 2001)吸收了马克思的思想资源，结合 50-60 年代在南方国家兴起的“中心-外围”依附理论，创立了世界体系理论，对与依附理论同时期在西方产生的现代化理论进行了抗议与反对。他虽然分析了供求

关系在经济周期的波动(Wallerstein, 2011)，但是却忽视了科学技术的作用。不过这个全球体系为理解技术话语霸权提供了结构性视角：技术话语不是孤立的文化现象，而是中心国家维持其在全球劳动分工中优势地位的重要手段。

萨义德(Edward W. Said, 2014)的东方主义分析，提出了话语霸权的建构体系，也即通过他者化与认知暴力，知识与权力达成了共谋。在技术领域，西方将未来置于传统与过去之上，将由他们想象的技术发展路径描述为普遍而先进的，将南方国家的技术选择污名化为落后或威权的，亦是技术话语中的东方主义表现。

阿帕杜莱(Arjun Appadurai, 1990)挑战了彼时关于全球化趋同的流行观念，其中技术景观(Technoscapes)并非中立的工具，而是全球资本的政治和经济行为，它既可能赋能，也可能通过技术依赖和不平等分配，将殖民主义和资本主义的权力结构再生产。桑托斯(Boaventura de Sousa Santos, 2024)从“南方认识论”的视角，指出人工智能(AI)技术强化了现代支配的三座大山：资本主义、殖民主义与父权制。他也坦诚地提出，在 AI 技术基础设施高度集中和垄断的背景下，“反霸权使用”和“退出与解放”的替代方案设想，面临着巨大的使用挑战。

由此，我们进一步探讨了全球话语霸权视角下的技术批判发展，全球南方研究进一步拓展了技术批判的边界，将其与知识生产、位置性以及全球多样性视角相结合。正如桑托斯所述，这种隐蔽的权力再生产机制，在当代人工智能的发展中表现得尤为显著且具象化。

与前沿论文对话：AIdeology

《AIdeology: Unpacking the Ideology of Artificial Intelligence and Its Spaces》是 2025 年由库古鲁洛(Federico Cugurullo)发布于 Antipode 期刊上的一篇文章。该研究立足于 AI 技术在城市及其治理中广泛的渗透现象，关注其空间化趋势引发的权力合法性议题。作者凭借融合马克思主义哲学与人文地理学的跨学科知识，构建起了一个意识形态批判框架。作者主张，AI 不仅是一项技术，更是塑造文化政治景观的意识形态，具有双重空间属性，即其在城市空间中（再）生产与扩散，也通过空间实践进一步固化起社会影响。

在马克思主义意识形态批判层面，文章提出 AIdeology 的核心是三大理念：作为通往可持续的理论、符合后人类想象的工具和废除劳动与资本的想象。而三大理念具有强烈的空间属性，并与 AI 作为自主实体的第四理念共同支撑 AIdeology 的运作。文章还指出 AI 的扩散依赖空间的生产，空间本身成为了权力的物质化，算法将城市转化为量化的空间，从而强化了不平等的

“地理化”(Cugurullo, 2025)。量化的空间，不再是一个抽象的规则，而是变成了可测量的地理边界。这一分析犀利地点出了 AIdeology 的技术实体观点，但又举重若轻地批判了他：宣称技术的自主性，实际上是权力持有者隐身于这把空间“标尺”之后。

这篇文章从人文地理学的切口展开技术批判，提出在 AI 时代，意识形态的运作除了通过控制生产资料，还能能够通过重塑物理空间来实现，为我之启示提供了一个“空间维度”的补充。实际上，这与列斐伏尔(Henri Lefebvre)的空间生产理论一致，也可视为对马克思主义的发展与改造。此外，我强调了发展需要追问“谁制定规则”、“谁受益”，而库古鲁洛的研究正为这些宏大的追问提供了微观层面的经验证据和运作机制。这项前沿研究告诉我们，技术批判不仅要关注文化与发展的国际秩序，还需要关注我们生活的城市空间是如何被技术影响的。

结语

本文重访了马克思主义理论脉络下的技术批判理论，揭露了“技术中立”的意识形态神话背后还存在复杂的社会、阶级与国际权力关系，并呼吁对技术发展进行更深层次的社会与政治反思。对“技术中立作为一种意识形态神话”的思考，改变了我看待技术发展的方式，将技术从社会分析的“冰山之下”移到了“斗争舞台”之上，这既是马克思主义的当代深化，启发着我对政治经济学的进一步学习，又是帮助我们理解这个被技术深度影响的世界所不可或缺的生存智慧。它提醒我们，在追问和评估发展问题之前，必须首先思考如何评估、由谁评估，以此夺回我们对于理想的共同未来的定义权。

本文从马克思主义根源出发，主要遵循以中国与全球南方国家为方法的研究立场，对技术批判理论的其中一脉展开了较为详尽的分析，并与一篇前沿论文展开了对话。在这一过程中，一些技术批判相关的理论家，如福柯(Michel Foucault)、波兹曼(Neil Postman)等，他们的思想没有得到回顾，而另一些西方马克思主义者的看法则遭到我的质疑。这表现了我本身的理论立场与选择，不过这并不意味着他们的技术批判理论没有可取之处。我相信，不同的理论根植于不同的历史、社会和时代当中，但对于新时代中国特色社会主义而言，对技术的批判路径应当是如此的：重访马克思，超越技术中立、技术决定论，理解斯迈斯的偏误，发展人民的技术。

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附录

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