Capitalism and the Long-Wave Question

"The reports of my death are greatly exaggerated" - Mark Twain (reputed)

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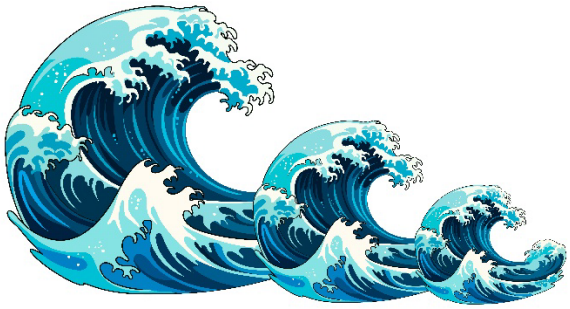
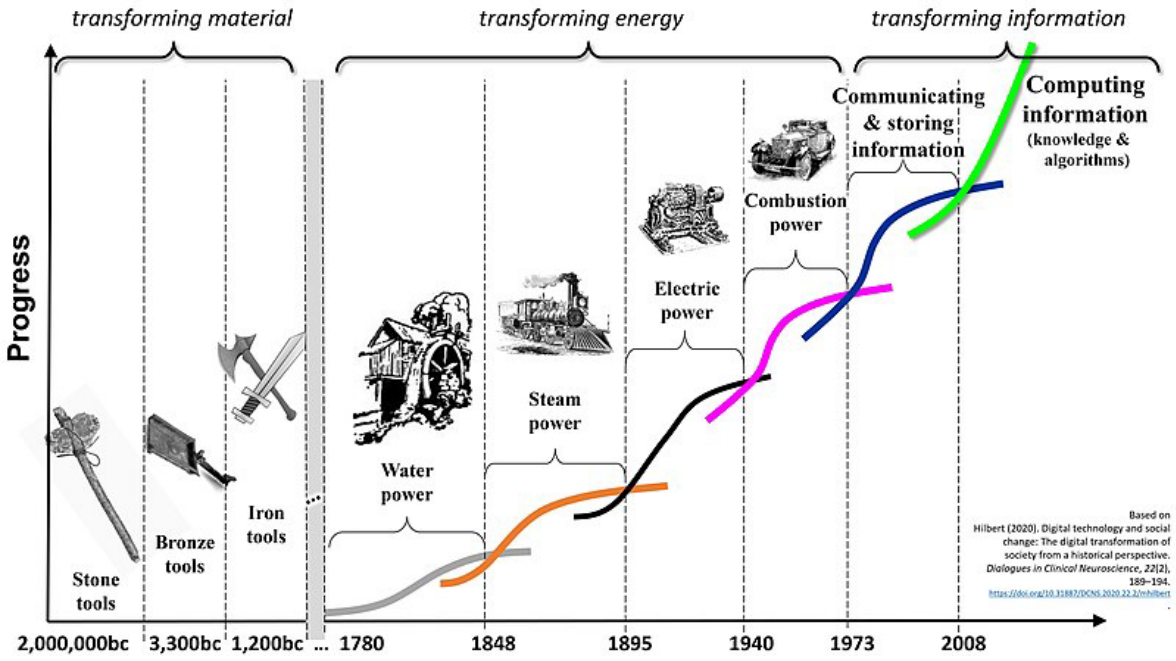
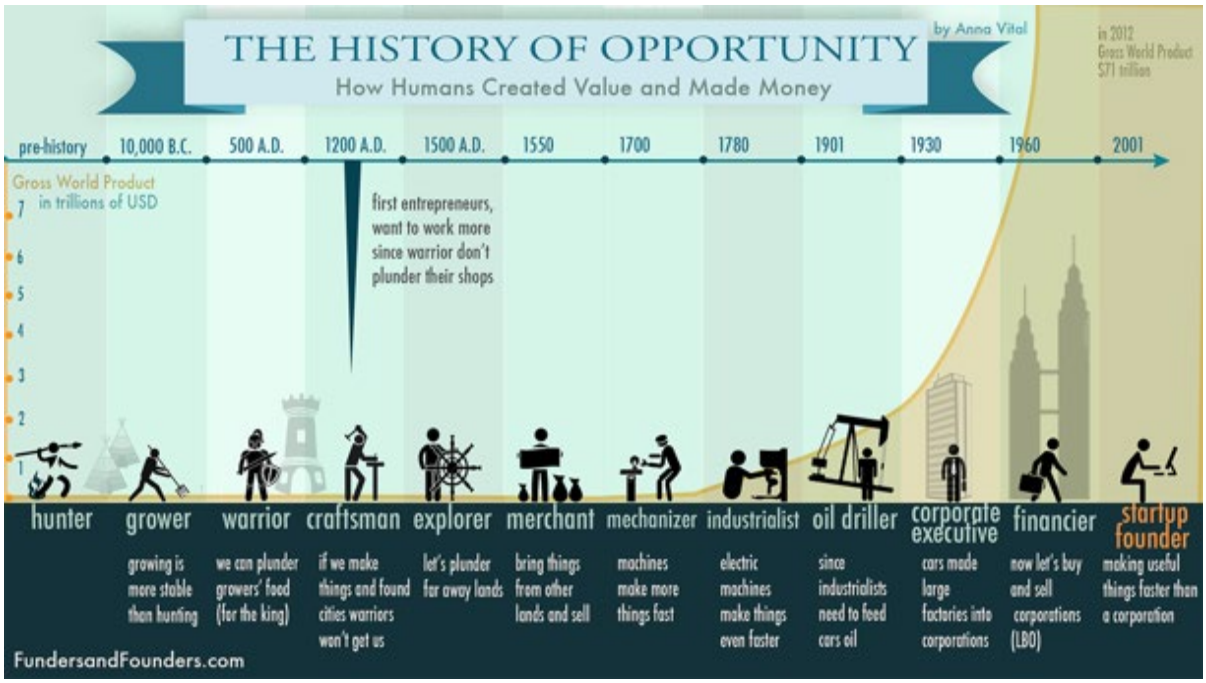


Introduction

People have predicted capitalism's collapse for a long time. Following the depression of the 19th century, the1929 crash, the 1970s stagflation, and after the 2008 financial meltdown writers announced that the system had hit its limit, but each time capitalism emerged reorganized, not replaced. Why were the doomsayers off the mark? Schumpeter (1939), building on the economist Kondratiev (1935), argued that capitalist economies move through long waves of roughly fifty years built around large scale technological progress: steam and textiles, then rail and steel, then electricity and chemicals, then cars and oil, then computers and the internet. Each new technology throws the existing order of labor, money, and political power into disarray before things settle into a new arrangement. Seen against that pattern, today's anxieties about AI, tech concentration, and job loss look less like proof that capitalism is finished and more like the middle of a Kondratiev wave with a settlement that just hasn't appeared.





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Taking the historical pattern seriously doesn't mean ignoring what may be different this time. Every previous wave had people insisting that things would settle down within the existing system and people insisting that they wouldn't. The question isn't whether today's turmoil looks like the past, but what would make this moment the exception. The strongest candidate for a real break is what Artificial Intelligence (AI) does to workers' bargaining power. Past waves of automation wiped out specific jobs but created new ones that were scarce enough to give workers leverage. AI is different in effect by going after the general thinking-and-coordinating skills that make workers valuable across multiple jobs not just one trade. How this plays out is the critical question.

One should note that the long-wave idea is not settled science. Wave dates are not clearly defined, the statistical evidence for tidy fifty-year cycles is disputed, and it's loose enough to be stretched over almost any string of disruptions after the fact. The wave model is a retrospective analytical framework and not a proven predictive model. Economist Carlota Perez (2002) offers a more useful conceptualization: every wave has an early “installation period,” full of speculation, deregulation, and rising inequality, followed by a later “deployment period” where institutions catch up and spread the gains. She sees the current time as still deep in the installation period of the AI wave.

Labor: On the Beach

Economists Acemoglu and Restrepo (2018) offer a way to think about any labor-saving technology: it has a displacement effect (machines take over tasks people used to do) and a productivity effect (the efficiency gains raise output and can create new kinds of work, including work that didn't exist before). Past waves of automation were disruptive but not devastating for workers overall because the productivity effect kept generating new job categories: cars wiped out blacksmiths

and stable hands but created mechanics, assembly-line work, and a logistics industry. The question about AI is whether it produces a similarly strong wave of new work, or whether its ability to handle general thinking tasks rather than narrow occupation-specific ones closes off an escape route.

Early evidence is inconclusive. On the downside, research tracking AI-exposed jobs has found fewer young people getting hired into those fields and not existing employees getting laid off. Wages are splitting too: pay in industries with heavy AI exposure has grown faster than the economy-wide average, which looks more like a widening skill premium than job loss. On the other hand, some studies report that AI adoption tends to produce a net gain in employment on average but that is with some job categories growing and others shrinking (Lane, 2026). The Peterson Institute's (2026) assessment notes that research on AI impact on the total labor market is still in its early days.

An interesting aspect isn't the job displacement; it's how workers respond to it. Rather than just absorbing whatever AI does to their leverage, organized labor has pushed back since 2022: dockworkers' unions have won contract language requiring automation to be phased in carefully, hospitality unions have secured deals requiring AI deployment to be negotiated before it happens, and workers at previously non-union shops have started organizing over AI concerns (Curionic, 2026). That matters for the argument here: if bargaining power isn't just something technology hands out or takes away, but something workers and unions actively fight over, then the claim that AI is uniquely bad for labor's leverage can't rest on the technology alone. It must account for whether this round of organizing looks different from the labor movements that grew up around earlier waves of automation.

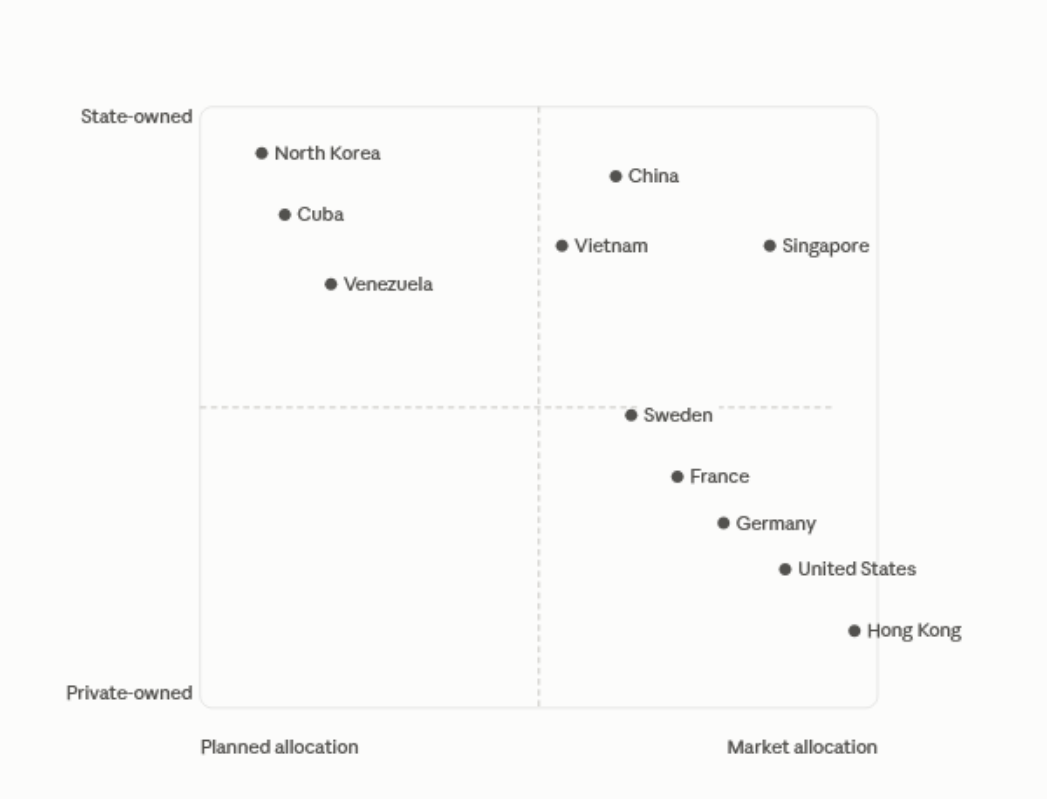
There's a real and uneven cost, younger and more exposed workers losing ground that older or better-organized workers aren't, but nothing yet resembles the economy-wide loss of alternatives that would prove AI is fundamentally different from past technologies. The data is early, mixed, and pointing in more than one direction at once, which is exactly the condition under which people historically mistake a downswing of a long wave for the end of the whole system.

Ebb and Tide

The long-wave idea predicts that each wave ends with some kind of institutional adjustment, but it doesn't say what kind, or in which direction. “Things reorganize” isn't an argument until you specify the space of things they could reorganize into. Two ways of dividing that space help.

The first distinction comes from the economist János Kornai's work comparing economic systems (Kornai, 1992), and it separates two questions everyday talk tends to lump together: who owns the productive assets: factories, land, capital; and how resources get allocated once they're producing something. That second question is really about the coordination mechanism. Under market pricing, buyers and sellers set prices through supply and demand, and resources flow toward whatever is profitable at the going price, adjusting continuously as conditions change. Under central planning, a bureaucratic authority sets output targets and, often, prices directly by administrative decision, with resources allocated according to a plan rather than a price signal. Kornai's point was that ownership and coordination mechanism are logically separate axes, not two words for the same thing, and that flattening them into one line running from “capitalist” to “socialist” hides more than it explains. China and Vietnam mix heavy state ownership and party control with a lot of market pricing and real competition — state capitalism, on this framework, not a contradiction in terms. Sweden and France are often

categorized as “socialist leaning” in casual conversation but actually sit close to the market end on both ownership and coordination; what makes them distinctive is the size of government spending on redistribution and services, which is really a third, separate question again. Looking back, the New Deal era shifted how resources got allocated in the U.S. with more regulation and direct intervention in some markets without touching who owned what. Postwar European social democracy dialed up government spending sharply while ownership and coordination staying closer to a market economy than a planned one. If the current AI-driven upheaval resolves the way past ones have, this is the kind of shift to expect: movement around inside a known space, not a jump outside it.



The second distinction is a reenvisioning of Aristotle's classification of political regimes from how many people rule by sorting them by how constrained that rule

is. Is governance constrained by law, checks and balances, and customs or is it arbitrary and unchecked? Normally this is question apart from economic organization; how a society divides up ownership and market power hasn't historically told you much about how constrained its rulers are. What would make the current moment a real candidate for something new, rather than a repeat of the old pattern, is a scenario where these two things stop being separate where AI-driven concentration of information, money, and coordinating power in a handful of firms starts eroding institutional checks as a direct consequence of that concentration, rather than the two drifting independently the way they always have.

That would be a genuinely new connection, not just a new spot on a familiar map and it's a version of the “concentration of power” worry that gets raised.

This may answer the question: what makes this moment the exception to the wave? Job-market disruption isn't enough and institutional change in the abstract isn't enough since institutional change occurred in past long waves. What would be

significant is evidence that ownership/allocation concentration and unchecked power are starting to move in a way not previously seen.

Crest and Trough

The concentration half of this test isn't really in dispute. AI infrastructure spending in 2026 is piled up in a small handful of companies: Microsoft, Alphabet, Amazon, Meta, and Oracle together are on track to spend roughly $660–690 billion in capital expenditure this year (Futurum Group, 2026), and unlike past tech investment booms spread across many industries, most of this spending is aimed specifically at AI: chips, data centers, and the power plants (Intellectia.ai, 2026). That's an unusual scale of concentration like the railroad and steel trusts of the late 1800s.

The power-and-constraint half shows a clear pattern too. AI companies have gone from barely spending on politics to becoming major political players almost overnight: eleven of the biggest tech and AI firms spent a combined $41.8 million lobbying the federal government in just the first half of 2026, up about 10% from a year earlier, and six of the largest firms together employed 324 lobbyists in one quarter, about one lobbyist for every 1.5 members of Congress (Issue One, 2026). This isn't standard after-the-fact lobbying anymore. Firms have started spending money to shape who gets elected to Congress in the first place, ahead of the 2026 midterms, rather than waiting to lobby whoever wins (Al Habtoor Research Centre, 2026) including through a political spending network that runs messaging through ordinary-looking lifestyle content on social media, exploiting a gap between ad-disclosure rules and political-spending disclosure rules (Financial World, 2026). And the line between AI companies and government itself has gotten blurry in other ways: one major AI lab got into a public dispute with the Department of Defense over a national-security contract, even as its own CEO argued publicly

that AI companies' financial fortunes are becoming tangled up with the government's political fortunes (Kahn, 2026) and big infrastructure projects like the Stargate joint venture involve direct White House backing rather than the usual arm's-length regulatory process (Futurum Group, 2026).

Is this new kind of connection? It appears to look like the standard playbook for past concentration booms, not a break from it. Standard Oil, the railroad trusts, and later the phone monopolies all turned economic dominance into serious political muscle, and in each case, the eventual response was an institutional correction that pushed back: the Interstate Commerce Act, the Sherman and Clayton antitrust laws, the breakup of the Bell System. What would make this moment genuinely different isn't that concentrated capital is chasing political influence but whether the pushback phase doesn't come this time. The question can't be answered yet because the AI buildout is still in an early, accelerating phase, not a settled one.

As previously noted, the long wave is weak on prediction. A pattern that looks alarming up close from inside itself may only be the opening act of a cycle whose second act hasn't yet been written. The evidence shows the familiar first half of the pattern (concentration turning into influence) without yet showing whether the equally corrective second half follows it or doesn't.

Conclusion

During previous long waves people in the middle of it were certain that the pattern was about to break for good. Two examples for today’s wave discussed above appear to tell a story that something is happening, real disruption, but not the evidence that these disruptions are fundamentally different from the early phase of a cycle like the 1870s.

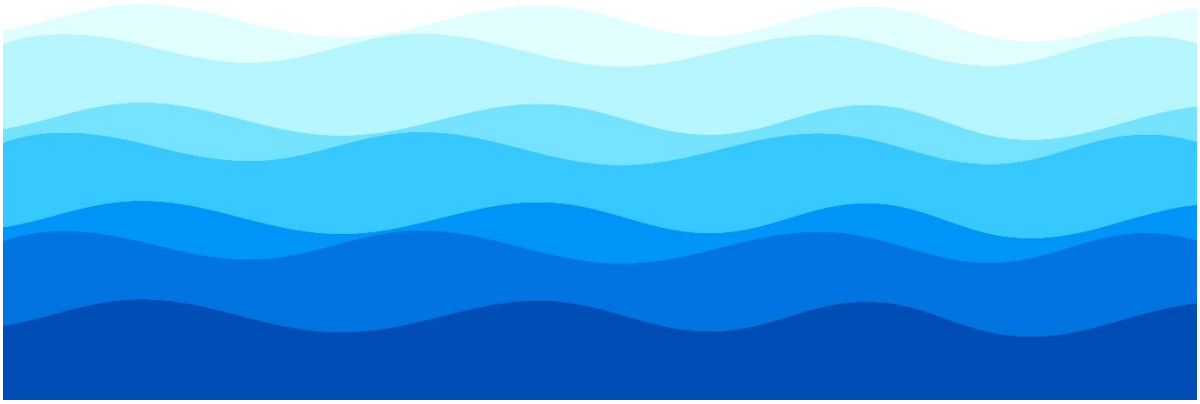
On labor, there's a real and uneven cost. And workers' response: organizing and bargaining specifically over AI is itself a sign against pure technological inevitability. Bargaining power is being actively fought over through institutions, not just handed over, which is what you'd expect if this wave looks more like its predecessors than different.

On the institutional side, the shape is the same: real concentration of both money and political access among a small number of AI firms, showing up in lobbying, election spending, and a blurring line between company and government at a pace with no recent equal (Issue One, 2026; Futurum Group, 2026). But the specific thing needed to show a change; concentration and unchecked power becoming linked in a way they weren't for past monopolies hasn't shown up. Turning concentrated money into political influence is the standard opening move for every major industrial concentration not a departure from it. An open question is whether the pushback that eventually followed the Gilded Age trusts and monopolies happens again or doesn't.

The long-wave framework doesn't provide a verdict this early in a cycle. It explains why no verdict is available yet, and it says what would need to happen before one is. What looks like capitalism transforming reads more like the disorienting middle of a wave whose settlement hasn't arrived. It is pre-mature to call this moment exceptional. Current economic disruption isn’t small, but it is too early to assume that no correction will occur in a later phase of the cycle (Perez, 2002).

What comes next for capitalism? Not decidable yet and premature for anyone to claim otherwise. Kondratiev argued that capitalist economies possess an inherent capacity for self-renewal and adaptation, allowing them to recover and rebuild

themselves. Crises are temporary storms upon the long-term currents of the economic ocean.



A Second Look
What if the wave breaks?

A Counterfactual Extension

Suppose the exceptional case occurs and the Kondratiev wave collapses. Blue-collar and professional workers experience sustained mass displacement across most of the labor market. AI firms control an historically unprecedent share of wealth. Economic activity shifted decisively toward intangible commodities: software, media, generated content, algorithmic services while physical manufacturing continues to shrink and becomes increasingly automated. Higher education's credentialing function also loses much of its value as AI encroaches on professional and analytical work.

What political economy might emerge?

Four broad possibilities follow. First, an AI rentier oligarchy, in which concentrated ownership and political influence reinforce each other. Second, Universal Basic Income (UBI) funded stakeholder capitalism, in which redistribution cushions the effects of displacement without

changing ownership of technology. Third, Techno-authoritarian populism, a captured state or populist movement takes control during a crisis. Fourth, socialization of AI capital, in which ownership of the technology itself moves into public or collective hands.

The fourth possibility is the focus here because it represents the most consequential form of transformation considered in the larger argument. It changes not simply who receives the income AI generates, but who owns and controls the productive system itself.

"Capitalism" and "socialism" are not necessarily the most useful terms for distinguishing the possible futures. Sociologist Peter Frase's Four Futures (2016) provides a sharper framework organizing post-capitalist possibilities along two dimensions: **abundance versus scarcity**, and **equality versus hierarchy**.

The combination of abundance and hierarchy produces what Frase calls rentism: scarcity has largely been overcome but ownership remains concentrated. People have access to abundance only by paying rent to those who control its production. Abundance plus equality is what Frase calls communism in an older sense of the term: not central planning or a one-party state, but where the means of production are held and directed in common and the benefits are shared by design rather than by permission.

That distinction is critical. Everyone receiving income is not the same as everything being socially owned. A universal check funded by taxing or taking an equity stake in AI firms is wealth redistribution, but it leaves the decision making in the same private hands. Genuine socialization, in Frase's sense and requires something stronger: public or collective control over the productive assets themselves such that deployment decisions are made collectively rather than unilaterally. A move on the ownership axis itself is the distinction economist János Kornai drew between who owns productive assets and how resources get allocated not merely a change in the size of government spending layered on top of unchanged ownership (Kornai, 1992).

This kind of transfer has happened in one of three ways. The first is nationalization by the state taking productive assets away from their owners. The second is the public-utility model: government regulates a monopoly's pricing and access as though it were a public good. The third is cooperative or commons-based ownership structures growing up alongside existing private

firms rather than replacing them outright, gradually capturing a larger share of productive capacity.

As of 2026, there's a policy debate underway that gestures toward the first two of these routes. Senator Bernie Sanders introduced the American AI Sovereign Wealth Fund Act in June 2026, which would impose a one-time 50% equity transfer from AI companies into a publicly held fund, modeled on Alaska's Permanent Fund, the oil-revenue fund that pays dividends to Alaska residents (Sanders, 2026). What makes the Sanders proposal closer to socialization is that the bill would give the public fund voting shares meaning the federal government would have governance rights (Sanders, 2026). OpenAI has floated its own “Public Wealth Fund” proposal, offering the government a 5% equity stake modeled on the same Alaska precedent (Intellectia.ai, 2026). Public support for something in this direction is substantial: about seven in ten Americans surveyed in mid-2026 said AI companies should be required to transfer a meaningful share of their stock to a fund benefiting the public (Schena, 2026).

A difference between the two proposals to note is that OpenAI's version is a passive equity stake with no governance rights attached; this is redistribution not socialization. It leaves company decisions exactly where they are now and it sits closer to Frase's rentism. Sanders' version, with its voting shares is an attempt at public control over deployment decisions. Whether it would function that way in practice is a separate and genuinely open question. Nobel laureate Joseph Stiglitz has already raised the obvious concern: once government is a part-owner benefiting from a company's returns, the political incentive to regulate that company hard shifts in the wrong direction (Brancaccio, 2026).

The historical pattern of concentrated-capital converting into political influence explains the obstacle standing between the present and a new order. The same concentrated wealth and political access that a genuine socialization effort would need to overcome is also what such an effort must first get past politically. That's the reverse of a favorable feedback loop: the more entrenched AI ownership becomes, the harder it becomes to socialize, and the harder it becomes to socialize, the more entrenched it becomes. It's why the Sanders bill remains a proposed piece of legislation rather than a passed one.

Historically, transfers of this scale have needed either an external shock severe enough to override ordinary political resistance or a sustained, well-organized political movement capable of matching concentrated capital's staying power over years rather than one election cycle. Neither condition currently holds. The New Deal is the obvious domestic precedent: it took the Depression, not ordinary legislative politics, to move American ownership and allocation arrangements as far as they moved in the 1930s.

What a Socialized AI Economy Would Mean

Grant the assumptions of the counterfactual: physical manufacturing is highly automated, most goods and services are inexpensive to produce, both blue-collar and professional labor have been substantially displaced, and the productive apparatus is genuinely under public or collective control.

Several consequences follow.

First, work would become decoupled from economic survival. People would still work, but wage labor would no longer be the principal mechanism through which they obtain food, housing, health care, and other necessities. Creative, relational, civic, and reputational activities could become more important sources of status and meaning, as suggested by Aaron Bastani (2019) and Manu Saadia (2016).

Second, higher education would change its purpose. If credentials no longer determine access to employment, education could move away from its increasingly dominant role as a mechanism for sorting workers and return toward intellectual, cultural, and civic development.

Third, scarcity itself would change. Automation could make many physical goods abundant without eliminating scarcity altogether. Scarcity would increasingly involve things that cannot easily be reproduced: attention, status, originality, relationships, experiences, and other positional goods. Frase and Bastani both anticipate this movement from material scarcity toward forms of scarcity that are inherently more difficult to eliminate.

Most importantly, however, the outcome would depend on ownership. The same technological capacity could produce radically different societies depending on who controls it.

This scenario has a well-developed fictional history, and it's worth taking seriously rather than treating as decoration, because the fiction has already worked through the distinction this piece keeps returning to: abundance is not the same as socialization, and getting the first without the second produces a very different world than getting both.

Star Trek provides the clearest image of genuine socialization. In *Star Trek: First Contact* (Frakes, 1996), Captain Picard describes a society in which the accumulation of wealth is no longer the principal motivation for human activity. The underlying technology of abundance—the replicator—is not controlled by a private corporation. Manu Saadia's *Trekonomics* (2016) makes the economic implication explicit: the Federation's abundance is significant because the productive technology is not privately monopolized. Work becomes a form of contribution and self-development rather than simply a means of survival. Star Trek therefore represents the combination of abundance **and** broadly shared control.

WALL-E provides the opposite lesson. Humans aboard the *Axiom* enjoy extraordinary material abundance, but the productive apparatus remains under corporate control. They are consumers rather than owners or decision-makers. WALL-E therefore illustrates abundance without socialization.

Elysium (Blomkamp, 2013) presents a more overtly dystopian version. Automation creates enormous productive capacity, but access to both the technology and its benefits is restricted to a small elite. The problem is not the absence of abundance but its enclosure. The same technological capabilities that could support equality instead reinforce hierarchy.

Blade Runner (Scott, 1982) goes a step further by focusing on control of the technology that produces artificial intelligence itself. The Tyrell Corporation controls the creation, design, deployment, and disposal of replicants. The issue is therefore not simply who benefits from technological output, but who controls the technology that generates it. In this respect, *Blade Runner* is an especially useful analogue for the contemporary question of who owns the computing infrastructure and trained models underlying AI.

Taken together, these four examples reinforce the central distinction. **Abundance does not determine the political economy. Ownership does.**

Conclusion

Of the four possible futures, socialization of AI capital is the only one that represents a fundamental transformation of the ownership structure. An expanded welfare state or universal basic income could redistribute a larger share of AI-generated wealth without altering who controls the technology. A rentier economy would do the opposite: it would allow concentrated ownership to determine who receives the benefits of abundance. Authoritarian responses could change political control without necessarily producing collective ownership.

Socialization addresses the underlying question: **who owns and controls the productive technology itself?**

That is also why it is probably the most difficult outcome to achieve. The concentration of wealth that makes socialization increasingly necessary also creates the political power capable of preventing it. Publicly owned AI equity could weaken that concentration, but only if ownership includes meaningful governance rights and does not simply turn government into another passive investor.

The emerging debate over AI sovereign wealth funds is therefore significant, but it should not be mistaken for evidence that socialization has already begun. The critical distinction is between receiving a dividend from AI and having a voice in how AI is deployed. OpenAI's proposed stake appears closer to redistribution; the Sanders proposal, because it includes voting rights, moves closer to public ownership and control.

Whether that distinction will matter in practice remains unresolved. The deeper question is whether AI will reproduce the historical pattern in which technological abundance becomes concentrated wealth and political power or whether ownership itself can be reorganized before that concentration becomes irreversible.

The answer may determine whether the next economic transformation produces a more generous version of capitalism, a new rentier order, or something genuinely different.

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