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The Planned Economy and Artificial Intelligence

Could a planned economy bring an acceleration of AI development?

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Karl Marx was a German philosopher who together with Frederick Engels laid out the foundation of possible future development of higher stages of communism in European countries. Nevertheless, most of the publications of Marx (*Das Kapital* and *The Communist Manifesto*), which were written more than 150 years ago, have become practically irrelevant due to the fact that the world has evolved and changed to the point that his theories became practically obsolete. The Imperialism era has come to an end, at least in terms of some big scale colony formation. The global economy has also changed dramatically.

There have appeared dozens of new industries which, of course, Karl Marx could not predict, especially in computing, artificial intelligence, and finance. These industries not only develop new products but also redefine how value, labor and knowledge are essentially created. According to Marxists, a planned economy is expected to be classless, stateless and not capitalist and should be formed in the course of a transition period that is also known as Marxist Leninism or state socialism. It supposes that at first the party leadership takes control over the process, and gradually, as it is said by Marx himself, "withers away" the state and fosters self-reliance among the proletariat until the state is absolutely useless. But, practically speaking, every historical attempt to implement this model proved to be somewhat disappointing, mostly for one of two reasons, either the leadership clung to its power or the external factors pressured the country to destabilize the process before it could become fully mature.

Nevertheless, it is worth mentioning that something like this – anarcho-communism – has been successful at least twice, as per The Paris Commune of 1871 ("Paris Commune," n.d.) and the Regional Defense Council of Aragon ("Regional Defence Council of Aragon," n.d.), which many people are unaware of, and which was an autonomous anarchist region of the Spanish Republic in the times of Spanish Civil War of the late 1930s. They were not long-lasting but showed that

decentralized, worker-owned economic regions were (to some extent) possible. Given the dramatic change of the world, especially concerning the rise of computing and AI, I'd like to present a more specific, a more modern version of the glorious communist vs. capitalist discussion. Could a planned economy develop innovation in AI-intensive and computer science industries without being a profit-driven economy? My answer: according to the communist within me, yes. A planned economy can sustain and in some cases, accelerate the innovation in an AI-driven economic sector without investment funded by venture capital groups, shareholders, and executives. The main idea here is that the AI-driven sector, without private investment, would not be profit-driven but would be developed through public investment and be more successful.

1. For a Planned Economy

Instead of being completely dependent on, as I've stated before, venture capital firms or any private investors to fund the research, the AI sector, organized in accordance with planned-economy principles, can instead be funded collectively through independent worker councils and regional planning departments. It can be invested directly into the infrastructure that the AI needs, such as data centers, semiconductor fabrication facilities, and eventually, quantum computing systems.

This infrastructure would be constructed and maintained as public resources through a planned economy, rather than corporations driven by the profit exclusively.

One of the most clear inefficiencies of the contemporary capitalist AI system is what may be called or what I have termed, "duplicate R&D". Numerous companies (OpenAI, Microsoft, Anthropic, Google, Meta, and so on) all race to create fractionally better models that do exactly the same thing through the same architecture, mainly because none of them are willing to share their research with the competition. All of that will cost a tremendous amount of compute, electricity, engineering skills and capital, which will be spent multiple times over again to reach the very same point. A planned economy could pool all of the country's compute resources and manpower into one big R&D effort. Five companies, ten companies, even independently training five models that do exactly the same thing, one real effort could allocate this very same aggregate compute towards one system or several other projects that would all be publicly sourced.

The same logic applies to the data. In a capitalist economy, data works as an economic barrier. Companies collect users' data precisely because it's valuable for them and sharing it would undermine their very advantage. This leads to the artificial scarcity of something that could benefit everybody in the whole society. If the data was collected, a planned economy could gather the data through public infrastructure, health care, transport, medics, logistics and administration. It could be stored publicly through data trusts and used to train versatile and genuinely helpful AI rather than be kept behind the corporate paywalls.

Just as important, the resulting algorithms would be open-sourced automatically, thus allowing researchers from various institutions from various parts of the country to build on top of the work that has been already done, instead of reinventing the wheel every time another lab was created.

1.1 "Lack of motivation"

A fair critique of planned economies is always related to the question of demand and motivation. Why would anybody want to build an AI system? Why would people want them? Why would researchers even care? The planned-economy model answers all of these questions with a different understanding of human motivation, different from the purely interest-oriented, profit-seeking model, which is assumed in capitalism.

Researchers, computer scientists, in this framework, would be motivated by the wish to help their society to solve real scientific, social and ecological problems, or simply grateful that they could solve the aforementioned problems faster. This is not completely hypothetical, what I am saying here. It is a mirror reflection of how the majority of academic and open-source research operates.

The primary incentive, 99% of the time, if you are creating open-source research, is not a salary. It is, instead, the ability to become recognized professionally and advance in the field, as well as gain seniority in these research institutions, which, as they are, would remain powerful enough incentives. Besides individual ambition, there's also a structural argument. Universal access to housing, medical care, food, and every basic necessity removes the fear of financial disaster that pushes the scientists to pursue practical things. They would not have to think about rent, medical bills or job security, at least theoretically. They could freely follow their dreams of pursuing real, long-term, high-risk research that may pay back in ten years. This very basic research is often underfunded in capitalist markets, precisely because it would not provide any return on investment.

1.2 Automation and Labor

The most differential difference between the two systems is in what AI really does. On the one hand, in the typical market economy, the AI is used to create headcount, larger profit margins and ultimately to sell the product to businessmen looking to cut costs. All efficiency gains from automation go to capital, to shareholders and executives and CEOs and department heads, rather than being shared among the real workers, whose labor made it possible. On the other hand, in a planned system, it turns the situation around. Automation is used to reduce the total amount of hours that somebody has to work, thus giving the opportunity rather than cutting incomes. If the work that previously took 40 hours of human labor per week now takes 5 hours, the theoretical planned-economy reaction is not to simply fire three quarters of the workforce and let the rest work the same amount of time as before. It is to re-distribute the remaining necessary labor so that

everyone could work equally fewer hours. Automation, that is what AI obviously does, becomes a means of expanding science and education, of giving more leisure. AI-driven research itself will benefit from the same logic: the same automation that gives more researchers and more workers more time could give those researchers and workers more time for research, thus making everyone work significantly less in the long run.

2. Against a Planned Economy

But, as Keynes said, "In the long run, we are all dead." Unfortunately, that quote has absolutely nothing to do with my argument, but I just like it. A completely valid counter-argument is that a planned economy still has to decide very deliberately and choose which projects will receive the compute, chips and researchers and which won't. This can obviously lead to resources getting pooled to projects that ultimately fail, or are practical money-pits.

2.1 The state is not always reliable nor efficient.

While under capitalism prices and competition function as a decentralized signal of when resources should be allocated, and thousands of independent people making thousands of independent decisions naturally discover what works and what doesn't. Obviously, capital reallocates accordingly. A centralized body that makes the same decision for the whole region's or country's AI research has no signal at all. It has to be guessed. If it makes a mistake, the whole computer budget of the economy is lost. It is a gamble.

That is the famous economic problem raised against planned economies in AI research (American Institute for Economic Research, 2026; Mises, 1920/1990), which is famously, notoriously trial and error. It would be one of the worst sectors to plan in.

2.2 Collapse of all competition

Although duplicate R&D under capitalism is inefficient, it also results in rapid iterations. Competing laboratories are forced to move fast, eliminate inefficiencies and abandon failing models because failing has actual consequences and loss in shareholder value. One big centralized research laboratory with guaranteed funding has no competition. Thus, it has no reason to move quickly. Bureaucratic institutions, like the Soviet Union, Maoist China and Cuba, have a notorious track record of not being able to abandon failing projects.

2.3 'Brain Drain'

Today's top AI researchers are highly mobile, and they are attracted to very high compensation, equity and the freedom to work wherever the most interesting problems and resources are. The system without competitive salaries and possibility to leave for better-funded laboratories risks

losing the best talents of the nation that still operates on the market model, thus undermining the collective manpower needed by the planned economy model.

2.4 History of planned control over economic sectors

Historically, this is close to what happened when researchers left Eastern Bloc for Western Bloc in the Cold War era. However, realistically speaking, if a perfect planned economy would just appear somehow, a perfect domestic AI sector could not even exist because the advanced semiconductor fabrication is concentrated in a small number of firms, such as Nvidia, ASML and TSMC, operating in capitalist market conditions (Lapaas Voice, 2026). The state would either need to build a completely new self-sufficient chip production from scratch, which is an enormously costly and long process, or continue to depend on and negotiate with the market capitalist firms and states for the hardware to run on, undermining the concept of an economy free of profit-driven investment.

The Soviet Union did fund enormous centrally planned scientific programs and achieved great results in some (early space programs), while lagging horribly in others (notably consumer and general-purpose computing) ("History of Computing in the Soviet Union," n.d.). The lack of market feedback and actual signals of whether there is demand for some product or not simply does not exist. AI, which is not a rock, is not something that has a single well-defined target. It is closer to consumer computing in this respect because its usefulness depends heavily on the iterative feedback from millions of users. Historically, planned economies suggested that it would not work.

2.5 It's completely dependent on capitalist models

Elimination of the market pricing does not mean that there is no scarcity, there are still scarce chips, energy and skilled labor and it simply changes who will decide how to allocate them. And the decision-making power tends to become concentrated in the political or bureaucratic hands, instead of market ones, introducing the risk of funding flow to politically convenient projects rather than the most promising ones, a trend that has historically undermined scientific integrity in several planned economies (Lysenkoism being the most infamous one, though not in computing; "Lysenkoism," n.d.).

3. Conclusion

So, could a planned economy accelerate the development of AI? On paper, yes. Pooling compute, sharing data and open-sourcing research would end the duplicate R&D that capitalist labs pay for again and again, and automation could shorten the working week instead of cutting jobs. But a planned economy has no way to show which projects deserve compute, no competition to force it to drop failing ones, and no easy way to keep its best researchers or build chips without the capitalist firms that dominate them. History, from Soviet computing to Lysenkoism, shows that these

weaknesses are real. The communist within me still says yes, but only if the planning problem is solved first: someone has to decide, without market feedback, which AI systems are worth building.

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