AI superpower or client nation?

Google's CEO compares AI (artificial intelligence) with fire and electricity in terms of their role in human civilisation, while Stephan Hawking feared that AI could end humanity. We are facing something really extraordinary. Industrial revolution moved the centres of physical power from human and animal bodies to machines. With the locus of intelligence now also getting disembodied, AI systems are set to transform our economic, social and political organisation.

Intelligent systems typically tend to centralise and monopolise control. Sensing that an AI economy will radically concentrate income and wealth, many global digital industry leaders have called for assured basic income for all. Globally, just one or two concentrations of AI power may rule the world. Currently, these are in the U.S. and China.

Where does India stand in the AI race? Nowhere. And it is fast squandering its great advantages of high IT capabilities and a big domestic market required for data harvesting. Unlike most industrial technologies, AI does not develop in laboratories and then get applied by businesses. AI develops within business processes, as data are mined from digital platforms, and turned into intelligence, which is ploughed back to produce more data and intelligence, in infinite loops. Any country's AI therefore largely exists within its huge, domestically owned commercial digital/data systems. In the U.S. it is with Google, Amazon, Facebook, Apple and Microsoft — and in China with Baidu, Alibaba and Tencent.

India has no such large domestically owned commercial data systems. And any chance that these could develop is being nipped by allowing takeovers like of Flipkart by Walmart. Soon, Walmart and Amazon will own between them perhaps the most significant set of India's consumer-behavioural and other economic data, over which they will develop various kinds of AI. In time, such AI will allow them to control practically everything, and every actor, along various economic value chains linked to consumer goods.

Beyond economic dominance, AI is as much about cultural, political and military power. Russian President Vladimir Putin claims that whoever rules AI will rule the world. A non-AI military against an AI-powered one will be like a hapless infantry unit facing an armoured division. And where does a military get its AI from? Google and Microsoft are partnering with U.S. military on AI applications, and China's companies even more closely so with its military. Who will help India build its AI for military and other security/strategic purposes?

Confusion is caused by many Indian IT industry leaders conveying the erroneous message that India is doing well with AI. The problem is that they are jostling for crumbs of IT/digital business when Indian policymakers should be aiming at the highest levels of new value chains that AI will create in every sector. It is mastery over the systemic cores of AI where the real national advantage lies.

The digital/AI industry works in huge ecosystems with global digital corporations at the centre, and various start-ups and specific digital/AI applications at the peripheries. Amazon and Google both push their cloud services to try to become the default machine learning platforms, which they open source to fence in the largest number of clients and followers possible. They further network selectively to aggrandise digital and AI power. For instance, Google with Walmart and China's JD.com to counter Amazon and Alibaba's e-commerce might, and Baidu with Microsoft to develop an autonomous driving platform.

Start-ups everywhere, including in India, are mostly vying to find a place in such huge global ecosystems, anchored either in the U.S. or China, generally by being bought out.

All the wonderful AI applications that we read about, which the Niti Aayog's new AI strategy is also replete with — whether of increased agriculture output, precision medicine or tailored learning — are basically shop-windows of global digital/AI corporations. It is just like they allured us with all the unbelievable Internet and mobile applications, provided for 'free'. These AI applications may give us spectacular one-off benefits here and there, but gathering further data from each new instance it is the AI engine owned by a Google or Microsoft that becomes ever more intelligent about India's problems and solutions. They stand to build an epochal fortune around these quickly-scaling AI engines.

A big nation like India cannot derive satisfaction from rapidly becoming a client country for AI, whether as ready users of AI applications in different areas, or by offering out-sourced R&D for global digital/AI corporations through start-ups existentially eager to be bought out. What really counts is whether India owns the centres of systemic AI that comes from controlling huge commercial data ecosystems. In this regard, India's ambition to be an AI superpower is, frankly, sinking fast.

Technologies should flow freely across the globe, and we must welcome global technology companies to help India's digital development. But while technology is global, data are essentially local. Even with all the overlaps, there are some basic differences between core technology businesses and data-driven businesses.

Data-based sectoral platforms, like in e-commerce, urban transport, agriculture, health, education, etc., should largely be domestic. India has a right to provide such domestic protection through policy, especially if India begins to treat its collective social/economic data as a strategic national asset, as our mineral resources are. (All the talk of data being the new oil… well quite right!)

Such policy protection alone will ensure that we have large-scale data-driven Indian companies able to develop the highest AI in every sector, by employing huge Indian data to solve (equally huge) Indian problems. Once enough AI proficiency and strength has been developed domestically, it should then be used to go global.

There is no other route to becoming an AI superpower. With its highest IT as well as entrepreneurial/managerial competence, and a huge domestic market, India is among extremely few countries that can make it. But the time is running out fast.

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