Significance of Artificial Intelligence

What is the issue?

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- The countries with advantage in Artificial Intelligence (AI) could soon take form as concentrations of global power.
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- It is high time that India use to its fullest advantage the IT and entrepreneurial competence, and a huge domestic market.
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What is Artificial Intelligence (AI)?

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- The human brain uses multiple techniques to both formulate and cross-check results.
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- AI is the simulation of this human intelligence processes by machines, especially computer systems.
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- These processes include learning, reasoning and self-correction.
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Why is AI unique?

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- Most industrial technologies develop in laboratories and then get applied by businesses.
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- But, uniquely, AI develops within business processes as data are mined from digital platforms.
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- These are then turned into intelligence and reprocessed to produce more

data and intelligence.
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- So any country's AI largely exists within its huge, domestically owned commercial digital/data systems.
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- E.g. in the U.S. it is with Google, Amazon, Facebook, Apple and Microsoft.
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- In China it lies with Baidu, Alibaba and Tencent.
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How is India in this regard?

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- India is not making a rational use of its great advantages of high IT capabilities.
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- It also leaves unplanned, the big domestic market required for data harvesting.
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- India is thus far behind in this emerging Artificial Intelligence race.
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- It has no large domestically owned commercial data systems as that of US and China.
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- Bleak chance, if any, could be hampered by allowing takeovers like that of Flipkart by Walmart.
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What is the threat?

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- **Economic** - India's consumer-behavioural and other economic data may soon be owned by Walmart and Amazon.
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- This will offer them the scope to develop various kinds of Artificial Intelligence.
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- Eventually, such AI will allow them to control everything.
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- Every participant, along various economic value chains linked to consumer

goods would be under their control.
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- **Power** - Intelligent systems typically tend to centralise and monopolise control.
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- Thus beyond economic dominance, AI influences cultural, political and military power.
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- Notably, Google and Microsoft are partnering with U.S. military on AI applications.
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- Likewise, China's AI platforms are working even more closely with its military.
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- Logically, in the coming time, whoever rules Artificial Intelligence will rule the world.
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- A non-AI military against an AI-powered one would be at a great disadvantage.
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What are the concerns for India?

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- **Competition** - The digital/AI industry works in huge ecosystems with global digital corporations at the centre.
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- The US and Chinese firms are trying to ensure the largest number of clients and followers possible.
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- Given this, start-ups, including in India, are struggling to find a place in huge global ecosystems.
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- **Understanding** - Indian IT industry leaders are conveying a wrong message that India is doing well with AI.
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- But these are only in reference to the fragment of IT/digital business.
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- The real need is creating the highest levels of new value chains that AI will

create in every sector.
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- **Applications** - AI applications talked about in India are largely in reference to eased agriculture output, precision medicine or tailored learning.
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- But these are just a miniscule of global digital/AI corporations, giving one-off benefits here and there.
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- Evidently, the AI engine owned by Google or Microsoft is gathering further data from each new instance.
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- In the course of time, they become more intelligent about India's problems and solutions.
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- So a big nation like India cannot derive satisfaction from rapidly becoming a client country for AI.
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- Owning the centres of systemic AI from controlling huge commercial data ecosystems is the real power.
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What is the way forward?

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- Policy makers should aim at building the systemic cores of AI where the real national advantage lies.
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- India must welcome global technology companies to help India's digital development.
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- But the challenge is, while technology is global, data are essentially local.
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- So India must start treating its collective social/economic data as a strategic national asset.
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- It thus has a right to provide domestic data protection through policy.
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- So data-based sectoral platforms, like in e-commerce, agriculture, health, education, should largely be domestic.
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- Such policy protection will encourage large-scale data-driven Indian companies to develop the highest AI in every sector.

- After developing enough AI proficiency domestically, it should be used to go global.

Source: The Hindu