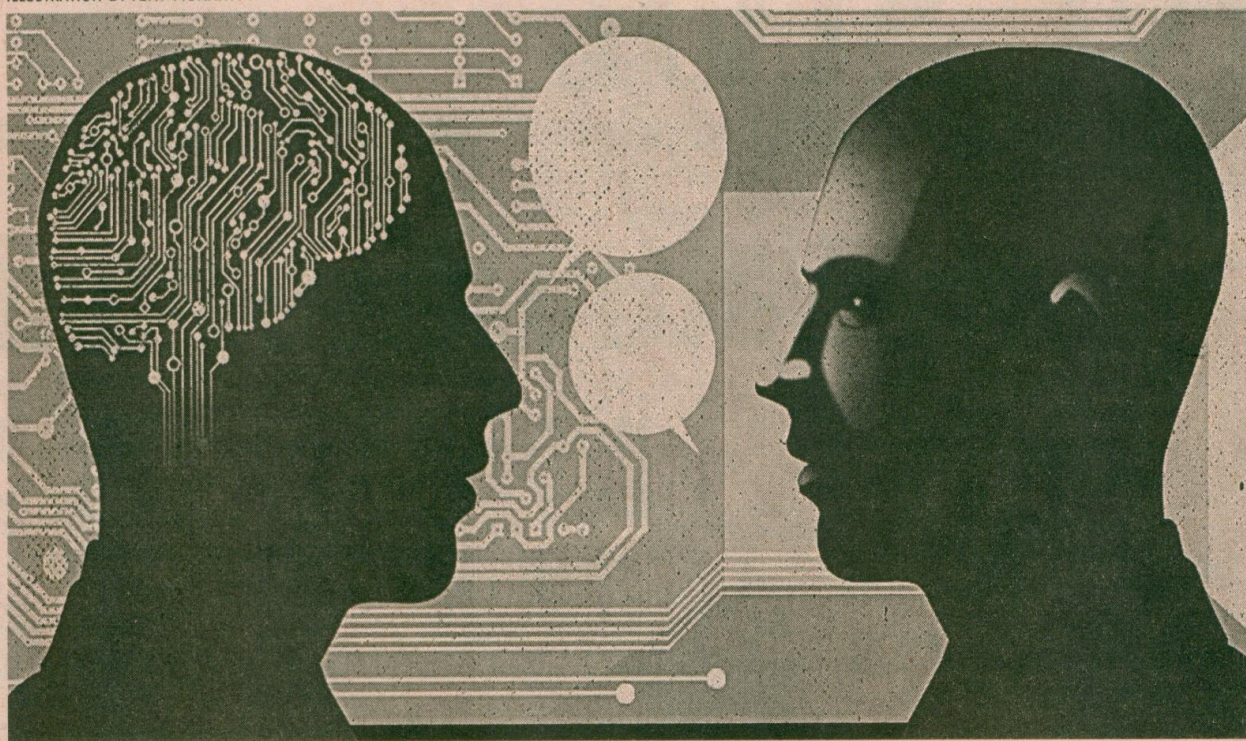


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Artificial intelligence and IT services

Indian companies seem to be trailing behind. They will have to catch up by reskilling the workforce and ramping up investments

Artificial intelligence (AI) seems to be the new technology buzzword. Hardly a day passes without an article, research report or announcement on the subject. Views on AI range from fear for the human race itself to unalloyed positivity that this technology is as big as the Industrial Revolution itself in its potential to transform productivity and the way we work and live. After decades of hype, AI-related technologies seem to be on the verge of transforming broad sectors of the global economy. As AI penetrates into the enterprise-technology landscape, it has become a controversial topic for information technology (IT) services players. If machines can think and reason, then why do we need people? Not a trivial question given that the top 10 listed IT services players employ more than 2 million people and the industry has a revenue pool of \$900 billion. This is an even more important question for the Indian IT services players. Already we have seen a dramatic drop in hiring in India, with annual numbers dropping from 400,000 at its peak to about 100,000 today. These are high-paying jobs, which are not easily replaced. For an industry which has seen revenue growth drop from 15-20 per cent as recently as four years ago to mid-single digits, as all the major players have suffered in the transition to digital, will the move towards AI-based solutions further dampen growth and competitiveness? Will the industry slow even further?



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First what is AI? Put very simply, it seems to cover five broad categories that mimic human capabilities. 1. Natural language processing (voice recognition), 2. Machine vision, 3. Expertise (expert systems such as IBM Watson), 4. Reasoning (problem-solving capabilities such as Google AlphaGo), and 5. Planning (virtual agents).

Why now? After all, the term AI was coined at a research conference in Dartmouth in 1956. After many false starts, the technology seems real and implementable today. What has changed? It really comes down to two things: A change in technique and a change in technology. We moved to machine learning and software that can learn and adapt on its own. These learning techniques need huge amounts of data and computing power. Through the advancement of Moore's law, we now have the ability to gather, process and compute petabytes of data in a cost-effective manner. As computation and storage costs fell, the new approaches to AI became commercial and implementable.

AI is likely to impact IT services players in two major areas — efficiency and growth.

Efficiency in the sense that all the major IT services players will have to deploy AI to enable more efficient running and management of both their own and client IT infrastructure and resources. Already, Accenture has talked about how a combination of automation and AI has allowed them to replace

25,000 jobs. As an example, AI technologies are being applied in RPA (Robotic Process Automation). Most of the larger Indian companies have moved in this direction already, with Tata Consultancy Services having the Ignio platform and Infosys its own version called Nia. AI used for internal efficiency will be the next must have capability to compete in the IT services landscape of the future, just as low-cost offshore resources was the differentiator between success and failure in the recent past. Without AI, you will not have the cost base to compete.

As for growth, it is clear that there will be huge business opportunities for those IT services players who develop a deep understanding of AI, have the relevant partnerships in place and have the ability to hand-hold clients as they navigate the AI ecosystem. Accenture has discussed AI being eventually a \$400-billion opportunity. This may be hyperbole, but there is no doubt the opportunity is huge. In a recent Gartner survey of CIO's, 93 per cent said they would use third-party help in deploying AI technology. We will see new service lines built around AI, just like we have seen for enterprise use of the cloud. It opens up new business opportunities and new pools of enterprise budgets to tap into.

The more one thinks about it the more AI and its impact on IT services seems to be following the playbook for digital. AI will accelerate the secular shift towards high-end more skill-based services such as consulting and custom development. It will reduce the demand for more commoditised service lines, more easily replaceable by machines.

Success will be determined by consulting skills, quality of board and CXO relationships and understanding of the technology and investments made in building the AI partnership eco-system. Ability to reskill your workforce and attract talent with higher order skills will be paramount.

It is commonly believed that the major Indian IT services players have been late in capturing the digital wave. They have been caught as incumbents normally are when the basis of competitive advantage changes. As competitive advantage has moved away from the ability to deploy low-cost human resources towards an understanding of the new digital technologies and their business application, the Indian players have been slow to adapt. AI seems to be following the same template. The Indian companies will have to raise their investments, understanding and use of these new technologies, or risk falling further behind. We are still very early in the adoption of AI technologies; there is still time for the Indians to catch up. However they need to dramatically accelerate their investments in the space. They should not hold themselves hostage to profitability metrics imposed by investors. They may need to invest upfront, only to reap the benefits later. They need to attract a shareholder base which understands and supports this.

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