

AI revolution: Has India kept pace with the rest of the world?

While some sectors have implemented automation effectively, the country needs to undergo a mindset change for wide-scale adoption of AI, feel experts.

In a joint initiative with industry, the government has set up four centres for promoting industry 4.0, across the country. However, there is a need for at least 20 such institutions to create best practices and spread the awareness of artificial intelligence (AI) products and its adoption by industry. An initiative of the Engineering Export Promotion Council (EEPC) together with the department of heavy industries, four demonstration centres that will escalate manufacturing to a smart and intelligent hub. Their task is to enhance competitiveness in every industry cluster across the country. They include the Centre for Industry 4.0 (C4i4) Lab in Pune; IITD-AIA Foundation for Smart Manufacturing; I4.0 India at IISc Factory R&D Platform; and Smart Manufacturing Demo & Development Cell at CMTI.

WAITING FOR REAL AI

In the first of a series of discussions on AI, members of The Economic Times India Leadership Council's (ETILC) core group on technology feel that in manufacturing, the process industries have done a lot of automation already and are among the first adopters of AI, such as chemicals, pharmaceuticals, and the automobile industry. For others, since digitisation is happening at a fast pace, the vexing question is how to unlock the data present in their systems so they can access the intelligence. The short answer is we have to stop toying with the concept of data analysis and make it yield results. Only then we can reach the stage of automation, and finally, on to AI in its complete sense. Currently, automation with some amount of technology is being passed off as AI, say the members. The ET ILC members include Kaushal Sarada, CEO, Kuliza Technologies; Dilipkumar Khandelwal, MD, SAP Labs India; Vinay Nathan, CEO and cofounder, Altizon Systems; Anil Valluri, CEO, India and Saarc, NetApp; AS Rajgopal, MD, NextGen; Piyush Sinha, deputy MD, NEC Technologies; Anuj Gupta, CEO, Hitachi Systems Micro Clinic; and Vikas Gupta, CEO and CTO, Gray-Matter Software Services.

So what is digitisation? It is the process of capturing all the content and data of a company in digital form in a computer. The data is digitised and then stored in a particular place for optimisation for AI. This is followed by automation, and then AI, which involves the following stages, visualisation, data analysis, and then prediction of outcomes. This happens when the Machine Learning (ML) algorithms work on the data for historical analysis, running through it as many times as possible, or iterating. The algorithm learns and optimises itself to take decisions in the future.

ENORMOUS POTENTIAL IN INDIA

We are just starting out on our AI journey, yet we have always known that AI has enormous potential in our country. Our delayed start is because our population is neither fully educated — a large section is illiterate — nor is it tech-savvy. In industry, many companies are not even net-enabled. For all these reasons we cannot get everyone to use AI applications simultaneously. We have amassed enormous amounts of data, which we can use to resolve issues in the social and other sectors i.e., healthcare, education, banking, and agriculture. This data can be mined for data analysis. In areas where we have AI, it is invisible, for example, the chatbots in bank and e-commerce websites that communicate with us for ease of use of the websites. Healthcare, agriculture, and transportation sectors are also using chatbots, and the others have to follow.

CENTRAL DATA REPOSITORY NEEDED

What will be the time span for all sectors to complete digitisation is really a guessing game. Banking, insurance, healthcare, and logistics are leading the way in digitisation, while some others are playing catch up. The government and NITI Aayog have roadmaps and vision documents to adopt technology in social and public sector projects and in their departments. But there is no timeline to digitise the departments. So while some are well ahead, particularly in Tier 1 and 2 cities, there are others for which there is no plan yet to do so. How quickly we can expand this to large parts of the country will be key to what difference AI will make. For example, Singapore may be a small population country, but it has a proper technology platform where all government services are digitised, and all its data resides in a central place.

The government is working on a similar central data repository, to connect all elements in India's fiduciary structure. These are the Centre and the states; and the cities and different ministries of both the Centre and the states. Such a planned network will facilitate more data to be available for AI to be applied for urban planning. This will help realise India's dream of truly 'smarter' cities. As of now, the healthcare and education sectors plan to do this, while logistics and transportation, are leading the way.

DELAY IN IMPLEMENTING AI

India is still steeped in its traditional ways and unless there is a mindset change, adoption of AI will take much longer. Many organisations are not implementing technology platforms because it will create unrest, as a lot of people will lose their jobs. Of course, the flip side to this is tech will create new jobs, but this will happen when there is skilling and upskilling to fill new job role requirements. This apprehension is global, and even in the USA, CEOs are hesitant to effect the change to AI. The question lingers in peoples' minds how long will it take for the society to repair itself once this happens?

STARTUP PRODUCTS NOT QUITE AI

Developing a local market for technology products is a part of the whole exercise of going global. There are over a dozen startups that are providing core technology products and unlike the past, these are made in India. However, while AI is deep algorithm most startups are focused on digitisation and data analytics. So this is the principle on which their products are based on.

CONCLUSION

Indian industry is clear that disruption by technology is imminent and it will have to adopt it. With it, companies can leverage themselves to drive business value, but as of now, they are lagging behind. It will gather momentum when the industry can create competition within itself. Highlighting the innovations of startups will bring their products mainstream, and generate peer pressure forcing others to better themselves. As one member concludes, adopting AI and getting smart, is about fostering competitiveness and peer pressure.

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