The Potential of Artificial Intelligence

What is the issue?

\n\n

\n
- AI is likely to become one of the most important technologies of our era.
\n
- In this context, McKenzie's report that analyses the potential impact of AI is a worthy consideration.
\n

\n\n

What is Artificial Intelligence (AI)?

\n\n

\n
- Artificial Intelligence is an advanced stage of automation, where machines become capable of some form of decision making and cognitive functions.
\n
- By virtue of analytical techniques, some form of preliminary automation has been existent since the 1970s.
\n

\n\n

\n
- But performance of traditional analytics tends to plateau as the data set become considerably large, which was a major impediment.
\n
- Contrarily, the evolving "Machine Learning Techniques" perform better with larger data sets, and their data requirements are also more massive.
\n
- Machine learning methods are particularly valuable in extracting patterns from complex, unstructured data, including audio, speech, images and video.
\n
- However, if a threshold of data volume is not reached, robust AI that could add value to the traditional analytics techniques, can't be built.
\n
- AI has the potential to play a major role in three important business functions namely - process automation, cognitive analytics, and people

engagement.
\n

\n\n

How is AI development progressing?

\n\n

\n
- Over the last few years, the necessary ingredients have come together to propel AI beyond research labs and into the marketplace.
\n
- Among them are – Powerful but inexpensive computer technologies; huge amounts of data; and advanced algorithms including machine learning.
\n
- Nonetheless, it is still early stages, and only leading-edge technology companies are presently in procession of advanced AI systems.
\n
- But considering the rapidity in the way AI is progressing, it is pertinent for us to ideate now on - AI’s economic potential, its limitations and challenges etc…
\n
- In this context, McKinsey recently published a paper on the marketplace potential of AI, which is a worthy read.
\n

\n\n

What does Mckinsey’s paper state?

\n\n

\n
- The paper is focused on machine learning and based its study on more than 400 use-cases across 19 industries and 9 business functions.
\n
- **Applications -** Two-thirds of the opportunities to use AI are in improving the performance of existing analytical tools, and reducing human intervention.
\n
- This implies that, AI majorly being applied successfully to tasks that not long ago were viewed as the exclusive domain of humans.
\n
- Only 15% of the use cases studied by McKinsey are green-field cases, in which only machine learning techniques can be used.
\n
- In the remaining 15% of cases, machine learning provided limited additional performance over existing analytical methods.

\n

\n\n

\n

- **Economics -** It has been estimated that the potential value that AI would add to the global economy ranged between $3.5 trillion and $5.8 trillion annually.
  \n
- This is about 40% of the overall value for all analytical techniques.
  \n
- The most probable areas where AI’s potential could be reaped are retail, transport, logistics, and travel.
  \n

\n\n

What is the way ahead?

\n\n

\n

- In line with the current trend, companies are likely to adopt AI by incrementally leveraging and ramp up their existing analytics capabilities.
  \n
- For this, they need to make sure that they have access to the necessary data for the envisioned up-gradation.
  \n
- Such a pragmatic approach to getting on the AI learning curve is more sensible than attempting to tackle advanced, green-field AI problems.
  \n
- Notably, the latter requires the kinds of skills and data that are generally only available to tech giants.
  \n

\n\n

Source: Business Standard

\n

SHANKAR IAS PARLIAMENT
Information is Empowering