

1. AI will add \$15.7 trillion to the Global Economy by 2030

Context:

- Most organisations today acknowledge that Artificial Intelligence (AI) has the potential to solve complex problems at scale, enhance efficiency and optimise costs.
- According to a recent survey 65% of global and 62% of Indian CXOs have implemented AI in some form. This growing popularity is only going to see an uptake, with companies looking to become fit for future.

What is Artificial Intelligence?

- **Artificial intelligence refers to the intelligence shown by machines** i.e. computer software, computer controlled robots etc. **It is the ability of machines to think logically, learn from observations and optimise intelligently similar to the Intelligence of Humans.**
- It is the simulation of human intelligence in machines which includes capabilities such as reasoning, self-correction, performing cognitive tasks, problem solving and decision making ability etc.
- **Artificial intelligence is the part of the fourth industrial revolution** which includes robotics, artificial intelligence, nanotechnology, quantum computing, internet of things, autonomous vehicles etc.

Fundamental challenges organisations face with AI:

- Businesses may have been able to address issues around data supply chain, they are still grappling with the 'black box' problem, i.e, lack of understanding and explainability of AI decisions.
- In fact, 58% of survey respondents **admit they lack understanding of how AI applications made decisions** and only 10% CEOs are confident about the reliability. This lack of understanding has resulted in many instances where AI systems did not behave the way they were expected to.
- Certain sectors like financial services are more impacted by this ambiguity than others. Financial institutions have been the earlier adopters of AI. Using AI and a multitude of customer data points, banks now determine willingness-to-pay scores, to approve loans.
- **While this brings huge benefits and increases business efficiency, such initiatives are also fraught with risks.** Each decision taken should correctly identify the risk profile of customers so that they do not adversely harm the business interests.

- Such applications should also be compliant with various jurisdictional data privacy laws, industry regulations and legal frameworks of the geographies they operate in.
- Another industry that **AI promises to transform is healthcare**. Consider radiology, AI will augment the skills of radiologists, helping them find new causal patterns via image processing, interpretation, reporting and planning to enable faster and more precise reading of medical images and better diagnosis.
- However, it has **inherent risks** which need to be properly governed and managed to provide responsible patient care. For starters, the outcome of AI-aided medical imaging need to be interpretable and explainable for it to be trustworthy. **Data is highly sensitive and private, and AI applications should ensure privacy and ethical use.**
- Challenges around AI applications, irrespective of industries and functions, are spread across ethical, economic, societal, security, performance and control related aspects. AI initiatives need to address such risks.

Steps to address the Challenge:

- The first step to address these challenges is developing a **responsible AI (RAI)** Framework that provides a firm foundation to an organisation's AI efforts—right from strategy formulation to planning, ecosystem management, development, deployment, operations and monitoring.
- Strategy formulation helps organisations adhere to internal policies and practices and align with industry standards and regulations.
- A delivery approach is decided to manage outcomes and to ensure consistent program oversight in the planning phase. **Ecosystem management** helps create the technology roadmap, source different applications and establish a change management process.
- Finally, **development and deployment of systems occur in an iterative manner to create a comprehensive and accurate model**. However, some AI models have a tendency to deteriorate over time, hence these need to be constantly monitored. This can be achieved through compliance testing and operational support.
- **The second step is to back the Framework by a Technology-Enabled Toolkit** that provides a set of assets and practice aids curated to accelerate the evaluation of data, AI models and their trade-offs, while considering the associated risks and relevance.

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- Such assets can help organisations reduce AI related risks to a sub-threshold level and provide explainability to the decisions taken by their AI applications, thereby reducing the black box problem.

Conclusion:

- **The promise of AI is immense; according to our estimates it will add \$15.7 trillion to the global economy by 2030.** For this to be realised and for organisations to be become fit for future, AI must be supported by strong performance pillars.

