

ADVENT OF

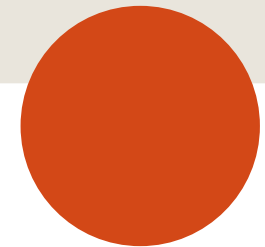
TECHNOLOGY IN BUSINESS

RISING RISK & CHALLENGES FOR IA

National Conference on Internal Audit
ICAI WIRC
Tech Session 1: A Peak into the Future of Internal Audits

Rajiv Gupta.

CA, Data Scientist, Chief of Audit



A portrait of Morgan Freeman, an older Black man with white hair and a beard, wearing a dark suit jacket over a light-colored shirt. The background is dark. In the top right corner, there is a red circular stamp with the text "DIEP N&P" in white. At the bottom of the image, there is a white text overlay that reads "THIS IS NOT MORGAN FREEMAN." In the bottom right corner, there is a small red circular logo.

DIEP
N&P

THIS IS NOT MORGAN FREEMAN.

THE MYTH ABOUT HAVING “AN OPTION”

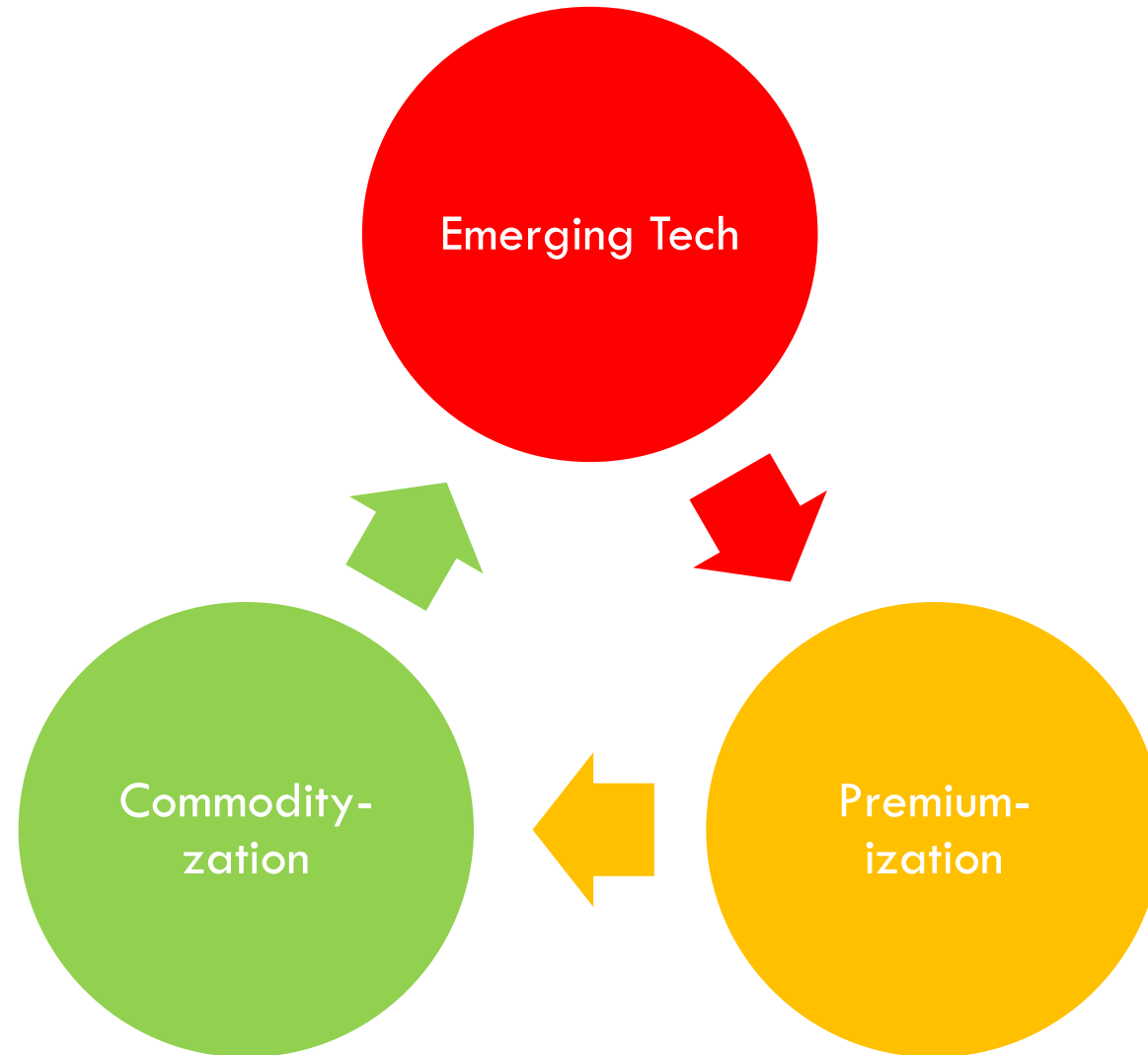
To adopt
Or
not to adopt?

To audit
or
not to audit?

To learn
or
not to learn?



EMERGING TECHNOLOGIES JOURNEY: FROM PREMIUM TO COMMODITY!



...AND THE “PREMIUM” OF MANY JOBS WILL CHANGE IN NEXT FEW YEARS...

↗ Increasing demand

| | |
|----|---|
| 1 | Data Analysts and Scientists |
| 2 | AI and Machine Learning Specialists |
| 3 | Big Data Specialists |
| 4 | Digital Marketing and Strategy Specialists |
| 5 | Process Automation Specialists |
| 6 | Business Development Professionals |
| 7 | Digital Transformation Specialists |
| 8 | Information Security Analysts |
| 9 | Software and Applications Developers |
| 10 | Internet of Things Specialists |
| 11 | Project Managers |
| 12 | Business Services and Administration Managers |
| 13 | Database and Network Professionals |

↘ Decreasing demand

| | |
|----|--|
| 1 | Data Entry Clerks |
| 2 | Administrative and Executive Secretaries |
| 3 | Accounting, Bookkeeping and Payroll Clerks |
| 4 | Accountants and Auditors |
| 5 | Assembly and Factory Workers |
| 6 | Business Services and Administration Managers |
| 7 | Client Information and Customer Service Workers |
| 8 | General and Operations Managers |
| 9 | Mechanics and Machinery Repairers |
| 10 | Material-Recording and Stock-Keeping Clerks |
| 11 | Financial Analysts |
| 12 | Postal Service Clerks |
| 13 | Sales Rep., Wholesale and Manuf., Tech. and Sci.Products |



Deadline 2024- Why You Only Have 3 Years Left To Adopt AI?

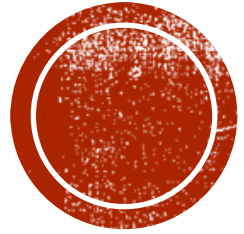
It is expected for AI/ML to be at the peak of adoption by around 2024. ...see more



Deadline 2024: Why you only have 3 years left to adopt AI

venturebeat.com • 4 min read





SOME OF THE MEGATRENDS...



CONVENIENCE ECONOMY DRIVEN BY DIGITALIZATION AND CONNECTIVITY



METAVVERSE



BLOCKCHAIN & METAVERSE

- These technologically advanced cryptocurrencies will **change the way the world does business.**
- They could replace traditional **credit cards, checks and wire transfers.**
- Many smart businesses are beginning to take action. For example:



JPMORGAN CHASE & CO.



DEFI – DECENTRALISED FINANCE

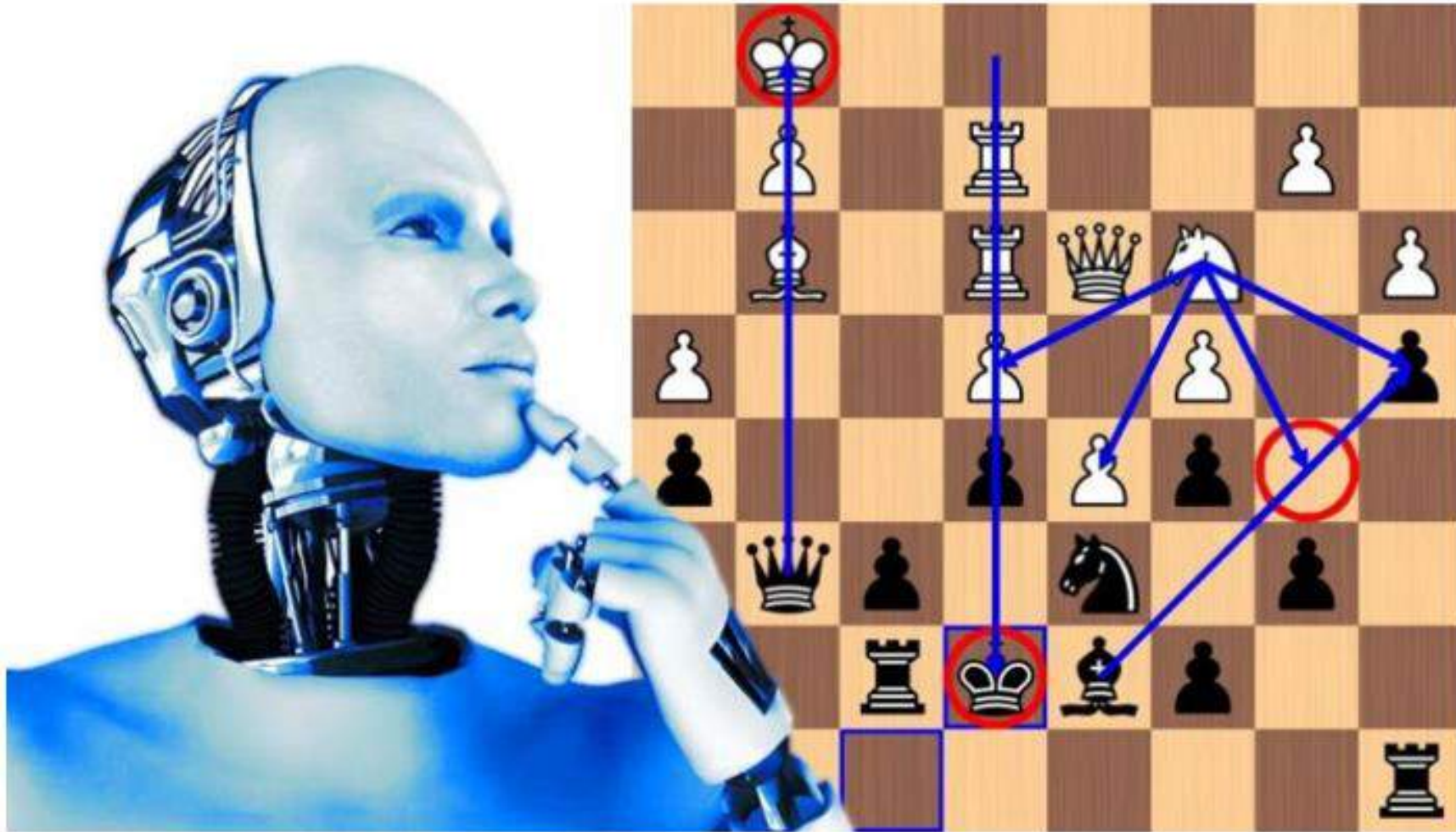
- Decentralized Finance (DeFi) is a blockchain-based financial system.
- It lets you **borrow, save, invest, trade**, and more.
- Instead of relying on centralized intermediaries like banks, stock exchanges, or brokers, DeFi financial services use smart contracts to record transactions and transfer funds.
- **Ethereum** is one such crypto that provides a strong foundation for DeFi for a number of reasons:
 - No one owns Ethereum or the smart contracts that live on it – this gives everyone an opportunity to use DeFi.
 - This also means no one can change the rules on you.
- So far **tens of billions of dollars** worth of crypto has flowed through DeFi applications and it's growing every day.

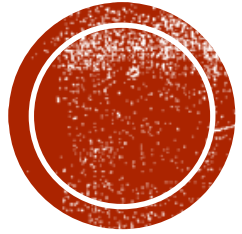


Cybersecurity threats posed by truly SELF-LEARNING AI

A lot of ML models in use in today's enterprises are controlled.

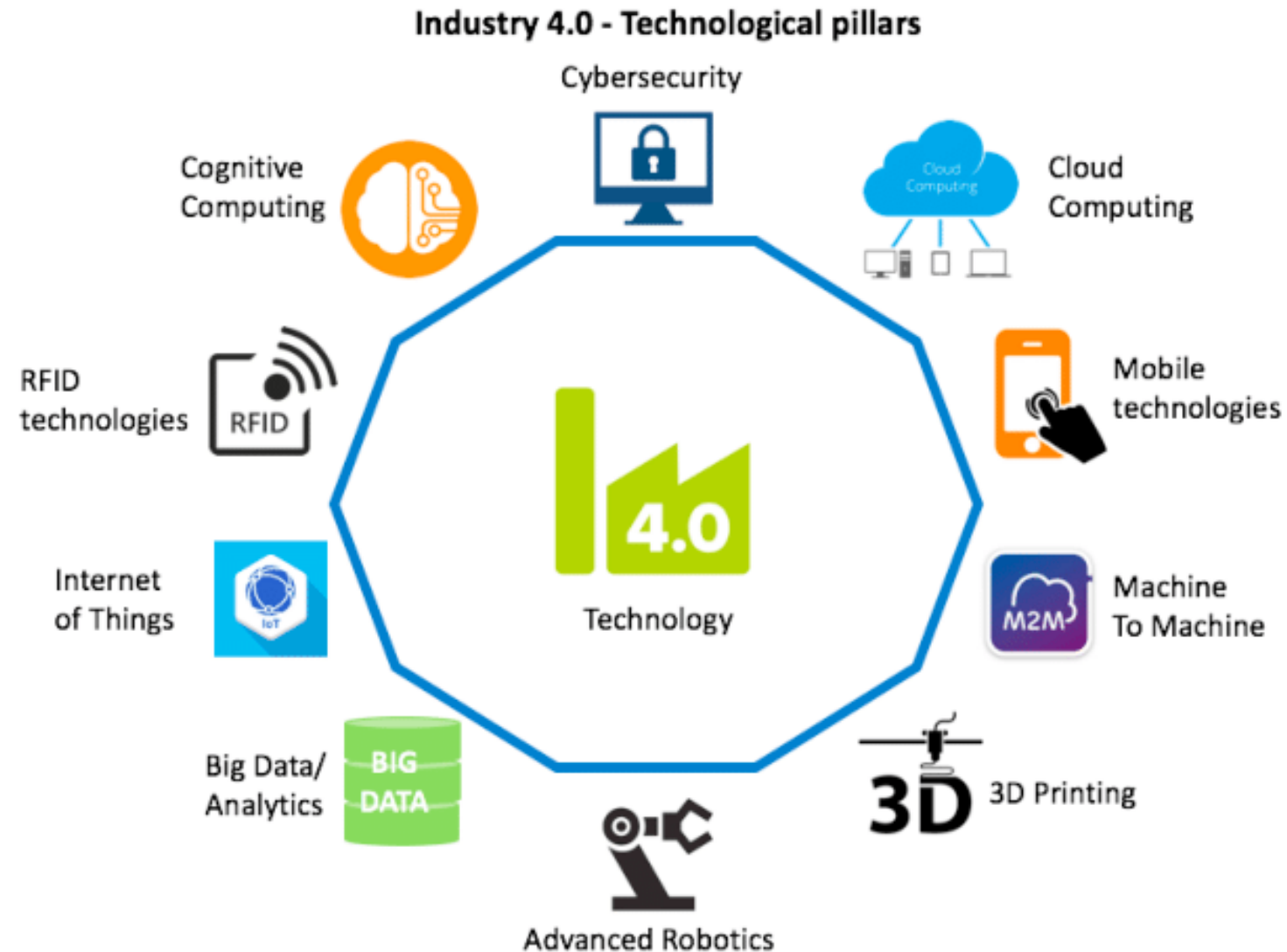
[...see more](#)

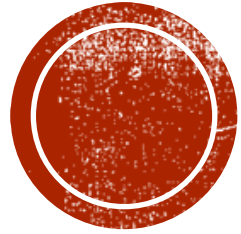




POTENTIAL AUDIT SCOPE IN THE FUTURE

POTENTIAL AUDIT SCOPE IN THE FUTURE





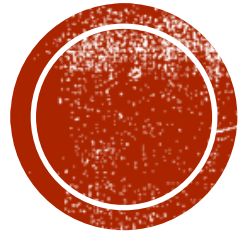
RISKS BROUGHT IN BY THESE TECHNOLOGIES





- Poor RPA and AI/ML design
- High execution speed of RPA (can multiply processing errors)
- Inadequate testing of AI/ML and RPA (potential Financial Statements risk)
- Data bias
- Inadequate Disaster Recovery Planning for bots
- Data Privacy risks
- Impact on Organizational culture





POTENTIAL **CHALLENGES** FOR INTERNAL AUDITORS

CHALLENGES FOR INTERNAL AUDITORS



- **UPSKILLING** to stay **RELEVANT** → predictive analytics, robotic process automation (RPA), blockchain, machine learning and artificial intelligence (AI)
- **New Age expectations** beyond traditional audits



KEY TAKEAWAY...

- Though auditors are NOT expected to be EXPERTS in every technology, they should be able to IDENTIFY THE RISK inherent with these technologies.
- This includes UNDERSTANDING the **technology** architecture, the **internal control framework** embedded in the technology and its **integration** with business.





BE SAFE !

Rajiv Gupta.

CA, CFE, CISA, DISA, Data Scientist
Vice President & Group Head- Internal Audits