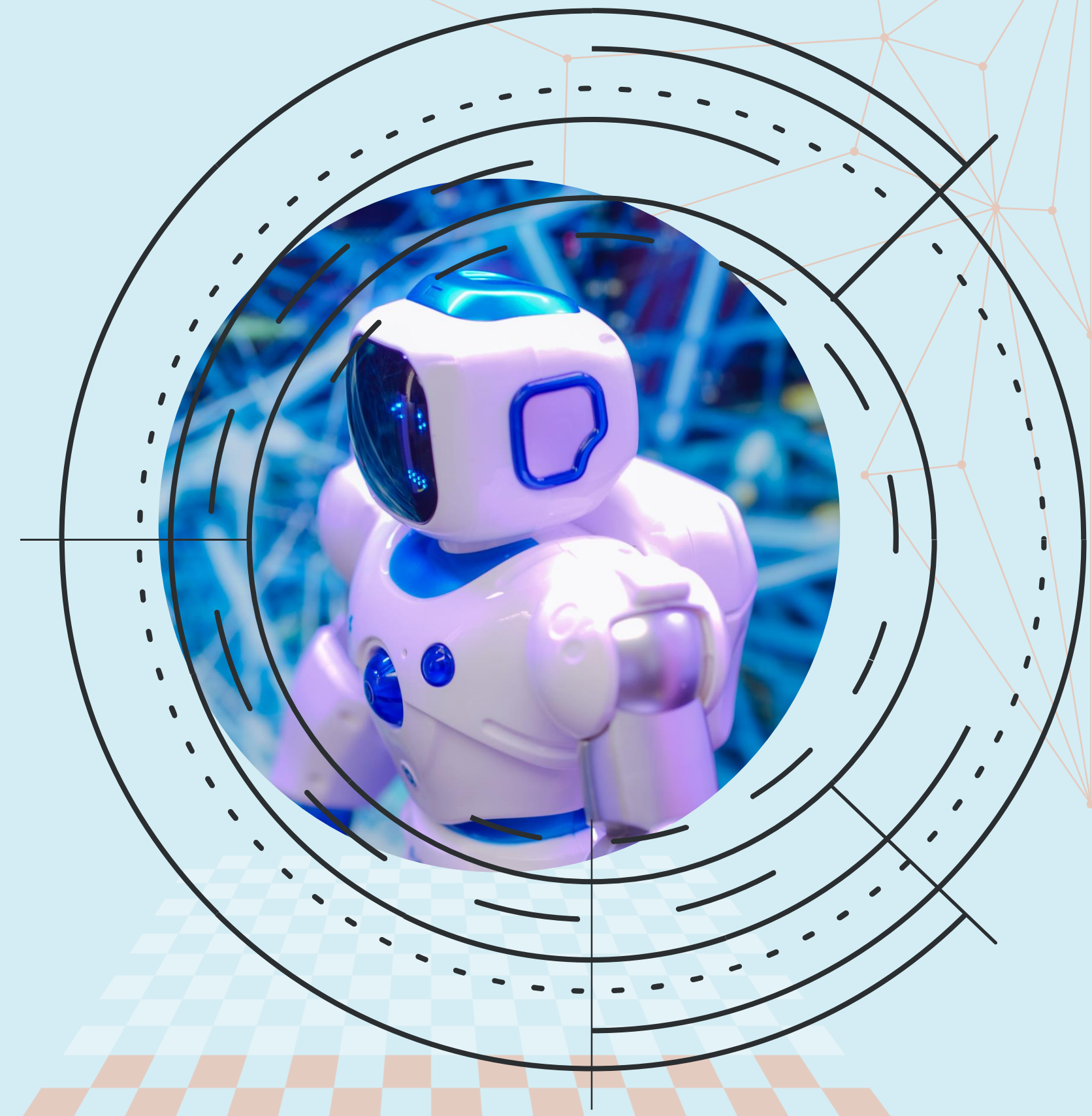


Auditing and Governance in Emerging Technologies: Ensuring Compliance and Accountability.

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- Examples of Emerging Technology.
- Emerging Technology Governance.
- Role of the auditors in Emerging Technologies.
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- How auditors can overcome These Challenges.
- Transparency and Reporting.
- Recommendations and Future outlook.





Introduction

- Emerging Technologies are revolutionizing the Audit Profession by Enhancing How Auditors Collect, Analyze, and Interpret Data.
- These Tools are Driving a Shift from Traditional, Manual Procedures to more Automated, Intelligent, and Real-time Audit Approaches

Shaping the Future of Public and Private Auditing

What are Emerging Technologies?



Emerging Technologies are new or rapidly developing innovations that have the potential to significantly impact industries, economies, societies, and the way we live or work.

Why does this Topic Matter?

- Emerging Technologies are Transforming Audit Environments.
- Auditors Must Adapt to Remain Relevant and Effective.
- Governance Frameworks Must Evolve to Ensure Trust and Accountability.

| Examples of Emerging Technologies |

- 1 Artificial Intelligence
- 2 Block Chain
- 3 Robotics Process Automation
- 4 Internet of Things (IOT)
- 5 Quantum Computing

| Examples of Emerging Technologies |

AI

O1 Enhances data analytics and decision-making but raises concerns around algorithm bias and explainability

Block Chain

O2

Offers secure, decentralized transaction records, yet brings challenges in auditability and regulatory compliance

Robotic process Automation RPA

O3

is the use of software bots to automate highly repetitive, routine tasks that typically require human interaction with digital systems, thereby increasing efficiency, reducing errors, and freeing up human workers for more complex tasks.

| Emerging Technologies Examples |

04 Internet of Things (IOT)
Enhances automation, data analysis, efficiency, monitoring, convenience, and opens up new possibilities across various aspects of life and industry.

05 Quantum Computing
Its potential to impact data encryption, cybersecurity, complex analytics, and fraud detection.

Emerging Technology Governance



Refers to :

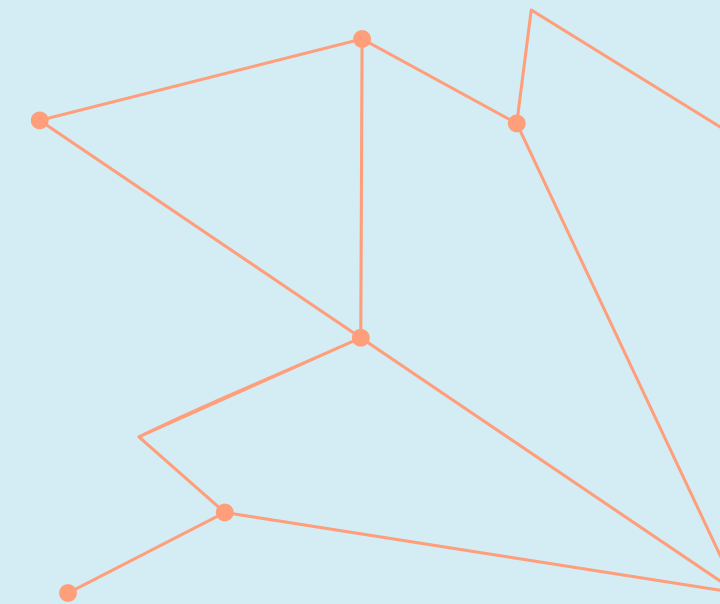
- Governance Frameworks Ensure Technologies are Used Responsibly.
- Governance should focus on Ethical Implications , Risk Management, and Regulatory Compliance .
- Auditors Monitor adherence to Governance Principles.

Why governance is critical ?

- Ensures Ethical use of Technology.
- Manages Systematic Risks.
- Protects Public Interest.

Principles of Tech. Governance

- Transparency
- Accountability
- Security and Privacy
- Responsiveness



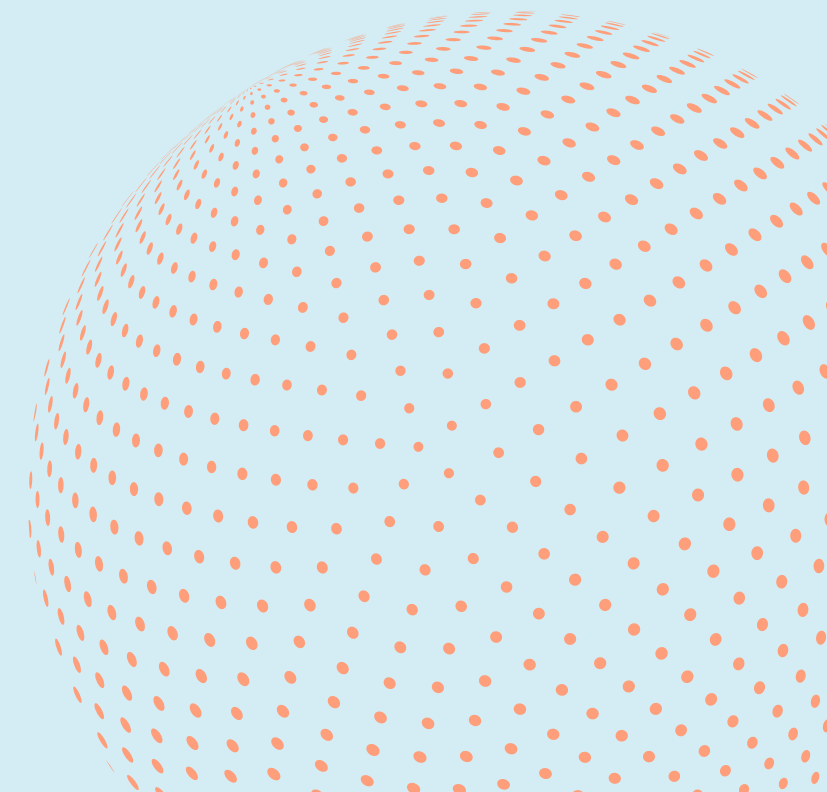
Stakeholder Responsibilities

- **Governments** : Policy and Enforcement.
- **Companies** :Implementation and Compliance.
- **Auditors** : Independent Assurance
- **Public**: Engagement and Oversight.



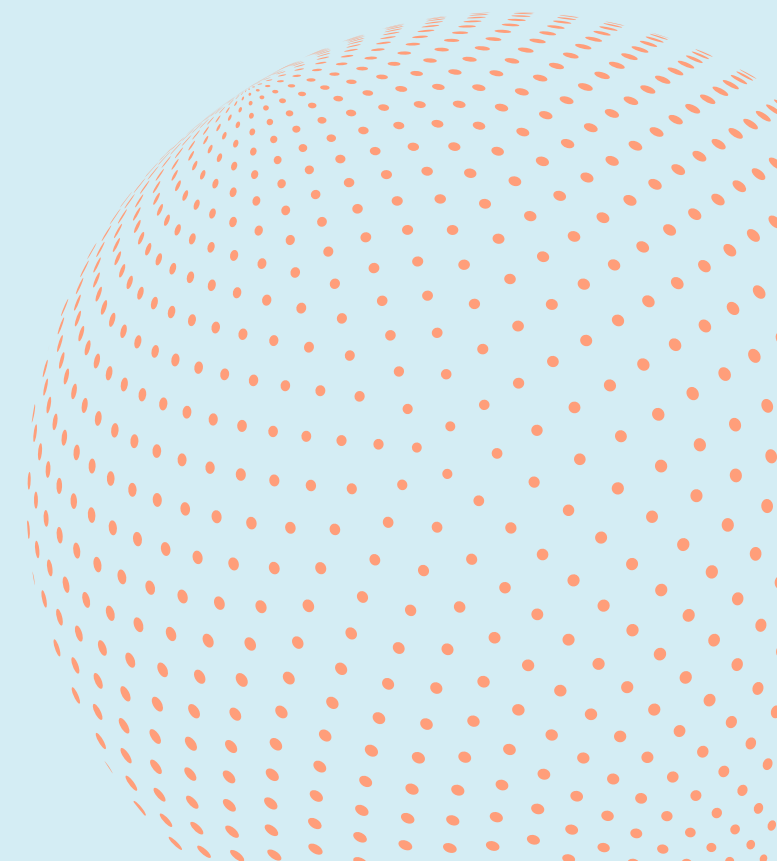
AI Ethics & Governance

- Bias detection and Mitigation.
- Explainability and Fairness
- Responsible AI lifecycle Management.



Risks of Poor Governance

- Algorithmic bias and discrimination.
- Cybersecurity Breaches.
- Loss of Public Trust.



Role of Auditor in Emerging Technologies

- 1 Assessing Risks Related to Emerging Technologies.
- 2 Ensuring Compliance and Governance.
- 3 Evaluating and Testing IT Controls.
- 4 Validating the Reliability of Technology-Driven Outputs.
- 5 Advising on Technology Adoption and Digital Transformation.
- 6 Supporting Ethical and Responsible Use of Technology.

Ensuring Compliance and Governance

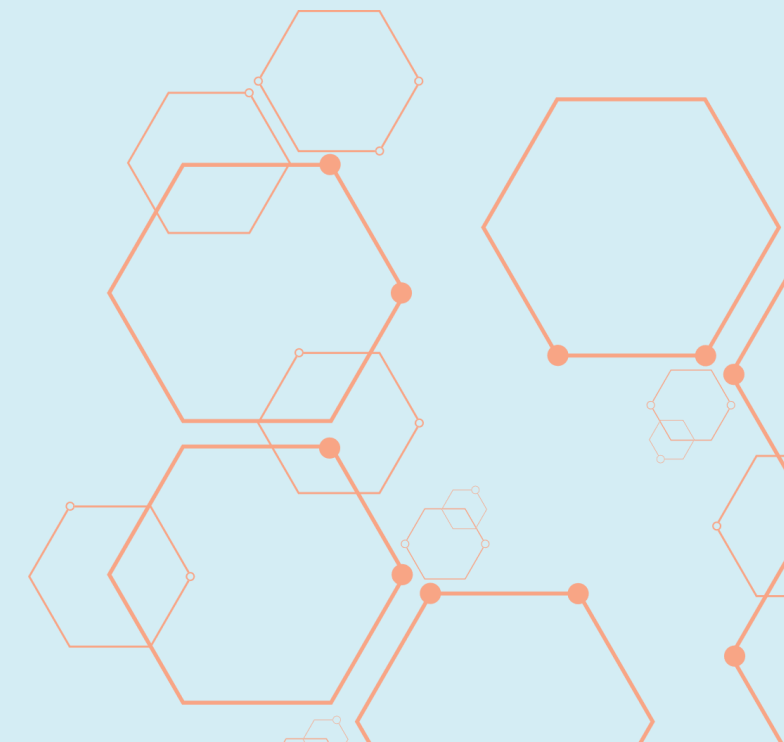
When Auditors ensure Compliance and Governance, they evaluate whether an organization follows the Rules (**Compliance**)

and

Whether Managing Risks, Decisions, and Responsibilities systems are Effective and Ethical (**Governance**).

Assessing Risks Related to Emerging Technologies.

Assessing risks related to Emerging Technology is the process of systematically Identifying, Evaluating, and Monitoring potential Threats and Vulnerabilities introduced by new or evolving digital tools and systems.



Challenges for Auditors Using Emerging Technologies

- Lack of Expertise and Skills
- Data Privacy and Security Concerns
- Complexity of Systems
- Regulatory and Legal Uncertainty
- Auditability and Transparency Issues
- Resistance to Change
- Integration with Existing Tools

Opportunities for Auditors Using Emerging Technologies

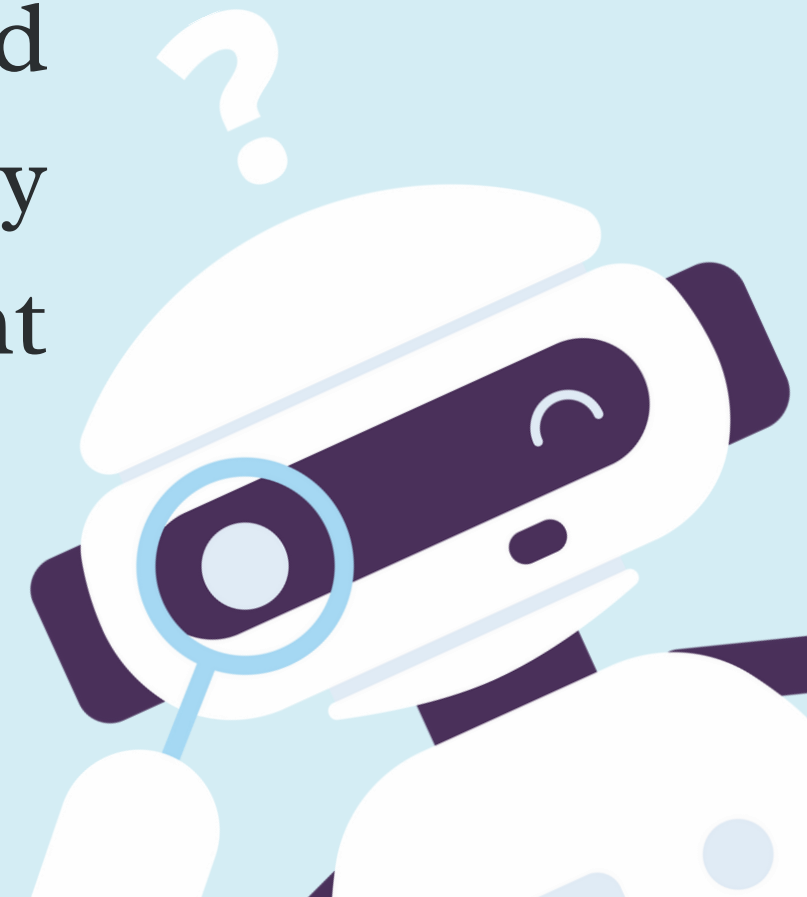
- Enhanced Audit Quality and Accuracy
- Real-Time Auditing and Continuous Monitoring
- Greater Efficiency and Cost Reduction
- Advanced Data Analytics
- Improved Risk Identification
- Remote and Digital Audits

How auditors overcome these Challenges?

- 1 Upskilling and Continuous learning
- 2 Collaborating with Tech. Experts.
- 3 Investing the Right Technology
- 4 Strengthening Cybersecurity&Data Governance
- 5 Leveraging Regulatory Guidance and Framework
- 6 Empowering Critical thinking and Professional Judgement

Conclusion

Auditors are evolving into key figures who not only verify compliance but also guide responsible tech implementation. Governance frameworks must be dynamic, adaptable, and deeply integrated with technology life cycles, ensuring they address transparency, explain ability, and risk management from the start.



Recoomendations and Future Outlook

Develop Clear Audit Frameworks for Emerging Technologies

Promote Explainability and Accountability

Embed Technology Transparency in Governance Structures

Enhance Auditor Technology Skills

Strengthen Reporting Mechanisms

THANK YOU

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