





WELCOME TO SAI 20 Senior Official Meeting

Responsible Artificial Intelligence





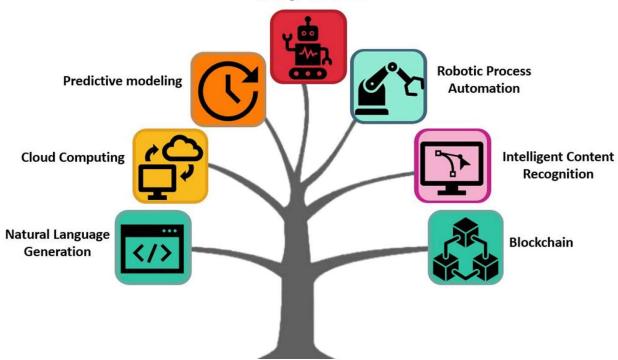
Overview on Artificial Intelligence





Components of Artificial Intelligence

Intelligent chatbot



Deep Learning (DL)

Machine Learning (ML)

Artificial Intelligence (AI)

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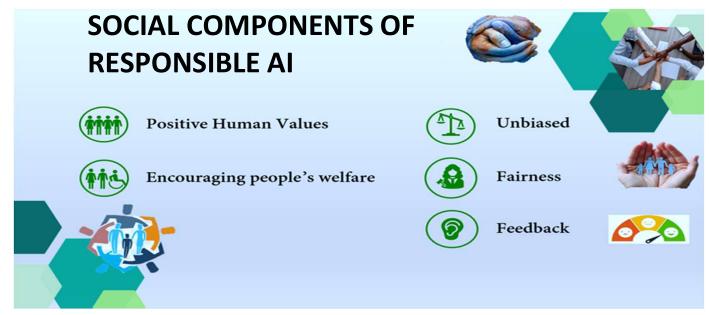
Responsible Al...







betterment of the **Common man?** Can Al be used for- solving Societal problems? benefit of the Women, Farmers, Students?



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Why Responsible AI?









Cognitive Bias

- Designed and trained by humans
- Human bias in decision-making process

⊘

Accountability of Al decisions

- Complex network of decisions
- Accountability for harm



Privacy of Data

- Built on sensitive and personal data
- Privacy vulnerabilities



Security of System

- Susceptible to attack
- Manipulation of system



Safety and Reliability

- 'Deep Learning' systems is opaque
- 'Black box' phenomenon

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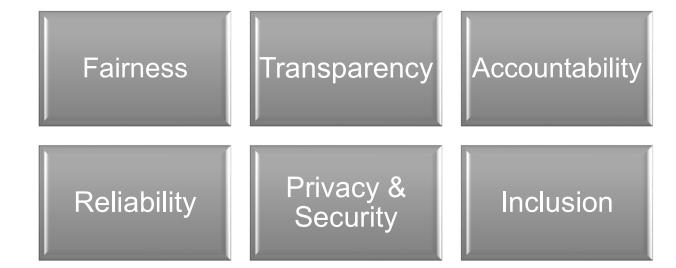


Resonance of **SAI20 & Responsible AI** principles











Global Perspective on Responsible Al







OECD



Al Ethics guidelines, **Principles on AI**

Brazil



National AI Strategy

Russia



UNESCO



Global agreement on Al principles and challenges China



Al Development Plan

Saudi Arabia



National Strategy for Al

Australia Al Action Plan



Japan



Al Technology Strategy

South Korea



AI R&D Strategy



Key Al Initiatives by Government of India











Responsible AI #AIFORALL



IndiaAl Portal



Centre for Excellence in Al



Safe and Ethical AI Policy-TN



Global Partnership on Al



Responsible AI - Building Blocks





Data Governance







Consolidated Data platform – at all level of Governance



Data Discoverability and Research ecosystem

Data Standardization



Pre-condition to enable implementation of AI



Support cross-verification and training for AI



ISO-PC -295 which is being adopted by various countries



Auditing Responsible Al

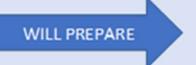






- ✓ Ensuring Legal and Regulatory compliance of AI System
- ☑ ✓ Promoting Transparency, Privacy, Security, and Accountability
- Internal capacity building of auditors in Al

ADOPTING AI IN AUDIT



AUDITING OF AI

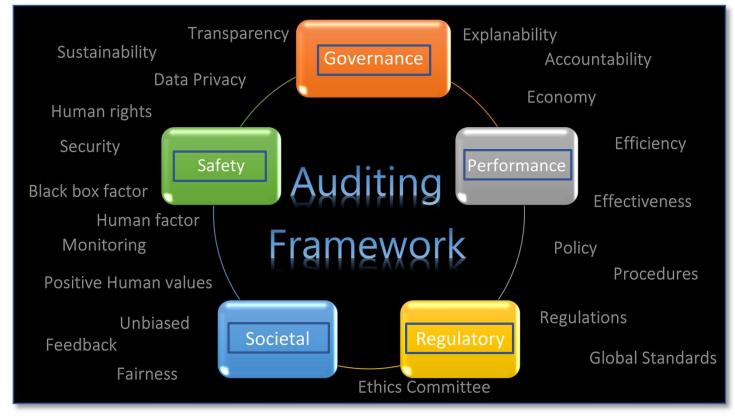


Framework for Auditing Responsible Al









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Auditing Responsible Al (GOVERNANCE)







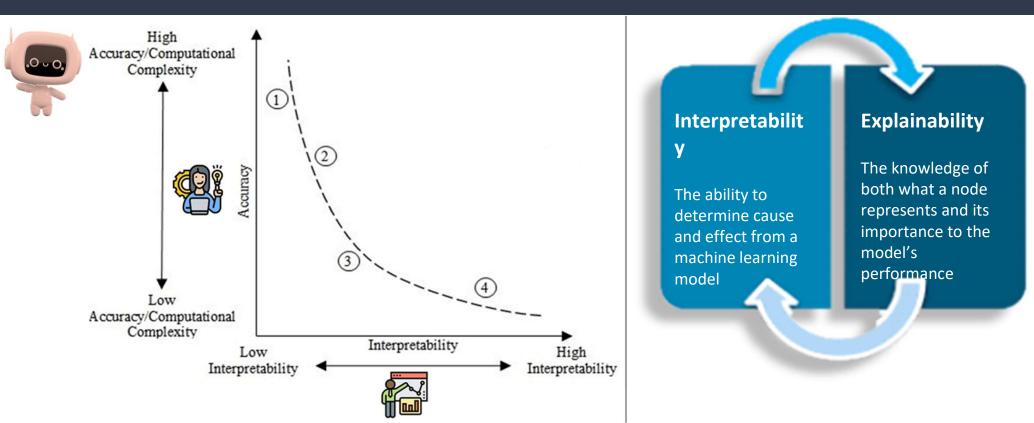




Auditing Responsible Al (ACCURACY VS INTERPRETABILITY)







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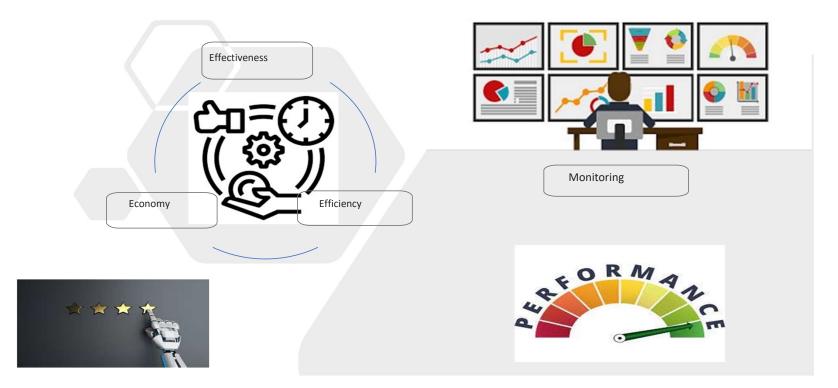


Auditing Responsible Al (PERFORMANCE)











Auditing Responsible Al (REGULATORY)









Policies,
 Procedures and
 Regulations
 guide the design,
 development
 and use of AI
 systems.



• Global standards will serve as the compass for guiding the deployment of AI.



Ethics
 Committee can
 overlook the
 internal
 oversight of the
 development
 and deployment
 of AI solutions.



Auditing Responsible Al (SAFETY)









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Adopting AI in Audit







Adopting AI capabilities in Audit

- Opportunities and Risks
- Mapping Audit processes and Tasks
- Use of AI in Big Data Analytics
- Exploring Tools for AI
- Capacity Building Programme

Al Strategy for SAI: Way Forward Maturity Model for implementation of AI in Audit O3 Al Strategy D3 Big Data Analytics Basic Data Analysis



Case Study - Al in Audit





Detecting non-inclusion of Beneficiaries in Scholarship Scheme

- ➤ The National Scholarship scheme with limited seats are provided to students of minority communities.
- > Statistical Model was developed using Bayesian algorithm to detect % of eligibility.
- > The deviations above a specific threshold showed ineligible beneficiaries.
- > These ineligible beneficiaries resulted in non-inclusion of eligible beneficiaries.

Why I have been not selected?







Way Forward - Roadmap















Thank you for your time