



AI at the IRS: **Where we've been and where we're going**



AI at the IRS:

Artificial Intelligence (AI)

WHAT THE IRS IS DOING NOW

- Progressively enhancing AI and machine learning infrastructure and capabilities.
- Maturing use cases to streamline internal processes, assist taxpayers, and improve our ability to detect noncompliant taxpayer behaviors.
- Swiftly preparing to fully exploit new AI technology, especially generative AI/ Large Language Models (GenAI/LLMs).



AI Future State Vision

AI capabilities will be well-integrated into IRS agency activities, yielding significant efficiencies and program improvements for IRS employees and taxpayers.



AI at the IRS:

The IRS AI Journey



Successes

- Operational Efficiencies
- Compliance
- Taxpayer Experience
- Initial AI Governance

The IRS has already realized benefits from ongoing AI research and implementation and has established enterprise AI governance.



Opportunities

- Expanded Uses of Predictive AI
- Generative AI Foundational Capabilities
- Employee Tools

IRS is actively exploring opportunities to use generative AI and expand upon uses of predictive AI to solve present and future mission needs.



Enablers

- AI Governance & Assurance
- Workforce
- Organizational Readiness
- Data
- Path to Production
- Cybersecurity
- Infrastructure

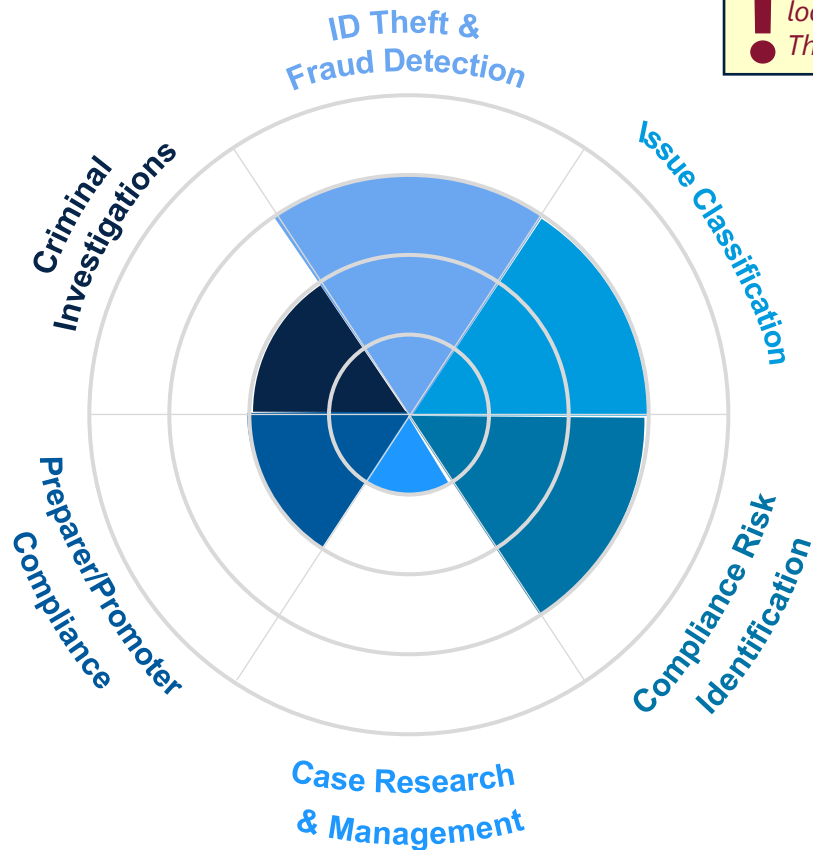
IRS continues to build enablers to expand on our successes, seize opportunities, and manage risks.



AI at the IRS:

The IRS uses AI to detect and address tax fraud & noncompliance

! The IRS always includes a human in the loop for compliance AI use.
● The IRS does not use AI to surveil taxpayers.



LEGEND
 Wedges represent how fully we are covering AI opportunities in this area

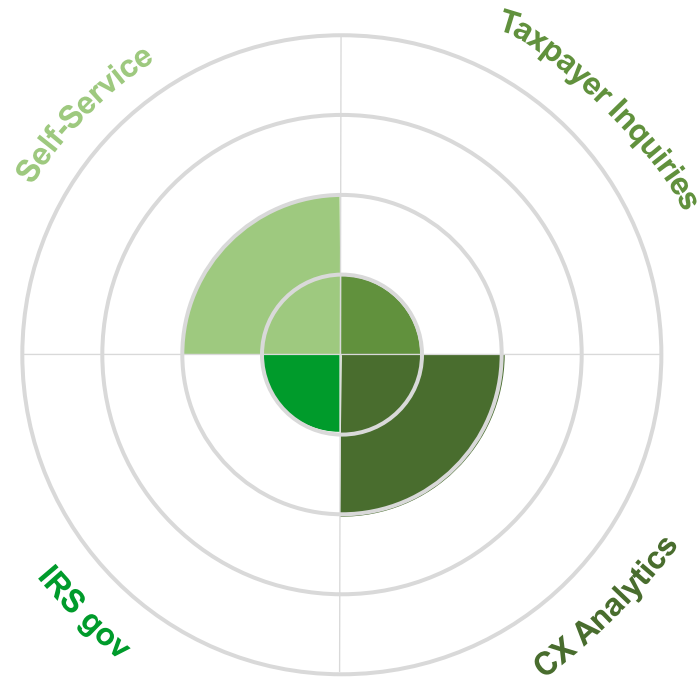
- 4: AI capability across wide range of use cases
- 3: Broader scope of active use cases
- 2: Limited scope of active use cases
- 1: Scratching the surface





AI at the IRS:

The IRS uses AI to help taxpayers and foster voluntary compliance



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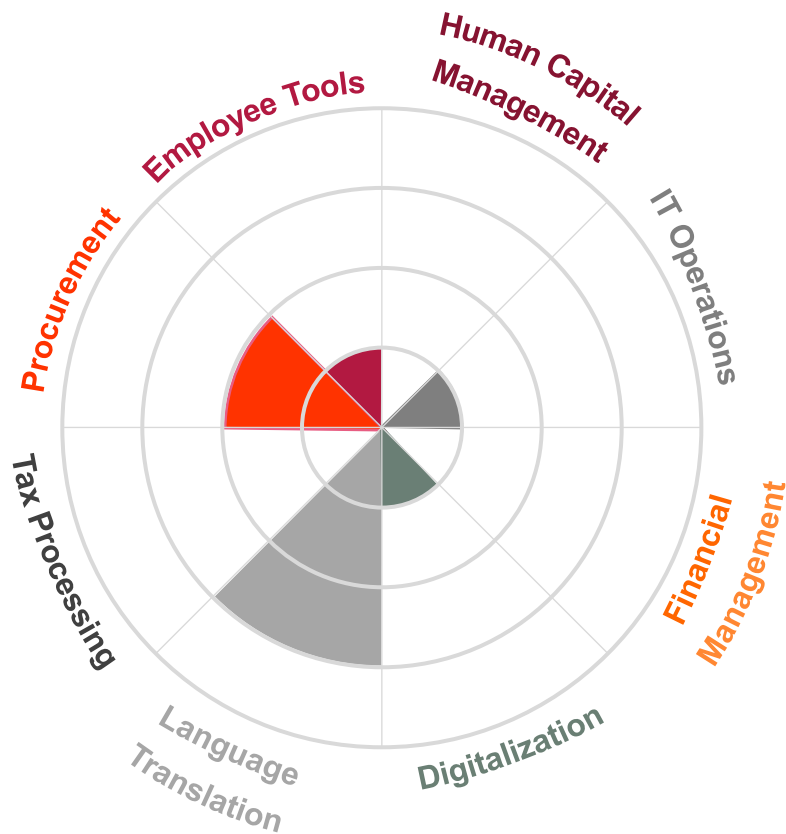
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AI at the IRS:

The IRS uses AI to gain internal efficiencies and support our employees



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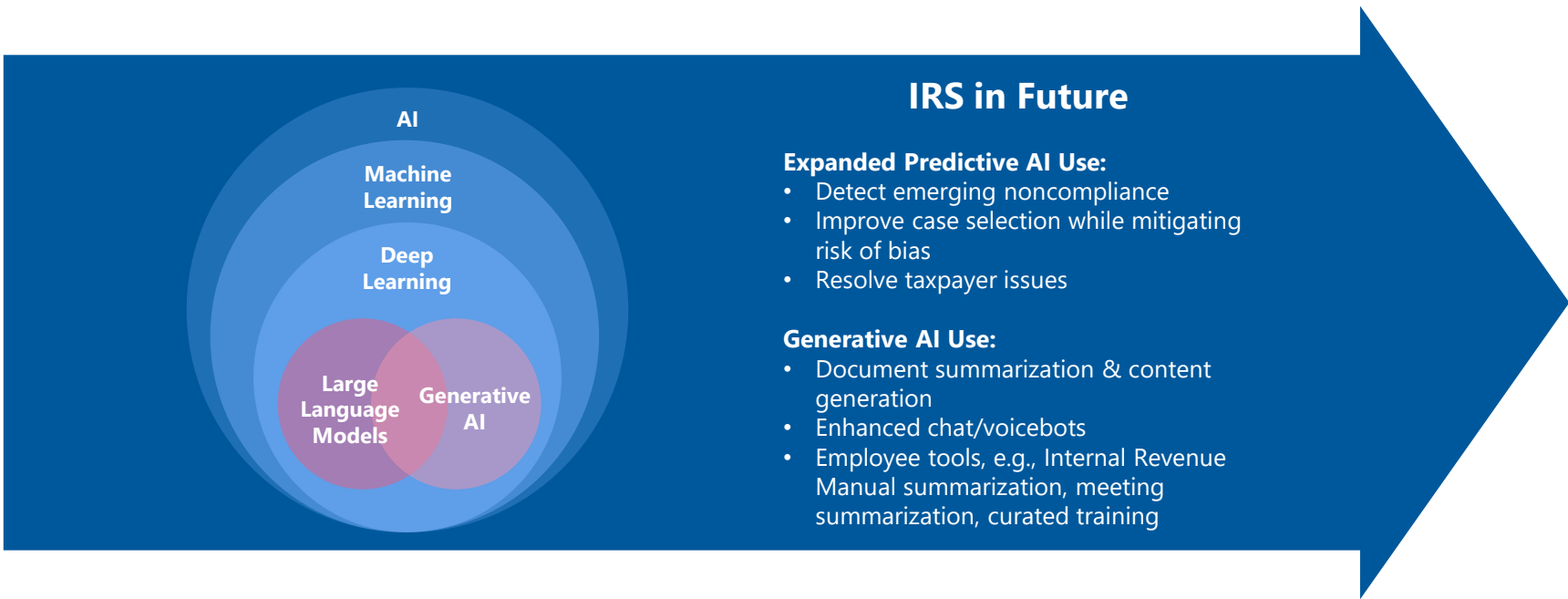
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AI at the IRS:

IRS has made significant strides – and emerging GenAI unlocks new potential

The IRS has made significant strides in implementing more "traditional" forms of AI, such as supervised and unsupervised machine learning for natural language processing and decision support, and we have a healthy pipeline of new use cases under active development. Now, we are gearing up to leverage generative AI.



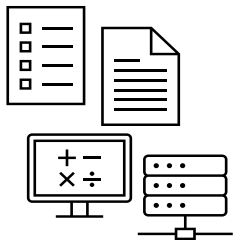


AI Governance Process Workflow



Project Team:

- 1 • Completes AI Use Case Inventory Questionnaire (includes the OMB Self Assessment questions)
 - Auto-populates Treasury Risk Impact Assessment to calculate overall risk score
- Completes Model Cards & Datasheets



AI Governance PMO:

- 2 • Ensures completeness of artifacts
- Supports project team in completing additional required assessments



AI Assurance Team:

- 3 • Reviews submitted artifacts
- Validates self-reported Treasury Risk Impact Assessment
- Ensures compliance with IRS policies and EO and OMB requirements for their domain (e.g. privacy, security, bias)
 - Includes Risk of Bias Assessment by Trustworthy Analytics Team
- Provides Readiness Assessment Report



AI Governance PMO:

- 4 • Compiles Project Summary Report using completed artifacts and results of AI Assurance Team assessments



AI Governance Board

- 5 • Reviews AI Use Case information in Project Summary Report, including benefits, risks, mitigation plans & ongoing monitoring
- Gives final approval for production





AI also presents risks to the tax administration ecosystem that we will mitigate

Identified Risk

Fraud and Scam Threats



Malicious actors can exploit AI to target the tax ecosystem at unprecedented speed, evading detection through sophisticated techniques.

Security Risks to IRS Systems

AI introduces unique cyber and data security risks including AI supply chain security, data poisoning, data leakage.