KPMG

AI & Intelligent Automation

Enabling transformation, accelerating and augmenting decisions

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read.kpmg.us/govautomation

AI encompasses many kinds of technologies that can observe, learn, and adapt to accomplish objectives. The major opportunities AI presents to the enterprise includes:

Insights
Capable of recognizing complex patterns from disparate sources of data and forming probabilistic insights

Augmentation
Software that can work alongside humans to learn patterns and augment human expertise

Automation
When combined with physical robots or software "bots," full automation of complex tasks that typically involve human judgment is possible

The current state of enterprise AI revolves around more tactical use cases such as:

IT automation

Quality control/ detecting defects

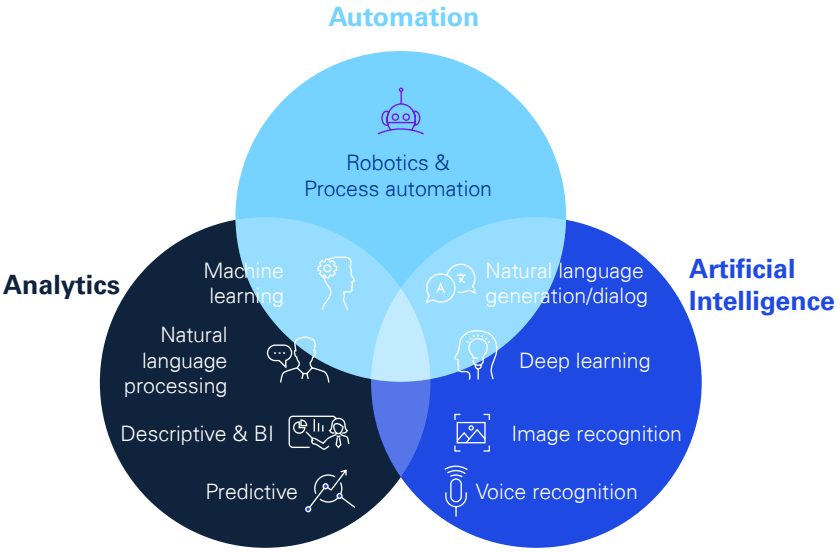
Cybersecurity

Predictive analytics

Customer service
(including virtual assistants)

Risk Management

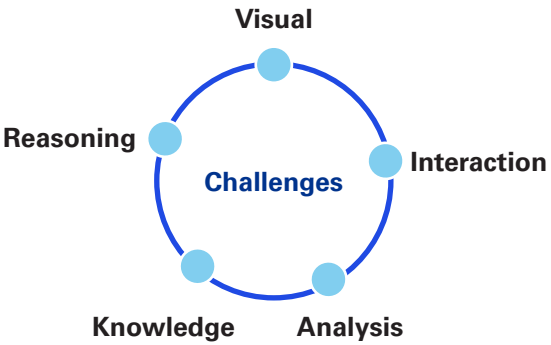
Enterprises are heading towards the "A Trifecta"



More than technology implementation

When humans and systems collaborate, the possibilities are almost limitless. The leap to AI and automation requires guidance to focus on the right processes, recruit and train employees, adopt a governance model, integrate controls, and scale across the enterprise. When rethinking the way your agency carries out its mission and operates, it's critical your organization is ready.

The successful use of AI is not centered around the tools, but around your needs. We use human-centric, design thinking to understand those needs and organize challenges into 5 patterns:



Examples of how we have helped government implement and scale AI and automation:

Federal Government

- A defense agency is implementing RPA to streamline various operations and provide increased responsiveness to audit requirements
- A healthcare agency is deploying complex automation using RPA, ML, and NLP to automate the intake and review of unstructured documents
- A civilian agency is deploying RPA to automate three financial management processes including vendor management, aging reports, and invoice processing
- An agency is addressing significant clearance backlog by automating their enterprise quality review process and increasing the volume, variety, and velocity

State and Local Government

- A state land authority developed an IBM Watson solution to verify the accuracy of payments for state leases to prevent leakage
- A large state health benefit exchange deployed a virtual assistant to improve customer experience and augment call center agents, especially during open enrollment and other peak periods
- A state Department of Health combined document ingestion with automated data entry, verification, and form population to expedite and reduce human interaction in the contract compliance process
- A state Department of Health utilized RPA to support enhanced software testing in the eligibility and child welfare information systems, resulting in greater testing coverage and time savings

Examples of how we have helped the private sector implement AI and automation

Augmenting risk analysis at a global bank

A global bank engaged KPMG to augment parts of its global risk analysis process. Operating in over 70 nations with 200,000 employees, the bank's risk analysis process is highly manual, subjective, and costly.

KPMG helped develop a strategy and roadmap for using risk-sensing artificial intelligence to augment credit analysts' work and improve credit risk decisions globally. The plan included constant and automated news and social media scanning for important events and utilized machine learning, text analytics, and sentiment analysis to identify potential credit risk to businesses.

Restoring trust in data for a global online payment processing company

A global online payment processing company was unable to balance records because of a lack of transaction-level standardization between payment processors and vendors. This led to data quality issues resulting in a high number of anomalous events, decreased internal trust in KPIs and metrics, and siloed data due to departments maintaining separate repositories.

KPMG developed a data quality monitoring tool that leverages timeseries modeling, machine learning, and deep learning to identify patterns of each individual data feed and forecast the expected daily behavior. The model incorporates yearly, monthly, and weekly seasonality, and also accounts for nonlinear behaviors. Real-time monitoring reports and metrics are published in a web-based interface and individuals receive alerts when discrepancies in the data feed are detected.

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