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Thriving in an AI World 2021

Government

Some government agencies are highly sophisticated users of artificial intelligence, but broader adoption of the technology lags.

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Methodology

The KPMG *Thriving in an AI World 2021* survey was conducted by Ketchum Analytics to support KPMG LLP's thought leadership efforts on AI. The findings in this report are based on the results of a survey of 950 U.S. business decision-makers with at least a moderate knowledge of AI in their industry.

Read the full report:

Thriving in an AI World was designed and conducted to assess the perception of AI in seven industries: financial services, government, healthcare, industrial manufacturing, life sciences, retail, and technology. It identifies AI-related pain points, risks, and challenges for U.S. businesses in these industries. This report is focused solely on the government sector.

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Government's mixed record with AI

Government agencies are often cast as being slow to adopt technology, but not always fairly. Some branches, especially the military and intelligence sectors, are among the world's most advanced and innovative users of technology, including artificial intelligence.

79% of government executives say AI could improve bureaucratic efficiency.

"The federal government put a man on the moon more than 50 years ago and just landed a spaceship on Mars," says Robert Dwyer, Federal Consulting Industry Leader at KPMG. "Sometimes, it doesn't get enough credit for what it's able to do."

Government leaders themselves are broadly optimistic about AI's promise. Seventy-nine percent are confident it could improve bureaucratic efficiency. Among those in organizations that have deployed AI, 54 percent say AI has added more value than promised. And although 64 percent of government executives say the potential uses of AI are still more hype than reality, they are more optimistic than total American business decision-makers (74 percent). Forty-four percent of government executives say their organizations accelerated adoption of AI in response to the COVID-19 pandemic, and 77 percent wish their organizations would adopt AI technology even more aggressively.

Unfortunately, many government entities continue to make do with antiquated information systems that can't perform with the speed and agility of today's cloud-computing platforms. In part, governments' over-reliance on legacy systems was responsible for the struggle to administer fiscal relief programs and other services in a timely fashion during the pandemic.

Indeed, while 61 percent of government executives say AI is at least moderately functional in their organizations, that ranks their industry among the lowest of the seven represented in our research. In addition, only 35 percent say their employees are very prepared for AI. Seventy-one percent say their employees are at least somewhat prepared, ranking behind five of the other six industries surveyed. Finally, 63 percent of government executives say they think the U.S. is lagging other countries in terms of AI adoption. ●

Challenges to AI adoption

Beyond needing to prepare more of their employees to take advantage of AI's capabilities, government agencies must also compete with the private sector for the specialized talent needed to implement it—software engineers, data scientists and other AI experts.

Sixty-seven percent of government executives say it is hard to stay abreast of the constantly evolving AI landscape, and 75 percent say their organizations struggle to select the best AI offerings.

"Problems keeping pace with fast-moving AI technology are common across all industries," says Dwyer. "One way government agencies sometimes respond is by trying out all of the tools available to them, which isn't particularly productive. We see a lot of wasted licenses and unused technology."

Dwyer adds that some agencies also fail to think through the business challenges they need to solve before undertaking AI initiatives. Nor do they always stop to consider how an AI platform is going to integrate with COBOL-based mainframe systems written in 1972.

Getting AI right is important not just in the name of using taxpayer money efficiently, but also to provide taxpayers with better service and, in some cases, ensure their physical safety and financial security. But like any technology, AI has the potential to introduce new risks. Asked to identify the top risks relating to AI adoption at their organizations, government executives point most often to cyber-security breaches (cited by 63 percent of industry executives), and privacy violations (42 percent).

Government executives recognize that, as their organizations embed AI deeper into their operations, they need to take measures to ensure it's used fairly. In part, this means guarding against incorporating biases into AI algorithms, which if not prevented could work to the advantage of some Americans while slighting others. Here, too, work remains to be done. While 92 percent of government executives agree it's important for government agencies to have an AI ethics policy, only 53 percent say their own organization has one. ●

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The great potential for AI to improve government's capabilities

Government executives see potential benefits from broader use of AI primarily in three main areas: increased productivity (cited by 57 percent of government-sector survey respondents), reducing operational risks (48 percent) and enhancing customer service (43 percent). To that end, governments say they are most likely to leverage AI over the next two years to improve process automation (cited by 48 percent), improve analytics capabilities (40 percent) and manage contracting and obligations (35 percent).

The AI technologies government executives expect to have the greatest impact on their industry are machine learning (35 percent) and artificial reality/virtual reality (27 percent). KPMG is experimenting with AI initiatives that could help governments better manage their supply chains using technologies like edge AI, which applies machine learning algorithms to data stored on local devices.

In working with clients on AI strategy, KPMG encourages them to focus first on business or functional problems and how AI technologies can help solve them, rather than looking to new technologies and then searching for applications where they could be used. Government agencies in particular need to think about how their initiatives will be funded and governed, and how they will fit not only within their overall strategies, but also with their existing information systems. They also want to ensure they have the right data, clean and optimized for machine use, to fuel their AI initiatives, as well as a robust data infrastructure for managing it. The potential benefits of AI justify the investments in this foundational groundwork.

"There is tremendous reason for optimism around government use of AI, regardless of the hurdles that must be overcome," Dwyer says. "What is fascinating about large government agencies is the scale at which they operate and the compelling missions they undertake—processing unemployment checks, taking care of veterans, distributing vaccines, seeking cures for cancer, guarding against our enemies. With AI, we're equipping government with a tool that can help solve previously unsolvable problems. That's a goal worth pursuing." ●

A Role for Government in Overseeing AI

While generally leery of government regulation, the vast majority of executives surveyed by KPMG— 87 percent overall and 82 percent in the government sector—say government should be involved in regulating artificial intelligence technology.

Dwyer sees several areas where government could play a role. The first is regulating and governing AI's use—just as the government regulates the use and safety features everything from automobiles to mortgage lending. Another is developing and encouraging the technology's use, perhaps through grants and educational programs. Government agencies also have extraordinary amounts of data that could be made available to researchers, with all appropriate safeguards, for the training of AI algorithms.

Eighty-three percent of all executives surveyed by KPMG, and 79 percent of those in the government sector, believe the Biden administration will do more to help advance the adoption of AI. ●

How can KPMG help?

We help our clients realize the promise of AI by providing insight on the best tools for innovation and by offering outcome-driven pragmatic approaches to implementing sustainable processes built on AI insights. Our wide-ranging domain and industry expertise means we are able to execute on your agenda from strategy to full-scale production.

With our patented KPMG Ignite AI platform, we're able to bring together machine learning, deep learning, natural language processing, document ingestion and OCR capabilities and apply them to structured and unstructured data, voice and images. KPMG Ignite enables rapid

AI solution development and delivery by enhancing, accelerating and automating decisions and processes that drive growth, manage risk and optimize cost. Organizations are able to achieve real value from their data and AI investments in a flexible, easy-to-use and secure environment. Specifically built to work with a range of leading platforms including Microsoft Azure, Google Cloud, IBM Watson, Appian and a host of other leading open source AI tools, KPMG Ignite can help advance our clients' digital transformation initiatives. ●

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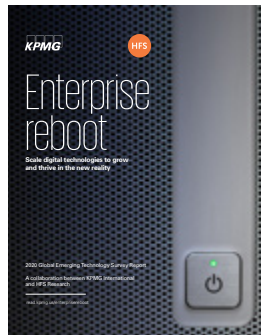
Enterprise reboot: This research report explores the current and future state of emerging technologies and demonstrates a dramatic shift in how businesses are approaching emerging technology now versus before the onset of COVID-19. Our research reflects the perspectives of hundreds of enterprise technology leaders around the world, as well as KPMG and HFS Research thought leaders, and global luminaries.

The shape of AI governance to come: As the regulatory environment continues to evolve at a traditional pace, leading organizations are addressing AI governance and regulation proactively rather than waiting for requirements to be enforced upon them. Read this paper to learn more.

Controlling AI: This report is for leaders involved in the world of Artificial Intelligence and Machine Learning algorithms. The business and compliance imperative to understand and be confident in AI technologies has reached critical mass. This paper explains the urgency and describes methods and tools that can help leaders govern their AI programs.
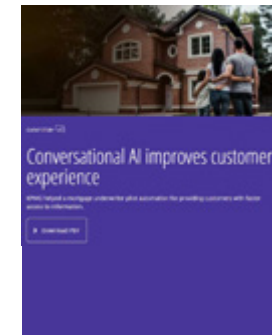
Client stories: Explore how KPMG has helped clients integrate people and machines, leveraging AI for competitive advantage.