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Tech Trends 2021 | Deloitte Insights

Tech Trends 2021
Peering through the lens of government

The technologies that enhance our organizations and our lives are more powerful (and more essential) than ever before. Forward-thinking governments and organizations understand the technological forces that surround them and look for ways to harness them for the benefit of customers and citizens alike.

Below we provide a government-specific take on Deloitte's *Tech Trends 2021* report, spotlighting the accelerating technology trends most likely to cause disruption over the next 18–24 months. We explore which trends may be most relevant for governments and how ready governments are to take advantage of them.

From the rise of strategy and technology becoming inseparable to the rapidly disappearing boundary between the physical and virtual worlds, the trends we explore could have profound implications for business, government, and society in the months and years ahead.

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Relevance and readiness scale:
We looked at each trend and assigned a value from one (low) and five (high) based on the trend's relevance and readiness of government adoption.

Relevance:
How impactful would it be if the government adopted the trend?

Readiness:
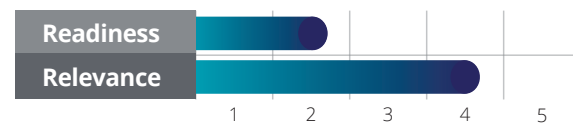How ready is the government to adopt the trend?

Strategy, engineered

As organizational and technology strategies become more inseparable, technology choices bear a greater role in enabling (or potentially constraining) organizational strategy. Strategy development is being transformed from a slow, infrequent process to one that's continuous and dynamic, helping strategists think more expansively and creatively about the wide range of future possibilities.

Trends in action
As government agencies plan how to meet their missions, they should investigate technologies that can monitor adherence to strategy, scan for predetermined disruptions, and generate additional strategic ideas. Moreover, leaders should work to better align technology implementation choices to mission strategies.

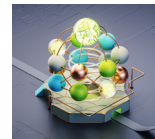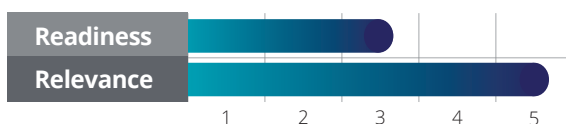|		
Readiness		
Relevance		

1 2 3 4 5

Core revival

Pioneering IT leaders are embracing new approaches, technologies, and business cases to revitalize core assets as organizations increasingly view technology modernization as an imperative to enable strategic change. In a climate defined by historic uncertainty, innovative approaches for extracting more value from core assets could soon become standard components of every digital transformation.

Trends in action
From operate-to-transform arrangements to creative financing options, governments should consider ways of utilizing commercial leading practices for legacy modernization. Moreover, there are new tools, technologies, and techniques that can accelerate the journey to a modern core.

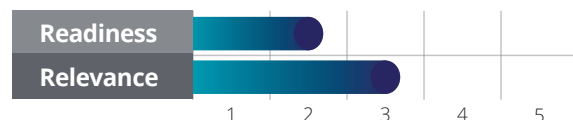|		
Readiness		
Relevance		

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Supply unchained

Organizations are increasingly optimizing their supply chain systems and processes to make them more flexible, durable, and responsive, using advanced digital technologies, virtualized data, and physical technologies to transform supply chain cost centers into customer-focused, value-driving networks. For most, it will be an ongoing journey—one of critical importance.

Trends in action
Governments should explore technologies that provide visibility into the supply networks that support their missions. Moreover, government should encourage policies that make it easier for supply chain networks (across industry and government) to share data more readily and achieve greater transparency.

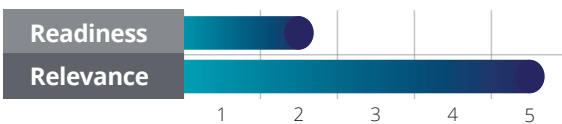|		
Readiness		
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MLOps: Industrialized AI

With machine learning (ML) and AI becoming increasingly key to organizational performance, organizations are realizing the need to move from personal heroics to engineered performance. The era of artisanal AI must give way to MLOps (the application of engineering discipline to automate ML model development, maintenance, and delivery) to shorten development life cycles and industrialize AI.

Trends in action

As both users and regulators of the use of AI, governments have an important role in its ongoing evolution. As users, governments can benefit from using AI to augment workforce decisions and productivity. As regulators, governments can clarify policies around topics such as privacy rights and model bias.

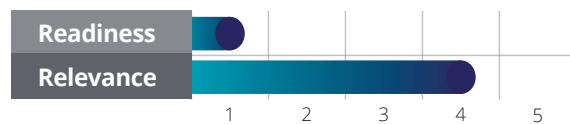|	
Readiness	
Relevance	

1　2　3　4　5

Machine data revolution: Feeding the machine

To achieve the benefits and scale of AI and MLOps, data must be tuned for native machine consumption, not humans, causing organizations to rethink data management, capture, and organization. This can help organizations turn data into a foundation for machines to not only augment human decision-making, but also make real-time, at-scale decisions that humans cannot.

Trends in action

To take advantage of the gold mines of data trapped in legacy and core systems and to fully utilize AI capabilities, governments will need to explore new ways of making data more available and usable. Through data meshes or other techniques, reconsidering data collection and availability is critical.

Readiness	
Relevance	

1　2　3　4　5

Client spotlight:
Internal Revenue Service (IRS)

Organizations like the IRS are rethinking cultural norms, organizational structures, and governance mechanisms to leverage AI resources more efficiently. Scaling AI across the agency means taking a different approach to creating and managing machine learning models, getting needed skills and talent, and establishing accountability.

Client spotlight:
National Oceanic and Atmospheric Administration (NOAA)

To improve the efficiency and coordination of AI development and use across the agency, NOAA developed a bold strategy focused on consolidating AI and machine learning activity within a single virtual AI center. This allows researchers in line offices to share best practices and helps eliminate redundant development efforts.
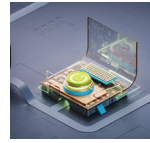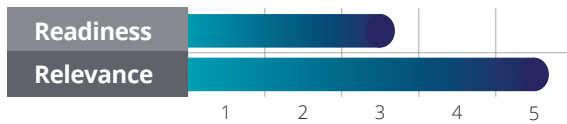
Zero trust: Never trust, always verify

A zero trust cybersecurity posture provides the opportunity to create more robust and resilient security, simplify security management, improve end-user experience, and enable modern IT practices. This shift may require significant effort, including addressing foundational cybersecurity issues, automating manual processes, and planning for transformational changes.

Trends in action

Zero trust approaches hold the promise of improving cybersecurity across every organization. By starting with a default policy of denial instead of trust, systems can be made far more secure. The transition also provides the opportunity to better utilize automation and resources.

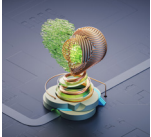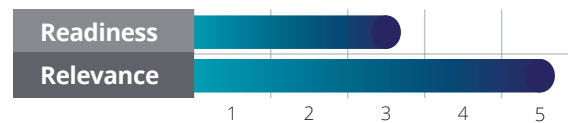|	1	2	3	4	5
Readiness					
Relevance					

Rebooting the digital workplace

The digital workplace represents a fundamental shift in the way work gets done. Organizations are embracing technology to optimize individual and team productivity, collaboration, and the employee experience at large. As on-site workspaces and headquarters evolve, organizations can use data to create thriving, productive, and cost-effective offices that are interwoven with the remote experience.

Trends in action

Adopting leading practices in managing team interactions and the role of the office promises productivity improvements for government organizations. Leveraging modern collaboration technology also promises better access to talent from across the locality, state, or country.

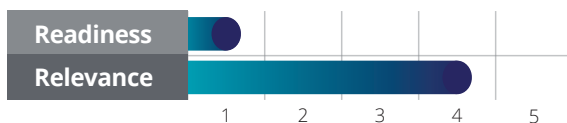|	1	2	3	4	5
Readiness					
Relevance					

Bespoke for billions: Digital meets physical

Forced to embrace digital faster than ever, organizations are recognizing that the desired human experience strikes a balance between making traditional physical human experiences more digital and digital experiences more physical. In the near term, online and offline interactions will become more fully integrated experiences, benefiting from the best capabilities of each.

Trends in action

By combining leading practices from the virtual and in-person worlds, governments can provide constituents with the positive experiences they have come to expect from the private sector. Every public interaction should be reviewed.

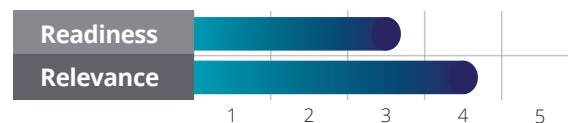|	1	2	3	4	5
Readiness					
Relevance					

DEI tech: Tools for equity

Organizations have access to increasingly sophisticated tools to support their diversity, equity, and inclusion (DEI) initiatives across the talent life cycle. The tools seek to make DEI decision-making and processes more data-driven, but leaders must still carefully consider potential unintended consequences and carefully manage implementations to achieve their goals.

Trends in action

Government has long been a leader in DEI. Increasingly, technologies are improving the ability to identify, recruit, and manage a diverse workforce. Bringing the right data to newer technology can help governments continue to lead the way in DEI.

	1	2	3	4	5
Readiness					
Relevance					

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