



Tech Trends 2020 | Deloitte Insights

Tech Trends 2020

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 organizations, including governments, understand the technological forces that surround them and look for ways to harness them for the benefit of customers and citizens alike.

Here we provide a government-specific take on Deloitte's Tech Trends 2020 report, spotlighting the technology trends most likely to cause disruption over the next 18 to 24 months. We explore which trends are most relevant for government and how ready government is to take advantage of them.

From the growing use of digital twins to realize the power of the Internet of Things (IoT) to the urgency of addressing the ethical issues associated with disruptive technologies, the trends we explore will have profound implications for business, government, and society in the months and years ahead.



Tech Trends 2020

Peering through the lens of government

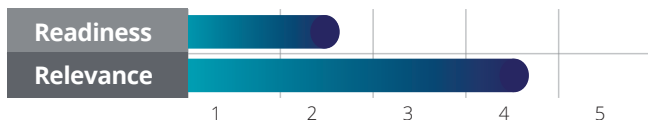


Macro technology forces

For a decade, we've been tracking the emergence and eventual ascent of digital experience, analytics, cloud, digital reality, cognitive, blockchain, the business of IT, risk, and core modernization. To realize the full promise of these macro forces, organizations are exploring how they intersect to create more value, as well as new ways to manage technology and the technology function.

Trends in action

Government organizations must examine the possibilities of combining new technologies in creative ways. Some agencies are combining cloud, cognitive technology, and digital reality to simulate work environments to attract and retain top talent in very competitive markets.

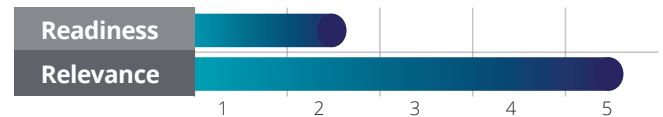


Ethical technology and trust

In a growing trend, leaders are reevaluating how their products, services, and the decisions they make—around managing data, building a partner ecosystem, and training employees, among others—build trust. In this light, trust becomes a 360-degree undertaking to ensure that the many dimensions across an organization's technology, processes, and people are working in concert to maintain the high level of trust expected by their many stakeholders.

Trends in action

Government organizations, as custodians for very sensitive personal data, can set the bar for trustworthiness. Taking the lead means setting higher standards, articulating agency values, communicating those values consistently, training employees on proper data use, and securing the data.

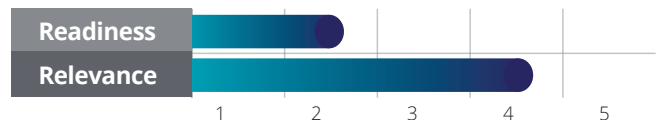


Finance and the future of IT

As technology strategy has increasingly become a core part of business strategy in organizations, IT will need finance's support to effectively rethink governance of technology innovation, adapt to agile methodologies, and secure creative capital. The transition will not happen overnight, but there are strong incentives for both CIOs and CFOs to find ways to effectively fund innovation.

Trends in action

Agencies should continually fund the innovation and scaling of new technologies and ideas. Whether through productivity improvements from agile or creative financing options, building prototypes to test new ideas (and scaling promising ones) can help make IT more efficient and effective.



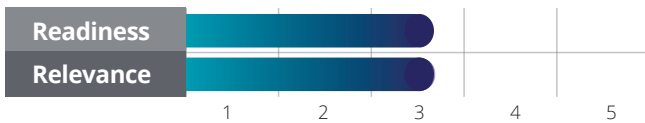


Digital twins: Bridging the physical and digital

Organizations are finding that increasingly sophisticated simulation and modeling capabilities, power visualization, better interoperability and IoT sensors, and more widely available platforms and tools are making it possible to create simulations more detailed and dynamic than ever. As capabilities grow, expect to see more organizations use digital twins to optimize processes, make data-driven decisions in real time, and design new products, services, and business models.

Trends in action

Creating virtual copies of physical infrastructure (bridges, buildings, air space, and more) enables better understanding and optimization. For example, city planners can use digital twins to model the impact of airspace management or public transportation, modeling vehicle flow and optimizing in real-time.

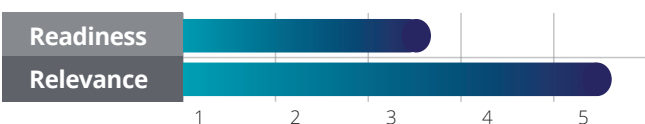


Human experience platforms

A growing class of AI-powered solutions are redefining the way we experience technology to address the increasing demand for systems that better understand and appropriately respond to humans. Combining AI, human-centered design techniques, and neurological research, human experience platforms will be able to recognize a user's emotional state and the context behind it, and then respond suitably.

Trends in action

Using emotionally sensitive and context-aware interfaces can make call-center interactions more streamlined and pleasant. And kiosks will be able to detect the objects in your hands and make reasonable inferences about your purpose instead of forcing manual menu navigation.

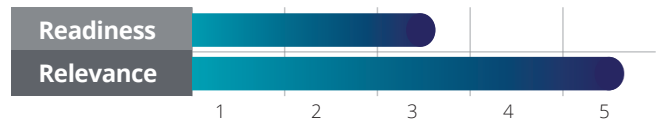


Architecture awakens

To remain competitive in markets being disrupted by technology innovation, organizations will need to evolve their approaches to architecture. The first step of this shift is straightforward: Move the most experienced architects into software development teams that are designing complex technology. Investing in architects and architecture and promoting their strategic value enterprise-wide can evolve this IT function into a competitive differentiator in the digital economy.

Trends in action

Government organizations should move senior technologists and architects out of portfolio governance roles and into more participatory solution roles, with responsibilities covering customer needs identification to operations. Doing so can accelerate and improve core modernization and technology revitalization.

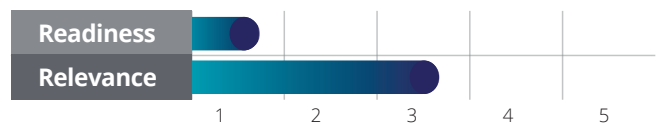


Horizon next: A future look at the trends

There's growing interest in looking beyond what's new to what's next. Leading organizations take a programmatic approach to sensing, scanning, vetting, experimenting, and incubating future macro technology forces. In a world of seemingly infinite unknowns, it is possible to focus attention on a meaningful collection of known technologies that, taken together, can help you chart a path to the next horizon.

Trends in action

Government plays a critical role as the consumer of and sponsor of innovative technology. Internally sensing future changes is important for keeping up with the pace of change. Sponsoring new technologies, whether by research grants, dedicated groups like DARPA, or creative contracting, supports technological innovation.





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