

CREATING VALUE WITH EMERGING TECHNOLOGIES

The Differentiator for Digital Innovators

PART 1 IN A 3-PART SERIES

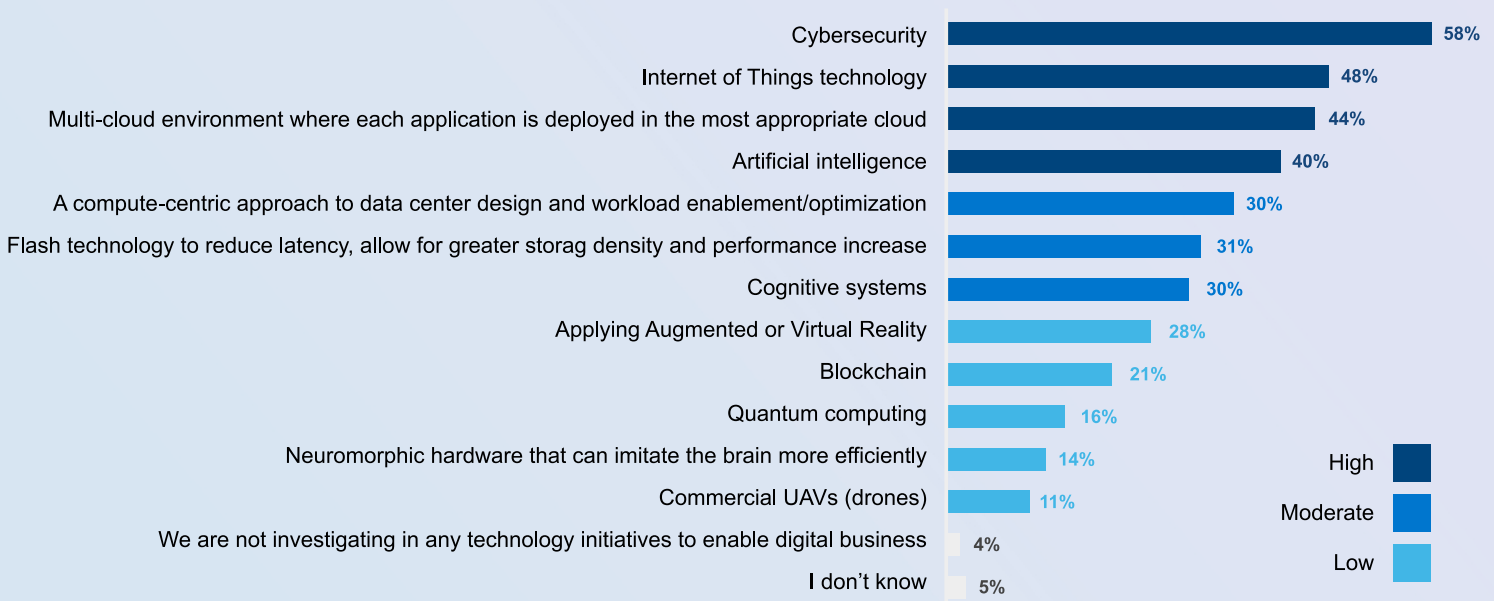
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How Today's Digital Innovators Are Using Emerging Technologies

Today, a business's potential will only be limited by the imaginations of its digital leaders. Integral to becoming a digital organization are emerging technologies, and most leading organizations already recognize their significance. **Without these technologies, 82% of leading organizations believe that they will not be able to transform.**¹ And if they don't transform, a competitor will disrupt their business, and maybe their entire industry.

Emerging technologies are redefining how organizations build and deploy software, modernize and simplify their infrastructure, inspire their workforce and secure their most critical assets. These technologies will enable large-scale shifts in our economy and transform entire industries. Those who understand their potential and apply them correctly will gain a competitive advantage and thrive.

Which new technologies are leading the pack? According to Dell ESG research², the top four emerging technologies that digital companies are looking to invest in next are cyber security, Internet of Things (IoT) technology, multi-cloud environment where each application is deployed in the most appropriate cloud and artificial intelligence (AI).



Digital leaders know they need to focus on the right technologies. This series of reports, supported by research from Dell Technologies and its partners, outlines how taking advantage of emerging technologies drives new value through human and machine partnerships, builds a competitive Edge and delivers maximum data value.



The Synergy of Human and Machine Partnerships

The future won't be a matter of people or machines but a partnership between people and machines. Recent research on human-machine partnerships by Dell Technologies and The Institute for the Future (ITFF)³ discovered that these partnerships will be the key to unlocking digital success in the future. Overwhelmingly, this research demonstrated that emerging technologies, such as AI and prescriptive analytics, allow for human-machine partnerships, which can create new value in workforce transformation.

An example of human-machine partnership is Callaway Golf Company's⁴ use of proprietary sensory and analytical technology. Requiring incredible precision, their technology performs a computer analysis of 12 factors in a customer's golf swing that enables the company to build custom-fitted clubs the day after an order is received.

With the help of Dell Technologies, Callaway Golf Company, and many other leading digital companies, can capture, analyze and act on hundreds of gigabytes of data. By building this partnership between humans and machines, emerging technologies can create new value in workforce transformation.

Creating Value by Boosting Competitive Edge

Leaders use new technology to reinvent themselves, better understand their business and compete with new digital entrants in their industries. But, embracing new technology isn't enough to create leaders. You must start with clear outcomes in mind and ensure that the right people are involved, all with a collaborative spirit.

Voxeleron, a firm that provides detailed imaging of age-related macular degeneration, has established itself as an industry leader through technology and connectivity. The company uses advanced AI algorithms and deep learning to distinguish anomalies in eight layers of retinal tissue versus the previous maximum of two.

Just like Voxeleron, other organizations can gain a competitive Edge and raise barriers to threats from new entrants with the right IT transformation strategies. However, just as connectivity is critical, so is fully harnessing the power of data.

“By applying technology like the IoT, we’re able to measure everything – water use, temperature, soil composition, humidity, growth rates and more – to absolutely control and maximize every aspect of the process. Emerging technologies make this possible.”

DAVID ROSENBERG, CEO & CO-FOUNDER, AEROFARMS⁵

90%

of organizations will deploy workloads across two or more clouds.⁶



Unlocking Value From Data

Enterprises must become data-driven—not just to stay competitive, but to stay in business. A strong data strategy is key to maximizing value from data. Today’s digital innovators are using emerging technologies to create more value from their growing stores of data. In fact, the IDC estimates that by 2025, the world’s data will amount to 175 zettabytes (175 trillion gigabytes), expanding at a 61 percent compounded annual growth rate.⁷

The three trends that are key for unlocking new value in data are the Edge, IoT, AI and Cloud.



Technology Transformation = Using the Edge to Create New Value

Technology is at the heart of reducing costs, increasing agility and creating new value, and the Edge is the starting point. The Edge will transform how people and machines interact with digital services. Experts predict the Edge will be critical to virtually every organization. By 2023, over 50% of new enterprise IT infrastructure deployed will be at the Edge rather than corporate data centers, up from less than 10% today. And by 2024, the number of applications at the edge will increase 800%.⁸ By acting on data closer to the source, the Edge has the potential to enable entirely new experiences, enhance efficiency and improve control in businesses. This technology along with AI will help machines share data, react faster, and optimize themselves with new services based on what’s working best. The Edge is where organizations will find the greatest opportunity to create new value for the business, especially as the world becomes more mobile and IoT becomes more prominent and practical.

[For more in-depth information on using the Edge to create value, click here](#)



Technology Transformation = Using IoT to Create New Value

IoT is perhaps the purest possible expression of how the world is transforming from mechanical to digital. By interconnecting digital sensors and devices in the physical world, IoT transforms material things into streams of data, allowing people to sense and interact with objects in entirely new ways and accelerate the pace of innovation. As the world becomes increasingly digital, IoT’s value for businesses is becoming clear. IDC forecasts worldwide technology spending on the Internet of Things to reach \$1.1 trillion in 2023.⁹

[Read more about the role of emerging technology here.](#)



Using a Multi-Cloud Strategy to Create New Value

The cornerstone of digital leadership is a clear and defined multi-cloud strategy. In a multi-cloud journey, there are three key pathways: a hybrid cloud path, a native cloud path and Software-as-a-Service. This creates the agile, efficient and scalable platform needed to deploy and run emerging technologies. These three strategies can, and often do, exist simultaneously within an organization. In fact, most organizations now manage over five different cloud platforms and deploy workloads across at least two. These cloud solutions are complementary and equally important because they’re based on unique priorities, opportunities and solution offerings. And to simplify management of these platforms, they must work together in a seamless way, even across multiple public clouds.

[Read more about these emerging technologies and others](#)

Selecting the Emerging Technology That Drives the Most Value

Over the next decade, emerging technologies will mature and proliferate. With technology as the catalyst, organizations have the opportunity to either disrupt and transform, or fall behind.

While each industry or sector has its own distinct business imperatives, there are three strategic imperatives that apply to virtually every digital organization:

- 1 Increase your business agility by using a multi-cloud strategy
- 2 Create new value through the Edge
- 3 Transform engagement through workforce modernization

With these three imperatives, organizations can proceed with confidence to the next step of their digital journey

Read [The CIO Imperative](#) to learn more about how these imperatives influence leading in the digital future.

Today's Competitive Imperative, Tomorrow's Competitive Advantage

We are all on a digital journey. And while we face the same fundamental challenges, every journey is unique. Your industry, your people, and your corporate culture will all have a major impact on how far and how fast your organization can transform. Dell Technologies brings the power of seven technology leaders committed to your transformation. Together, we are ready to help you transform your business and shape your future.

Read parts 2 & 3 of this report:



[Part 2
Delivering Value with Emerging Technology:
Starting at the Edge](#)

[Part 3
Creating Value in a Digital World:
The Role of Emerging Technology](#)



READ
the results of the Dell
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