The Future of Technology

Leveraging Technology for enabling Transformations in a Post-COVID world.

From artificial intelligence and augmented reality to multi-connected businesses and new mobility, the focus is on a wide variety of technologies – but which trends have a lasting influence on digital transformation, in a post-COVID world.

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"From the “Internet of Bodies” and Green Tech to DIY AI and trends in digital trust, a host of new technology solutions, along with complex Big Tech conversations, will make for a paradoxical and exciting post-COVID future"

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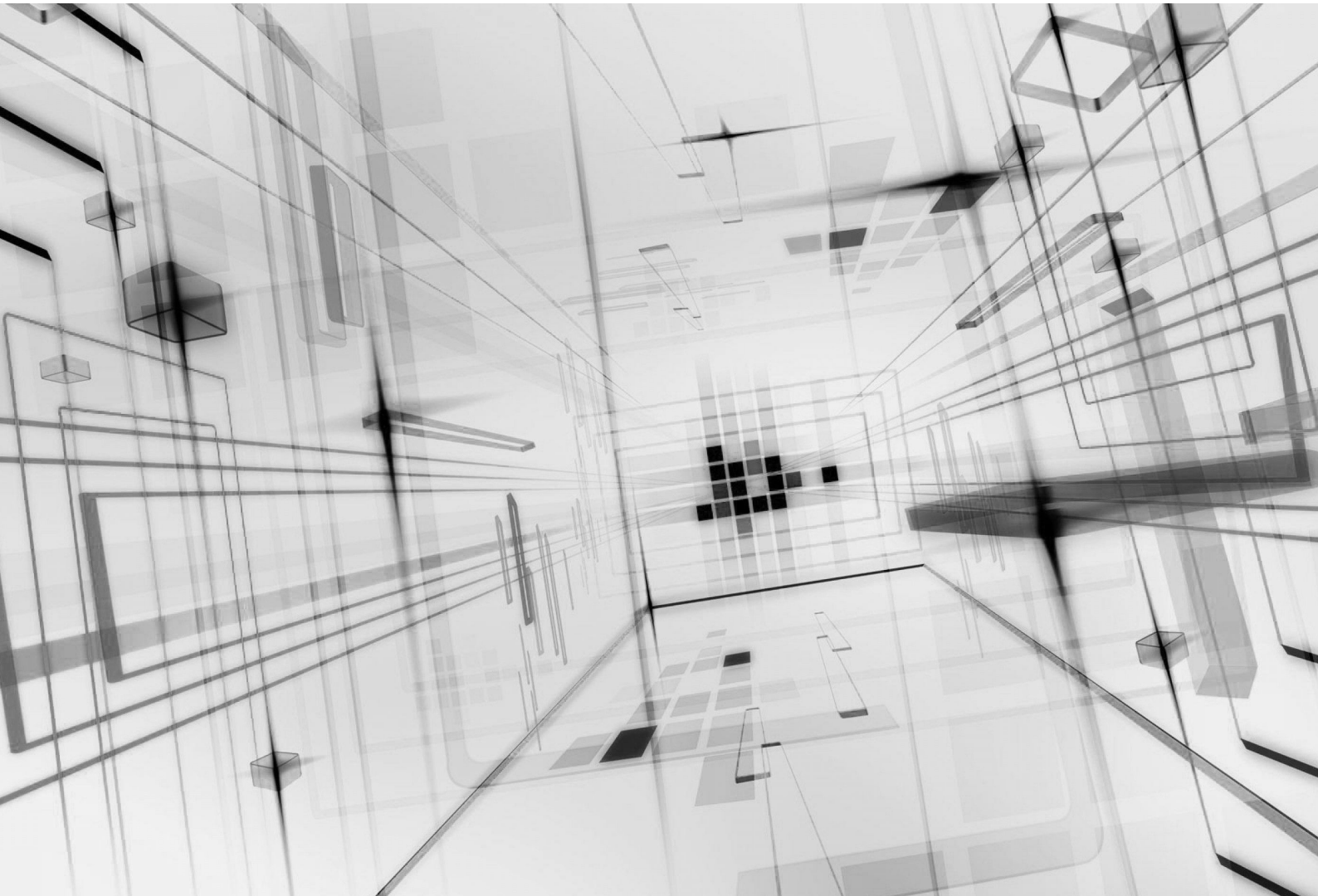
The Future of Technology

The 10 Tech Trends to watch out for.

COVID-19 has been called a once-in-a-century event. In its wake, we are likely to see a lasting shift in employee expectations, a greater capacity to respond to sudden, global disruptions, an accelerated adoption of artificial intelligence and automation, and more automated and diverse supply chains.



Smarter Smartphones and Tablets Drive Mobile Process Innovation

The vast majority of mobile phones sold globally have browsers, making the smartphone our primary computer that is with us 24/7 and signaling a profound shift in global computing. This new level of mobility and connectivity by many millions around the world is increasingly allowing businesses of all sizes to transform the ways in which they market, sell, communicate, collaborate, educate, train, and innovate using mobility. An enterprise mobility strategy that puts mobile first is rapidly becoming mandatory for all sizes of organizations as we see mobile data, mobile media, mobile sales, mobile marketing, mobile commerce, mobile finance, mobile payments, mobile health, and many more, explode.

Mobile Banking and Payments

Mobile banking, using smartphones as eWallets, is already being used in an increasing number of countries and is finally taking off on a larger scale in the developing nations, thanks to an increasing number of phones with secure mobile banking apps, Near Field Communications (NFC) chips, Biometric Identification and the use of Tokens where no credit card or personal information is exchanged.

Mobile Apps for Business Processes

As we increasingly transform business processes using mobility, we will see mobile apps for purchasing, supply chain, logistics, distribution, service, sales, maintenance, and more, grow rapidly. There will be an increasing focus on Business App Stores within companies giving users access to the personalized information they need on their mobile devices anytime and anywhere.

Increasing Usage of Drones

The number of applications for drones will continue to expand rapidly. Drones have already proven to be of high value for search-and-rescue, and are rapidly being applied to many industries. For example, agriculture uses drones to check crops, fences, and cattle; utility companies use them to look for downed power lines; real estate agents use them for aerial photography. The explosion of hobby drones will drive innovation for both personal and industrial applications. AI will be increasingly integrated, expanding capabilities far beyond today's applications.

Enhanced Location Awareness for Retail

Location awareness using in-building systems allows customers with smartphones to navigate stores and find what they are looking for fast. This, combined with Geo-Social Marketing and Augmented Reality, will drive the creation of more business-to-consumer apps. In addition, Geo-Spatial Visualization combines Geographic Information Systems (GIS) with location-aware data, Radio Frequency Identification (RFID), and other location-aware sensors (including the current location of users from the use of their mobile devices) to create new insights and competitive advantage. Early enterprise applications include logistics and supply chain to name a few.

Artificial Intelligence, Cognitive Computing and Machine Learning

Advances in artificial intelligence and machine learning, coupled with networked intelligent sensors, will create a giant leap forward, thanks to the exponential advances in computing power, digital storage, and bandwidth. AI will increasingly become embedded in our applications and processes. Also increasing Machine Intelligence and voice communications, robots will work with humans in new and productive ways.

Adaptive and Predictive Cybersecurity Systems

Business, government and education have moved cybersecurity from an underfunded back office activity to a major initiative going forward. With the rapid growth of connected technologies such as the Internet of Things and semi-autonomous, as well as fully autonomous, cars, security systems will move beyond reacting faster to include adaptive security systems using AI and other advanced tools such as Behavioral Analytics. This will add a level of Predict and Prevent, allowing us to stop many, but sadly not all, attacks before they start.

Cloud Computing Grows with Advanced Cloud Services

New variations on public, private, hybrid, and personal mobile clouds will be increasingly embraced by businesses of all sizes, as this represents a major shift in how organizations obtain and maintain software, hardware and computing capacity. Companies of all sizes are using the cloud and virtualized services as an enabler to cut costs in IT, human resources, and sales management functions. Not all clouds are created equal. Some are optimized for IoT applications, while others are designed for different levels of security and speed.

Virtualization of Processes and Services (On-Demand Services)

The virtualization of processes and services will increasingly be offered to companies needing to update and streamline existing services, and to rapidly deploy new services. The rapid growth of Collaboration-as-a-Service, Security-as-a-Service, Networking-as-a-Service, and many more, are all giving birth to Everything-as-a-Service. All will grow rapidly for small and large companies, with many new players in a multitude of business process categories.

The Internet of Things (IoT) Becomes Increasingly Intelligent

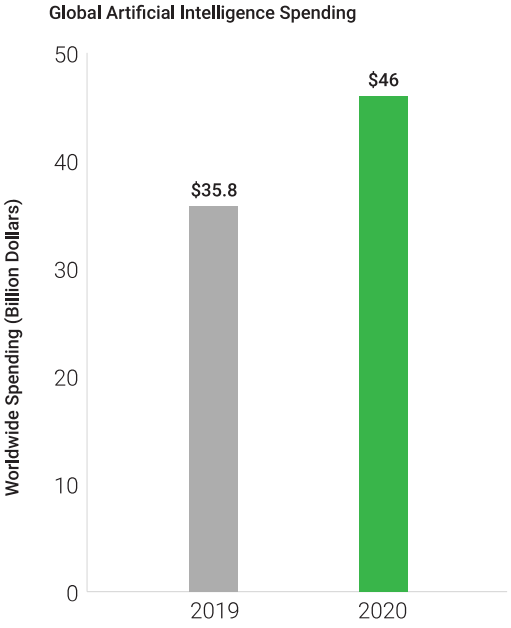
Machine-to-Machine communications using chips, microsensors, and both wired and wireless networks, will join networked sensors to create a rapidly growing Internet of Things, sharing real-time data, performing diagnostics, and making virtual repairs, all without human intervention. By 2020, there will be well over 50 billion “things” talking to each other, performing tasks, and making decisions based on predefined guidelines using artificial intelligence. For example, smart cars will increasingly become aware of situational changes and respond as they get more connected to smart infrastructure such as roads, bridges, and other cars, thanks to embedded and networked sensors combined with other technologies such as GPS.

84%

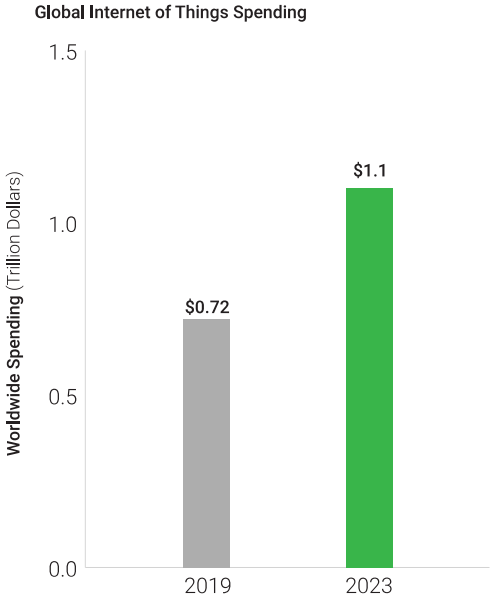
Businesses say artificial intelligence will enable them to reach or sustain a **competitive advantage**.

75%

Companies believe artificial intelligence will power their **new ventures and enterprises**.



Worldwide **spending on AI** is expected to reach $46 billion in 2020, up from $35.8 billion in 2019.



The worldwide **spending on worldwide IoT hardware and software** will grow from $0.72 in 2019 to $1.1 trillion in 2023.

24B

By the end of 2020, the **global IoT market** will reach a mark of 24 billion devices.

80%

Retailers will use IoT to **customize store visits** by 2021.

Data Source: Gartner, Statista, Oracle Stack Overflow and IDC

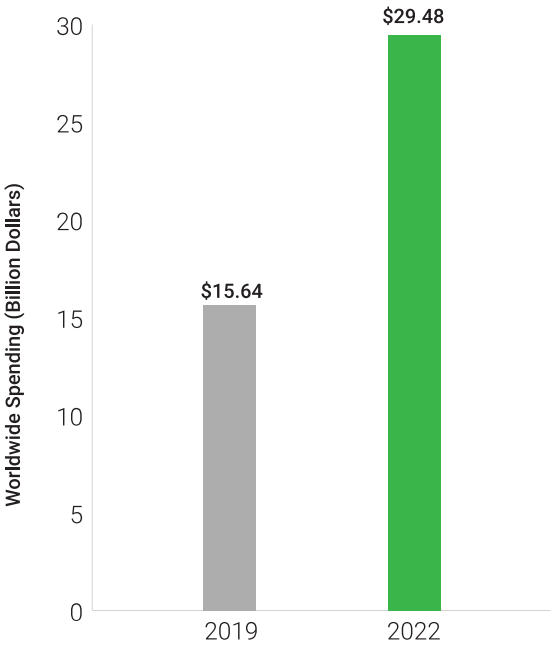
90%

By 2020, 90% large enterprises will generate **revenue from Data-as-a-service** (DAAS).

64%

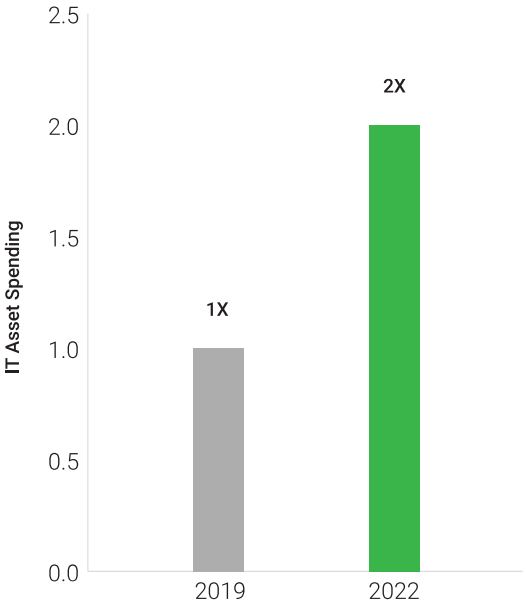
Business leaders believe business intelligence has the power to boost revenue growth and profit margins.

Global Business Intelligence Spending



By 2022, the **global business intelligence market** is expected to reach $29.48 billion.

Global IT Asset & Infrastructure Spending



By 2022, 40% enterprises will have doubled their **IT asset spending** in edge locations.

89%

Edge computing revenues will take a leap from $2.8 billion in 2019 to $6.7 billion by 2022.

700B

Over 700 billion in cumulative CAPEX will be spent in the next decade on Edge IT Infrastructure and Data Center Facilities

Data Source: Gartner, Statista, Oracle Stack Overflow and IDC

Remarkable advances in technologies such as artificial intelligence, data analytics, autonomous vehicles and cloud computing are transforming our world. Digital transformation is redefining industries, making new business models possible and providing businesses with unparalleled opportunities for value capture. Its impact, however, will not be limited to business; it is already dramatically changing how we live, work and relate to one another. Digitalization has the potential to deliver immense benefits for consumers, society and the environment, and to unleash unintended consequences that may have a profound effect on society.

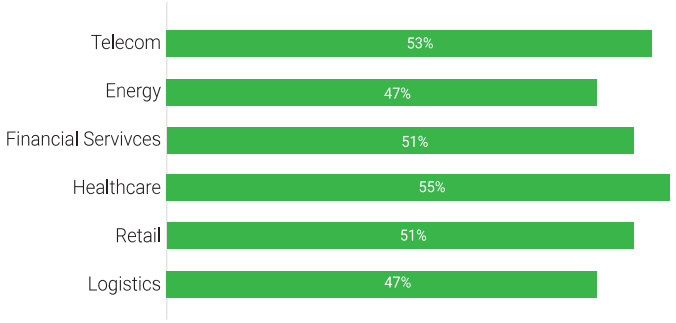
Digital Transformation: Value at Stake for Society and Industry

Sectors	Cumulative Value to Society and Industry ($ billion)		CO_2 Emissions (million tonnes)	Net Impact on Jobs ('000)
Consumer	5439	4877	223	-3,249
Automotive	3141	667	540	NA
Logistics	2393	1546	9,878	2,217
Electricity	1741	1360	15,849	3,158
Telecom	880	1287	288	1,100
Aviation	701	404	250	-781
Oil and Gas	637	940	1257	-57
Media	274	1037	-151	NA
Mining	105	321	608	-330
Chemistry	3	302	56	-670

Note: Total societal value at stake includes impact on the customers, society and environment. Impact on external industries has not been considered.
Excludes extending connectivity digital initiative.
Source: World Economic Forum | Accenture Analysis

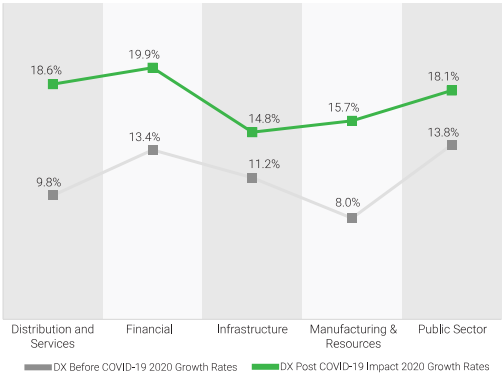
The COVID-19 crisis seemingly provides a sudden glimpse into a future world, one in which digital has become central to every interaction, forcing both organizations and individuals further up the adoption curve almost overnight. A world in which digital channels become the primary (and, in some cases, sole) customer-engagement model, and automated processes become a primary driver of productivity—and the basis of flexible, transparent, and stable supply chains. A world in which agile ways of working are a prerequisite to meeting seemingly daily changes to customer behavior.

Global Industry-Wise Adaptation of IoT



Implementation and deployment of IoT technologies globally, across key sectors already in place or in the process of being deployed.

Global Digital Transformation Expenditure - Before and After COVID-19 Impact



Worldwide digital transformation spending across sectors.
Source: IDC WW DX Spending Guide | April 2020

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Be Digital Ready by leveraging technology.

Social Friendly, a global consulting firm, blending creative and management consulting to give new age solutions to new world problems. We bring in expertise and innovative foreknowledge across data science, technology, digital, design and human interventions for businesses to achieve desired transformation.

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