4 technology trends to drive digital transformation

Modernize your business processes with the ABCD strategy
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Companies looking to innovate ahead of their competitors need to adopt technology solutions that improve productivity and collaboration, while at the same time developing their own competitive solutions in business areas that differentiate themselves from their rivals.

This intense focus on technology as an enabler and differentiator is called tech intensity, a concept introduced by Microsoft CEO Satya Nadella during a keynote at the Ignite 2018 conference. Companies who want to maximize their tech intensity need to focus on digitally transforming their business. Digital transformation will dominate boardrooms in 2019, with companies spending 40 percent of their technology budget, or more than $2 trillion, on digital-transformation projects, according to IDC.¹

Innovate by learning your company’s ABCDs
“Each year, about 10 billion new microcontroller-equipped devices are plugged into the global economy ... the world is becoming one giant computer.”

—Satya Nadella
CEO, Microsoft
What does a comprehensive digital transformation strategy look like?

At a minimum, the strategy needs to establish a blueprint for applying four key technologies to speed product development and make your business more efficient and agile.

**Artificial intelligence** helps companies apply knowledge to technology and business problems.

**Big data** collection gives companies the ability mine their business data for information on how problems can be solved and what solutions make the most sense for customers.

The **cloud** allows companies to establish an agile infrastructure that can be accessed by workers anywhere in the world.

And the latest, modern **devices**—from smartphones to tablet computers such as Surface—give workers the ability to access business information and resources from wherever they do their work.

The more companies focus on artificial intelligence, big data, cloud, and devices, or ABCD, the greater the benefits they will reap from their digital transformation. And with that foundation, companies can better pursue tech intensity, which Microsoft’s CEO Satya Nadella describes as “a very simple equation ... adopt (the best) technology, build technology (for competitive advantage).”³
Mashreq pursues digital transformation

The approach has helped Mashreq Bank transform its business. Mashreq, which has operated in the United Arab Emirates for more than 50 years, has expanded well beyond its home territory, with branches in 14 regions, including Hong Kong, New York, and London. The financial institution has focused on driving digital transformation into various business operations to revamp services, make workers more efficient, and deliver better support to customers.

“The bank has a very strong heritage in delivering innovative solutions to its customers,” says Sandeep Chouhan, Executive Vice President and Group Head of Operations and Technology at Mashreq Bank. “We are building a reputation for offering the best customer services to our customers in all the geographies we operate.”
“AI is going to be one of the trends that is going to be the next big shift in technology. It’s going to be AI at the edge, AI in the cloud, AI as part of SaaS applications, AI as part of, in fact, even infrastructure.”

—Satya Nadella
CEO, Microsoft
A: Artificial Intelligence

AI boosting efficiency

With businesses creating, and trying to make sense of, greater amounts of data, machine learning and artificial intelligence are becoming increasingly necessary for agile operations and are essential for the future transformation of any business. Traditionally, businesses have analyzed their customer and operations data to find patterns and create rules for their approach. With the exponential increase in data, however, executives must rely on algorithms and machines to find the patterns in the data.

Businesses looking to take advantage of AI need to move quickly to gain a foothold in this emergent market. According to IDC, worldwide, “spending on cognitive and AI systems will reach $77.6 billion in 2022, more than three times the $24.0 billion forecast for 2018.” Automated customer service agents, automated threat intelligence and prevention systems, and sales recommendations engines will be the most popular applications of the technology. Using AI, every company should be able to transform by bringing machine learning and intelligence to every application, every business process, and every employee.

The adoption of artificial intelligence needs to be well planned out, however. Companies need to think about what their automated systems should do with customer data, not just what is possible. Six AI design principles can be used to help companies—and their customers—trust their systems: fairness, inclusivity, reliability, transparency, privacy and security, and accountability.

- **Fairness** - AI systems should treat all people fairly
- **Inclusiveness** - AI systems should empower everyone and engage people
- **Reliability & Safety** - AI systems should perform reliably and safely
- **Transparency** - AI systems should be understandable
- **Privacy & Security** - AI systems should be secure and respect privacy
- **Accountability** - AI systems should have algorithmic accountability

These six principles will help companies transforming their business with AI-powered products to create solutions that are ethical and trusted by customers.
**AI in practice: Mashreq Bank uses AI to streamline process**

Mashreq Bank is the oldest financial institution in the United Arab Emirates, but also one of the most innovative. The bank uses AI to aid in requests for new credit cards, help customers to deposit checks, and speed the processing of new account requests.

The financial institution is excited about using AI to make operations more efficient. One branch of the bank moved to more automated services, doubling the efficiency of its staff.

The banking industry in general is expecting artificial intelligence, robotics, and automation to decrease costs by 30 percent over the next five years, while improving customers’ experiences. In addition, other business processes, such as information security, can benefit from AI-enabled products. Mashreq replaced its legacy cybersecurity software with AI-enabled Windows Defender Advanced Threat Protection.

For Mashreq, incorporating more artificial intelligence into their day-to-day business is part of their digital transformation using the ABCD approach. In addition to using AI and Microsoft Cognitive Services, the bank uses Microsoft Surface devices for enhanced mobility, Microsoft 365 software and services, and Dynamics 365. The number of digital transactions processed by the bank has grown 50 percent, while the company has saved $250,000 USD in security spending annually.

**Where to learn more about transformation through AI**

For more on how artificial intelligence can help transform your business, see:

**Microsoft AI principles:**
https://www.microsoft.com/en-ca/ai/our-approach-to-ai

**Azure AI:**
https://azure.microsoft.com/overview/ai-platform/

**The cloud for intelligent solutions:**
https://azure.microsoft.com/overview/intelligent/

**Microsoft Azure artificial intelligence blog:**
https://azure.microsoft.com/en-us/blog/topics/artificial-intelligence/
“Five years ago, 30 to 40 percent of our transactions originated digitally. Thanks to modernization and our relationship with Microsoft, we’ve increased that number to **94 percent**. Our customers are happier, our business is growing at a much more rapid pace.”

—Sandeep Chouhan, Executive Vice President and Group Head of Operations and Technology, Mashreq Bank
While artificial intelligence can be delivered as products, tailoring AI solutions to the business requires collecting large volumes of business data for processing. Big data is the second pillar that companies need to digitally transform their businesses. By collecting, analyzing, and ingesting data on your business and customer interactions, your systems and process will learn from actual experiences, allowing your company to operate more intelligently in the future.

More than half of all companies are relying on big data analytics to give them a business edge, up from only 17 percent in 2015.10 Machine learning systems capable of processing large amounts of data have also taken off.

For most companies, data collection is not a simple task. Approximately 80 percent of all data stored in devices, workstations, and datacenters at the average company is unstructured—not contained in a database or spreadsheet—and that volume of data is growing quickly.11
Mashreq has implemented a comprehensive modernization initiative focused on the end-to-end collection of data digitally. By routing most customer transactions through digital channels, the company has reduced errors, increase efficiency, and is able to deliver more comprehensive features.

The company has deployed Dynamics CRM 365, allowing the bank to better analyze data on customer interactions. The result is additional data and intelligence that provides a much deeper understanding of its client relationships, giving employees the ability to better service customers. For example, opening an account takes only 10 minutes, rather than more than 30 minutes under the old system.

“Our customers are happier, our business is growing at a much more rapid pace,” said Sandeep Chouhan, Executive Vice President and Group Head of Operations and Technology at Mashreq Bank. “The competitiveness that we have been able to realize with Microsoft has been a game changer for us.”

The changes have resulted in huge cost and efficiency savings for Mashreq, both for the IT department and across the business, according to the bank. The bank has seen an overall 30 percent reduction in business operating costs. Because data is directly input into the system, paper usage and the associated costs have decreased by 45 percent.
Where to learn more about transformation through big data

For more on how big data can help transform your business, see:

Microsoft Azure big data and analytics:
https://azure.microsoft.com/solutions/big-data/

Microsoft Azure big data blog:
https://azure.microsoft.com/en-us/blog/topics/big-data/

Take charge of your data overload with big data:

Advanced analytics on big data:
https://azure.microsoft.com/solutions/architecture/advanced-analytics-on-big-data/
“We are seeing the benefits of digital transformation and the cloud as we get information out of our systems in a way that makes us more efficient, allows us to be mobile, and helps us grow. The new solution also provides a better customer experience, and members will soon have access to data and information in ways they did not before. That is what excites us for the future.”

—Cindy Lyman, Executive Vice President, Finance and Administration, Associated Industries of Massachusetts (AIM)
C: Cloud

Adopting cloud is no longer optional

Companies should no longer be considering moving applications to the cloud. Rather, businesses should already be cloud-native, always thinking in terms of developing and deploying applications and infrastructure to the cloud. A cloud-native approach offers companies flexibility, new capabilities, and better security than traditional on-premise approaches.

Most companies are running their workloads in the cloud, with enterprises running 32 percent of workloads in public clouds and 45 percent of workloads in one or more private clouds. And according to Gartner, "The worldwide public cloud services market is projected to grow 17.3 percent in 2019 to total $206.2 billion, up from $175.8 billion in 2018."\(^{14}\)

The cloud makes data collection easier and allows most devices and applications to benefit from artificial intelligence. With devices connected to the cloud, companies can benefit from gathering and analyzing data from each endpoint to do things like predict issues before they happen and more accurately forecast performance—and they can get this information into the hands of employees who need it in a secure and accessible manner. Your employees and customers will benefit from real-time insights and delivery of services, resulting in highly responsive and contextually aware applications.
Cloud in practice: Mashreq benefits from connectedness

The enthusiastic adoption of cloud infrastructure and services allowed Mashreq Bank to become more efficient and spend more time on customers. Using its cloud applications, Mashreq can quickly verify customers’ mobile numbers to empower its more than 800 sales staff to serve double to triple the number of customers. Previously, meeting with clients would result in a stack of paper forms, which invariably had errors and missing information. Verifying customer details could take up to 72 hours.

The company uses the cloud to provide workers with access to back-office applications, pioneering an “office anywhere” capability. In addition, the bank’s enterprise resource planning (ERP) application can talk to large clients’ systems, easing transactions.

“This has caused a reduction in back-office staff in our client’s offices, and payment accuracy has increased to close to 100 percent, with turnaround time reduced to seconds rather than days,” said Nitin Bhargava, Chief Technology Officer of Mashreq Bank.

Where to learn more about transformation through cloud

For more on how the cloud can help transform your business, see:

Rethinking the Business Benefits of the Cloud:

Start your cloud migration process:
https://azure.microsoft.com/migration/get-started/

Cloud Infrastructure and Management Services:

Migrate on-premises machines to Azure:
https://docs.microsoft.com/azure/site-recovery/migrate-tutorial-on-premises-azure
“The search for the right device took us 18 months. Any device we selected needed to have the right combination of **computing power and mobility**. It needed to meet the right size and usability requirements.”

—Sandeep Chouhan, Executive Vice President and Group Head of Operations and Technology, Mashreq Bank
Devices have become a part of our digital lives, both at work and at home. In 2022, an estimated 3.6 devices per person will be connected to a network, up from 2.4 connected devices in 2017. These devices have become natural points for employees to access their workspace and corporate systems from anywhere. Different workers need different types of devices, depending on the worker’s job role, type of work, and their preference. Devices suited to vault a company into its digital transformation are both easy-to-use and easy to manage. While full-featured tablet systems are often used by salespeople and managers—because they allow always-on access to cloud services and data and the ability to collaborate with teammates from anywhere—laptops are often popular with knowledge workers, and desktop workstations are often required by creative designers and developers.

Surface devices are designed to increase productivity, improve security, and inspire workers to innovate. The devices empower employees to adapt their work to their needs, allowing note taking and sketching, touchscreen tablets and kiosks, and powerful laptops.
The benefits of the Surface family include:

- Workers save **5 hours** per week in productivity
- Organizations reduce product development overhead costs by **11 percent** through better task prioritization, collaboration, and data management
- IT teams slash overhead, including an **86 percent** reduction in help desk calls for password resets
- Security improves, with breach costs reduced by **80 percent** and the number of breaches cut in half

Real estate company CBRE, for example, created a service accessible through devices that is “really giving more and more control to both the tenants and the facility managers,” said Satya Nadella during the Ignite keynote. “It’s fascinating to see how the software that they’ve built goes way beyond just facilities management, because they now can, in fact, participate in the digital transformational outcomes of their customers.”

Devices are not just smart phones and tablets. The Surface family is designed to deliver the best experience of Microsoft software to every user no matter where they are or what their business role.
Devices in practice: Using Surface to speed business

As Mashreq Bank transformed its business, executives realized that its frontline customer-relationship managers needed greater mobility to minimize paperwork and give the workers better access to the bank’s infrastructure. The company has used Microsoft Office 365—a complete mobile office solution—to allow workers to collaborate in complete security.

Surface devices offered Mashreq a range of capabilities, while supporting access to the cloud and mobility. The Surface devices’ Windows 10 operating system helped bridge existing in-office ecosystems while supporting employees’ ability to access data from anywhere, accelerating the adoption rates of both Microsoft 365 and Dynamics 365.

Just as workers benefit from a mobile-focused approach, customers are expecting every service to be available on their devices. The UAE is an extremely connected society, with nearly 2.3 mobile devices per person, which overwhelmingly uses devices to interact with the bank. Currently, 91 percent of transactions are completed through digital channels, while mobile and online platforms account for 90 percent of inquiries.

Where to learn more about transformation using Surface devices

For more on how Surface devices can help transform your business, see:

Microsoft Surface devices:

What is digital transformation?:

Surface Pro for Business:
https://www.microsoft.com/surface/business/surface-pro

Sustainable small business uses Surface to stay agile:
“To succeed ... every institution, every organization will need to have what I describe as tech intensity.”

—Satya Nadella
CEO, Microsoft
Creating your own digital transformation

How we work is just as important as what we do and why we do it. And although it may feel daunting to think about successfully implementing a digital transformation strategy, it’s essentially about enabling seamless transitions across location, type of work, collaboration, and everything we need to accomplish day-to-day.

Digital transformation is unique to each company. Businesses need to start with a solid technical infrastructure incorporating foundational technologies that build on one another: artificial intelligence, big data, cloud, and devices. With that basis, companies can then focus on improving tech intensity—adopting the latest technology they need to succeed and creating the technology they need to set themselves apart. Along the way, companies will have to develop their own culture and leaders will need to adjust to new ways of thinking.

Right now, the technologies exist to make digital transformation a reality for every organization. The four ABCD pillars provide the base to embark on your own journey and transform your business.

Ready to get started?
Reach out to your Microsoft account executive or solutions specialist to learn more. If you don’t have an account manager, you can request a call from our sales team here.
“Our mission is to empower every person and every organization on the planet to achieve more, and that means we want to empower you with that **tech intensity**, whether you’re a small business, a large multinational, or a public-sector institution, our goal is to ensure that we give you the digital technology. We want to do this at a **global scale**, and most importantly, our success is fundamentally dependent on your success.”

—Satya Nadella
CEO, Microsoft
Endnotes


