# Digital Business Transformation

## Introduction

Digital technology is changing every aspect of how business is conducted each day. The sheer number of innovations enabled by digital technology is staggering, has no historical precedent and is increasing. Digital technology-enabled businesses are rising each day with disruptive business models, providing services and products in new and innovative ways, and they know no boundary. While some industries are more affected than others, traditional businesses that are slow to evolve will not survive the digital revolution.

> ". .. it is not the most intellectual of the species that survives; it is not the strongest that survives; but the species that survives is the one that is able best to adapt and adjust to the changing environment in which it finds itself."
>
> Leon C. Megginson[1]

Digital technology is continually reshaping every aspect of how we live, work, communicate and play. We now conduct business, share and access information, connect, and communicate in ways never thought of before. Businesses must embark on a journey of digital transformation in order to stay relevant.

## What is digital transformation?

Since the coining of the term, there has been a plethora of articles and definitions by academics, users, technologists and consultants. Wikipedia defines digital transformation as "the change associated with the application of digital technology in all aspects of human society."[2]
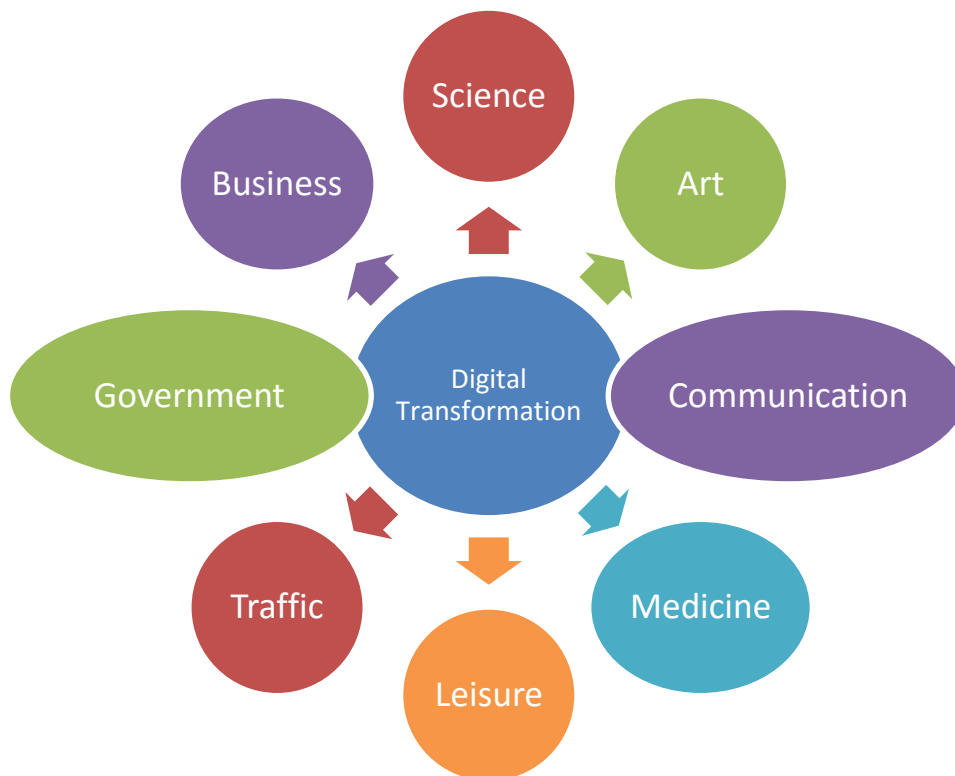


Digital transformation impacts all aspects of human society[2]

In this article we will emphasize the business context and focus on "digital business transformation" which the Global Center for Digital Business Transformation defines as "organizational change through the use of digital technologies and business models to improve performance."[3] Digital transformation will impact every industry in every country. It is not a question of if, but a question of when and how.

Using discrete digital technologies to solve specific business problems only achieves change or a better version of the past. However, integrating digital technologies and combining strategy and execution can create a new future that opens new opportunities and defends against disruption: this is digital transformation.

"When a snake shades its skin, it changes; when a caterpillar becomes a butterfly it transforms"[4]
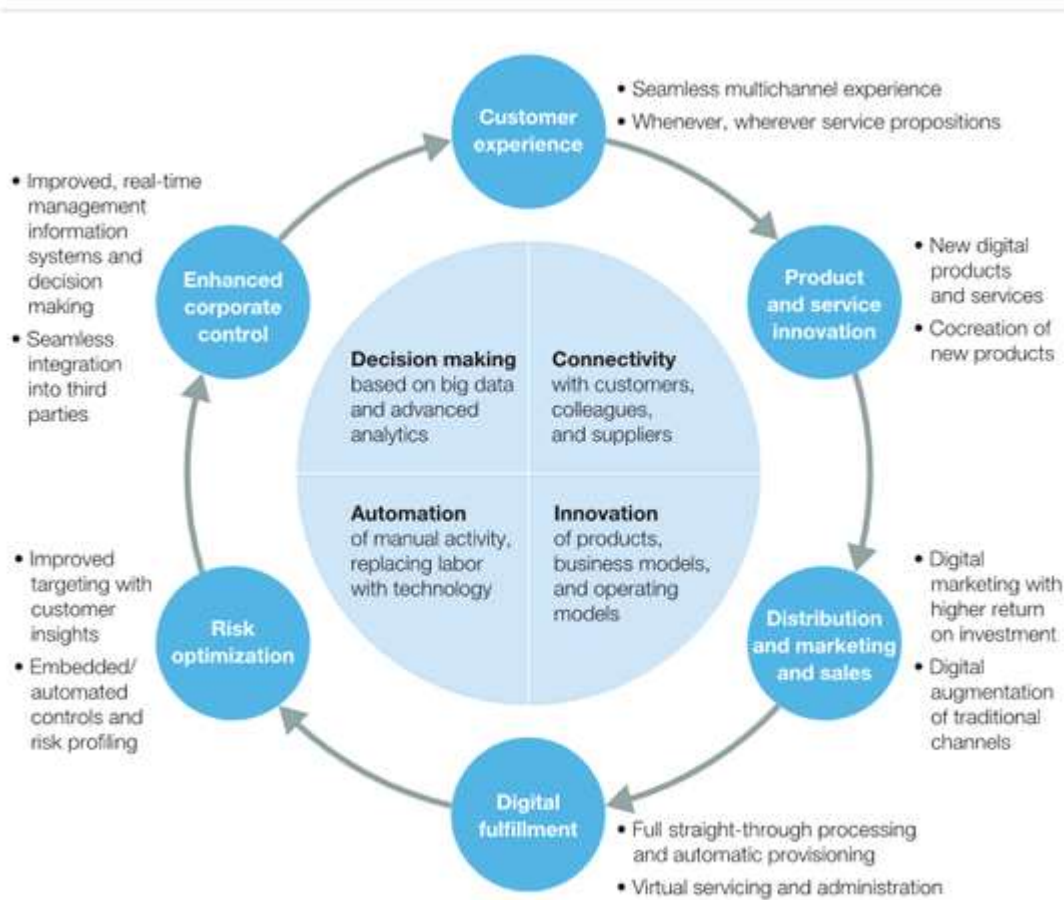
"When digital transformation is done right, it's like a caterpillar turning into a butterfly. But when done wrong, all you have is a really fast caterpillar"

George Westerman, MIT Sloan Initiative on the Digital Economy[5]

Although digital is about technology, digital business transformation is less about technology than it is about strategy. Digital enables strategy. Strategy, not technology, drives digital transformation.[6]

## Digital transformation in the enterprise

Successful digital transformation is implemented in an enterprise-wide and holistic way and affects every business area and process as shown by McKinsey in the diagram below.

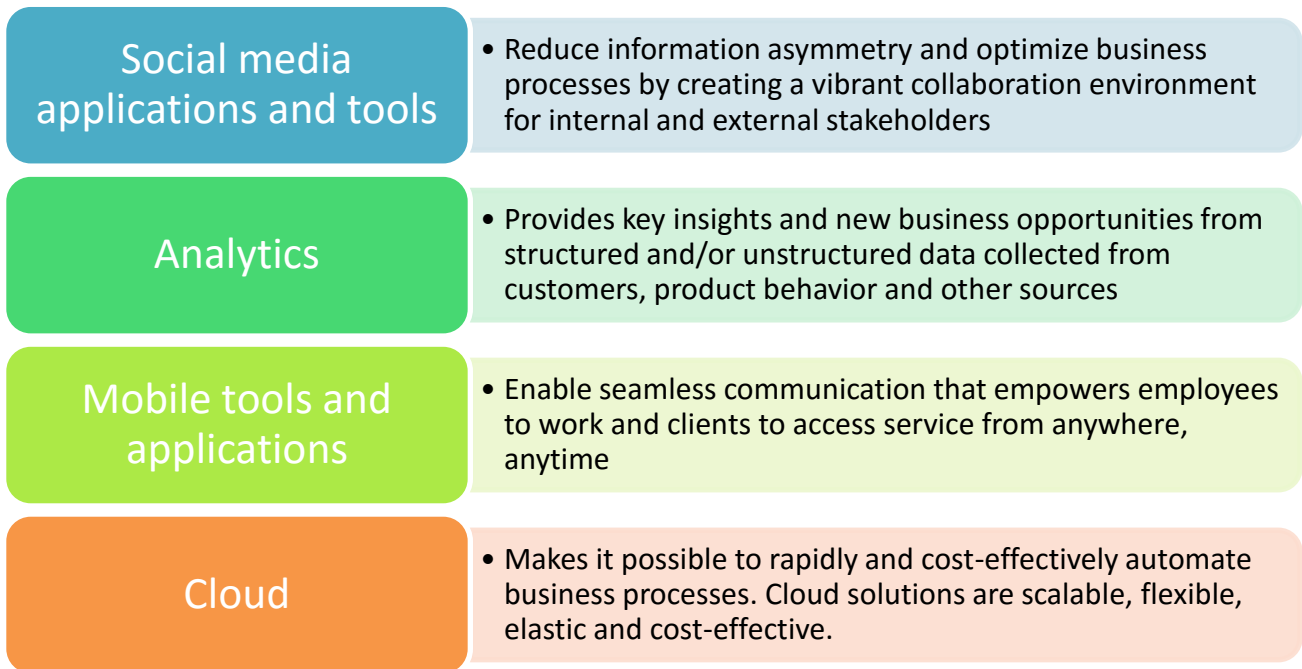Digital can reshape every aspect of the modern enterprise.



- Improved, real-time management information systems and decision making
- Seamless integration into third parties

**Enhanced corporate control**

**Customer experience**
- Seamless multichannel experience
- Whenever, wherever service propositions

**Product and service innovation**
- New digital products and services
- Cocreation of new products

**Decision making** based on big data and advanced analytics

**Connectivity** with customers, colleagues, and suppliers

**Automation** of manual activity, replacing labor with technology

**Innovation** of products, business models, and operating models

**Distribution and marketing and sales**
- Digital marketing with higher return on investment
- Digital augmentation of traditional channels

- Improved targeting with customer insights
- Embedded/ automated controls and risk profiling

**Risk optimization**

**Digital fulfillment**
- Full straight-through processing and automatic provisioning
- Virtual servicing and administration
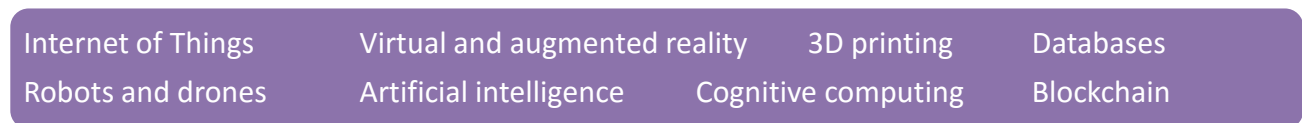
Source: Expert interviews; McKinsey analysis

Digital can reshape every aspect of the modern enterprise: Source - McKinsey[7]
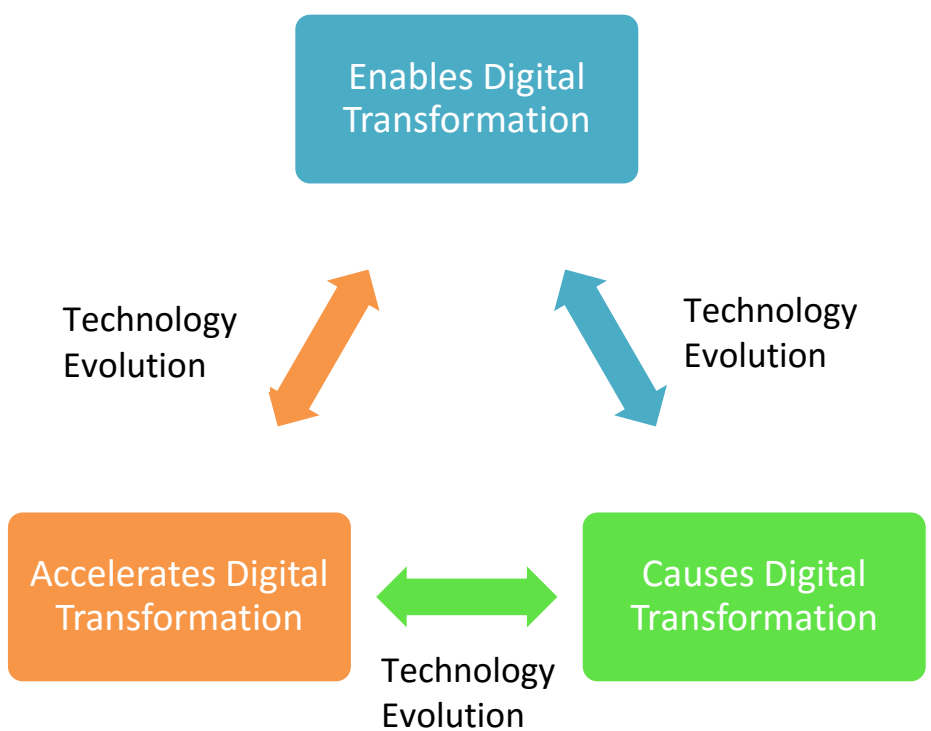
# Technologies for digital transformation

While strategy is the key driver of digital transformation, businesses must understand and leverage four "3rd Platform"[8] technologies to achieve their strategic business goals.[4]

| | |
|---|---|
| **Social media applications and tools** | • Reduce information asymmetry and optimize business processes by creating a vibrant collaboration environment for internal and external stakeholders |
| **Analytics** | • Provides key insights and new business opportunities from structured and/or unstructured data collected from customers, product behavior and other sources |
| **Mobile tools and applications** | • Enable seamless communication that empowers employees to work and clients to access service from anywhere, anytime |
| **Cloud** | • Makes it possible to rapidly and cost-effectively automate business processes. Cloud solutions are scalable, flexible, elastic and cost-effective. |

In addition to the above, these technologies underpin digital transformation.

| | | | |
|---|---|---|---|
| Internet of Things | Virtual and augmented reality | 3D printing | Databases |
| Robots and drones | Artificial intelligence | Cognitive computing | Blockchain |

These technologies are evolving and continuously interacting with digital business transformation as illustrated below. Their adoption by consumers, employees and businesses are transforming the face of business, creating a new digital business reality.

Enables Digital Transformation

Technology Evolution

Technology Evolution

Accelerates Digital Transformation

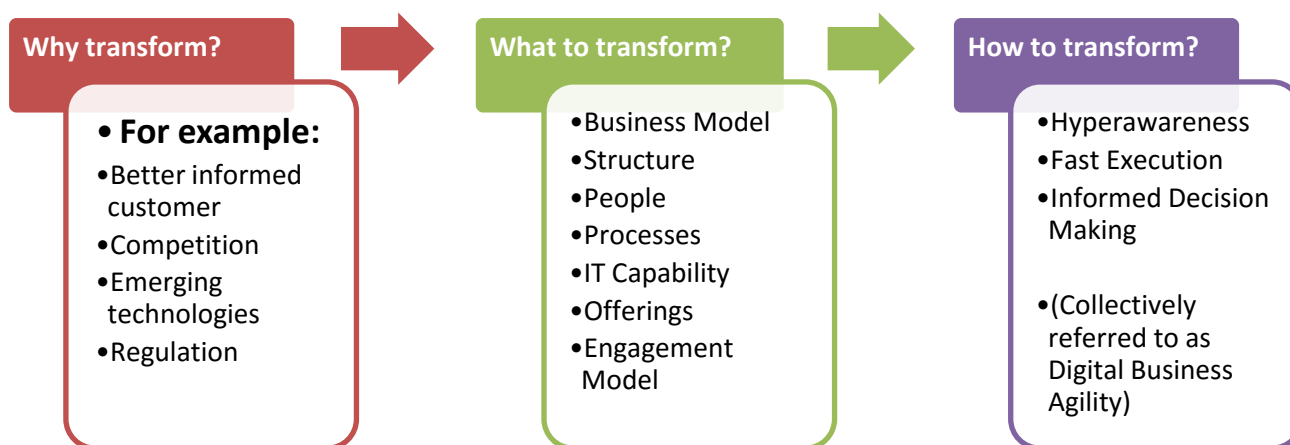Causes Digital Transformation

Technology Evolution

# Cybersecurity - the essential challenge for digital transformation

Digital security risk is inherent in digital transformation. As businesses digitize their operations they become electronically exposed and vulnerable to all sorts of cyber attacks. For some businesses, concerns over digital security become a primary obstacle to digital transformation while for others they represent an opportunity to differentiate themselves from competition. To effectively deal with cyber threats businesses need to build digital security into overall digital transformation strategy and business culture.

# Approaching digital transformation

There is considerable difference in digital maturity and potential for disruption among industries.[9] As a result there is no one-size-fits-all solution to digital business transformation and virtually all major consulting firms have developed their own frameworks and models. The Global Center for Digital Business Transformation proposes that organizations answer three questions before they embark on a digital transformation journey:

| Why transform? | What to transform? | How to transform? |
|---|---|---|
| • **For example:** <br>•Better informed customer <br>•Competition <br>•Emerging technologies <br>•Regulation | •Business Model <br>•Structure <br>•People <br>•Processes <br>•IT Capability <br>•Offerings <br>•Engagement Model | •Hyperawareness <br>•Fast Execution <br>•Informed Decision Making <br><br>•(Collectively referred to as Digital Business Agility) |

Global Center for Digital Business Transformation Digital Business Transformation Framework based on "Digital Business Transformation: A Conceptual Framework" published by Global Center for Digital Business Transformation, 2015
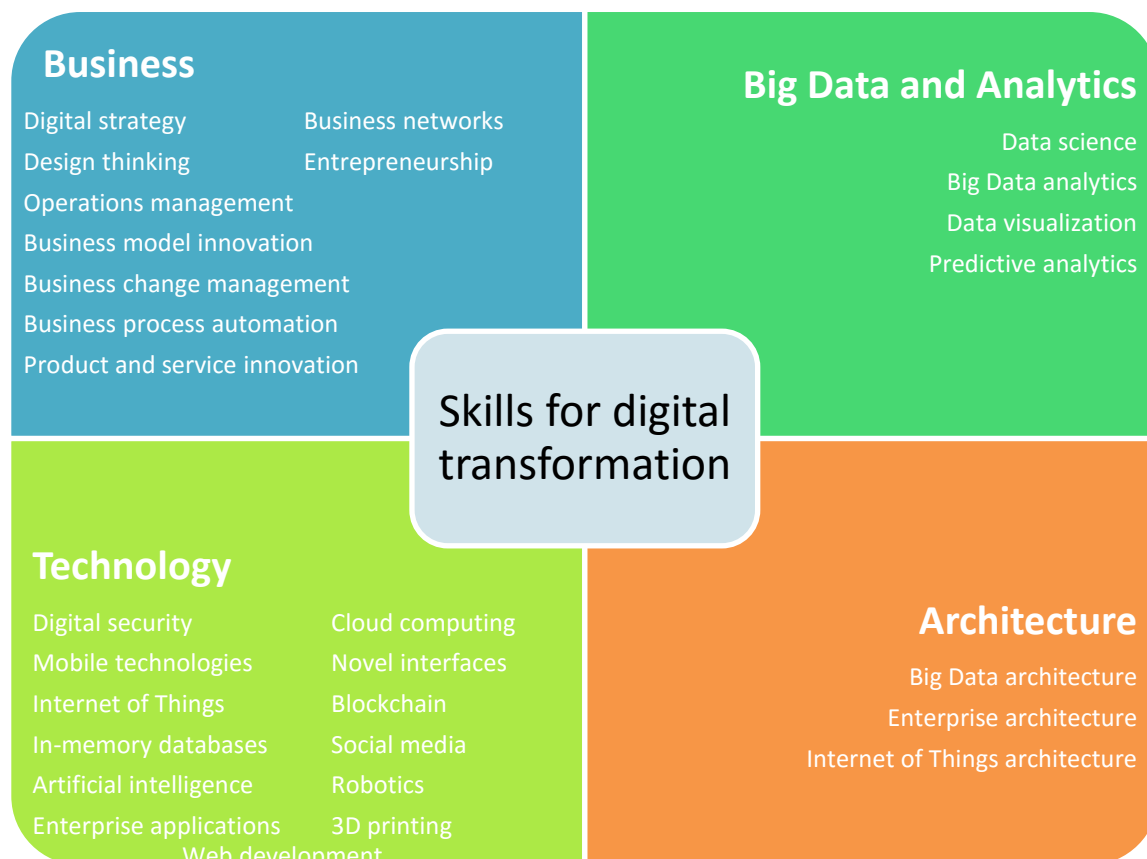
# Myths and realities of digital transformation

While business leaders are paying attention to change brought about by digital technology, many fail to move forward or make costly mistakes due to factors that include bad advice and myths about digital transformation.  The table below shows dispels some of the common myths.[10]

| Myth | | Reality |
|------|---|---------|
| 1 | Digital is primarily about the customer experience | Huge opportunities exist also in efficiency, productivity and employee leverage |
| 2 | Digital primarily matters only to technology or B2C companies | Opportunities exist in all industries with no exceptions |
| 3 | Let a thousand flowers bloom; bottom-up activity is the right way to change | Digital transformation must be led from the top |
| 4 | If we do enough digital initiatives, we will get there | Transformation management intensity is more important for driving overall performance |
| 5 | Digital transformation will happen despite our IT | Business/IT relationships are key, and in many companies they must be improved |
| 6 | Digital transformation approach is different for every industry and company | Digital Leaders exhibit a common DNA |
| 7 | In our industry we can wait and see how digital develops | There are digital leaders outperforming their peers in every industry today |

Myths and Realities of Digital Transformation – Source: The Digital Advantage: How digital leaders outperform their peers in every industry - Capgemini Consulting (201xxxx)

## Skills for digital transformation

Digital skills are a critical factor for driving successful digital transformation. They enable businesses to identify opportunities and create and execute effective digital strategies. Because digital transformation impacts all areas of a business, all levels of workforce must possess critical business and technology skills. The image below shows the broad skills base essential for successful digital transformation.

**Business**
Digital strategy        Business networks
Design thinking        Entrepreneurship
Operations management
Business model innovation
Business change management
Business process automation
Product and service innovation

**Big Data and Analytics**
Data science
Big Data analytics
Data visualization
Predictive analytics

Skills for digital transformation

**Technology**
Digital security        Cloud computing
Mobile technologies        Novel interfaces
Internet of Things        Blockchain
In-memory databases        Social media
Artificial intelligence        Robotics
Enterprise applications        3D printing
Web development

**Architecture**
Big Data architecture
Enterprise architecture
Internet of Things architecture

## Conclusion

Digital transformation is sweeping through every industry in every country and no business is immune. Focusing on information technology optimization only accomplishes change, but transformation results in a new future. To stay relevant in this era of unprecedented pace of change, businesses must reimagine their models and enable them with the right technology. Understanding of the four 3rd Platform technologies – social, media, analytics and cloud – and emerging technologies, and their value to business is critical. Security risk is inherent in the hyperconnected world. However, security concerns should not hold back digital transformation and businesses should make cybersecurity an integral part of their strategy. There is no one-size-fits-all approach to digital transformation; rather each business should map its digital transformation journey based on its digital maturity. It is essential to recognize myths and realities of digital transformation in order to move forward and avoid costly mistakes. To deliver successful digital transformation projects business executives must continuously develop and retain the required knowledge and capacity within their organizations.

## References

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9. Digital Vortex: How Digital Disruption Is Redefining Industries - Global Center for Digital Business Transformation, 2015 - Document Link

10. The Digital Advantage: How digital leaders outperform their peers in every industry - Capgemini Consulting, 2012 - Document Link