



Professional Article

## Digital transformation: An introduction

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In this article we give a short introduction to the topic Digital Transformation.

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## Introduction Digital Transformation

### **Rapid change in many industries**

Digital transformation refers to the changes in economy and society that result from the adaptation of new information and communication technologies. Industry 4.0, labour 4.0 and leadership 4.0 are just a few of the buzzwords. The change in many industries is accelerating, new products, services, business models and processes are also changing traditional forms of market cultivation.

### **New forms of work, business processes, and leadership requirements**

Digital transformation has its origins in technology, however it also affects the entire organization, especially outside the immediate technical field. New technology enables or requires new flexible forms of work and decentralized communication channels. New job profiles are emerging and additional requirements are arising in existing occupations. In both cases, new qualifications are needed. Cooperation between employees and managers is also changing – and with it the role and function of leadership. Existing business processes must be adapted to the changed framework conditions – or developed from scratch. These and many other changes encounter a culture in the company that can promote or hinder digital transformation.

### **Three cornerstones of digital transformation**

Digital transformation does not reinvent everything. The moments of order of an organization continue to exist: Culture, strategy and structure. They are given a “digital touch” and change considerably as a result.

- A “digital strategy” requires the business model to be aligned with changing economic conditions. In fast-moving times it is advisable to be able to react immediately to new conditions. Projects planned for the foreseeable future are much more adaptable than multi-year plans. The business model should take up the technically opened possibilities to get in direct contact with customers, to work more closely with suppliers, or to be able to offer products and services in small quantities at a “mass production price”.
- With a “digital structure”, the structural and procedural organization becomes more “agile”. In our understanding “agile” stands for “structured-flexible”. The more flexible the culture and strategy of the organization are, the clearer the structure must be. The aims, plans and resources are adapted, changed, thrown overboard, revised or newly created depending on the location of the work. This is flexibility within the structured framework.
- “Digital culture” is more than working with many new apps. The culture of a successful digital transformation requires the attitude of one’s own doing to constantly expand. The biggest challenge here is not the economic safeguarding of uncertainty, but rather the acceptance and endurance of mental uncertainty.

### **Making your organization future-proof**

When determining the maturity level for “digital organization”, we clarify to what extent your organization has adjusted to the digitally changed world with regard to the following six topics:

1. The power of persuasion of the organizational purpose serving as the guiding principle
2. Taking up the opportunities opened up by digitalisation in the business model
3. The degree of innovation of an appropriate digital infrastructure
4. Form and adaptability of work coordination
5. The attitude to digital transformation, its challenges and opportunities, chances and risks
6. The role and function of leadership in the internal and external relationship of the organization.

This gives you an overview of the relevant construction sites. Furthermore, we will work with you to clarify the interrelationships and interactions of these construction sites. On the basis of this analysis, we will work with you to develop a package of measures that will help you to make your organisation future-proof. Typical contents of such bundles of measures are:

- Adaptable personnel planning approaches
- Working time models
- Introduction of agile forms of work in defined organizational areas (Scrum, Holacracy, Sociocracy, etc.)
- Introduction of quality levels at relevant interfaces
- Remuneration principles including grading models
- ERP systems
- Forms of behaviour assessment and feedback concepts
- Leadership competencies 4.0
- Health promotion and management
- Contents of data protection concepts
- IT concepts
- Moderation of different “value worlds” in the organization
- New Work concepts including Activity Based Working
- On-the-Job variants of personnel development (Rotation, Enlargement, Enrichment)
- Process conversions to Kanban or other principles

As you can see, digital transformation is giving rise to a wide variety of themes. These are often topics that were already on the agenda before the 4.0 debates. But now such topics are coming around the corner with a different force (technology-driven), different speed (competitive) and in a different form (“agile”).

With our comprehensive understanding of “digital transformation”, with our approach to maturity assessment, with our cooperation partners (architecture, health management, law, time recording,

etc.) and our strong experience in the transformation of organizations, we offer you orientation and practical implementation. So that you can be, remain or become structured and flexible.

On the following pages we have provided you with a selected text on the subject of digital transformation.

If you have any further questions on this topic, please do not hesitate to contact us. We offer advice and lectures on this topic.



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## 8 fields of action for digital transformation

Strategy	Structure	Culture	Collaboration
Orientation towards the digital future	Adjustment of the organizational structure	Building a culture of change	Efficient collaboration across all areas
Infrastructure	Business Processes	Innovation	Customer
Establishment of a digital infrastructure	Useful automation of business processes	New services and products about new technologies	Customer interaction across all touchpoints

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## Digital transformation – a definition

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<https://searchcio.techtarget.com/definition/digital-transformation> (October 2019)

As such, digital transformation requires an examination and reinvention of most, if not all, areas within an organization, from its supply chain and workflow, to its employee skill sets and org chart, to its customer interactions and its value to stakeholders.

Digital transformation helps an organization to keep pace with emerging customer demands now and, if sustained, in the future. Digital transformation enables an organization to better compete in an economic landscape that's constantly changing as technology evolves. To that end, a digital transformation strategy is necessary for any business, nonprofit or institution that seeks to survive into the future.

### **Importance of digital transformation**

The digitization of society that started in the late 20th century, and which has accelerated in the first two decades of the 21st century, spurred the digital transformation that's being undertaken by many organizations today.

Successful organizations need to adapt to meet changing market forces or face extinction. Companies that don't anticipate how emerging technologies could make their own products obsolete run the risk of going out of business, shuttered either by new competition or existing competitors who were more nimble and able to transform themselves.

One example: Blockbuster LLC, which in the early 2000s was a global entity, with video rental stores throughout the United States and around the world. But its presence, and relevance, precipitously declined from about 2005 onward, as Netflix and others harnessed emerging technologies and capitalized on the consumer appetite for on-demand entertainment by delivering highly popular, and profitable, streaming-video services.

The danger of market leaders being displaced and disrupted will continue in the future, as emerging technologies enable new business models, more engaging customer experiences, novel products and services, and other innovations.

Moreover, the pace of digital business transformation is accelerating. Organizations are having to transform much more rapidly, more often and at a faster pace today as a result of a confluence of technologies shaping modern customer expectations.

### **Digital transformation drivers**

Mobile technologies, artificial intelligence, cloud computing, social media platforms and other digital innovations have drastically changed how quickly customers can get information, thus changing the kind and quality of products and services they expect from the businesses and other agencies with whom they interact.

Similarly, this same collection of digital tools has changed what employees and other stakeholders - i.e., business partners and investors -- expect from organizations.

Customers -- both individual consumers and companies in business-to-business transactions -- expect organizations to be responsive, as well as to provide a personalized customer experience and products tailored to their needs. That's true of customers interacting with for-profit businesses, nonprofits or government agencies. They also expect intuitive, easy-to-use interfaces, and they generally prefer digital interactions that can happen anytime from any device.

Organizations find their own employees expect that in the workplace, as well.

Workers have come to expect digital, fast, highly social and intuitive experiences in their personal lives and in their personal business transactions -- whether they're sharing real-time video with friends and families around the globe or seeking near-instantaneous details on the amount of money they can borrow for a mortgage.

Having become accustomed to those digitally enabled experiences in their personal dealings, workers expect them from their employers, too. Workers increasingly want workplace applications that let them work from any device at anytime from anywhere. And they want their workplace applications to be as intuitive and responsive as those that they use outside of the office.

Employees also look to such technology to help them serve their organizations' customers in a modern digital manner.

Executives are feeling the pressure to deliver: The 2019 Executive Perspectives on Top Risks survey, conducted by global consulting firm Protiviti in conjunction with North Carolina State University's Poole College of Management, found that digital transformation and the ability to compete against born-digital organizations is the No. 1 concern of boards and C-suite leaders.

### **Goals of digital transformation**

The goal of an organization's digital transformation strategy is twofold: to better serve its customers and to better serve all its stakeholders -- most notably its employees, who are critical to success, and its shareholders.

To do that, organizations must use digital technologies to achieve a number of objectives that help support the overarching goal of better anticipating and meeting customer needs.

Those supporting objectives include the following:

- increasing speed to market with new products and services;
- increasing employee productivity;
- increasing responsiveness to customer requests;
- more insights into individual customers to better anticipate and personalize products and services; and
- improved customer service, especially in providing more intuitive and more engaging customer experiences.

Organizations that successfully meet these targets are well positioned to understand their customers and deliver the products and/or services they want to buy, thereby increasing their organization's strength and competitiveness in the marketplace and the likelihood of its short- and long-term relevance and success.

### **Key technologies**

Technology drives the need for digital transformation and supports the digitization of an organization. Moreover, there is no single application or technology that enables digital transformation.

There are multiple key processes an organization generally must have to transform. Cloud computing, for example, grants an organization quicker access to its needed software, new functionalities and updates, along with data storage, and enables it to be nimble enough to transform.

Commoditized information technology enables an organization to focus its investments of talent and research and development dollars on the customizations that support its unique requirements and the processes that differentiate it in the marketplace.

Meanwhile, mobile platforms enable work to happen wherever and whenever. And robust data programs that fuel machine learning and artificial intelligence technologies provide organizations with insights to drive more accurate decisions around sales, marketing, product development and other strategic areas.

Other technologies that drive business transformation include blockchain, augmented reality and virtual reality, social media and the internet of things (IoT).

### **Digital transformation examples**

Many industries and individual organizations are either in the midst of transformation projects, are plotting digital transformation strategies or are struggling with the concept.

One example of a company that has undergone successful digital transformation is Nespresso. The maker of specialty coffee machines, an operating unit of Switzerland-based Nestle Group, deployed a cloud-based customer relationship management system, offering customers omnichannel access

to shopping and customer service. They can reach the company whether they use the website, a mobile device or visit a store. A single view of each of its customers -- 360-degree view -- has enabled Nespresso to move into more markets and improve sales.

Another example of digital transformation is Netflix, which started as a mail-based DVD rental company in 1997. Today, it's an online video streaming service that delivers customized offerings based on each customer's preferences.

Capital One Financial Corp. is an example of a financial services organization that has used digital technology to change how it served its customers. The company started in 1994 when another financial institution spun off its credit card division. Today, Capital One is among the top financial institutions in the United States as ranked by assets, fueled in part by its digital innovations. CTO George Brady, in a November 2018 article on the company's website, offered his insights into the company's "four-year journey of disruptive change," saying: "We don't just use the latest technologies, we create them and infuse them into everything we do. We think of ourselves as a customer-centric tech company that provides innovative financial services, not the other way around."

Domino's Pizza is another example of a company that has successfully transformed itself for the digital age, launching innovative tech-driven services such as its Pizza Tracker and mobile technologies that helped fuel significant growth throughout the 2010s.

### **Digital transformation strategy**

Authorities on digital transformation acknowledge that emerging technologies both drive and support actual transformation, but they stress that successful transformation starts with a vision that articulates how to harness those technologies to achieve strategic objectives based on the organization's own digital business model.

They note that implementing cutting-edge technologies, no matter how promising they are, without understanding how they'll deliver value to the organization and its customers, will not lead to transformation.

Forrester Research analyst Nigel Fenwick labeled the need for a digital strategy a myth. "What every company needs is a solid business strategy built around tomorrow's digital capabilities," he said.

Each organization must have its own vision for its future, but there are some common elements to most strategic plans. Experts generally advise organizational leaders to understand the market and their place in it, as well as their existing and potential customers. They should also analyze where the market is heading, so they can anticipate the potential for digital disruption and how they can be the disruptor vs. being disrupted by others.

They should use their own expertise, but also take advantage of external research and reports to develop a vision for what their organization should be in the future, including how their products



and services should evolve to meet customer needs and expectations. They then need a roadmap that offers a way to move from current to future state.

As part of this strategic planning, executives should assess the organization's existing capabilities -- from employee skills to its existing IT stack -- and next articulate what additional capabilities will be needed and then devise a plan to obtain those capabilities.

Organizational leaders will need to draw on a number of traditional disciplines, such as change management and project management, as well as new techniques, such as Agile methodologies, in order to successfully bring their organization, its culture, its people and its technologies into the future.

Additionally, executives must find a way to continually evaluate and evolve, as experts agree transformation is not a one-time exercise, but rather an ongoing state of being.

### **Benefits of digital transformation**

Transformation enables organizations to succeed in this digital age: That is the single biggest benefit of digital transformation. For businesses, that success means higher revenue and bigger profits. For other types of organizations, such as nonprofit institutions, the digital metrics for success they've implemented enables them to better serve their stakeholders.

Although digital transformation's ultimate benefit is survival and strength in the future, transformation initiatives deliver many other advantages to organizations. They include the following:

- higher worker productivity -- a bump that often comes from increased use of automation and robotics technologies, as well as machine learning and AI;
- increased customer satisfaction, generally resulting from a more intense focus on understanding customer needs and deploying the technology required to meet those needs; and
- more agility, as an organization's culture and capabilities shift to support ongoing change.

These benefits actually help fuel ongoing transformation, as automation allows employees to shift to more innovative and higher-value work, and more agility enables the organization to better identify opportunities and pivot resources toward seizing upon them.

### **Challenges of digital transformation**

Despite the widespread interest in digital transformation, the majority of organizations have fallen short on their transformational objectives. In fact, many business leaders cite a McKinsey & Co. survey showing that "70% of complex, large-scale change programs don't meet their stated goals."

In reporting those 2016 findings, McKinsey stated, "Common pitfalls include a lack of employee engagement, inadequate management support, poor or nonexistent cross-functional collaboration,

and a lack of accountability. Furthermore, sustaining a transformation's impact typically requires a major reset in mind-sets and behaviors -- something that few leaders know how to achieve."

Research from Dell Technologies reached similar conclusions, stating that 91% of businesses face "persistent barriers to digital transformation." Dell Technologies, in collaboration with Intel and Vanson Bourne, surveyed 4,600 business leaders in more than 40 countries, publishing its findings in the 2018 Digital Transformation Index.

The research found the top barriers are the following:

- data privacy and security concerns;
- budgetary constraints;
- limited in-house skills and expertise;
- regulatory and legislative changes; and
- an immature digital culture.

Additionally, the Dell research found that 78% believe digital transformation should be more widespread in their organizations than it is; 51% believe their organizations will continue to struggle to meet customer needs five years into the future; and 49% say they think their organizations won't be seen as trustworthy in five years.

Many organizations still struggle with older, so-called legacy technologies that cannot easily be replaced. Many organizations are unable, or unwilling, to allocate the money to replace old technologies. Many also have a hard time finding qualified leadership at the executive and board level to guide such initiatives; many cannot find digital and IT staffers with the right combination of industry knowledge and the ability to execute on transformational building-block projects.

However, Dell Technologies' 2018 Digital Transformation Index found many organizations investing in key technologies to support transformation, with cybersecurity, IoT, multi-cloud and AI ranking at the top four IT investment areas -- in that order.

Many organizations are also addressing their workforce to support transformation, with 46% saying they're developing in-house digital skills and talent -- up from 27% in 2016; 44% are sharing knowledge across functions, up from 19% in 2016; and 43% are integrating digital goals across all business objectives.

Even organizations with the right resources face challenges in transforming to new processes and products. They must change multiple discrete pieces of their organizations, projects that require adequate funding and management oversight to ensure success. For example, an organization might need to implement modern supply chain management technologies at the same time it needs to adopt sensors, machine learning and other IoT capabilities to derive the required insight into how customers use its products.

Leaders need to create an organizational culture where continual improvements happen and where stakeholders are open to ongoing transformation. Everyone must be willing to identify and abandon dated and ineffective processes and replace them with something better.

Without such attention to these sweeping requirements, an organization could end up with modern technologies that enable more efficient or effective processes or procedures -- such as ordering raw materials, taking inventories or handling payments -- without truly transforming how the organization operates, what it has to offer its stakeholders and what value it produces for all involved.

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