

What makes a successful digital transformation?

Insights from experience, failure and research

WHITE PAPER

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What to expect from this white paper

According to ongoing research by McKinsey, some 70% of digital transformations (DX) fail. The 2018 KPMG Harvey Nash CIO survey says 78% of nearly 4,000 CIOs worldwide “say their digital strategy is moderately effective or worse, suggesting such efforts remain in their infancy.”

In this whitepaper, we investigate what is understood by ‘digital transformation’, which is not the same as digitization or a digital strategy, and we apply research, experience and analysis to define what makes a successful DX. We also look at the cost of failure, citing some high-profile examples.

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Digital transformation is not just about technology

If you're reading this, digital transformation (DX) is on your mind, as it is for many C-level executives today. Recent research by IDC¹ says 40% of all technology spending will go toward digital transformations, with enterprises spending in excess of \$2 trillion by 2019. It cites the top driver of such initiatives as "productivity improvement" (37.1% of respondents), followed by the conviction that it is "critical to business success" (30.1%) because competitors have already gained an advantage by investing in DX, or will do so within the next year. Companies, it seems, are racing for "The Digital Advantage", as Capgemini and the MIT Center for Digital Business predicted in a 2012 report² – but what exactly are they racing towards?

The truth is that digital transformation as a concept is not well understood. As an indicator, a simple Google search of the term turns up numerous, very recent, articles that address the most basic question of "What is digital transformation?" More specifically, the 2018 Salesforce Digital Transformation Survey tells us that 64% of employees at all levels know the company they work for considers digital transformation to be a priority, but 69% wouldn't be confident explaining the concept to somebody else, i.e. they don't really know what it means. If they are motivated to investigate further themselves, they may not be any the wiser. There's a wealth of information out there, and it's oftentimes contradictory. A 2017 Global Digital Transformation Survey Report by Fujitsu talks about specific technologies, such as AI or IoT, being applied to specific areas within the company, such as marketing or finance. Other sources imply a cohesion between technology and business which make DX altogether more fundamental.

It's about changing the way you operate

Some companies may indeed term their modernization initiative, that aims to bring the technology stack up to date, a "digital transformation". But adoption of new technologies doesn't mean you're digitally transformed, even if you are digitized. An enterprise-wide system may meet your goal of improving productivity by replacing a collection of obsolete, legacy software applications with modules that play perfectly together, but will it help you be more competitive? To change performance in the market, a company needs to alter the way it works, and that cannot be achieved without "disruption", which we at Baton simply call "change". The important factor is the processes that these technologies at first facilitate, and then modify, as we learn new ways of approaching things and adapt to them.

Our favourite definition, here at Baton, is from the *Enterprisers Project*, an online community of CIOs³: "Digital transformation is the integration of **digital** technology into all areas of a business, fundamentally **changing how you operate and deliver value to customers**." But that doesn't mean every company can get there overnight. In our experience, there can be different levels of transformation, corresponding to a strategic intent: *Transparency/standardization*, followed by *Cross-functional integration*, and culminating in *Value-chain transformation*. It is possible to go from a legacy software collection to value-chain transformation in one shot, but more often than not, companies work their way through the different stages. Make no mistake, however, every level requires understanding of the strategic intent, and a detailed plan of how to get there.

Standardizing processes – a level-one transformation

At the Transparency/standardization level, organizations have an understanding of the potential benefits enabled by enterprise systems, in particular as catalysts for process standardization and data discipline. Business cases for these projects focus on achieving better or even real-time reporting and reducing the inefficiencies created by business units that use different technologies or processes to perform similar tasks. The function that wins biggest with such an initiative is often finance, whose quest for a "single version of the truth" was previously a constant exercise in frustration.

These organizations understand that the project will require significant investments in change management and alignment of business stakeholders. Senior management understands the need to let go of locally-owned applications to adopt a common platform. They recognize that this will be disruptive

and are willing to make significant investments in integrated change management. In addition to effective communication and training, we see investments in detailed organizational impact analysis, cascading sponsorship, business readiness, risk monitoring, user enablement and super user communities. This commitment to change goes beyond the go-live date to ensure that adoption and benefits realization actually take place.

However, one key factor typically separates organizations at this level from those aiming for cross-functional integration or value-chain transformation. They tend to shy away from establishing end-to-end business process ownership and management at the operational level. Someone on the project team might carry the title of “Business Process Owner”, but that individual is often tasked with making those decisions that no one else can or wants to make. There is also no clear accountability or metrics for end-to-end process performance after go-live.

This reluctance to adopt an organizational process mindset is usually reflected in the way the project is organized, with sub-teams organized by functional area (i.e. sales and distribution, finance, HR, procurement etc.) rather than by end-to-end process (order-to-cash, record-to-report, hire-to-retire, source-to-pay etc.). This approach often results in evolutionary rather than revolutionary change. User tasks are revisited, but overall responsibilities change little and job descriptions remain essentially the same.

Improving processes – a level-two transformation

The strategic intent associated with cross-functional integration is simple: the organization will do whatever it takes, technologically AND organizationally, to achieve its targets for business process improvement. Typically, companies seek out software solutions with embedded industry best practices. Such solutions are designed as “out-of-the-box” cross-functional integration engines. If there is a good fit with the organization’s business, configuring the solution is relatively straightforward.

The real challenge is in designing a new organization. New entities may need to be created, others may become superfluous. Companies that undertake this type of initiative are not only prepared to invest to align stakeholders and manage change to implement and ensure adoption of a common platform, they also make efforts to educate senior management on how the transformation will enable a refocused business strategy. Current performance dashboards will need to be revisited. An organization that only measures results and has no process activity metrics, will need to deploy new key performance indicators. To meet project timelines, speedy decision-making by business process owners is critical, even though these decisions may span business functions. Business owners will need to realize that consensual decision-making is not optimal. Guiding principles and clear accountabilities for value realization become essential.

Given these requirements, it is obvious that developing these organizational capabilities must occur, in parallel, or preferably prior to the initiation of a DX project. If no actions are taken, the organization may find itself in a situation where it *talks* about cross-functional integration, but only achieves some level of process standardization and transparency. Publicizing a goal and failing to achieve it can breed cynicism and will make the next change initiatives harder to implement.

Changing the business model – true digital transformation

Leveraging technology to transform the business model, to build and create new capabilities that didn’t exist before, is true digital transformation, and the most challenging level. An example we saw personally was a manufacturer of electronic components for the TV industry, with operations in Europe and North America, who had grown through acquisitions and was finding itself under pressure from Asian competitors. Realizing that margin erosion was inevitable in their industry, they chose to leverage solutions for ERP, professional services, engineering, construction and operations to offer turnkey fully-equipped TV studios. This took advantage of higher margins in services delivery, while providing a privileged channel to their manufacturing operations. On a smaller scale, the town of Cary, North Carolina, was recently

cited as an example of digital transformation success by *CIO magazine*⁴. Replacing more than 100 legacy applications with a single platform, their intention is to revolutionize the provision of services to Cary’s citizens. By facilitating access to services using modern technology tools, Cary meets its “citizens where they are”. By providing a 360-degree view of services already provided to each resident to municipal employees, it gives them the information they need to advise and decide. To continue the transformation, the municipality’s CIO has also created open workspaces and employed agile and design thinking processes to boost innovation, as well as hosting hackathons to attract the talent they want.

The design, governance and change management associated with this level of transformation have historically been the playground of large management consulting firms. However, with the emergence of business process management solutions that incorporate reconfigurable industry business processes, organizations gain the “in house” ability to change operating model, which can become a unique source of competitive advantage. After all, when everyone can buy the same technology off-the-shelf, what differentiates you is the speed at which you can innovate and generate value from it.

Level		Goals	Non-technological requirements
1	Standardizing processes	<p>Transparency – real-time reporting</p> <p>Greater efficiency – better communication and harmonization between departments</p>	<p>Change management to prepare and establish the new norm of a common platform – organizational impact analysis business readiness</p> <p>Risk monitoring</p> <p>Communication</p> <p>Cascading sponsorship</p> <p>Training</p> <p>User enablement and super user communities</p>
2	Improving processes	<p>Cross-functional integration guided by software</p> <p>Better business processes enabled by a redesigned organization</p>	<p>Stakeholder alignment – education of senior management re strategic benefits</p> <p>New organizational design</p> <p>Change management to ensure smooth implementation and adoption of the common platform (as above)</p> <p>New process KPIs</p> <p>Guiding principles and clear accountabilities for value realization</p>
3	Changing the business model	<p>Build and create new capabilities, based on existing expertise and with the aid of technology</p> <p>Enable reconfiguration as needed</p>	<p>Stakeholder alignment (as above)</p> <p>Transformation design</p> <p>Change management to ensure smooth transition to the new norm at all levels (as above)</p> <p>Redefined KPIs and accountabilities</p>

Lack of buy-in costs dearly

As we've seen, even the most basic type of transformation requires understanding and alignment at the strategic level, in advance of any implementation. Management across the organization must buy in to what we're trying to achieve. McKinsey states⁵, "Our experience suggests that, regardless of the circumstances, real transformation happens only when a leadership team embraces the idea of holistic change in how the business operates."

However, to get to the expected benefits, even the lowest-level user must adopt the technology and use it as intended. And therein lies the reason for the failure of many DX initiatives – some 70% according to McKinsey. The same IDC research we referenced earlier also identified "culture", "organizational structure", "people" and "knowledge" as the potential roadblocks on a digital transformation journey.

Many organizations are discovering this to their cost. A Telstra study⁶ from March 2019 found that companies in the USA that had initiated digital transformation are not showing concrete results. "The lack of hard outcomes for US businesses highlights the need for an equal focus on the role of people, processes and partnerships, as well as technology in digital transformation journeys. Businesses can only deliver the full benefits of digital transformation if their people understand the technology capabilities and are trained to maximize them, there are the internal processes to optimize the experience, and the right partners are in place to support the business where required."

Delays are cheaper than cancellations

Natural gas distributor Northern Gas Networks in the UK recently had to delay its planned migration to SAP's S/4HANA ERP system by six months, due to its people not being ready for the change. Tom Pollock, head of information management told *Computerworld UK*⁷: "If I could go back and do anything differently, then I would take six months to a year focusing on business change before I even think about the technology." A year previously, Pollock was already realizing there were workplace *culture* issues, with people being used to doing things a certain way and resisting change. The education initiative Northern Gas Networks embarked on also revealed that there was a fundamental lack of *knowledge* and understanding of what they were trying to achieve: "Not everyone knows what an ERP is, which surprised me, and what surprised me more is not everyone is excited about what an SAP ERP is."

A six-month delay puts Northern Gas Networks among the luckier organizations. Over in Israel, chemical company ICL began a journey in 2012 to shift the company from being product-focused to market-focused, and included a new CEO and a new technology platform. Four years later, the CEO resigned with final project costs estimated at four times the original price tag, and significant gaps in functional capabilities identified during the pilot implementation. The Board shut down the project, writing off over US\$280 million in costs. According to IT consultants UpperEdge⁸, the lack of consensus on the business model before initiating the project, as well as a lack of consideration for operational realities may have been at cause.

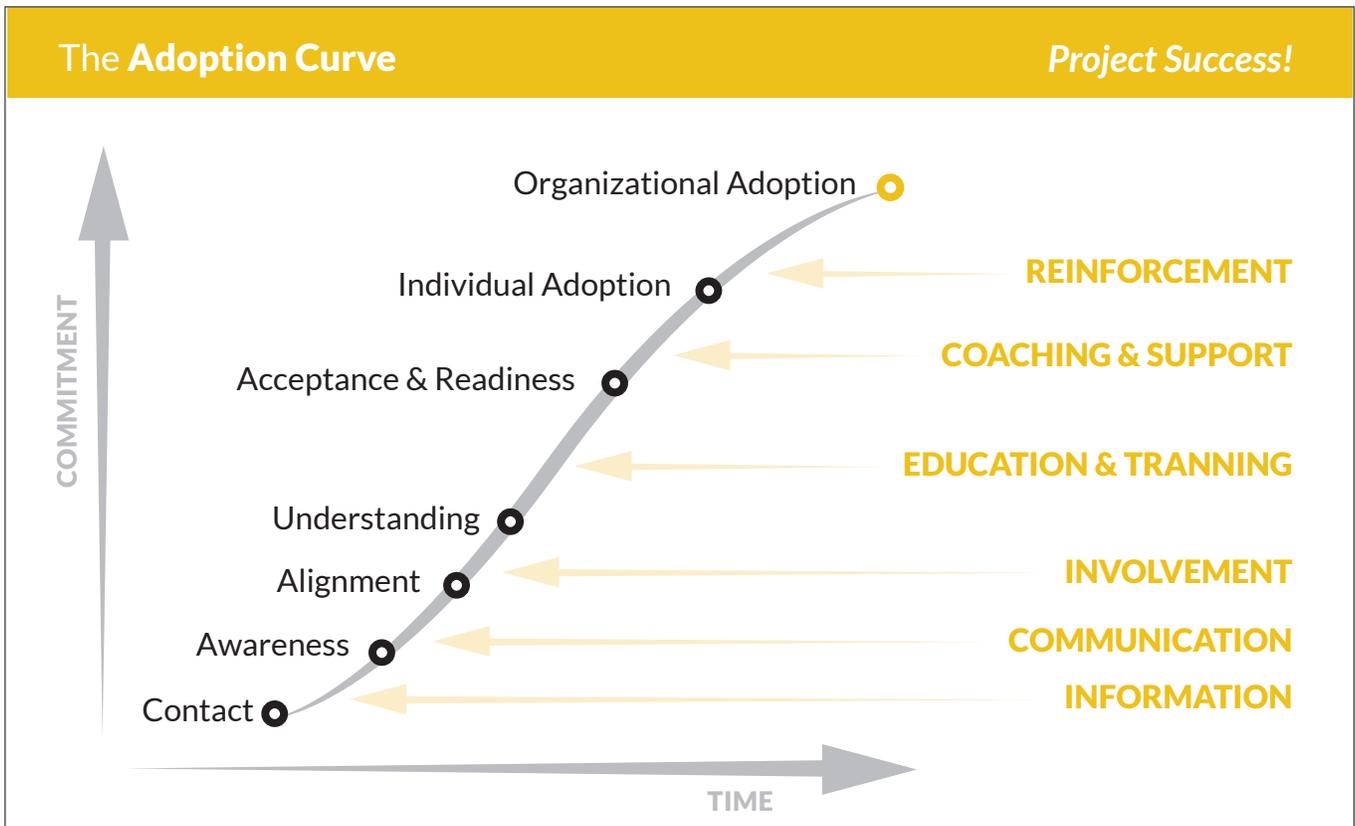
Back in the UK, the BBC⁹ shut down their Digital Media Initiative project in 2013, after investing five years and £98.3 million (US\$1.3 billion) in what turned out to be unusable technology assets. The initiative had been considered essential in delivering a planned range of new on-demand services. In its 'post-mortem' report, consultancy firm PwC noted that there was a lack of oversight, and that processes did not receive the same attention as the technology, a textbook illustration of the importance of ensuring alignment between company culture and digital strategy when carrying out a digital transformation.

In continental Europe, German discount grocery giant Lidl lost seven years and €500 million (US\$5.6 billion) trying to transform its inventory management. According to the *Deutsche Handelsblatt*¹⁰,

Lidl's management was not prepared to reassess almost every process at the company, as the initiative necessitated. It seems "this is how we always do things" was heard not only from users. The company cancelled the implementation and is sticking with its 30-year-old legacy system.

It's essential to take care of the how

The cost of failure in digital transformation is high as we can see. But how can organizations ensure success? The RTS unit of McKinsey⁵ focuses on corporate turnarounds and transformations and believes that "Ordinary approaches to transformation typically deliver ordinary (and often suboptimal) results." To achieve extraordinary results, they recommend organizations use a comprehensive approach



encompassing not only the 'what' but also the 'how'. The 'what' covers three phases from *independent diligence* to *planning* to *implementation*. McKinsey breaks the 'how' into two parts: *change management* and *performance infrastructure*. Performance infrastructure is further broken down into *people*, *process*, and *tools*.

These findings are consistent with our own experience at Baton. Our partnerships with companies that help organizations to digitally transform have involved us directly in the 'how'. We have seen first-hand the need for understanding, alignment, communication, training, sponsorship and enablement. In past and current iterations of the company, we have participated in providing various aspects of both *change management* and *performance infrastructure*, and have often used the illustrated Adoption Curve to walk clients through the different states of mind the people at all levels in the organization pass through as they come to embrace the transformation.

Tools are essential to smooth the entire DX journey

Over the years, like McKinsey, we have become very aware that not only are processes and people (such as project sponsors or champions) essential, so are tools. But those tools go beyond the implementation

itself that McKinsey focuses on. They are needed in advance of the project, before the 'what', to make sure the key decision-makers of the organization agree on the principle and the direction in which they are heading. They resurface in McKinsey's *planning* stage to communicate and align key stakeholders. They can help educate and train, coach, support and reinforce during *implementation*. They are immersive. They are intuitive and easy to come to grips with. They are end-to end, raising awareness of the person's or function's place in the whole. Rather than impose, they invite people at every level to attach their pre-existing understanding to what they are discovering and learning. In this way, each person becomes a true believer, ready to spread the word to others.

The Baton tools our partners use with digitally transforming organizations clearly show that the technology is second place. In our business simulations on a live ERP system that pit teams against each other in a competition for the greatest profit, experienced managers or business users almost always win against teams of experienced technology consultants, despite the latter's familiarity with the finest details of the software.

Winning teams demonstrate competencies that go beyond system mastery. The first one is communication within the end-to-end process. If the sales-role participant in the simulation launches a promotion by dropping prices, without letting the MRP planner know, the promotion will fail due to lack of stock. Conversely, the inventory manager must let the sales team know (or prompt them to look at the appropriate report), of any drastic changes in stock levels. Error detection and corrective coaching are complementary skills. Under pressure, people will make mistakes, as our one-minute-for-one-day simulation shows. In a real-time enterprise system, mistakes can have painful downstream impacts. Participants with a "process mindset" rapidly learn to diagnose root causes in the system, and reach out to the colleague who put an extra zero on the purchase requisition. This competency is often referred to as Business Process Management. We often see teams adjusting their process roles and responsibilities between competition rounds.

A second competency lies at the intersection of Strategy and Analytics. Organizations must adapt to external changes, such as a competitor dropping prices to capture market share. ERP systems provide analytical tools that help track (and even predict) patterns in the marketplace. However, we have seen from using our simulation tool with organizations around the world that there is still a significant gap between the capabilities of the analytics and people's ability to use them. In short, having people with the necessary skills on the team helps the team win, especially if, as a group, they are agreed on a shared strategy, conduct market experiments and use data to adjust their strategy in real time.

Communication and collaboration are key

Learning how to use the system, then, is not the most significant challenge, especially once the initial fear of a new system is overcome. That being said, how people learn to master keystrokes and transactions varies somewhat, depending on cognitive preferences. One thing is clear: for a vast majority of users, across cultures, documentation, either online or on paper, is a last resort! Our empirical observations indicate that people prefer to learn by: trying things in the system; if this fails, asking a colleague; if the colleague doesn't know, consulting an authority; if no authority is available; trying the documentation. Adult learning is social in nature, and even more so with millennials.

And yet, very often, user enablement tools are designed around documentation. And this documentation is stored outside the system it supports. Screen recordings, documents, translations must be maintained and managed as separate objects, with the risk of becoming obsolete when the system changes, and high support and rework costs. Tools that are part and parcel of the software itself, supremely intuitive, and that offer multiple ways for users to communicate and collaborate, as well as the ability to update in real time, are therefore guaranteed to ensure accelerated adoption and rollout of your digital transformation.

THE COST OF DIGITAL TRANSFORMATION FAILURE

Who	Amount written off	Time invested	Identified cause =	
			Lack of management alignment	Not taking care of the how
Enterprises worldwide ¹¹	US\$1.4 trillion ¹²	varies	Lack of top team alignment ¹¹	Lack of skills ¹¹ Not paying due attention to change management and performance infrastructure ¹¹ Lack of trained people, processes in place and partners to support ⁶
ICL	US\$280 million	4 years	Lack of consensus on the business model before initiating the project ⁸	Lack of consideration for operational realities ⁸
BBC	US\$1.3 million	5 years	Lack of focus on business change ¹³	Weakness in project management and reporting ¹³
Lidl	US\$5.6 million	7 years	Lack of commitment to transformation by top management ¹⁰	People not ready for change ¹⁰

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Who	Amount written off	Time invested	Identified cause =	
			Lack of management alignment	Not taking care of the how
Northern Gas Networks	?	6 additional months		Lack of knowledge and understanding of what they were trying to achieve ⁷ People not ready for change ⁷

McKinsey's October 2018 Global Survey on digital transformations specifies steps organizations can take to increase their chances of success:

- *Reimagine your workplace.*
- *Upgrade the organization's "hard wiring."*
- *Change the ways you communicate.*

Get more digital transformation insights in the articles we've curated for you on page 10.

Curated digital transformation articles

- ¹ IDC survey sponsored by Infor – 2018
- ² MCapgemini Consulting – 2012 – [The Digital Advantage: How digital leaders outperform their peers in every industry](#)
- ³ Enterprisers' Project – [What is digital transformation?](#)
- ⁴ CIO magazine – 2019 – [Digital transformation examples](#)
- ⁵ McKinsey – 2018 – [The How of Transformation](#)
- ⁶ Telstra study – 2019 – [Disruptive Decision-Making](#)
- ⁷ ComputerWorld UK magazine – [Change management derails Northern Gas Networks' S/4HANA migration](#)
- ⁸ UpperEdge – [A Hazardous Waste](#)
- ⁹ Raconteur Media – [Digital Transformation Failure](#)
- ¹⁰ Deutsche Handelsblatt – [Programmed for Disaster](#)
- ¹¹ McKinsey Global Surveys on digital transformation 2016-2018
- ¹² IDC survey sponsored by Infor – 2018 – \$2 trillion expected to be invested in digital transformation in 2019; [McKinsey research 2016-2018](#) – less than 30% of companies succeed in their digital transformation
- ¹³ Kurtosys – [Five lessons from failed digital projects](#)

Discover Baton's solutions to help take care of the how:

visit www.batonsimulations.com

ABOUT BATON

Today, successful organizations are ones that adapt quickly in the market. Such agility requires leaders with the strategies and the means to make rapid change a core competency.

Our *raison d'être* is to help these leaders realize their visions for digital transformation with powerful solutions that enable rapid change at each stage of the journey.

Established in 2009, Baton has deep roots in organizational change management (OCM) and learning innovations based on business software like SAP ERP. As experts in OCM, we know software doesn't solve business problems—people do.

Our solutions ERPsim™, DAS, and DAS Language Localizer, help leaders manage the people side of the equation while leveraging the technology side through faster adoption and better collaboration and communication across global organizations.

Based in Montreal, Quebec, we serve customers in more than 40 countries, on every continent, directly and through our elite channel partner network of systems integrators, training consultancies, and software vendors.

