OPENTEXT™

COMPETING FOR DIGITAL CUSTOMERS: WHY COMPANIES MUST EMBRACE DIGITAL TRANSFORMATION NOW

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EXECUTIVE SUMMARY

As a business leader, you're thinking about disruption. You're talking about disruption. Let's be honest, you're *concerned* about disruption. And if you're not, you should be.

Of course, businesses have always disrupted and replaced other businesses. In the early 1800s in England, factories with mechanical looms threatened to replace traditional shops making hand-woven cloth, which led to riots among weavers fighting to save a way of life. These weavers were literally the first Luddites, named after the fictional Ned Ludd, "general of the Army of Redressers."[1] You can probably guess how the Luddites' war against mechanization and progress turned out for the weavers.

No, disruption isn't new. What's new is the *pace* of disruption. What may have taken decades in the past seems now to happen overnight. Uber burst on to the scene just a few years ago and already is taking down the taxi industry in New York City, destroying the value to this long-established business.[2] Like the weavers, taxi drivers are fighting back too,[3] suing NYC and blaming Uber for ruining their livelihood. In the end, they will be no more successful than those early Luddites.

Transform or die. That's the theme of this paper and the mantra of many a forward-thinking business leader. Digital technology (or, as some refer to it, "infotech") has disrupted large swaths of the economy, from taxi drivers to travel agents, from book sellers to movie vendors, and it will continue to upend entrenched businesses that are slow to recognize and respond to the digital tsunami. To avoid being swept away like the Borders and Blockbusters of the world, businesses must embrace digital transformation.

Digital transformation is how your business becomes a digital enterprise, and transforming your organization into a digital enterprise is necessary to compete for digital customers.[4] As Gartner analyst Ken McGee suggests in "Six Key Steps to Build a Successful Digital Business," digital business leaders must think about technology in fundamentally different ways. Digital business, he writes, "is not synonymous with IT. It is about revenue, value, markets, and customers. It is outward focused."[5]

The digital enterprise isn't merely concerned with improving operational efficiency but actively seeks its own "creative disruption" in the pursuit of digital customers.[6] Its goal must be to find innovative ways to engage this new breed of customers – and ultimately capture a greater share of their digital wallet and growing purchasing power. Digital transformation is the means by which companies will create those new business models and revenue streams.

In this paper, we'll explain what we mean by the digital enterprise, as well as related concepts such as *digital economy* and *digital platform*. We'll also talk about the rise of customer experience and changing customer expectations and how digital customers accelerate the need for digital transformation. We'll provide examples of business and industries undergoing transformation and what that looks like. We'll explain the concept of a digital platform, its characteristics and components. And finally, we'll offer a model which you can use to assess your own digital maturity and readiness for transformation.

Along the way, we'll address questions that are surely on the mind of every business leader today: **How do we remain successful in a business environment transformed by digital innovation?** And, perhaps more importantly: **How do we avoid becoming the next Blockbuster Video?**

What you'll take away from this paper is not just a deeper understanding of digital transformation – what it is, why it needs to be at or near the top of your strategic imperatives – but also how to begin your journey of transformation (while you still have time).

Keep Doing What You're Doing – Or, How to Get Blindsided

It's easy to dismiss the idea of digital transformation as just another buzzword, the catch phrase *du jour.*

"The connected world creates a digital imperative for companies. They must succeed in creating transformation through technology, or they'll face destruction at the hands of their competitors that do."

– "Embracing Digital Technologies" (MIT)[7]

Of course there's disruption in the business community, you say. Businesses come and go. Industries come and go. Plus, you say, we *are* evolving. We're taking more and more of our business online. We're using digital technology to operate more efficiently, reduce costs, go mobile. We're transforming, right?

This is different.

Digital transformation isn't about becoming more efficient. It's not about digitizing your processes so you can save money and increase the bottom line. Those are 20th-century ideas. They are still valid goals, of course. Managing costs and increasing efficiency are always good objectives. It's just that they won't prevent disruption, and they're not what digital transformation is about.

Consider Kodak, for example. This industrial giant owned film photography in the 20th century; it had a virtual lock on its industry. Thirty years ago, it employed 150,000 people. Today, it's a tiny fraction of its former self, having crawled out of bankruptcy with just 4% of its previous workforce. Despite having invented the technology used in digital photography,[8] Kodak failed to transition to the new digital world where digital photography is ubiquitous and virtually free, and where single-purpose digital cameras have been replaced by multipurpose mobile devices that include digital photography. Replacing Kodak are companies that cater to digital customers, companies like Instagram which, when it sold for $1 billion to Facebook, had a mere 13 employees.[9]

Such is the power – and unpredictability – of digital disruption. Today, write the authors of *Big Bang Disruption,* "startups with minimal experience and no capital can unravel your strategy before you even begin to grasp what is happening."[10]

Companies can't avoid this disruption by simply becoming more efficient. That would not have saved Kodak, just as it could not save travel agents, which have been wiped out by the likes of Travelocity, Expedia, and Kayak. Other companies like Amazon, Uber, and Netflix are disrupting markets today and either putting competitors out of business or forcing them into highly defensive postures. Every successful 20th-century company must adapt,[11] or watch its market values stagnate[12] while tech startups command extraordinary valuations before they see even $1 in net profit.

> *"Digital is now imposing a shift – and often a complete rethinking – in the fundamental way we work in nearly every industry, including our core business models. Unfortunately, traditional organizations have been built around legacy 20th century models of business, in which the majority of their market momentum and inherent know-how lies."*

– Dion Hinchcliffe[13]

Looking forward, it's not hard to discern who the future winners will be. They will be the organizations that transform themselves from 20th-century entities operating according an industrial-age model, to 21st-century digital enterprises that use information and data in innovative if not outright disruptive ways.

Here's how we think about digital transformation. We believe that digital transformation (or DX) offers an opportunity for strong, long-term growth through new business models, new revenue streams, and ultimately more satisfied and engaged customers. Companies that truly transform themselves through digital technology will become the new leaders, the "built to last" organizations of the future.

By contrast, laggards in digital transformation will experience rapid market disruption and will have to become highly reactive just to survive. *If* they survive.

Defining Digital Transformation & the Digital Enterprise

Let's dig a little deeper. What exactly do we mean by "digital transformation"?

Here are some definitions that provide a framework for understanding and discussing this concept:

- **DIGITAL TRANSFORMATION**
  The process of evolving from analog processes (often physical or paper-based) to 100% digital processes in all aspects of the business, positioning the organization to be more competitive, agile, and innovative. When executed well, digital transformation enables companies to disrupt markets, as Uber and Amazon have done.

- **DIGITAL ENTERPRISE**
  A company that embraces information technology to support new business models, enable more effective engagement with the digital customer, and ultimately capture a share of the digital customer's wallet.

- **DIGITAL ECONOMY**
  A.k.a., the Internet economy, which is quickly evolving into the mobile economy. The digital economy is a product of, and is driven by, the empowered digital customer. To thrive, companies in a digital economy must shift their attention to these new customers.

- **DIGITAL CUSTOMER**
  A person who primarily or solely uses Internet resources to research and purchase products and services, increasingly on a mobile device.

- **DIGITAL WORKPLACE**
  An organization that takes advantage of digital user productivity tools to maximize employee efficiency and effectiveness.

- **DIGITAL PLATFORM**
  A complete technology stack that provides the capabilities and services necessary for digital transformation.

SAY HELLO TO YOUR NEW BOSS: THE DIGITAL CUSTOMER

Today's post-industrial economy is made possible by information technology, but transformation is being driven by a new generation of buyers: the digital customer. An MIT report contends that the "rise of the tech-savvy, connected consumer across all facets of society changes the expectations consumers have of compaties, regardless of their business."[14]

Who are these new customers? Millennials, primarily. Born between 1980 and 2000 and now 15 to 35 years old (as of 2015), millennials comprise the first generation of native digital consumers, having grown up in an age of ubiquitous cell phones and personal computers. By 2015 this generation had become the largest workforce in the US economy,[15] and millennials will soon eclipse baby boomers in terms of spending power.[16]

In important ways, the millennials' experience of shopping and interacting with companies and brands is distinct from any generation that preceded them. They expect virtually anything they buy to be available online and purchasable instantly – at any time, in any location, from the convenience of a handheld device. This doesn't meant that they don't shop in stores or dine in restaurants. It does mean, though, that they begin nearly all transactions on a computer or, more likely, a mobile device. Their experience of transacting business online creates an expectation of availability and promptness, says Mary Meeker, a digital expert, author, thought leader, and partner at KPCB.

Moreover, Meeker says, expectations of digital customers that they can get what they want with ease and speed will continue to rise.[17] As a result, there is tremendous pressure on consumer-oriented companies to meet these demands. When a sector of the market is incapable of serving the digital customer on the customer's terms – online, anytime, anywhere, transparent, easy, and fast – an entirely new model may emerge, disrupt, and wipe out the old model. Just ask travel agents. Or book sellers. Or taxi drivers.

"82% of execs believe digital transformation critical within a year. Most say NOW is the time."

– Dion Hinchcliffe   🐦 @dhinchcliffe

WHY YOUR COMPANY IS NOT A DIGITAL ENTERPRISE (YET)

The long-term challenge facing companies is how to remain relevant to digital customers, and that is the point of digital transformation. In the end it's about building deeper engagement with customers and owning a greater share of their digital wallet. Those objectives may be accomplished by creating new business models (see: Uber or Airbnb,[18, 19]) or new revenue streams (see: Netflix).

Digital enterprises are companies that have thoroughly embraced information technology and use this technology to engage customers in new and innovative ways. These companies are taking share of wallet from traditional retailers and other consumer-oriented businesses. Think Uber, Airbnb, Amazon, Netflix, Kayak, Google, Zillow, or Zappos.

It's probably safe to say that there are not many true digital enterprises that weren't *born* as digital enterprises. There are certainly industrial companies born before 1980 that are in the process of transforming themselves, but few if any have completely crossed that chasm.

STARBUCKS: FORGING A DIGITAL PATH

One of the company's first forays into the digital arena was a mobile payment feature built into its myStarbucks mobile app. The app debuted in 2009, and mobile payment was added in January 2011. This feature has certainly benefited the company by encouraging customer loyalty, but less well known is the financial impact of going digital:

The Starbucks app has significantly reduced transaction fees on more than 3 million mobile payments per week. The company also leads the way on a number of other fronts, from its social media and website promotions to its crowdsourcing site for innovation:

My Starbucks Idea. The company is actively working to bridge online and offline customer experiences by providing free Wi-Fi and, for customers who log on, free access to premium content, including news and music downloads.

Where will the company go from here? We're not privy to its plans, but we can certainly speculate. Using the data it collects on customers through its loyalty program, social media activity, and in-store activities, the company could push promotions via mobile alerts to customers who are currently standing in line. An instant coupon could encourage customers to upgrade from a Grande to a Venti, choose a Frappuccino over a latte, or add a pastry or sandwich.

Extending this idea, the company could take advantage of GPS and geofencing to push alerts to people who happen to be in the *vicinity* of a Starbucks, perhaps walking or driving by. Different messages could be sent to different people, differentiating between loyal and occasional customers for example. By encouraging customers to stop and spend time in Starbucks, programs like this not only create new revenue but take spending from other stores – including retailers who are not Starbucks' traditional competitors.

Becoming a digital enterprise requires a thorough reimagining of the business through a digital lens – both in the workplace and in customer engagement. As companies undergo the evolution from analog processes (often physical or paper-based) to 100% digital processes, they position themselves to be more competitive, agile, and innovative. As analyst IDC says, "enterprises will either become adept at digital transformation and thrive – or fail to master the disciplines and struggle to survive."[20]

One company that has run with this idea is Starbucks. Following declining store sales and a sharp drop in stock price in 2008, the company made a strategic decision to employ digital technologies to engage customers in new ways. "Everything we are doing in digital is about enhancing and strengthening those connections [with our customers] in only the way that digital can," says Adam Brotman, Chief Digital Officer at Starbucks.[21] Baristas will continue to be vital to the in-store experience, but the company is relying on digital to spur growth in innovative ways **(see sidebar)**. According to Brotman, Starbuck's digital transformation is now as essential to the company's success as its coffee.[22]

"[Digital] has been an essential part of how we build our brand and connect with our customers… there's been such a seismic shift [in our interactions with customers] that we needed to pull it all together and make it a priority"

– Adam Brotman (Starbucks)[23]

THE SECRET SAUCE IN EVERY DIGITAL ENTERPRISE

A defining characteristic of digital enterprises and companies in transition is a digital platform. The digital enterprise requires expertise in and reliance on a set of technologies that together enable digital commerce, digital work, and digital interactions between companies and customers.

Gartner came to a similar conclusion in its 2016 CIO Agenda Report, "Building the Digital Platform."

A platform, says Gartner, "provides the business with a foundation where resources can come together – sometimes quickly and temporarily, sometimes in a relatively fixed way – to create value… The value comes largely from connecting the resources, and the network effects between them."[24]

Tech entrepreneur John Newton articulates this idea from a slightly different angle. In a recently published article, the founder and CTO of Alfresco Software and former cofounder of Documentum writes that a "true digital enterprise will integrate information, processes, work and people so that the entire organisation can collaborate more efficiently and effectively, and therefore produce more valuable products and services."[25] This ability to produce more valuable products and services is essentially the "network effect" that Gartner defines.

For Newton, two of the most important "tools" available to organizations are enterprise content management solutions and process management platforms, which he says "can play a significant role in this transformation" to a digital enterprise. Of course, the "toolbox" is much larger than ECM and BPM, and the transformation, as we've argued above, is about more than creating an efficient digital workplace.

In our view, the digital platform includes social, mobile, analytics, and cloud, as well as content management and process tools. Connecting all of these tools in a comprehensive way provides the digital enterprise with network effects internally and externally: allowing it to become dramatically more efficient across the organization while creating radically new ways to engage digital customers.

More and more companies recognize the necessity of building a digital platform, and it's why companies like Starbucks have added a new position to the executive suite: chief digital officer. Adam Brotman, CDO at Starbucks, is responsible for web, mobile, social media, digital marketing, Starbucks Card and loyalty, e-commerce, Wi-Fi, Starbucks Digital Network, and emerging in-store technologies[26] – combining all of these initiatives into a digital platform that is at once unique to the organization and closely aligned with the strategy of other forward-thinking companies.

VALUES: WHAT DO DIGITAL ENTERPRISES CARE MOST ABOUT?

Chief digital officers understand that building the digital platform is essential. But these executives are also adamant about a set of core values that are just as important to their success:

- **CUSTOMER OBSESSION**
  Digital enterprises make the customer relationship priority #1. They center the business around customer needs and customer experiences. They leverage technology to enable collaboration in cross-functional, cross-organizational teams, always in the service of the customer relationship.

- **FAST, DATA-DRIVEN DECISIONS**
  Digital enterprises invest in analytics and big data to make rapid, informed decisions about all aspects of the business. Big data is transformative for developing a deeper understanding of each customer individually and optimizing the customer experience.[27]

- **TRANSPARENCY**
  Digital enterprises take advantage of mobile, social, and cloud technologies to operate as transparently as possible. They manage and share information within and across organizational boundaries while ensuring compliance and providing safeguards to protect content that is confidential or sensitive.

- **TECHNOLOGY LEADERSHIP**
  Digital enterprises think differently about technology. They hire digital natives and provide a digital workplace that offers these employees the flexibility to work as needed.

By 2020, nearly half of all employees will be millennials, a group of "tech-savvy, mobile-centric, socially networked workers."[28] Within a decade, they will make up 75% of the workforce.[29] Research shows that workers across all ages want to work for digital leaders,[30] a fact that hasn't escaped digital leaders.

Three Pillars of Digital Transformation: People, Business, and IT

To this point, we've endeavored to define digital transformation and the digital enterprise; examine the historical, economic, and commercial factors that have led to the emergence of digital enterprises (and consequent disruption of older, industrial-era companies); and offer our thoughts on what makes digital enterprises unique.

In this section we'll take a somewhat different perspective on the topic and look at how digital transformation impacts people, business strategy, and IT. You must address all three areas for digital transformation to be complete and successful.

PEOPLE: FOCUS RELENTLESSLY ON THE CUSTOMER

A running theme in this paper, as you've no doubt noticed, is the importance of customers for the digital enterprise.

"The digital enterprise is ultimately all about the customer,"
– Chris McLaughlin, CMO, Enterprise Content Division.

"We can talk about social, mobile, analytics, cloud, but it ultimately boils down to organizations that can better use information to serve their customer community, to make that experience more personal, more effective."

At the end of the day, it's the digital customer that's driving digital transformation. Digital enterprises use information and technology to optimize the customer relationship. Facebook is the ultimate expression of optimizing relationships and, one could argue, the most successful digital enterprise in the world. The company, whose mission[31] is "to give people the power to share and make the world more open and connected," counts an extraordinary 15% of the global population as active "customers." The company's product is entirely digital, and it makes almost unprecedented use of data to grow, evolve, serve customers, and generate revenue.

As opposed to 20th–century "analog" businesses that optimize operations and use analytics to improve efficiency, digital enterprises like Facebook optimize operations and leverage data and analytics for the purposes of acquiring customers, continuously improving the customer experience, and driving innovation around new products and services. Through their ability to analyze data such as usage and adoption rates, digital enterprises inherently understand better than their competitors which products and services add value.

So digital enterprises can not only provide superior customer service, but also build more customer-centric (and therefore superior) products.

Above all else, the digital enterprise is optimized around the customer. As Dion Hinchcliffe contends, it's not that customers are a digital enterprise's most important asset for a digital enterprise. Rather, he reminds us, "Customers **are** the business."[32]

BUSINESS: ALIGN TO A STRATEGY FOR TRANSFORMATION

"The strength of digital technologies – social, mobile, analytics and cloud – doesn't lie in the technologies individually. Instead, it stems from how companies integrate them to transform their businesses and how they work."

– MIT Sloan Management Review[33]

Yes, technology is critical, but it should be clear by this point that the path to becoming a digital enterprise is not simply "more technology." While technology is certainly the enabler, digital transformation is as much about a strategic and cultural shift within the organization. As Rohit Ghai, President, Enterprise Content Division, says, the digital enterprise operates with a digital mindset.

"In the digital enterprise, people-to-people interactions are digital. Organization-to-organization interactions are also digital. Therefore, a true digital enterprise must be a digital workplace and it must operate within a digital ecosystem. Most importantly, it must maintain a digital mindset."

– Rohit Ghai

This is not to suggest that a digital transformation is a simple or easy change. Quite the opposite, says Hinchcliffe: "The hardest part of the whole challenge facing the enterprise is likely adopting a 'digital-first' mindset. As in, how do I rethink my business in terms of digital possibility in today's fast-changing and complex technology landscape."[34] He contends that in most organizations IT is considered "overhead," whereas for a digital enterprise IT is critical to P&L.

Of course the IT department would have to be critical to the revenue strategy of a business if the organization's mindset is truly a digital one. Nevertheless, a report from the *MIT Sloan Management Review* draws the following conclusion:

What separates digital leaders from the rest is a clear digital strategy combined with a culture and leadership poised to drive the transformation. The history of technological advance in business is littered with examples of companies focusing on technologies without investing in organizational capabilities that ensure their impact. In many companies, the failed implementation of enterprise resource planning and previous generations of knowledge management systems are classic examples of expectations falling short **because organizations didn't change mindsets and processes or build cultures that fostered change.**[35]

Intriguingly, the report from MIT Sloan surveyed companies with a wide range of digital maturity and noted that while the researchers did find some differences in technology use between different levels of maturity, they discovered that the greatest differences were not related to the technology. Digitally maturing companies, the researchers found,

"are more than five times more likely to have a clear digital strategy than are companies in early stages."

Moreover, research discovered that companies in the early stages of digital maturity tend to "fall into the trap of focusing on technology over strategy." They tend to focus on technology as an end in itself, rather than seeing technology as a strategic means to the end. Lacking a strategy, they digitize without transforming.[36] In digitally maturing companies, on the other hand, digital technologies are more clearly being used to achieve strategic ends. Nearly 90% of respondents say that business transformation is a directive of their digital strategies."[37]

An earlier report from Capgemini Consulting and MIT Sloan Management[38] offered a similar conclusion:

"Successful digital transformation comes not from implementing new technologies but from transforming your organization to take advantage of the possibilities that new technologies provide."

The report also made this observation, which some might find encouraging:

"Despite the hype around innovative digital technologies, most companies still have a long way to go in their digital transformation journeys."

In that journey, leadership is "essential," says the Capgemini report. "Whether using new or traditional technologies, the key to digital transformation is re-envisioning and driving change in how the company operates. That's a management and people challenge, not just a technology one." George Westerman, a research scientist at the MIT Center for Digital Business, agrees with the importance of leadership. All transformations, he says, are driven from the top:

"The big difference between the companies that are just doing technology initiatives and the companies that are leading a technology-based transformation is how they're putting the leadership frameworks in place."[39]

– George Westerman, Research Scientist at the MIT Center for Digital Business

IT: NURTURE THE DIGITAL ECOSYSTEM

In its "MaturityScape" on digital transformation, technology analyst IDC draws this conclusion about the increasing "connectedness" between organizations and their customers:

"We're entering an era where the technologies and processes that businesses deploy are so tightly linked to their customers and markets that the boundary between the internal operations of the enterprise and its external ecosystem (e.g., customers, markets, competitors, partners, regulators) is rapidly disappearing."[40]

This is very different from the traditional supply chain model in which products flow in a relatively straight line from raw material through manufacturing, logistics, and retail. In the digital ecosystem, input into products and services is provided by actors who are both buyers and sellers, partners and competitors, suppliers and customers, colleagues and friends. Crowdsourcing, communities, and networks facilitate input into product and marketing design from a wide range of interested parties, including customers themselves. Information flows through this ecosystem, enabled by cloud and mobile technology and the consumerization of IT.

Thus, the digital ecosystem is clearly not optimized for the convenience of individual business, which would profit more from controlling and possessing the customer relationship and data about that relationship. Instead, the ecosystem is optimized for the convenience of customers, so says MWD Advisors. Digital enterprises operating within digital ecosystems use data and technology "to minimize the distances (in geographical, organizational, cultural, and temporal terms) between resources (people, materials, information, money, facilities and so on) and the delivery of customer value."[41]

From a technology perspective, operating within a digital ecosystem places greater emphasis on capabilities such as cloud, mobile, and social for managing and sharing information across organizational boundaries, as well as processes, compliance, security, and content management to ensure information can be protected, tracked, and audited as needed.

Okay, So What Does a Digital Enterprise Look Like?

Up to this point, we've talked generally and theoretically about digital transformation and the digital enterprise. In this section, we describe a couple use cases to provide realistic examples of digital transformation.

DYNAMIC PRICING FOR AUTO INSURANCE

AAA, the large US automobile insurer, began running a series of ads in 2015 that asks the question, "What does your insurance do when it's not insuring your car?" That AAA would pose such a question indicates that its customers may be thinking along the same lines, which in the end could lead to an outcome that might catch AAA and other companies in this industry completely by surprise.

After all, what *is* your car insurance doing while your car sits idle in the garage? What is the value of car insurance when you're not driving? What if it were possible, in a sense, to turn insurance on and off when you turn the engine on and off? What if you could select your insurance on a per-trip or per-day basis, not unlike what happens when you rent a car. And furthermore, what if you could choose among competing insurers when you made that decision?

These are some of the questions that suggest a digital business model for car insurance built around a pay-as-you-go model with market-style dynamic pricing. Here's how it would work.

There would be two components to car insurance:

BASE-RATE INSURANCE and TRIP-RATE INSURANCE

The base-rate insurance would be required for every vehicle and would cover things like theft or damage to the car when it's parked. This would be a relatively small monthly charge because of course most damage happens while a car is moving.

The trip-rate insurance would be purchased whenever the car's owner (or other driver) decides to drive that vehicle somewhere. An app on the driver's mobile device would enable instant purchase of insurance required for that trip, and the app could be synchronized with the car's onboard GPS sensor to validate the trip taken. The price of a given trip would be calculated based on a number of factors, such as:

- Distance travelled

- Road conditions

- Amount of traffic along the route

- Time of day

- The driver's history

- The cost of vehicle

- The current mileage of the vehicle

Various insurance companies would compete for that trip by offering their own calculated price. The driver could see these different prices on the mobile device and select the best option.

This model also opens an opportunity for drivers to choose trips based on insurance rates. For example, it would quickly become apparent that driving in rush hour traffic means higher insurance rates, whereas leaving an hour earlier or an hour later could significantly drop the price. Also, drivers may decide to postpone trips or take alternate forms of transportation depending on the insurance rate for a given trip at a given time.

A model like this could completely disrupt auto insurance as it's currently sold and create new types of digital insurance agencies that could price and sell their products more efficiently. Certainly there would be many details to work out; but if the model seems impossible, consider the challenges Uber and Lyft faced in turning their ideas into workable businesses.

FEE-FOR-OUTCOME MODEL IN HEALTHCARE

In 2008, the *Wall Street Journal* reported on a trend that had been developing for some time: medical tourism. WSJ wrote about hospitals in countries like India, Israel, and Ireland "aggressively wooing older patients by offering joint-replacement surgeries and non-emergency cardiac procedures at 40% to 80% less than in the US."[42] This practice continues today, and for very expensive procedures could include other incentives, such as first-class air fare and hotel accommodations for the patient.

What this trend reflects is a growing awareness that while outcomes are relatively similar in different regions or countries, prices can vary dramatically. Healthcare in the US is significantly more expensive than almost anywhere else in the world. That situation is the result of a wide range of factors, including the way medical services are billed through healthcare insurance plans. One proposed solution is a fee-for-outcome approach, which could encourage healthcare providers to compete on services provided.

Before we discuss how the fee-for-outcome model could work, let's consider how healthcare currently works in the US (recognizing that we are simplifying the process for the purpose of this discussion). When you go to the doctor for a procedure, your insurance is billed for every single item that can possibly be included, from the anesthetic used to the latex gloves on the surgeon's hands. Those items may appear on an explanation of benefits form or on a bill for which you pay some predetermined deductible, but your connection to cost is minimal at best. Therein lies the problem with this model: customers never make decisions on price, and thus there's virtually no incentive for providers to compete on that criteria.

In the fee-for-outcome model, procedures are priced according to the "outcome" (for example, a knee surgery or an annual cancer screening), and patients are incentivized to select a provider based on price (or a combination of price and other factors not currently considered). The incentive for the patient could take various forms such as rebates, credits against future insurance payments, or other rewards such as airline miles. Several implications follow:

1. Providers would start competing on price. They would also become responsible for profitably managing all internal costs, rather than simply tallying those costs on an insurance invoice.

2. Procedures would become standardized to a much greater degree – rather than being individualized, which encourages price inflation.

3. Customers (i.e., patients) would become price-conscious shoppers in a competitive healthcare marketplace. Restoring competition would have the effect of driving down prices.

For this model to work, a real-time, online marketplace would need to be created where patients could compare providers and prices. Insurance policies would need to be factored in so patients could see actual costs, their costs, and any incentives provided to the patient by the insurance company for selecting one provider over another. The online marketplace would function much like Expedia, and would show how factors such scheduling, location, and the provider's rating affect the price. For example, a patient may decide to postpone a procedure, choose a different time of day for the appointment, or select a provider that's a few miles further away in order to reduce the price. Healthcare providers would need to become more efficient at service delivery in order to compete in this market. They would also need to provide dynamic pricing the way airlines do to maximize usage of their facility and drive down costs.

Could an idea like this work? Perhaps you think there are too many hurdles or regulatory challenges. Or maybe you think that the healthcare problem is much too complex to be addressed by this approach. Consider this: a similar system is currently being operated – profitably – on a limited scale in New Hampshire.[43] If a well-funded startup came along with the technology and capital to scale it, this online marketplace could transform the healthcare industry.

A Maturity Model for Digital Maturity

To help companies assess their level of digital maturity in a concrete and tangible way, we've developed the following model. Use this Digital Maturity model to benchmark your company's readiness for digital transformation.

The criteria are explained below.

	LAGGARDS	TRANSITIONAL	INNOVATORS
DIGITAL PROGRESSION	Arrested	Siloed	Integrated
BUSINESS MODEL	Analog	Digitally Aware	Digitally Visionary
INNOVATION AGENDA	Stunted	Incremental	Continuous
CONTENT MANAGEMENT	Fragmented	Implemented ECMs	Implemented a Digital Platform
PROCESS AUTOMATION	Manual	Automated	
CUSTOMER EXPERIENCE	Disappoints	Caters	Embraces
CUSTOMER ENGAGEMENT	Generic	Personalized	Real Time
BACK OFFICE INTEGRATION	Fragmented	Integrated	Optimized
PLATFORM MODEL	On Premise	Virtualized / Private	Hybrid / Converged
ANALYTICS CAPABILITY	Logs Data	Measures	Delivers Insight
ORGANIZATIONAL READINESS	Digitally Challenged	Digital Novices	Digital Native

LAGGARDS, TRANSITIONAL, AND INNOVATORS

It's common to segment maturity processes into five levels. That approach originated with the Capability Maturity Model developed by the US Department of Defense, and it makes sense in many instances. Here, we've simplified the progression to three levels which we believe sufficiently summarizes the state of organizations today: You're currently a digital leader, you're working on digital initiatives, or you haven't started on the path to digital transformation.

Companies in this last group are the **Laggards**. These companies are far behind the curve. They don't understand the revolution that's taking place or how it affects them, and they are likely to struggle in the coming years or disappear completely.

Most companies fit in the middle (the Transitional phase). They are actively taking steps to digitize their business processes, and some aspire to become digital enterprises.

A small set of organizations are true digital enterprises, and these we've labeled **Innovators**. At this point in time, we think it's fair to say that this group is comprised primarily if not entirely of companies that were *born* digital enterprises, as opposed to companies that have undergone digital transformation.

DIGITAL PROGRESSION

Defines a company's journey from digital awareness to digital enterprise.

- **LAGGARDS**
  These companies are investing very little in digital transformation, either because they do not see the value or because they've become defensive in the face of competition and are essentially *circling the wagons* around familiar business processes.

- **TRANSITIONAL**
  Most companies have invested in digital initiatives but they're still fragmented and siloed. Departments are not fully aligned. Marketing campaigns are not integrated across all channels. The company lacks a 360° view of customers that would ensure consistent engagement between the company and customers. Some digital capabilities have been deployed but the company lacks a comprehensive, enterprise-wide digital platform.

- **INNOVATORS**
  The company is digital to its core. As Rohit Ghai says, its people-to-people interactions are digital. Its organization-to-organization interactions are digital. It has a digital workplace, a digital value chain, and it operates with a digital mindset.

BUSINESS MODEL

Defines the degree to which a company has oriented its business toward digital customers.

- **LAGGARDS**
  We call these companies "analog" (that is, pre-digital). They operate according to 20th-century business rules. To the extent that they are digitizing processes, they're focused on efficiency and cost savings, as opposed to using digital technologies to offer customers new ways to engage and transact.

- **TRANSITIONAL**
  If you're reading this paper, you probably work for a company in this camp. You see disruption in hotels, video rental, and the taxi industry, and you're trying to understand both how the digital economy will impact your industry and how your company can use digital technology to its advantage. You are digitally aware and on a digital journey, but you're not digitally integrated.

- **INNOVATORS**
  The company's products and services are fundamentally digital in a way that wasn't possible 20 years ago. The company's strategy is centered around delivering a unique customer experience, making purchasing easy, transparent, fast, and incredibly convenient. The company is likely disrupting markets or opening new markets that hadn't yet existed.

INNOVATION AGENDA

Defines the extent to which a company prioritizes innovation as a core business strategy.

- **LAGGARDS**
  When it comes to digital transformation, laggards refers to companies that have stopped innovating, that are battening down the hatches and taking a defensive stance. This strategy is ultimately untenable.

- **TRANSITIONAL**
  Most companies are innovating in an incremental way. This strategy may be sustainable for a time, provided they are not blindsided by a new digital enterprise that disrupts their industry.

- **INNOVATORS**
  The nature of digital enterprises is continuous innovation. Companies with a digital mindset constantly seek better ways to improve customer engagement. But it's a moving target: digital technology is rapidly evolving, and the digital enterprise must respond rapidly as well. A company that exemplifies this strategy is Google, for whom continuous technological innovation seems to be a core philosophy. Netflix is another company that has continuously innovated, adapting to new delivery models and now becoming a content producer.

CONTENT MANAGEMENT & PROCESS AUTOMATION

Defines the degree to which a company has digitized and automated workflows and document-centric processes.

- **LAGGARDS**
  These companies are stuck in paper-based processes. To the extent they manage information digitally, it's highly fragmented and inefficient. They're likely to use file shares or rely on email as a collaboration and content management tool. They may use an application like Microsoft SharePoint on an ad hoc basis. Processes are often tedious and manual – and "that's how we've always done it."

- **TRANSITIONAL**
  Although most large companies have implemented some form of process automation and content management, the efficiencies gained with these technologies have begun to level off. And yet there remains a large opportunity. Some 230 million knowledge workers around the world spend 60% of their time searching, exchanging, emailing, and collaborating on content.[44] Making these processes just 25% more efficient could yield $1.35 trillion in savings per year worldwide.[45] Where will these gains come from? We believe gains in knowledge worker productivity will come from a new generation of smaller, lighter, ECM and business process apps that are optimized for mobile and cloud, easily deployed, and designed around a user experience that requires little or no training.

- **INNOVATORS**
  For the innovators, ECM and BPM are components of an overall digital platform that includes integrated social, data analytics, mobile, and cloud capabilities. The new generation of ECM productivity apps are deployed and are allowing organizations to more quickly deliver new products and services to their customers.

CUSTOMER EXPERIENCE & CUSTOMER ENGAGEMENT

Defines the degree to which a company uses digital technology to optimize the customer relationship.

- **LAGGARDS**
  From the perspective of millennials and other digital natives, customer experience with these companies is disappointing. Products and services are not easy to order online. The process is slow and cumbersome. Interactions are fragmented so that multiple calls and contacts with the company result in repeating information multiple times. There's little confidence that the company can easily identify an individual customer. The message to the customer always feels generic, impersonal.

- **TRANSITIONAL**
  Most successful companies have done a lot to improve customer experience for individual customers. They have begun to use marketing techniques that deliver personalized messages through various channels – from telesales to email marketing. We say that these companies are *catering* to customers, which is good, but it's not the same as real-time engagement.

- **INNOVATORS**
  These companies build their business models around the customer experience. That is, they start by understanding a need or problem from the perspective of the customer (for example, why is it so hard to get a taxi?) and then ask, what would the ideal experience look like for the ideal product or service that solves that problem? These companies focus on real-time engagement with customers and prospects across channels, from social media to online chat. We say that these companies do more than cater to customers; they *embrace* them.

BACK OFFICE INTEGRATION

Defines the level of integration across applications such as ERP, CRM, and ECM.

- **LAGGARDS**
  One sign that an organization is not ready for digital transformation is a lack of back office integration. Laggards have not made this step a priority; as a result, sharing information between digital systems and departments involves slow rekeying of information. This acts as a drag on the company, reduces collaboration, and slows innovation.

- **TRANSITIONAL**
  Of course, integrating systems is a process that just takes time. Most companies are somewhere on the path from *fragmented* to *fully integrated* within a digital platform. And many have discovered that an ECM platform can play an important role in tying together disparate digital systems.

- **INNOVATORS**
  These companies have invested time and resources integrating their essential systems in a complete digital platform. They further optimize back office systems for capturing, analyzing, and acting on customer data.

PLATFORM MODEL

Defines the extent to which a company takes advantage of capabilities such as cloud and mobile to empower its workforce outside the corporate walls.

- **LAGGARDS**
  Data and enterprise applications for these companies are locked down behind the corporate firewall. Access by employees and partners, much less customers, is difficult at best. Email may be available on employee phones, but tools needed to collaborate with others while away from the desk are not permitted or have not been implemented.

- **TRANSITIONAL**
  These companies have deployed VPNs for external access to data and applications. They have begun to implement cloud applications for some data and they have accepted a BYOD policy. Nevertheless, most applications and data remain securely protected in the corporate data center.

- **INNOVATORS**
  These organizations begin with the premise that employee work can take place any time, any place, and that data can be easily and securely shared with customers, partners, and any trusted person outside the company. They leverage hybrid cloud models to enable this environment. They also employ a converged infrastructure that combines storage, networking, and compute functions for maximum flexibility and efficiency.

ANALYTICAL CAPABILITY

Defines a company's ability to process and analyze data, especially customer data, to make strategic decisions.

- **LAGGARDS**
  These companies may capture data regarding customer relationships, although they have not yet begun to effectively use that data to become more agile, more customer-centric. To the extent that they use data within the organization, their efforts are directed toward operational efficiency and cost control.

- **TRANSITIONAL**
  Most large organizations have begun to capture data to measure effectiveness of their sales and marketing programs. They are at the level of measurement but have not yet evolved to the next phase in data analytics.

- **INNOVATORS**
  Digital enterprises live and breathe customer data. They use this data to achieve a high degree insight, decision-making, responsiveness, and customer engagement – in real time.

ORGANIZATIONAL READINESS

Defines how prepared from an organizational perspective a company is for digital innovation.

- **LAGGARDS**
  Change does not happen without leaders to lead the way. Laggards, who do not see the change upon them, have not taken steps to consolidate responsibility for digital initiatives or charter a team with the mandate to lead digital transformation. These companies will have a difficult time getting started without the right executive leadership.

- **TRANSITIONAL**
  After stumbling along for a while, perhaps with ad hoc, departmental initiatives intended to make the company more "digitally aware," many organizations conclude that delegating responsibility to a chief digital officer, as Starbucks did, is an important first step. And just as Adam Brotman has done at Starbucks, a strong CDO can then spearhead transformation throughout the enterprise.

- **INNOVATORS**
  The fully mature digital enterprise, with a leader of digital strategy and a team qualified to execute against that strategy, is ready to launch new business models and reinvent the way consumers buy or engage. By investing in digital and pivoting the organization, even companies like Target and Coca Cola,[46] mainstays in the business world, may soon by the innovators and disruptors of the future.

Digital Transformation

We're deeply involved in the digital enterprise. We are on a journey ourselves to achieve the goals set forth in this paper. And we are evolving our products to provide our customers with hardware and software systems designed for a digital enterprise.

We're also deeply interested in assisting our customers on their digital journey, providing vision, advice, and technology to help them become world-class digital enterprises.

This section outlines in broad terms the steps that organization must go through to become digital enterprises. We have peppered this section with case studies of companies that have deployed ECD products as part of their journey of digital transformation. We certainly don't mean to suggest that ECD is the only technology vendor enabling digital transformation; our products fit within a digital platform that includes products sold by other software and hardware providers. Nevertheless, the following stories illustrate ways to advance your digital journey with some of the components of a digital platform.

1

STEP ONE: GET YOUR HOUSE IN ORDER AND RECOVER MONEY FOR INNOVATION

Inertia is often the hardest force to overcome. Organizations with legacy systems spend significant time and budget maintaining them. They won't replace them with newer, more powerful, more efficient systems because they fear losing years of valuable and irreplaceable data. Moreover, organizations will justify the decision to preserve legacy systems by citing the investment they've made in their hardware and software systems. Economists refer to this idea as the sunk cost fallacy.

The truth is there's no time like the present to get started on a digital journey – and getting started will be both easier and more rewarding than many organizations realize. Here's why. As systems age, they can become a financial drag on the business, not only draining valuable resources, but acting as an disincentive to progress. They no longer provide the productivity gains they once did, or the levels of productivity that newer systems can create. Moreover, they require more maintenance time, especially compared with cloud-based solutions. More crucially, legacy systems anchor you to the technological past and make innovation difficult in a digital world.[47]

Replacing legacy systems will eliminate the cost of licensing and maintaining older systems and free up money for investing in new systems, applications, technology, and innovation. This is one way to justify an investment in digital transformation. People in a leadership position, with the vision and knowledge of what needs to be done to transform the business, may find success persuading executives to decommission legacy systems and reinvest the recovered costs in systems that support digital transformation and innovation.

HOW ECD CAN HELP

Fundamentally, this first step in digital transformation is about bringing order to your existing information and data so you can focus on moving forward.

InfoArchive and Captiva help you achieve that goal and lay the foundation for the next phase of your digital transformation.

ECD offers InfoArchive is a unified enterprise archiving platform that allows organizations to consolidate data and content from legacy systems, eliminate tape storage, and manage data and content in a single repository. Captiva complements InfoArchive with document capture technology, which enables organizations to capture valuable information currently "stored" in paper documents and make it accessible to digital processes.

CASE STUDY

BMO HARRIS BANK

BMO Harris Bank, a large bank in the US and Canada serving personal, commercial, and affluent customers, realized that it was spending too much on legacy systems.

As a financial institution with a history of acquisitions, each one of which brings more data into the enterprise, BMO Harris Bank wanted to pull data from its acquisitions into one repository, sunset legacy applications, reduce costs, and make it simpler for employees to access data.

By deploying InfoArchive, BMO Harris was able to combine its data management systems, consolidate data from acquisitions, and provide an easy-to-use interface for employees. The company calculated that it saved approximately $5 million per year from reduced licensing, infrastructure costs, and support.

CASE STUDY

CITY UNIVERSITY OF HONG KONG

A large number of organizations operate in a paper-based paradigm. For them, digital transformation must begin with the conversion of paper documents to digital formats.

This was the case with City University of Hong Kong, which embarked on a paperless office project that won awards, reduced costs, and achieved sustainability goals. The project also saved $500,000 per year.

With Captiva, the University converted its physical archive of personnel records and payroll folders into digital records for automatic recognition, categorization, and extraction of PDF documents. The implementation created a secure digital archive, enabled the HR and finance departments to make faster decisions, and saved natural resources, eliminating 95 tons of CO_2 emissions.

2

STEP TWO: BUILD A SOLID FOUNDATION AND PREPARE FOR TRANSFORMATION

As we suggested above, most companies are in the transitional phase. They have invested in digital initiatives but those initiatives tend to be fragmented and usually implemented at a departmental level. Applications are siloed. Lack of integration across the organization limits innovation. And opportunities remain elusive for creating greater engagement with customers.

To bring order to their information assets, companies must focus on building the foundation of a comprehensive, enterprise-wide digital platform. This platform will contain many pieces, including CRM, ERP, and a complete content strategy that is consistent and coherent across the entire organization. A content strategy will necessarily include the key components of ECM and BPM. Together these components enable you to control your information assets, eliminate fragmentation and data silos, and automate business processes for better, faster decision-making.

HOW ECD CAN HELP

Step two is about building the digital platform, and Documentum and Documentum xCP can play a critical role here.

Documentum provides enterprise content management capabilities such as collaboration, mobility, security, and compliance. Documentum xCP automates complex, information-intensive processes to drive better business decisions.

CASE STUDY

CENTRE HOSPITALIER UNIVERSITAIRE DE NANCY

The Centre Hospitalier Universitaire de Nancy (CHU Nancy) was the first radiology center in France to become "100% filmless" when it switched in 2006 to an electronic image reading system.

In 2010, the hospital deployed Documentum and began transferring nearly 200 TB of data on 500 magnetic tapes to a new SAN disk archive system. Managing this data in Documentum means that physicians – particularly those who work in oncology, pediatrics, and geriatrics – can access images far faster, a requirement for emergencies and other unscheduled patient visits.

"Thanks to Documentum solutions, all teams can instantly access all imaging examinations, whether they were created in the last few days or over 10 years ago,"

– Dr. Frédéric Lefèvre, a radiologist at CHU Nancy.

Furthermore, practitioners can now access their patients' imaging files from home or another health facility, in a completely secure environment. These changes allow doctors to provide immediate care when decisions are critical and time is of the essence.

CASE STUDY

EATON VANCE

For Eaton Vance, one of the largest and most respected wealth management firms in the United States, modernizing its customer onboarding process was vital for the company to remain competitive.

Its existing process was resource intensive and inefficient, typically requiring 1,000 pages of documents per account. To expedite the process, the company deployed Documentum, Documentum xCP, and Captiva. The new system links seamlessly with all entry points for electronic and paper documents.

Investment specialists, administrators, and auditors can now access more than five million documents stored and managed in Documentum. By virtue of the new process, Eaton Vance has cut onboarding time by 26% while increasing the number of new account openings by 24%.

3

STEP THREE: ENABLE RAPID INNOVATION

With the core components of a digital platform in place, organizations are well positioned for digital transformation. The goal, as we've discussed above, is to capture a greater share of the digital customer's wallet. You achieve that by creating new products and business models, focusing intently on the customer experience, and building deeper customer engagement. Simply put, the digital customer is – and should be – the primary focus of the digital enterprise.

HOW ECD CAN HELP

Document Sciences can play an important part here by enabling you to generate highly customized, multichannel communications to support a more personalized customer experience.

Also from ECD is Project Horizon, an entirely new approach to enterprise content management that re-imagines ECM as a set of discrete, function-specific apps. Developers can launch new apps quickly to support internal productivity and collaboration, for example. Or they can rapidly design innovative and engaging products and services built on the Project Horizon platform.

CASE STUDY

SANTANDER PRIVATE BANKING

Grupo Santander, the largest bank in the Euro Zone by market capitalization, includes a wealth management division that offers investment products to clients in Latin America.

Santander Private Banking selected Document Sciences to overhaul the way it creates and distributes client statements. This was a strategic decision designed to deepen client relationships and stay ahead of the competition.

The system allows SPB to provide clients with more relevant data and expand the breadth and depth of information with dynamic charts, categorization of transactions, tabular summaries, and other features. Document Sciences xPression also provides on-demand generation of custom statements and client reports, supporting more personalized communication and customer engagement.

HOW ECD CAN HELP

InfoArchive Captiva	LAGGARDS
Documentum Documentum xCP	TRANSITIONAL
Horizon Document Sciences	INNOVATORS

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