

How to Avoid Extinction in the Age of Digital Disruptive Technology

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If you're trying to catch up with the digital economy while maintaining old, legacy systems and watching your competitors embrace digital transformation, machine learning, artificial intelligence and other emerging technologies, you may be running out of time. If you are concerned that you're so far behind that your company's survival is at stake, much like Toys "R" Us, RadioShack and many other notable casualties, then now is the time to act.

According to recent studies, about 50% of companies today have not yet started to digitally transform their organizations, while 25% are racing ahead and preparing to crush their competition. Those 25% will define the nature of competition for the next decade. But there's good news if you are a laggard – it is entirely possible for you to leapfrog from last place and move to the front of the pack with the right enterprise transformation strategy and execution.

Here are some clear warning signs that your organization is lagging behind and needs to move into a higher gear:

- 1 Your CIO does not have a seat at the table regarding your corporate strategy, innovation or research and development (R&D) investments.
- 2 Your customer experience (CX) is not unified across all customer engagement channels (physical, web, mobile, chat, social, email, direct mail).
- 3 Your supply chain is not fully integrated to ensure raw materials, parts and finished goods are always available when needed.
- 4 You are beginning to see market share loss to digital savvy competitors or emerging technology "pure-plays."
- 5 Online customers are abandoning their shopping carts and/or complaining about the buyer experience or service experience after products have been purchased.
- 6 You have a "tsunami" of data that you are capturing, but you lack the ability to quickly analyze and capture insights from the data that enable strategic decisions.
- 7 Data is not accessible across the organization due to lack of integration from one software platform to the next, impacting productivity and diminishing customer service.
- 8 Disruptive products or services are invading your space, and they're coming from existing companies outside of your industry or new market entrants with superior technology.
- 9 You lack insights into your customers' preferences and behaviors, which prevents you from anticipating their needs and proactively developing products and services that meet those needs.
- 10 Your IT organization is too focused on maintaining legacy systems and doesn't have the ability or capacity to respond quickly to market changes.

The potential for disruptive products or services based on new business models to take over a market is one of the biggest threats to technology laggards today, but it's also one of the greatest opportunities for those who decide to make the leap from laggard to leader. Consider these examples:



Taxi companies never saw Uber and Lyft coming, and now they're struggling to adapt to the new competition. Had they understood the threat from disruptive new business models, they would have worked on mobile apps that enabled a similarly efficient customer experience and, perhaps, created a higher barrier to entry against the start-up enterprises with new business models and enabling technology. What could your company do to deter new market entrants?



The Amazon Effect is the term used to describe Amazon's march to become the ubiquitous shopping experience online and mobile. It is now taking market share from grocery stores with its acquisition of Whole Foods, and it is poised to take a chunk of the pharmacy market from Walgreen's and CVS with its acquisition of PillPack. Retailers like Walmart are working hard to transform their businesses to compete more effectively with Amazon, with some success. However, many other firms have made huge profits by marketing their products through Amazon to reach new customers and new markets. Is that an opportunity for you?



Digital personal assistants like Siri and Alexa are poised to replace search engines and mobile apps, as they advance to the next stage in machine learning and artificial intelligence, and become the go-to resource for information, as well as control of the technology we use in our homes and possibly even the workplace. Could your products or services be ordered and delivered via a digital personal assistant?



As **robotic process automation (RPA)** is adopted across more industries every day, we are seeing promising examples of how mundane, repetitive tasks can be automated and removed from the workload of employees at many levels within the organization. This frees up those employees to work on more value-added activities. RPA is currently being used for activities like order intake, insurance underwriting, consumer loan processing, benefits administration and payroll processing. As robotic process automation advances, the capability of streamlining vast swaths of the organization's processes and freeing employees for other activities is a potential solution to today's labor shortages. How could your business be transformed by leveraging robotic process automation?

Transitioning from the dotcom age to digital and cognitive technologies requires a vision, strategy and execution that can overwhelm many IT organizations.

Overcoming the Obstacle of Legacy Systems

In order to move your company forward and become a more digital or intelligent enterprise, one of the biggest problems to tackle is how to transition from time-sucking legacy systems to new technologies. The challenge is to determine how to replace the old systems with solutions that will advance the organization toward a more digital future. This is complicated when numerous applications are interdependent and require a piece-meal approach to replacement.

Transitioning the organization from the era of analog processes to digitally and AI-enabled business models requires an over-arching vision, strategy and execution

with buy-in from the company's entire leadership team. The key to developing a sense of urgency internally is to build the business case to address the competitive threats and opportunities as well as the significant portion of the IT budget spent on keeping legacy systems functioning properly.

Consider a US General Accounting Office audit regarding the condition of our federal government's technology infrastructure. The audit stated, "The federal government spent more than 75 percent of the total amount budgeted for information technology for fiscal year 2015 on operation and maintenance investments. Such spending has increased over the past 7 fiscal years, which has resulted in a \$7.3 billion decline from fiscal years 2010 to 2017 in development, modernization, and enhancement activities." In other words, the increasing cost of "keeping the lights on" is consuming the IT budget that otherwise would be spent on upgrading applications and infrastructure.

If any of this sounds just a little like your organization, you have the beginning of a strong business case for change. Let's start to build your vision for the future by exploring the technology evolution.

The Three Stages of Technology Evolution

The journey from an agrarian to an industrial to an information-driven economy has occurred over decades and even centuries. But today's pace of technology evolution has increased exponentially. We are seeing this not only in how products and services are designed, delivered and consumed, but also in how work is organized. In order to prepare for a future that is defined by technology-driven speed and agility, it is helpful to see how we arrived at this point and the degree to which enterprises have embraced technology as a competitive differentiator. Three distinct stages provide a lens in which to examine this journey – analog, digital and intelligent.

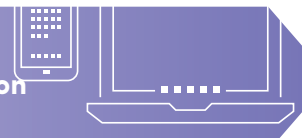
STAGE 1: The Analog Corporation



In the 70's, 80's and into the 90's, computers became commonplace in business, but smaller companies could succeed without the latest technology. They could remain an analog business. They did not need to move in and fully embrace the so-called digital revolution that was occurring. However, once the internet took hold—things suddenly changed.

The analog company, though it may exist in name, is a dying breed. Firms that have not begun the transition to digital have likely found that it is hard to get ahead or even remain competitive.

STAGE 2: The Digital Revolution

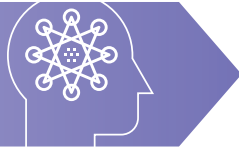


Digital enterprises have an innate understanding that technology plays a critical role throughout the customer journey from awareness to research, to purchase, use and recommendation. They also ensure that customer engagement channels work together seamlessly, including: physical storefront, call center, website, mobile, social media, email and snail mail.

Industries like healthcare, high tech, retail, media and entertainment pursue the highest levels of digitalization, while telecom, financial services, automotive and consumer packaged goods are currently the laggards, according to McKinsey.

Although many companies are still trying to come to terms with making their organizations fully digital, the "revolution" as we know it is reaching its peak. Yet, many companies still haven't fully transformed to digital enterprises.

STAGE 3: The Rise of the Intelligent Enterprise



The fundamental distinction of the Intelligent Enterprise from its analog and digital predecessors is in the extensive use of data. While data is used today by businesses of all types, the sheer amount of data captured – both structured (e.g. databases) and unstructured (e.g. social media content) – is what is driving the Intelligent Enterprise.

Nearly every activity pursued today creates a trail of data. Every day 2.5 quintillion bites of data are created, and this is a number that is only going to become larger. We generate as much data in one day as our ancestors did in an entire lifetime. In a way, each human acts as a sensor in the planet's nervous system. Governments, individuals and, yes, businesses like yours will determine the best way to utilize this data to improve life for each and every person on the planet. The data created as a person searches the internet, watches television, buys groceries and even visits the doctor is the fuel for the intelligence revolution. How this data is utilized is up to each company that has access to it. It is vital to capture this data clean from IT insights and respond quickly, so that customers do not wander off to your competitors.

While there are many facets to a successful cognitive-based firm, intelligent enterprises will, at a minimum, support the following four tenets:



PERSONALIZED

The service provided will be based on both stated and inferred preferences and may also be based on contextual information. In many cases, personalization will occur as a learned behavior. Think about how our phones have learned to suggest what we want to say next – that's how a company will learn how to predict customer needs. Experiences with a company's product or service will be based on implicit (inferred) and explicit (stated) preferences, as well as contextual data such as our location, state of mind or health.



SECURE

Since there is much information about the end consumer available, the successful Intelligent Enterprise must be able to offer a level of security and protection of consumer information that other companies cannot. Customers will appreciate the level of security offered through this unique format of "always on" technology. Personal data vaults using blockchain technology to selectively allow access to companies that benefit you mean the consumer is in control of their data, not corporations.



PRODUCTIVE

In the future, when the intelligence revolution reaches full-mass, daily lives are less likely to be encumbered with routine activities. A personal concierge that manages mundane tasks will be the new reality. Siri and Alexa are just the beginning. In the not-too-distant future these products will learn from our requests and be able to predict what our needs may be. And, in some cases, even make decisions for us.



OPEN

Balancing the data privacy interests of individuals with commercial interests of corporations will continue to be a challenge. A great deal of personal information regarding our online and even offline behavior is available for purchase today. Although corporations have a legal obligation to protect this information, those that also meet a higher ethical standard to use information with the interests of the individual at the forefront will win in the marketplace. Those that don't will be punished.

In many ways, this is not a technological revolution like the move from analog to digital was. It is more a revolution of customer expectations. Think about it. Today's customers

are used to a Google-powered world. Your customers know what they want, and they want it right now. Customers are the ones that demand their needs be met and want companies that can predict these needs. In an Intelligent Enterprise, your goal is to make your customers feel like you are reading their minds. Although you are actually reacting to the data they produce, you are reacting in a way that makes them feel like you are proactively meeting their needs.

Just as the internet began as a novelty and suddenly became a necessity, intelligence-enabled products and services will soon be just as important for business. But really, the goal isn't intelligent products, it's a full-fledged Intelligent Enterprise. It's business that is as responsive as Amazon's Alexa. It hears what customers want, it listens, it responds and it learns. It's a self-driven business model that feeds on data and learns from its customers. It may seem crazy, but it's coming. Just like it may have once seemed crazy to talk to our cell phones and tell them to search for something online.

Preparing to Become an Intelligent Enterprise: A Five-Tiered Approach

Moving from the digital world to one powered by intelligent systems requires making many internal transformations. We've broken it down into five areas—though it may require more or less effort depending on a company's specific challenges. For those enterprises that are stuck with one foot in the analog age, it is entirely possible to leapfrog from your current position to the intelligent frontier by pursuing these five areas.

1. Understanding the Customer



Understanding the customer is the key to becoming an Intelligent Enterprise. Your customers' needs and expectations are different than they were five years ago. Staying aligned with these expectations is critical. Fortunately, the entire fuel for the Intelligent Enterprise – data – will give you this understanding.

2. Understanding the Technology



While there are technology changes that underpin the Intelligent Enterprise (e.g., Big Data, advanced analytics, artificial intelligence, etc.), there is less involved in this area than you may think. The technology already exists. It is simply a matter of putting it in place in a way that works for your firm.

3. Shaping Company Culture



A company must be ready to handle the changes that migrating to an Intelligent Enterprise will bring. This means shaping the company culture to encourage and reward change. Enterprises will need to be more agile and risk tolerant, including a willingness to fail and learn.

4. Considering the Ethical Component



As the evolution to the Intelligent Enterprise takes hold, companies will have to make decisions about how they will handle data and potential ramifications. We cannot underestimate the importance ethics plays in the relationship between companies and their customers.

5. Shaping IT as a Function



As technology continues to be the foundation for nearly every area in the business, the role of the CIO and the entire IT function will become more about strategy and business enablement. The IT function will need to be agile and move at the speed of the business, and even lead the business in many cases.

Next Steps in Your Journey

The business world is at a crossroads and many companies are in danger of extinction because their technology infrastructure is stuck somewhere between the analog and digital worlds, while their competitors are becoming Intelligent Enterprises. Meanwhile, there's a potential market disruptor around every corner. Wouldn't you rather be the disruptor than the legacy competitor that is taken by surprise?

We encourage you to take a holistic approach when considering your company's processes, culture and technological sophistication and how these are either enabling or blocking your path to becoming an Intelligent Enterprise. It is critically important to understand the threat and the opportunity that are on the horizon in order to make the right decisions and investments in your organization's future.

About Cimphoni

Cimphoni is built on the premise that technology, when properly applied and led, can deliver innovative solutions that transform businesses, enrich the products we use daily and improve the quality of our lives. The Cimphoni team is comprised of highly experienced technology and business leaders with a thirst for innovation and a passion for solving problems.

Founded in 2012, we serve customers throughout the United States from our offices in suburban Milwaukee.

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If you are ready to take the next step to the intelligence frontier, or you need help moving your company from laggard to leader with smarter technology, we would be happy to help. Contact us today for more information and to take the next step towards a brighter future.