workday

Dealing with Disruption

Contents

Executive Summary

Welcome to the Workday CIO 'Dealing with Disruption' eBook, packed with thought leadership articles and content for technology leaders, focusing on the impact of digital disruption and IT transformation on business today.

Let's first consider that we are living in a time of unparalleled business change and disruption; an era where 50 percent of the Fortune 500 from 2000 no longer exist. An era where 40 percent of today's Fortune 500 companies are estimated to have disappeared in 10 years. From established market leaders, to fast growth start-ups, the impact of digital disruption is being felt at all levels of the business world.

In this eBook, we continue along this theme, with vendor-neutral advice articles, which provide insight into what CIOs of the future should be thinking about, against the backdrop of continued global disruption. At Workday, we understand the concept of digital disruption better than most, having helped established enterprises, including Adobe and HP transform their businesses to become more flexible and agile.

As a CIO, the only sane course of action is to meet disruption head-on and disrupt your business before someone else does. Whether you have already started your journey to transformation or are just plotting out your route, we hope this eBook is a useful resource and encourage you to read more of our content for IT leaders.

What does the CEO Care About?

6 Priorities CEOs Care Most About

What do CEOs care most about? It's a critical question for business leaders throughout any organization. We set out to uncover the answer by studying several recent CEO surveys by leading consulting companies.

We identified six critical priorities, and addressing each of them requires contributions from across the organization. That's why CEOs are looking to their lieutenants—CFOs, CHROs, CIOs, and other executives who drive major decisions—to understand and act on these priorities.

While this list is by no means exclusive, here are six leading priorities we identified as high focus areas for CEOs:

Finding Growth

Growth is a high priority for most CEOs. According to the KPMG Global CEO outlook survey, the majority of CEOs surveyed said growth was even more important than achieving cost efficiencies.

The IBM Global C-suite Study found that CEOs of more successful companies are highly focused on growth, including launching new products or services, finding new business models, cultivating deeper customer relationships, pursuing innovation as a long-term strategy, expanding geographically, and creating deeper ecosystems. As an example, according to KPMG, two-thirds of CEOs said they expect international operations to bring in more revenue over the next three years.

Yet while traditional growth strategies still lead the way, the study found inorganic growth strategies are on the rise and will continue to fuel M&A activity. Nearly half of the CEOs surveyed anticipate they'll make at least one acquisition in the next three years, according to KPMG. Meanwhile, the IBM study reports that two-thirds of CEOs are looking at "novel, non-traditional forms of growth."

Taking on Risk

CEOs see danger in just maintaining the status quo. To achieve growth, CEOs believe they need to be more aggressive about taking on risk. In fact, according to KPMG, one in three CEOs think they are not taking on enough risk as it relates to their growth strategies.

Competitive threats from both new market entrants and established competitors are compelling CEOs to have more appetite for risk, including finding ways to move more quickly into new product and services areas and regions. In many cases, the risk of standing still may be greater than the risk associated with change.

Managing Regulatory Changes

Managing regulatory changes—including corporate tax rates, environmental regulations, and financial reporting—is a major concern for CEOs, which makes it a big priority. In the KPMG study, regulatory concerns ranked as the second-most important topic for CEOs, only after global economic growth.

PwC's 19th Annual Global CEO Survey found over-regulation as the top concern among 79 percent of CEOs who responded. IBM, in its study, found regulatory concerns to be the No. 3 external factor on the minds of CEOs. And it's not getting any better: PwC reports companies are predicting a more diverse set of global regulatory regimes and requirements in the future.

> "Mobile, social, and cloud technologies were cited as those having the greatest impact on their enterprises"

Leveraging Technology

CEOs report that technology is a critical differentiator, regardless of what industry or segment they work in, according to the IBM study. Mobile, social, and cloud technologies were cited as those having the greatest impact on their enterprises. In the KPMG study, CEOs cited disruptive technology as the third-most important issue facing their companies. In addition to opportunities, CEOs are concerned about disruptive technology from competitors upending existing business models.

More than two-thirds of CEOs surveyed by PwC view data and analytics as technologies they need to adopt more broadly—and that will drive the most benefits. Still, CEOs haven't fully mastered how to best make use of data to drive business outcomes, and report they're looking to their teams to leverage information to make better decisions.

According to PwC, "Winners in the innovation game . . . will be those that harness technology and innovation to deliver products and services that are cost-effective, convenient, functional and sustainable." Technology is the avenue to reach additional markets, gain market and customer intelligence, and better engage with talent, and CEOs look to technology more for finding growth than cutting costs.

Pursuing Innovation

CEOs report that transformational innovation within their own companies must be a high priority, especially in an environment where new market entrants can quickly rise up and challenge existing business models.

IBM found that 58 percent of market-leading CEOs pursue disruptive innovation, not purely incremental improvements. According to its study, "pioneers aren't simply tweaking existing products and services; they're reinventing their firms." These CEOs also value agility and experimentation, and are more willing to accept failure as a precondition to success.

Increasingly, transformations need to happen simultaneously across multiple parts of the business, requiring organizational agility, a willingness to change, and embracing innovation as a core competency. CEOs view innovation as a long-term strategy, not a short-term way to "fix" parts of the business.

> "To get the right people attracted to their organizations, CEOs realize culture must also be a priority"

People and Culture

CEOs cite hiring the right talent as a priority. In the KPMG study, 78 percent of CEOs said they expect to increase headcount over the next three years. Yet they also worry about finding the right skills, and potentially having to retrain existing teams to develop new talents.

Yet to get the right people attracted to their organizations, CEOs realize culture must also be a priority. According to the KPMG study, "Having a purpose that employees can align to, providing the skills and opportunities to learn and grow, and building an inclusive culture are all critical to attracting and retaining the best talent, which in turn helps drive innovation initiatives that drive the business forward."

Culture can also impact the bottom line. Suppliers and customers are looking at how companies behave in the wider social context, and will make business decisions based on a broader set of criteria than traditional metrics of functionality or cost, reports KPMG.

Next Steps

Putting the focus on six critical areas– growth, risk, regulatory management, technology, innovation, and people and culture– impacts a broad range of teams throughout an organization. C-level executives, and those who report to them, need to examine the weaknesses and strengths within their organizations, identify opportunities to make a difference, and then take the necessary steps to help their organization's CEO execute on these leading priorities.

In this book, we'll dive more deeply into the role that the CFO, CHRO, and CIO play in helping address these challenges

The role of the CIO

Technology Innovation Drives Business Growth: The New Role of the CIO

The role of the CIO is currently experiencing vast change and increased attention from the executive team as a leader who can guide a strategic path for how technology can improve business growth.

The CIO's responsibilities once focused almost entirely on selecting and managing technology solutions, but over the past several years the role of IT has shifted to broadly supporting enterprise strategy through technology, including the creation of new digital businesses. CIOs must now be immersed in both business and technology, and ensure that the organization overall has the right platforms in place to thrive and grow. That's particularly important to their CEOs, who ranked growth as a top priority in KPMG's Global CEO Outlook Survey.

The integration of technology and business goals

While IT is still expected to manage its day-to-day operations and teams, the CIO is increasingly being asked to chart a digital strategy that changes how companies reach and interact with customers. This includes helping transform their organizations to take advantage of digital business opportunities.

Building and executing on a digital strategy presents huge challenges because it requires CIOs to tie their technology management efforts with the organization's business objectives. Especially as it relates to growth, the CIO is sitting in a highly visible seat at the executive table. Because technology can be the driver of new and more-effective ways of doing business, the executive team looks to the CIO to use data, software, devices, and new technology delivery channels to bring the company into a new era of business operations and opportunities.

The CIO agenda

The shift in focus from internal operations to strategic business objectives is largely driven by a new emphasis on mobile technology, usability, the cloud, and increased connectivity with existing and new customers. Software can tell us more about what customers want and how they behave, and digital tools can put our brand in front of users in almost any environment where they work and live.

The CIO must define how to bring the business to the consumer and in a world increasingly reliant upon consumer application interfaces, mobile connectivity, and cloud delivery models, that means retooling elements of the business to make it usable wherever and whenever people choose to engage.

CIOs will consider the following as key priorities as they look to support their organizations.

Embrace disruptive technologies

A 2016 report from IBM, Redefining Boundaries: The Global C-suite Study, found that 58 percent of market-leading CEOs pursue disruptive innovation, not purely incremental improvements. The pace of change is simply too great, and the risk of standing still can be greater than the risk associated with change. In this environment, the CIO has become a champion of disruption—not solely for the sake of shaking things up, but to define a better path.

Increasingly, evolution happens simultaneously across multiple parts of the business, requiring organizational agility, a willingness to change, and the embracing of innovation as a core competency and long-term strategy rather than a short-term way to "fix" parts of the business.

The IBM Study explains C-suite thinking around technology decisions and strategy: "One of the most notable trends of the past decade has been the increase in the significance CEOs attribute to technology. Ten years ago, they put it sixth on the list of most important external factors they expected to exert an influence on their enterprises. Now, it consistently tops the features that light up their radar screens."

While the increasing emphasis on technology is certainly good for IT departments, CEOs are often focused more on the end-user experience, and may not have the perspective to think through the full repercussions of new solutions. CIOs, therefore, must assess the impact of innovation and how it will apply to business goals. They need to understand the demographics and behaviors of both their own workforce and their customer base. The solutions they implement should reflect how these audiences engage with the technology, and therefore must design with the end in mind.

Identifying the best mix of innovative technologies—such as mobile solutions, user-centric environments, and social functionality—falls to the CIO, but their decision-making must be done in a way that will deliver what is needed by the entire organization and set the stage for growth. The cloud, for example, is increasingly sought as an innovative way to manage the business without having the burden of IT infrastructure management costs and hassles. "Cloud is a big, important strategy for us here at Cardinal. It helps us stay nimble," said Patricia Morrison, CIO, Cardinal Health Inc.

Know, predict, and understand the business

The volume, variety, and velocity of data available to businesses continue to grow. Harnessing that data for business benefit continues to be a challenge for many organizations. The 2016 Global CEO Survey from PwC notes that 68 percent of CEOs view data and analytics as technologies that they need to adopt more broadly.

This deluge of data puts the CIO in a position to create opportunities to capture and understand the business with much greater accuracy and context than had been done previously. Applications produce volumes of data about behavior, users, and interactions. The technology behind this business intelligence should be used by the CIO to make this data meaningful and usable. The insight that the CIO can derive from it ultimately helps drive better business decisions about product development, marketing, and sales.

The rise of analytics capabilities also gives the CIO a great opportunity to partner more closely with line-of-business executives, and to democratize access to data. CIOs may still need to fill the role of classifying, sorting, and making information available for analysis, but CIOs cannot afford to hold data in IT and must look for ways to distribute it to business users to drive decisions.

The IBM Study suggests that the C-suite is taking greater interest in these types of technologies: "CEOs also employ more sophisticated techniques to decipher the data their organizations collect. 66 percent use predictive analytics, compared with just 50 percent of their…peers. But it's cognitive technologies that will really revolutionize the way people work. Traditional algorithm-based systems are limited by what they've been pre-programmed to do, whereas cognitive systems learn through experience and apply what they've learned to new inquiries or tasks."

Grow the business

Achieving growth is a goal shared by all C-level executives. While every part of the company contributes to growth, it's the responsibility of the CIO to build a technology and systems foundation on which it can all happen. The technology foundation must support a growth mindset so it is prepared and optimized to take advantage of opportunities when they present themselves.

One factor that is increasingly important to executives is how macroeconomic issues impact their own organizational success. As highlighted in PwC's 2016 Global CEO Survey, there are concerns among many CEOs about "…a globalizing world…with many dimensions of power, growth, and threats—a transition that we call multi-polar." The report goes on to explain that 59 percent of CEOs anticipate "multiple economic models," and 75 percent expect an increase in regionalization in global trade.

This speaks to concerns not just about the rate of growth, but also about where growth will come from and what shape it will take. Almost half of CEOs expect at least one acquisition in the next three years, according to KPMG, and two-thirds of CEOs expect more revenue in three years from international operations than they have today. The systems needed to support this kind of growth must be architected for scalability, flexibility, and configurability. Building for standard vertical growth just won't be enough.

Optimize the IT architecture for growth, flexibility, and scale

CIOs need to have in place systems and networks that pave the way to the future, and to do that effectively, they must use a balanced approach that meets current needs and can evolve over time as internal, customer, and partner requirements change.

Given the accelerating pace of technology innovation, it is increasingly difficult to both grow and manage existing assets, many of which were designed for a slower, simpler time. More CIOs are turning to innovative solutions such as cloud-based applications and mobile devices that were built for the modern era and equipped to scale, and alleviate much of the traditional IT management burden.

Using cloud-based applications is, for most forward-thinking CIOs, an important step. When looking at how to create a sustainable architecture for the American Automobile Association of Northern California, Nevada & Utah, CIO Osh O'Crowley sought to reap the benefits of the cloud. He said, "As CIO, when I look at how we spend our money on technology, I'm not caught in that amortization and depreciation loop that most CIOs have when investing in something." With innovative cloud and digital solutions, O'Crowley said, "I don't have the data centers that run all those technologies. I don't have DBAs. I buy what I need. We tie it together and we focus on our members."

According to the Forbes CIO Summit 2016—CIO Transformation Survey, 28 percent of CIOs have indicated that their IT organizations spend more than one-quarter of their time working directly with third parties—primarily customers and partners. What's even more telling is that 76 percent of CIOs fully expect substantial engagement with third parties to increase over the next two years. The only way these kinds of efforts can scale is if they are handled with effective technology implementations that are optimized for growth.

Secure the organization's assets

A PwC survey found that 61 percent of CEOs consider cyber security to be a major threat to both national and commercial interests. We have seen high-profile hacks and intrusions lead to major damage to brands, loss of confidence among customers, and even legal action for some companies. All eyes point to the CIO to mitigate risk and ensure that company intellectual property and user data does not fall into the wrong hands.

CIOs are using a business lens to differentiate between data that should be broadly accessible and intellectual property that needs to be protected. APIs and integration capabilities create fairly simple solutions to extend data to more users, on more platforms, and through different devices. There are major advantages, from a business growth standpoint, to enabling that accessibility, but it is a fragile balance that the CIO needs to navigate. Every access point becomes another potential vulnerability. CIOs see the entire application landscape and must secure the access to, communication of, and transactions with any data that people in their ecosystem come across.

The reputation of their organization's brand and business practices is based on trust among the company's various stakeholders. Providing access to information so business users can make better decisions creates benefits. However, the CIO needs to combine that ability with a secure technology environment that ensures data is only available for intended purpose and by known users. As more data and functionality become available and usable, CIOs must find ways to make data accessible where it can be most effective, without opening up the organization to potential risks.

The CIO of the future

The issues that CIOs care most about are ones that will both lead to competitive advantages and ensure that their companies and data are secure and efficient. The technology they choose to employ must provide an advantage but it must also meet the needs of users.

Doing business in today's market requires an almost omniscient understanding of all aspects of the organization. Most executives have an understanding of the various parts of their enterprise, but the CIO is in a unique position to view the entire business and apply effective technology solutions. CIOs have the opportunity to formulate an effective growth strategy for their organization by combining business knowledge with deep technology expertise.

The 4 Key Requirements for CIOs of the Future

The role of the CIO has been on a rapid evolutionary path over the past decade, yet more changes are required if CIOs are to successfully lead digital strategies for their organizations in today's complex and ever-changing economy.

CIOs once dealt primarily in managing technology systems that made processes more efficient. As technology evolved, the role meant more emphasis on making different hardware systems, applications, and connectors communicate with one another. With the onset of the internet, connectivity in all its various forms became the primary goal.

In today's economic environment, CIOs are required to play a much broader and more strategic role. To be successful, they must have deep business knowledge along with technical depth, and demonstrate leadership capabilities that help drive critical growth and market opportunities. For many CIOs, this will require a transition in what they understand and how they apply it.

Based on current research and input from a variety of CIOs (covered in more detail in our feature story), there are four key skills required for CIOs to thrive as leaders in the future.

The Know-How to Deliver Data

To successfully articulate and execute a digital agenda, CIOs need to first have a deep understanding of their business and how to map a technology architecture that fits business goals. As businesses become increasingly complex, this is no small task.

> "CIOs will have to step outside of their traditional comfort zone and figure out how to evangelize the power of IT initiatives to the rest of the company"

Yet there is always one constant in the requirement to map architecture to goals: Truly executing on the "information" part of IT. The CIO needs to recognize that providing managers and employees with access to technology won't be enough; the better approach is to ensure that relevant data can be pulled together from different sources so people can act on it. Additionally, IT must work with partners around the business to make sure the right people have access to the data they need.

Ability to Serve as Business and Technical Advisor

The scope of many CIOs has been focused on delivering technology solutions to internal customers, but this is rapidly expanding. In today's hyper-connected, global economy, CIOs need to build their business acumen along with their technology skill sets and use them to create a digital leadership strategy. In doing so, they can become business advisors able to define and execute on digital strategies that make their companies more efficient through new, profitable digital channels.

Changing that focus means emphasizing business and technology goals equally. It requires that CIOs use a new language—one that references customers and the financial bottom line, speaks to business leaders in business as opposed to technology language, and considers cost as a factor in deploying technology.

Willingness to Emphasize and Evangelize

Creating and delivering on that digital agenda means automating, analyzing, and improving the user experience through software applications, web services, APIs, hardware, and any other types of technologies that help drive business goals. It's a big task, but one that is incumbent upon the CIO of the future.

> "Where CIOs once focused efforts on efficiency and process, they are now driving a digital vision that is deeply embedded in business goals"

As part of delivering these types of solutions, CIOs must also communicate their vision. They will have to learn how to step outside of their traditional comfort zone and figure out how to evangelize the power of IT initiatives to the rest of the company. The more that employees hear the CIO's message, the more they will see it as something embedded into the way they work.

Ability to Develop Customer-First Strategies

The CIO must use technology as a tool for connecting the right people to one another, and to the right information. The CIO must figure out how to create an infrastructure that always supports customers' needs. This includes both delivering information to customers and using analytics about customer usage to help improve how to service customers. It also means that, because there is more access, there needs to be a pervasive security model that controls access and data usage across all users and stakeholders.

Where CIOs once focused efforts on efficiency and process, they are now driving a digital vision that is deeply embedded in business goals. The skills needed to be effective in their role are changing, but they do not necessarily call for a complete make-over. Rather, by using the skills they are already using, and pairing them with these four new skills, CIOs can become business and technology leaders who guide their organizations into the future.

For a more in-depth look at this topic read, "CIO of the Future: Combining Technology and Business Expertise."

The CIO of the Future

Let's consider the letter I in CIO—"information." It's what rules everything we do. No decision is made, and very little purposeful action is taken, without information to guide us.

The caretaker of information in an organization is the CIO who develops and manages the plan for how information is accumulated, organized, stored, transacted, and analyzed. As information increasingly becomes the currency of the global economy, the role of the CIO is changing and becoming more strategic because of the CIO's unique ability to understand and manage information.

The skill sets that were once needed to manage information are also changing. CIOs have to move beyond just "managing" IT and instead toward helping the organization find a competitive advantage. Today's economic environment requires that the CIO of the future emphasize business knowledge with technical depth, along with evangelism and leadership abilities that can be used to drive strategic corporate growth plans and increase market opportunities.

In its CIO Transformation Survey, Forbes took a deep look at how the CIO's role is changing, and specifically at the shift into roles that have broader leadership responsibility. Forbes broke down the CIO's role into four archetypes:

- **Transformers,** who lead digital efforts through major innovation
- **Advocates,** who experiment and promote new digital concepts
- **Servicers,** who offer support and guidance but generally do not launch their own transformative projects
- **Plumbers,** who mainly focus on keeping existing systems running

> It should come as no surprise that the survey found that the most digitally mature companies were those with CIOs who were transformers and advocates

Considering the greater focus on business knowledge, the most aspirational and strategic CIOs of the future would do well to learn the skills and attributes of the best transformers and advocates.

Four Ways to Build Business Acumen

In its report CIOs Must Build Greater Business Acumen in IT for Digital Business Gartner predicts that "by 2020, 100 percent of roles in IT will require an intermediate level of proficiency in business acumen to effectively execute on the digital business strategy."* That requires knowing the business, interfacing with visionaries across the business, and driving a smart digital agenda. Technology will be the foundation, but business will be the mindset.

To do this requires that CIOs develop new skills and capabilities that do more than run a great IT organization—they need to contribute to bottom-line goals. Research from Gartner and several other organizations indicates that these are the skills that CIOs and IT leaders should be cultivating:

Partner: Work with internal groups to create business value from digital initiatives

Partnering with other C-suite executives gives the CIO visibility into their groups, and helps the CIO get buy-in to digitize business efforts. Through development of a digital strategy for internal operations and external business, colleagues can collaborate on what's required to create new opportunities and competitive advantages. With smart partnering both across and outside the organization, CIOs become the chief enabler.

Effective partnering first demands that CIOs understand the different parts of the business. This empowers them to lead, rather than respond, through building business-specific requirements, identifying the right technology vendors, and gearing for the right type of technology architecture that will fit best with business goals. A thorough understanding of different groups and how they contribute to the overall business, how they're measured, what their short- and long-term plans are, and what is preventing them from achieving their business goals is needed to partner effectively.

The CIO should figure out how to map the digital strategy to what these leaders are doing and then, in collaboration with them, adapt and improve the strategy to continuously meet business requirements. The thinking should be about how technology can improve the leaders' efforts in a way that will provide measurable benefits, such as major savings, new revenue opportunities, or competitive advantages.

As an example, perhaps a CHRO needs better data to understand employee attrition. An operational IT team would approach the task as a one-off solution: Run a basic analysis that gives numbers and percentages of when employees leave, which departments have the highest attrition, and maybe other details that give color to the issue. The IT department can handle this with relative ease, and what the CHRO decides to do with it, ostensibly, is his or her business. For the CIO who emphasizes the "information" in his or her title, this is a job well done.

A solution that provides far greater value, however, is for the CIO to work closely with the CHRO to deploy a technology solution that addresses the strategic, long-term needs of HR. Armed with the right data, are there automated processes that can be triggered to help limit attrition? For example, is there analysis that can be done during the hiring or review processes that might help predict when a person might leave? Before CIOs can do this, they need to understand how HR works, and the strategies HR leaders employ and what's important to them. Using technologies like cloud-based solutions and predictive analytics, CIOs can configure something that fits the need. None of this is possible without collaboration and understanding among the right players.

Reframe: Become a business advisor, not just a technical one

The role of the CIO is becoming a blend of business and technology expertise and its reach and influence is now part of every element of the business. As John Barden, deputy CIO of the University of Rochester, notes, "IT is no longer an ancillary support function. IT is embedded in what we do and is much more of an advisory function to help people think about what they need and source options for how we might deliver that together."

For many CIOs, the business lens has been internally focused on delivering valuable technology solutions to employees and close stakeholders. That is changing rapidly: Among CIOs that can be identified as transformers, 83 percent project that they will spend more than 50 percent of their time over the next five years on digital initiatives and projects, according to the Forbes CIO Transformation Survey. This requires that CIOs build their business acumen, pair it with their technology expertise, and begin to execute on a digital leadership strategy that will not only make the business more efficient, but will also actually create new, profitable digital channels. Gartner states, "These roles are critical to advancing the IT organization from a transactional, operational support level to a higher maturity level of business partner, change agent or transformation leader."*

> "Partnering with other C-suite executives gives the CIO visibility into their groups, and helps the CIO get buy-in to digitize business efforts"

In the Forbes CIO Transformational Survey, CIOs describe the transition as a shift from back office to being front-and-center with customer-facing activity. Many see it as a "before and after" type of scenario, where they have moved from being task-focused to now emphasizing innovation and being a business consultant. To this point, the survey shows that respondents expect to spend 42 percent of their time on digital activities within the next five years.

Changing that focus means emphasizing business and technology goals equally. It requires that CIOs use a new language—one that references customers and the financial bottom line, evokes business development opportunities, and considers cost as a factor in deploying technology. Adapting business processes to be available through Web-based interfaces and making applications usable in mobile and other digital formats are all initiatives that require the combined perspectives of a business and technology leader. Through collaboration with other C-level executives, the CIO can deliver viable solutions that will drive engagement, usage, and value.

Evangelize: Learn how to communicate your vision

Let's face it, many employees think of IT only when their laptops freeze. Outside of fixes and new equipment, IT doesn't last very long on their radars. But when the CIO works with other business leaders to instill a new culture of digital innovation across the enterprise, everyone should be aware of how it impacts them. It is up to the CIO to create a message about how digital initiatives support the business, and deliver that message far and wide.

In the Gartner report, communication is given top billing as a necessary skill for CIOs. The report states, "CIOs and IT leaders should use communication strategies to consistently link the role of IT, and its activities and performance, to the business strategy and performance."* The vision no longer becomes simply one of IT; rather, it becomes a roadmap for business success borne of digital innovation. That's a big transition, but with effective leadership, the CIO can minimize internal discomfort and help steer the ship effectively, course-correct as needed, and keep everyone in the boat.

The digital vision is, simply put, anything that can be automated, analyzed, or improved through software applications, Web services, APIs, hardware, or other types of technologies that bring companies closer to their customers and improve internal operations—and are the things that can take CIOs from their current state to being digital innovators.

Gartner suggests that CIOs and IT leaders leverage the following approaches in IT communication to raise business context awareness in their workforce:*

- Use top-down, cascading communication to ensure that clarity, proper contextualization, and alignment of key messages are delivered throughout the organization.
- Invite guest speakers from business areas, external partners, and even customers to expose IT staff to fundamentals about the business and its ecosystem, and also to keep staff abreast of market trends and customer needs.
- Incorporate and reinstate key elements of the IT strategy wherever appropriate, such as during portfolio planning meetings and in regular IT updates delivered through town halls and team meetings. This helps reinforce and sustain commitment from IT staff through better prioritization of work and keeps everyone aligned with the strategic priorities of the digital business that require teams to act in unison.
- Learn to use storytelling to capture people's attention; facilitate their understanding of any complex, abstract concept or strategic direction; and ultimately motivate and engage them into taking action.

In other words, CIOs need to step outside of their traditional comfort zone and figure out how to evangelize the power of IT initiatives to the rest of the company. Whether that's face-to-face, or through webinars or other means, it's becoming a requirement. The more that employees hear the CIO's message, the more they will see it as something embedded into the way they work, rather than as a one-off project or goal—or worse yet, some disconnected corporate mandate that has nothing to do with their own role.

> "Learn to use storytelling to capture people's attention"

Connect: Think first about customers

A recent Harvey Nash/KPMG study of more than 3,300 CIOs and IT leaders, The Creative CIO, notes significant changes in how CIOs are responding to CEO demands: CIOs are now focused more on projects that make money (63 percent) rather than on those that save money (37 percent). The strategic connection among technology, customers, and business goals is now more tightly bound than ever before. In Redefining Boundaries: Insights from the Global C-Suite Study, IBM predicts a 19 percent increase in digital and individual engagement with customers, and Forbes notes that among "transformer" CIOs, 51 percent plan to "significantly increase direct customer interactions" in the next two years.

These changes indicate the need for CIOs to use their expertise to execute a digital business strategy that is more about customers than it is about technical functionality. The challenge will be to think "customer first" and it will require that CIOs consider how technology is used outside the company walls. Typically, CIOs have supported the efforts of others who interact with customers, but to deliver on these new goals, they will need to learn how to engage directly.

The CIO must use technology resources to connect both internal users and customers through digital channels. Through cloud-based software applications, API connectivity to other applications, mobile engagement, and other types of Web-based access, the CIO already is adept at making connections. With the increased demands of customer engagement, those connections just need to be extended beyond the company's walls. Pervasive security at all levels and access control are mandatory, as is the creation of opportunities for the development team to collaborate on data access and application functionality with third-party developers.

And probably the most critical part is user experience. That means not only the interface and usability of applications CIOs make available to employees, partners, and external customers, but also the experience of working with the IT team and tools. Users have to be able to instantly use and find value in an IT organization's service and brand, but to do that, CIOs must make sure that their teams emphasize how technology resources can drive business. In a world with many options, CIOs and companies that don't focus on delivering a good user experience will lose out to those that do.

There is no escaping that the entire role of the CIO has changed significantly over the past 10 years to reflect new expectations and challenges. Where once things like efficiency and process ruled the CIO's day, we now see the CIO is tied to vision, digital strategy, and business goals. This reflects company needs and market demands, and also speaks to the inherent ability to change and adapt that most CIOs have regularly demonstrated.

The skills required to be effective in the role have changed in a way that will require not reinvention so much as reaffirmation of the CIO's place in the organization as both a business and technology leader who can direct the path for the company into the future.

The To-Do List for the CIO of the Future

CIOs need to develop skills that will increase their business knowledge and prepare them to lead a comprehensive digital strategy. CIOs should look to improve their capabilities in the following ways:

- Identify and hire top talent to achieve digital business goals.
- Build a team that will spread technology value across the organization with data scientists, API developers, business analysts, and others that can spark innovation.
- Get comfortable with taking risks and be able to defend failure as part of necessary change.
- Benchmark and know what others in your industry are doing with digital change.
- Emphasize widespread adoption and remove barriers to usage.

Disrupt or be Disrupted

Disruption Deluge: How Tomorrow's Leaders Will Survive the Storm

The World Has Changed—and We Haven't Seen Anything Yet

In the first of three articles in this chapter on digital disruption, Workday's Senior Vice President, Products, Leighanne Levensaler looks at the unprecedented pace and scale of change, and why organisations of all sizes must embrace change before it comes looking for them.

"Half a century ago, the life expectancy of a firm in the Fortune 500 was around 75 years. Now it's less than 15 years and declining even further," author Peggy Noonan wrote in an article on why big companies die. That statistic might sound surprising, but it probably shouldn't. After all, we are living in a time of unparalleled business change and disruption; an era where 50 percent of the Fortune 500 from 2000 no longer exist. An era where 40 percent of today's Fortune 500 companies are estimated to have disappeared in 10 years, according to researchers at Washington University. It does make me wonder, who will replace them? Professor Richard Foster from Yale University estimated that by 2020, 75 percent of the companies that will be on Standard & Poor's (S&P) 500 index hadn't yet been founded.

But what has changed? Mergers, acquisitions and bankruptcies have changed the makeup of global corporations we know and trust, while new entrants to every market threaten the very existence of those established incumbents. At a more fundamental level, the twin forces of digital disruption and the changing nature of the workforce (and of work itself), are unleashing vast changes across the global business landscape. That's quite a thought for businesses to deal with.

In their book, The Second Machine Age, Erik Brynjolfsson and Andrew McAfee argue that technology is the major catalyst for disruption. They talk of how unprecedented levels of innovation and technological improvement have inspired a new wave of disruption that goes far beyond helping businesses become more efficient or automating manual processes.

> "The life expectancy of a Fortune 500 company has been reduced to less than 15 years"

If you think things are moving quickly today, well, they're only going to get faster and more disruptive. Klaus Schwab, in his book, The Fourth Industrial Revolution, states, "We stand on the brink of a technological revolution that will fundamentally alter the way we live, work, and relate to one another. In its scale, scope, and complexity, the transformation will be unlike anything humankind has experienced before." Against the backdrop of today's technology landscape, it's hard to take the other side of this argument.

From established market leaders, to fast growth start-ups, the impact of digital disruption is being felt at all levels of the business world. But what do we mean when we talk about digital disruption? Simply put, digital disruption is the change being wrought by the inexorable march of long-term trends: Moore's law is driving more powerful computing, faster networking, and cheaper storage. The effect of these changes is cumulative, with each successive innovation building upon the last. The pace of change accelerates over time. A short list of what's impacting business today would start with the above and add cloud computing, big data, mobility, open-source software, in-memory computing, and the API economy.

Whether you're a multinational organisation or a cool start up with a great idea, these innovations have radically changed the playing field for businesses. Forrester's James McQuivey describes this transformation: "The force of digital disruption doesn't just reduce barriers, it obliterates them. This allows the disruptor to take new ideas…and rapidly pursue target customers at almost no cost and in the space of a few days, rather than years."

> "Businesses built on legacy models and technologies will not be competing on a level playing field with more agile organizations using the latest technologies"

I can't help but get excited when I think about how smaller entrants to the market can approach mature markets with the goal of solving problems faster, better, and cheaper. That mirrors our own experience here at Workday. Businesses no longer need to make huge investments in technology infrastructure or a large workforce in order to compete. Disruption is creating entirely new business models, and new types of products and services that are made possible by digital. In addition, today's workforce is more multi-generational, mobile and global than ever before.

As Meg Whitman, CEO of HP explained at the company's Global Partner Programme event: "We're in an era of relentless disruptive change for business and governments, with a huge host of new business models. No company survives without adapting, without the ability to rethink, to change and to renew."

If "faster, better, and cheaper" are key tenets of digital disruption, then businesses built on legacy models and technology will not be competing on a level playing field with more agile organizations using the latest technologies. I firmly believe that legacy approaches to technology and culture are inhibiting established organizations and that 20th century businesses are poorly equipped to empower the potential of their people.

As digital technologies continue to transform the economy, many leaders are struggling to set a digital strategy, shift organizational structures, and remove the barriers that are keeping them from maximizing the potential impact of new digital technologies. However, many long-stablished organisations are defying this perceived inability to adapt and are embracing self-imposed disruption before it comes to find them. Are you disrupting yourself before it knocks on your door? I'd love to hear your thoughts.

Why Businesses Must Self-Disrupt to Thrive in the Digital Age

In the second of three articles on disruption, Workday's Leighanne Levensaler looks at how organizations, young and old, must face the digital storm head-on if they are to survive and thrive.

Ten years ago, not many people could say they saw the taxi or hotel businesses as ripe for innovation. I know I can't. On the surface, neither Uber nor Airbnb look like a particularly threatening competitor. They don't own vehicles or hotels. Their innovations were almost entirely driven by technology, making it possible for them to revolutionize their respective industries. Their ability to connect customers with transportation and lodging quicker, easier, and more efficiently than the old models has made them the "new normal" for consumers—and massively disrupted existing competitors.

Just as interesting to me is that both Uber and Airbnb have created "platforms" that allow them to move into other lines of business, such as the UberEats food delivery service and Airbnb Neighborhoods travel guides.

Critics would say that not all businesses aim to be the new Uber, which is true. Even so, if we look through recent history it is littered with organizations that have found themselves increasingly irrelevant or even obsolete. Video store chains usurped by the rise of Netflix, physical bookstores hit by Amazon's digital offerings, and even Warby Parker's direct-to-consumer eyeglasses experience shaking up the staid world of eyewear.

> "The only sane course of action is to meet disruption head-on and disrupt yourself before someone else does"

I really believe that, for established businesses, it's not a matter of if your business will be disrupted, It's a matter of when, how, and by whom. The only sane course of action is to meet disruption head-on and disrupt yourself before someone else does.

Adobe is a classic example of a business looking disruption straight in the eye. It moved away from selling physical software to a subscription-based, cloud-driven platform where revenues are recurring. The old model was preventing Adobe from keeping its product, and more importantly customers, up-to-date with the most innovative software tools for their work. It also provided openings for competitors to exploit with more frequently updated products.

As Dan Cohen, vice president, Adobe, explained to McKinsey, "Moving to the cloud affected how we engineered the products, our operations, and our go-to-market and business models. [I]n the past . . . . . we would take 18 to 24 months between major launches of new products. Nowadays, two years is an eternity."

If you want to know what that means for the bottom line, well, according to McKinsey, Adobe's recurring revenue has climbed from 19 percent in 2011 to 70 percent of total revenue today. The number of paying subscribers is more than four million and rising. That's a pretty remarkable shift over a relatively short period of time.

Now let's take a look at HP, one of the most venerable technology companies, which decided in 2015 to effectively split into two separate businesses. As two different entities, HP Inc. and Hewlett Packard Enterprise have the freedom to pursue the business models and innovations that make the most sense for each of them. HP had to disrupt itself and its approach to technology to be more nimble and empower employees to make data-driven decisions supporting the organization's global operations and growth.

Breaking an established business into two new entities is not an easy task. Creating the business and technology infrastructure to support this change meant HP needed to consolidate existing tools accrued over many years. The transformation saw HP build 4,000 servers and manage 500 projects across 170 countries.

How Do You Embrace Disruption?

Successful, growing organizations, whether they're companies that disrupt others or ones that disrupt themselves, share some common traits. Embracing disruption means businesses must be agile, able to react quickly to changing market conditions and roll out new products and services globally. They need to be able to scale up rapidly. They embrace change and view innovation as a long-term strategy, not a short-term fix.

These businesses also share a recognition that regardless of what particular industry segment they participate in or the type of product or services they make, it's their workforce that fields disruptive innovations. People need access to the right tools and the right information to decentralize decision-making and base decisions on real-time data, not instinct. They use that data to strategically bet on the future and decide where to invest money and human capital. Successful organizations effectively manage two key assets—people and money—as two sides of the same coin.

> Embracing disruption means businesses must be agile and able to react quickly to changing market conditions . . .

The dynamic nature of business today means constant change, and companies need business systems that support this level of flexibility. And, therein lies the fundamental problem for many organizations. The same business systems that at one time got the job done—however painfully or imperfectly—are now preventing organizations from keeping up with other faster and more agile businesses that are not bound by the same technological constraints. Those legacy technologies simply were not built for this world. Traditional systems were anchored around the supply chain rather than a unified view of people and money.

If businesses are to fully embrace disruption, they need to completely rethink the role of technology in supporting agility, innovation, and growth. They can't expect what worked yesterday will work for tomorrow.

Breaking Barriers: Why Businesses Still Cannot Digitally Transform

Earlier this year, Cisco Executive Chairman John Chambers was quoted as saying, "The majority of companies will be digital within five years, yet the majority of their digital efforts will fail." I found that to be really compelling, especially when you consider that one of the major contributing factors for this failure is that many of the enterprise technologies companies are using were not designed for the reality of business today.

Given the enormous global dynamics surrounding the topic of digital disruption, it's not surprising that businesses have struggled to keep up. In fact, if your software vendor offers you a ten-year roadmap, then it's probably using a crystal ball and educated guesswork. No one can predict the future—but, with the right technology you can build for it.

Cloud computing, ever-increasing processing power, falling storage costs, mobile computing, and the consumer internet have been among the catalysts for transformation. The cloud has transformed the notion of adapting to change, putting the responsibility back on technology vendors to create software that can be rapidly updated to stay in tune with evolving business needs.

Contrast these developments with old-world enterprise systems that were not built for change. They were designed as monolithic systems, require extensive customization to meet specific needs, and are painful and expensive to manage and update. In these systems, scaling up as businesses grow is a long and drawn-out process, leaving little room for businesses to think about innovation.

> Both finance and business managers need systems that can quickly and efficiently bring together actionable information around both their workforce and financial operations

The finance software that comes from this era was designed to do the very specific jobs of automating transactions and accounting. It was created to report a very limited amount of data and for a small set of business stakeholders. For this purpose, and with the technology available at the time, it was very effective. Yet that kind of approach is completely unsuited for the demands of today's businesses. Both finance and business managers need systems that can quickly and efficiently bring together actionable information around both their workforce and financial operations.

Remove Legacy Barriers to Drive Innovation

Many organizations with significant investments in legacy technologies are understandably wary of a "rip out and replace" approach to ensure they have the systems they need to effectively transform their businesses. Yet those legacy technologies continue to hold them back.

I've heard this disconnect summed up perfectly by McKinsey: "More connected consumers, automated processes, and sophisticated analytics place unprecedented demands on IT functions. Many companies are struggling to cope, and they seek to deliver on new demands by adding piecemeal elements to their existing operations."

> Even some of the most established global brands have succeeded when they were willing to challenge their own assumptions and embrace technology transformation and self-disruption

This "piecemeal elements" approach is championed by legacy vendors that are unable to keep up with changing requirements and have tried to adapt by bolting-on missing capabilities to their current technology stacks. Their finance and HR applications became a hodgepodge of acquisitions, connections, and middleware. While bolt-on applications may address specific functional gaps, they can't support business transformation, and they make contending with rapid change pretty much impossible. They're also not designed for how people work given that each bolt-on likely has a different interface and can't easily share data with other systems (even ones from the same vendor).

Digital transformation is impacting all industries, yet companies can keep up if they're too busy maintaining cobbled-together systems. They need a "start with a clean sheet of paper" mindset requiring coordinated rethinking at all levels of the business. That is understandably a scary concept for organizations with investments in legacy IT infrastructure. Yet in speaking to our customers, I've learned that even some of the most established global brands, with their roots in the legacy world, have succeeded when they were willing to challenge their own assumptions and embrace technology transformation and self disruption.

Businesses looking to disrupt before they are disrupted have embraced cloud computing, understand the importance of real-time access to data, and use agile systems that can support changes to business processes and needs. These businesses are embracing disruption head on and see it as an opportunity. It is a storm that shows no sign of shifting any time soon, but those that can stay the course will not only survive, they'll succeed.

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