

FOSTERING A DIGITAL ORGANIZATION: BUILDING SUSTAINABLE DIGITAL ADVANTAGE IN TRADITIONAL COMPANIES

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Digital transformation research has rightly focused on changing business processes and creating transformative leadership. But what does the organization look like once transformation is complete? Our research over the past two years reveals that digital transformation involves much more than just altering a company's business processes and business models. The enterprise must truly reshape itself into a "digital organization," developing digital dexterity, not just digital skills and processes.¹

Digital organizations don't just adopt digital innovations. They have developed the capability to reconfigure both digital and human resources fluidly. They establish partnerships, identify talent, and find experts more readily than those that have not adapted their organizations to take full advantage of digital tools. Although formal top-down structural design still has a role, firms with this dynamic self-organizing capability are able to adapt quickly to narrow windows of digitally-driven customer-facing opportunity. They can respond rapidly to customers' individual needs and preferences, while balancing evolving localized and company-wide needs.

We identified four key characteristics common to these digital organizations: a distinct mindset around digital possibilities, plus the practices, workforce, and resources to make those possibilities a reality (see Figure 1). By fostering these characteristics from the top of the firm, senior executives enable their organizations to adapt at all levels without top-down intervention. They support an organization's current digital capabilities while also positioning it to incorporate successive waves of future innovation.

THE HALLMARK OF A DIGITAL ORGANIZATION IS DIGITAL DEXTERITY, THE CAPABILITY TO DYNAMICALLY DEPLOY AND RECONFIGURE HUMAN AND CAPITAL RESOURCES APACE WITH RAPIDLY CHANGING TECHNOLOGY AND MARKET CONDITIONS.

IN THIS RESEARCH BRIEF

- True digital transformation requires enterprises to reshape themselves into digital organizations with digital dexterity.
- There are four key characteristics common to truly digital organizations.
- Digital operations can release tensions associated with traditional design choices, turning "either-or" into "and."
- Leaders must foster a digital mindset, build consensus about responsibilities without regard to traditional boundaries and roles, and continuously foster the conditions for values and norms, such as collaboration, self-organization, and entrepreneurial engagement, to flourish.

¹This brief summarizes research from MIT-IDE projects sponsored by Capgemini Consulting and Haier Group respectively. It draws on the following MIT-IDE reports:

- ["Becoming a Digital Organization: The Journey to Digital Dexterity"](#) (September 2015).
- ["Digital Organization and Leadership: A Study of Digital Attitudes, Practices and Outcomes at Haier"](#) (November 2015)

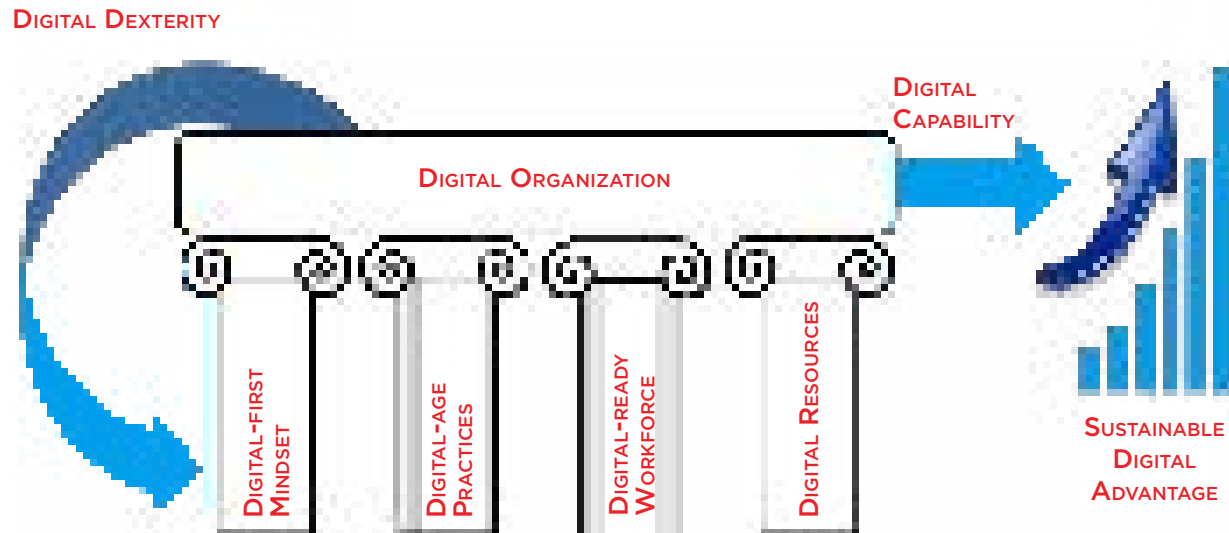


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FIGURE 1: ORGANIZING FOR SUSTAINABLE DIGITAL ADVANTAGE



FOUNDATIONS OF A DIGITAL ORGANIZATION

The first foundational pillar of digital organization is a **“digital-first” mindset** – an instinctive, positive and proactive attitude toward digital possibilities. People throughout the firm tend to explore digital solutions before manual ones, to seek opportunities to use technology for advantage, and to approach data systematically. The CTO of a major digital services platform describes it this way: “Our approach, in general, is to leverage technology first and think about a technical solution. We’re always going in with the assumption of using a digital solution... if it’s an opportunity we want to pursue [it] in a way that’s scalable.” Companies with strong digital mindsets believe that their aspirations are attainable. They understand the opportunities and risks of engaging with digital solutions, and they proceed confidently.

The next pillar is a set of **digital-age practices** that position the organization to learn and adapt rapidly. Enterprises digitize their operations, using data to document, monitor, and automate internal processes ever-more precisely. Building upon this base, they practice data-driven decision-making, consistently using data and systematic analysis

to make important decisions. An online retail enterprise executive explained: “Digital is the backbone of our operations as a company... We basically capture everything that happens on our website... All decisions we make and basically all the ways that we operate are 100% driven by data and analytics.”

A third digital practice is collaborative learning – sharing information readily across locations, disciplines and status boundaries to solve problems. Insights from each part of the organization move rapidly into other parts of the organization. An executive from a technology firm well along in its digital transformation observed, “the flow of contingent information creates immediate awareness and builds alignment around goals and procedures in real time.”

These digital practices are mutually reinforcing. Collaborative learning builds on digitized operations and data-driven decision-making; insights to refine decision algorithms emerge from collaborative learning efforts. For example, at a durable goods company in transformation, small entrepreneurial product units utilize data from customer social media analysis and shared manufacturing capabilities to repeatedly deliver and refine novel products.

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The third foundational pillar is a boundary-spanning **digital-ready workforce**. Digital organizations perceive their “workforces” broadly, envisioning partners, customers, employees, and contingent workers as resources to achieve enterprise goals. In successful digital-age firms, routine tasks are increasingly automated. As a result, leaders in these firms seek engaged and self-directed workers who can take on challenges that automation cannot address. They appreciate and trust their workforce, giving them discretion to act effectively with the vast digital resources now available. The COO of a digital firm explained that she expects employees to be “able to identify parts of their tasks that can benefit from technology, to free them up to do other things that are often more challenging and interesting.” Her CTO colleague elaborates that “there’s just so much more information these days so employees have to have more discretion and make more decisions independently. So we rely upon individuals to make judgments...to manage the areas of the business that they’re responsible for.”

Of course, **digital resources** are important too. Broad-based access to digital communication and coordination tools facilitates collaborative learning across internal and external boundaries. Integrated operations data enables employees to actively monitor, measure, and improve

operations. Real-time customer data helps workers customize services while also rapidly sensing subtle but important external shifts. As firms realize benefits from acting on these signals, workers use data-driven approaches more consistently. Collectively, these digital resources support intense information processing and broad social connections, a combination that enables timely sensing and powerful responses involving both humans and machines.

THE ROLE OF LEADERS IN FOSTERING DIGITAL ORGANIZATIONS

None of the successful companies we studied established “digital organization” features overnight. Some leaders saw digital as a threat. Others that appreciated the opportunity of digital had not yet achieved a digital-first mindset. As firms made progress, some leaders began to question their organizational capabilities before digital dexterity eventually matured. Moreover, digital organization advances unevenly. For example, at a multi-product conglomerate marked by a well-developed and widespread digital-first mindset, traditional businesses still felt threatened by digital and noted their relative lack of digital skills; newer business groups were much more optimistic about their digital opportunities and capabilities.

WHY STUDY DIGITAL’S INFLUENCE ON ORGANIZATION?

In the past, organizing choices of how to divide and coordinate work among multiple people often involved trade-offs. Simply put, a particular combination of roles, relationships, and priorities optimized towards one goal was often less supportive of another goal. Increasingly, however, digital operations can release tensions associated with traditional design choices, turning “either-or” into “and.”

Consider design choices for decision-making. Hierarchies strengthen centralized control but often hinder the ability to adapt quickly to local needs. Increasing frontline workers’ decision-making power can facilitate responsiveness at the expense of centralized control. Now, with the aid of digitized information and operations, companies such as UPS and Amazon practice both strong central control and local responsiveness.

Our research found no clear archetypes of effective digital-age organizations. However, through interviews with executives from traditional and born-digital companies, supplemented with surveys on another 130 companies and in-depth analysis at others, we have identified a set of practices that enable even large traditional companies to become digital organizations with the dexterity to compete in a digital age.

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THE ROLE OF LEADERS IN FOSTERING DIGITAL ORGANIZATIONS (CONTINUED)

The path to becoming a digital organization can be counterintuitive to leaders accustomed to the more control-oriented practices of bureaucratic firms. Leaders cannot force the development of foundational values and norms such as collaboration, self-organization, and entrepreneurial engagement. Instead, their task is to foster a digital mindset, build consensus about responsibilities without regard to traditional boundaries and roles, and continuously foster the conditions for these norms to flourish.

Leaders in digital organizations often *relinquish* control over certain tasks, relying on foundational values and norms to guide their workers' actions. For example, one CTO highlighted the inevitable limits to controlling information in a connected world. Instead the company valued "transparency of information," making it broadly available and encouraging employees to make data-driven decisions independently. An HR executive shared how relaxing control over structure improved dexterity: "People have a natural way of working across boundaries, interdependently, which does not resemble a traditional organization chart..."

We started to remove business lines, and business groups, and those vertical silos. Now, we have one of the most fluid, dynamic organizations in our company's history." Leaders of a global products firm, realizing that headquarters could never respond nimbly enough to fast-changing customer demands, increased the autonomy of front-line employees and encouraged employees to start their own micro-enterprises. Company leaders articulated strong shared cultural narratives and implemented robust digital platforms to facilitate distributed entrepreneurial effort, efficiency, and collaboration across units and beyond the boundaries of the firm.

In conclusion, it takes more than tenacity and tools to gain sustained advantage from digital technologies. Successful digital-age enterprises are still "people-powered" -- able to develop capabilities dexterously because people think, act, and organize themselves in new ways. This is a critical lesson: as organizations digitize and automate processes, they still rely on human motivation, creativity and initiative to thrive and grow. It is leadership's job, then, to set the tone and conditions so that workers flourish personally when they use digital technologies to help the business flourish.

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