



23 & You:

How many traits of digital DNA does your company have?

Given how frequently the words “digital” and “transformation” appear side by side, it’s easy to overlook the real distance between them. After all, digital technology—understanding it, as well as implementing it—represents just one of many challenges organizations need to conquer to orchestrate a full transformation. And achieving a digital transformation transcends any single technology implementation, whether it be artificial intelligence (AI), internet of things (IoT), or virtual reality (VR).

As more companies embark on the journey toward digital transformation, however, not all travel at the same pace. The extent to which an organization can weave its insight into digital capabilities throughout its culture—embedding it in every function and activity—is a measure of its digital

maturity. And the most digitally mature companies are those that possess a common set of traits that determines how they organize, operate, and behave (see Figure 1). Despite the inevitable missteps, digitally mature organizations stay focused on growing more agile and polishing skills, such as continual innovation and intentional collaboration.

This “DNA” of digitally mature businesses actually consists of 23 traits, identified by Deloitte Consulting LLP over three years. In parallel, Deloitte collaborated with [MIT Sloan Management Review](#) on a four-year research project,¹ which drew more than 16,000 respondents from 157 countries and 28 industries and forms the basis of a new book, *The Technology Fallacy: How People are the Real Key to Digital Transformation* (MIT Press, April 2019).

In the book, the authors tie Deloitte’s work on digital DNA to their research findings to provide a framework for isolating and prioritizing the most critical digital traits, mapping a series of incremental changes aimed at infusing existing DNA with the digital kind.

For finance executives who understand the potential of digital technology, enumerating those traits can help overcome challenges as they strive to articulate goals and align the funding needed for digital transformation. In this issue of *CFO Insights*, we’ll discuss how CFOs can assess how digitally mature their companies are, how digitally mature they need to be, and how they can absorb digital DNA. ➔

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More digital by the day

In the Deloitte/MIT SMR research, 85% of respondents agreed that digital transformation was integral to business success. As broad and compelling as an organization's vision may be, however, achieving a high level of digital maturity means committing to a relentless day-by-day climb, making investments in infrastructure and skills that can test a company's willingness and ability.

Companies will inevitably bump up against any number of obstacles, including burdensome governance processes, outdated practices, and leaders who may be overly attached to the status quo. Among survey respondents, 50% reported that traditional business practices interfere with the ability to engage successfully in digital business.

Those obstacles only serve to make an argument for imbuing a company with digital DNA. To do so, though, requires vigilant executives capable of making a strong case

and ensuring that the company is investing in capabilities that reinforce their digital vision. They also have responsibility for aligning elements of the company culture— incentives, training, and hiring practices— with its emerging digital incarnation. An organizational culture powered by digital DNA supports employees eager to experiment with digital technologies to come up with innovative ways of creating value.

For digital DNA to flourish, it's also up to those leaders to identify broad aspects of the organization's culture that need to be better adapted to a digital world. Then by making minimally viable changes— big enough to inject some digital DNA, but small enough to minimize resistance and rejection— companies can rebuild practices and mindsets, transforming hearts and minds. (See ["The technology fallacy: Embracing the human face of digital transformation," CFO Insights](#), October 3, 2019).

Based on the 2018 Deloitte/MIT SMR research findings, many companies have a lot of growing up to do, given the digital traits many have yet to display. Two-thirds of respondents said they were dissatisfied with the degree to which their organization supports ongoing digital skill development. In addition, 78% of early-stage companies aren't pushing the decision-making authority needed into lower levels of the organization. And overall, respondents reported that the biggest challenge impacting their company's ability to compete in a digital environment is lack of experimentation.

To help lift their level of digital maturity, leaders should apply three criteria:

1. Identify a digital ambition that is meaningful, rapid, and measurable to achieve.
2. Team up with a sponsoring leader who is open to new approaches and eager to participate.
3. Form teams consisting of members who are very capable and equally enthusiastic to learn.

Figure 1



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Still, no matter where a company begins its efforts, it's important not to become too fixated on the technology itself, be it deep learning or blockchain. The objective isn't to become more digital, it's to improve performance using digital means.

Traits of digital DNA

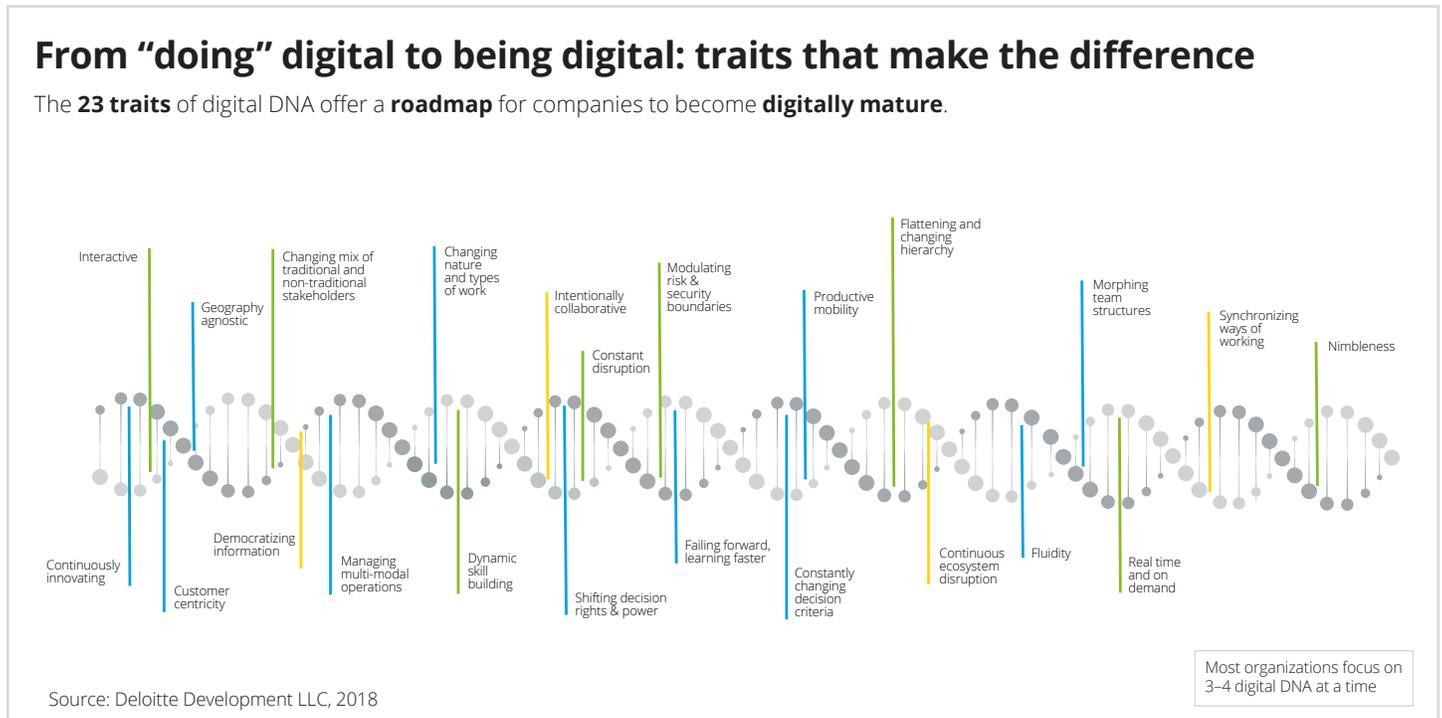
The 23 traits associated with digital DNA are not meant to be consumed in one sitting (see Figure 2). It's not only impractical—different parts of the company are likely to have reached different levels of digital maturity—but also unnecessary. Some of the more digitally mature functions or units can serve as role models for the rest of the organization.

For starters, organizations should focus on three-to-five traits from the full list below that could potentially have the most impact in the next 12 to 18 months. Consider which traits, if spliced into your organizational DNA, could drive the most value in that time frame. Keep in mind, however, that the journey will likely mean remaking or replacing legacy systems, organizational structures, and workflows.

Dominant traits of digital DNA:

- **Changing mix of traditional/nontraditional stakeholders.** In a team-based, networked environment, nontraditional stakeholders may exert a greater impact on outcomes. Rather than being ignored, which could be perilous, companies need to recognize and engage with them.
- **Changing nature and types of work.** Digital innovations invariably change what work is and how it gets done (e.g., robots, AI). Job descriptions, tasks, skills, and requirements often become highly fluid.
- **Constant disruption.** In the digital environment, some disruptions amount to mostly noise, while others are disintermediating. Organizations should learn how to work in an environment of ongoing disruption.
- **Constantly changing decision criteria.** Decision inputs and outputs multiply and shift dynamically with digital systems, as does the responsibility and time frame for making decisions.
- **Continuous ecosystem disruption.** Rapid evolution of how work gets done, where work gets done, and who does the work is disrupting traditional ecosystems and affecting interactions. A company's ability to thrive nonetheless is a key differentiator in the digital era.
- **Continuous innovation.** New ideas and different applications of those ideas supply fuel for digital transformation. Companies need to continuously develop more effective solutions, including products, services, processes, technologies, and business models.
- **Customer centricity.** Organizations should focus on putting customers at the center of their thinking and development around processes, products, and decisions.
- **Democratizing information.** Digital systems tend to blur who has access to which data and from what sources.
- **Dynamic skill building.** In organizations characterized by constant innovation, training talent in the skills of adaptability and flexibility is paramount.
- **Failing forward, learning faster.** As organizations focus on speed, quickly trying out new and incomplete products/services, teams need a process for reflecting on what they've learned, making rapid adjustments, and trying again.
- **Flattening and changing hierarchy.** In a digital environment, there is generally much less need for layers of structure.
- **Fluidity.** Digital organizations need to move from one solution or situation to the next, smoothly adjusting to shifts in such areas as resources and operating models.
- **Geography agnostic.** Technological advances, combined with trends in mobility, are blurring the meaning of "place" or "location."
- **Intentionally collaborative.** Beyond sharing, such deliberately cooperative behavior needs to occur across teams, functions, business units, and even beyond the organization.
- **Iterative.** Based on trial and error, analytic insights, and feedback from development teams, companies need to update and improve processes, policies, and products/services.
- **Modulating risk and security boundaries.** For digitized information to spread, it must be shared over multiple devices. As a result, cybersecurity requirements should be balanced with needs for access.
- **Morphing team structures.** In digitally maturing organizations, teams—which can be composed of employees, partners, and vendors, among others—should be able to form and disband as needed.
- **Multimodal management.** Digitally maturing companies should be able to function effectively in different modes of operation simultaneously (typically legacy systems and modern digital operating models).
- **Nimbleness.** Organizations need to develop the capabilities to adjust to rapid and/or unexpected change. Speed, skill, alignment, resourcefulness, and adaptability should be cultivated in employees, as well as in systems, policies, governance, and so on.
- **Productive mobility.** Mobile technologies are reshaping the workplace and require an effective strategy for productivity, including technology and workspace considerations.
- **Real time and on demand.** Customers, suppliers, partners, and employees now expect information and applications to be available in updated versions on demand, and available on a variety of platforms and devices.
- **Shifting decision rights and power.** As a consequence of new workflows and processes, decision rights change, meaning that input from employees and customers are in perpetual flux.
- **Synchronizing ways of working.** The legacy organization moves at a slower pace than emerging digital operations. To smooth over the unevenness, companies should rewire the infrastructure to synchronize the two.

Figure 2



Avoiding random acts of digital

Digital transformation represents a threat to traditional ways of working. Tinkering with the technology, pursuing random acts of digital here and there, almost invariably sets off a backlash. Moreover, sporadic attempts to go digital may delude executives into thinking they are undertaking transformation, but such activities will neither enable them to disrupt, nor protect them from disruption.

Instead, by nurturing digital DNA, an organization can change in ways that enable it to do things differently and create new value-generating business models. CFOs and other executives, who may feel more comfortable dealing with costs and strategy, as opposed to culture, need to communicate a vision of their digital future. By educating and updating, they can win over employees—and, in the process, grow more and stronger digital DNA.

As urgent as the shift may feel, cultural evolution takes time—and there is no end state. Given how fast the world is changing, it’s impossible for companies to reach a final state of being digital; they must constantly identify, iterate, and evolve. In successfully balancing speed with perfection, they fortify their digital confidence. And in time, the aim should be that digital DNA becomes indistinguishable from the organization’s everyday DNA. ↻



Endnotes

1. Analysis of each year's survey results is included in several *MIT Sloan Management Review* articles: [Strategy, not Technology, Drives Digital Transformation](#), July 2015; [Aligning the Organization for Its Digital Future](#), July 2016; [Achieving Digital Maturity](#), July 2017; and [Coming of Age Digitally](#), June 2018.

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