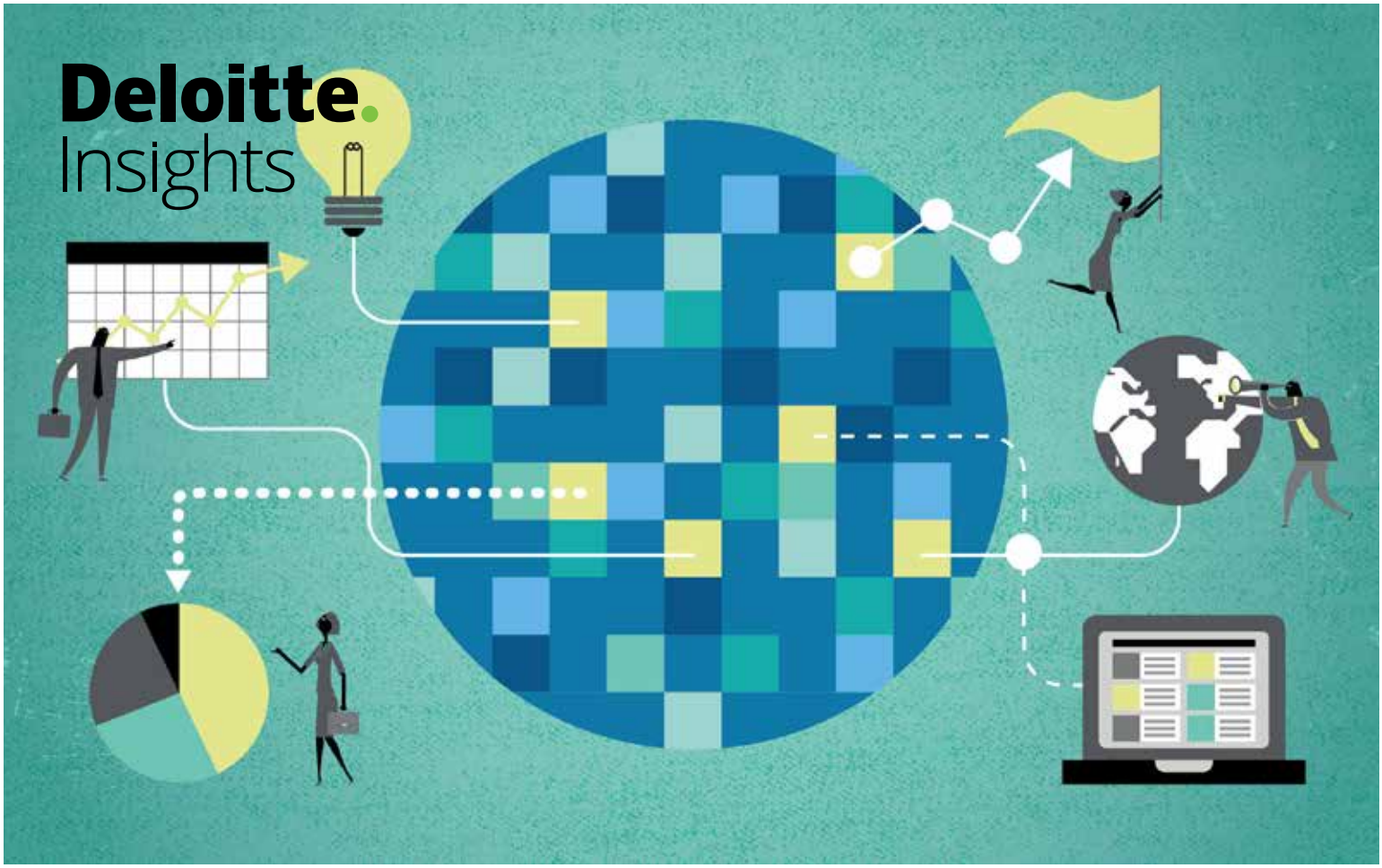


October 2017

CIO Insider

Stepping up: The CIO as digital leader

By: Khalid Kark, Anthony Abbatiello, Anjali Shaikh, and Caroline Brown

Introduction

Digital technologies impact nearly every organization, regardless of industry, market, or geography. Two-thirds (67 percent) of the 1,217 CIOs who participated in Deloitte's 2016–2017 Global CIO Survey say that digital is the technology area that will have the most impact on their businesses in the next two years.[1]

Some organizations are disrupting through digital, while others are being disrupted. Three times as many participants in the 2017 MIT Sloan Management Review/Deloitte Digital Business Global Executive Study—which surveys more than 3,500 participants—say they are using digital to "do business in fundamentally new and different ways" rather than to simply "do what we've always done, but faster and cheaper."[2] Each organization's response to digital disruption will be unique to their business strategy.

CIOs' technology experience can position them to lead digital change if they can also contribute to business strategy development, leverage ecosystems, create talent and culture models that disrupt the status quo, and use technology to change long-standing revenue models and operational structures across business functions. Yet CIOs are not always the only digital leaders in an organization—complex environments can require them to support or partner with others.

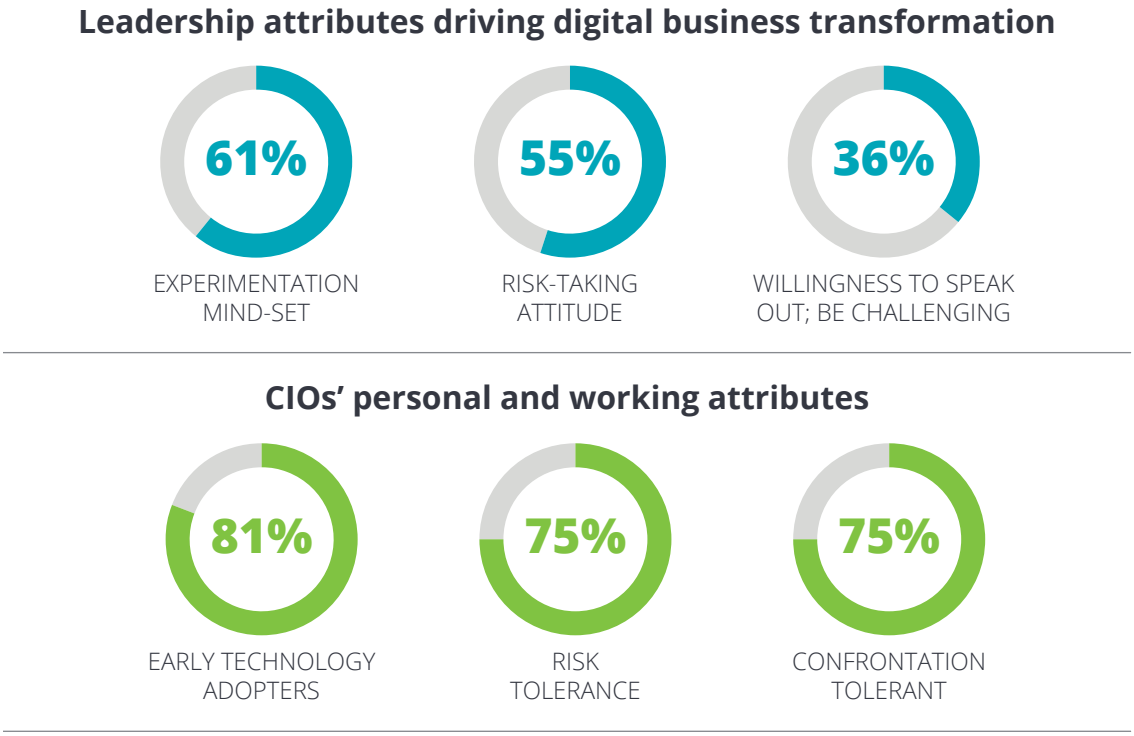
This *CIO Insider* explores the CIO's role in leading, shaping, and managing the digital business. Leveraging Deloitte's *2017 Global Human Capital Trends* report, which identifies three types of digital leaders,[3] we surmise that CIOs can contribute to the organization's digital agenda by stepping up in one or more of three areas, depending on business priorities: strategy, ecosystem, and transformation.

CIOs are uniquely positioned to drive digital

CIOs are uniquely positioned to balance the demands of business transformation and constraints of technology capabilities. Yet, many are often too busy to give digital change the attention it needs to be successful.

CIOs have the technology expertise, but to drive and support their organizations' digital agendas, they likely will also need the skills to build cross-functional teams; keep people connected and engaged; and create cultures of innovation, risk tolerance, and continuous improvement. CIOs have the appropriate personality traits and work styles to take on the digital leader role, as an analysis of data from two separate studies shows. Participants in the 2017 Digital Business Study identified the top lead-

Figure 1. CIOs have the leadership traits to drive digital business changes



Source: 2016–2017 Deloitte Global CIO Survey, N=1,175; 2017 Digital Business Global Executive Study, N=3,564.

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ership attributes needed to drive digital business transformations as an experimentation mind-set (61 percent), risk-taking attitude (55 percent), and willingness to speak out (36 percent).[4] These characteristics track closely with CIO personality traits and business acumen identified in the 2016–2017 Global CIO Survey—81 percent of CIOs are early technology adopters, 75 percent are risk tolerant, and 75 percent tolerate confrontation (figure 1).[5]

CIOs tasked with leading digital agendas leverage these traits—in combination with their considerable technology expertise—to think, act, and react differently and help their organizations succeed.[6] By applying Deloitte's digital leadership model[7] to CIOs and their role in the digital agenda, we find that CIOs can emerge as digital leaders in their organizations by stepping up and demonstrating that they can:

1. **Drive strategy** by leading or significantly contributing to their organizations' digital business strategies. CIOs can be disrupters who understand the business context deeply and are instrumental in developing digital capabilities to enhance top-line growth and revenue. Their experience may enable them to lead emerging business functions or strategic innovation initiatives.
2. **Build ecosystems** and embrace the venture capital mind-set by uncovering opportunities, forging partnerships, and building business ecosystems that foster innovation. CIOs can invest in building digital capabilities by going beyond in-house resources. They orchestrate capabilities from across the ecosystem, which can include a diverse mix of small-scale organizations, such as venture capital and private equity firms, start-ups, innovation hubs, and business schools.
3. **Transform business** and help their organizations deal with radical changes and complex business transformation efforts by supplying the technologies and capabilities to enable those change efforts. Often, the majority of a CIO's digital responsibilities fall in this area, which can be difficult to manage because of the cultural change required not only in IT, but also within the enterprise.

Drive strategy to navigate around the digital iceberg

Some business leaders mistakenly believe "digital" is their business strategy. In reality, although digital efforts support and enable business strategy, they cannot replace it. Thirty-nine percent of participants in the 2017 Digital Business Study say their organization needs to improve strategy and innovation to reach its ideal digital state.[8]

However, a majority of CIOs are still not focusing on strategy. According to the 2016–2017 Global CIO Survey, only 34 percent of CIOs say they are currently playing a strategic role in their organizations. These CIOs spend a majority of their time driving business strategy, leading innovation initiatives, and enabling business change to help ensure effective strategy execution. Perhaps because they are focused on developing and executing strategy, they are also able to influence and establish strong relationships with other C-suite and functional leaders across the enterprise to drive a cohesive cross-functional digital strategy. One of their primary goals is to fuse technology with business strategy.[9]

> Only 34 percent of CIOs say they are currently playing a strategic role in their organizations.[10]

Research has shown the importance of establishing and maintaining a cross-functional digital strategy. Nearly half (47 percent) of those surveyed in the 2017 Digital Business Study agree or strongly agree that management structure and practices interfere with the organization's ability to engage in digital business successfully.[11] For example, within a single organization, many business leaders may have different expectations of the business's digital agenda, framed in the context of the expectations and priorities of their individual business functions:

The chief operating officer (COO) wants to digitize the supply chain through the Internet of Things (IoT); the chief marketing officer (CMO) makes digital bets on artificial intelligence (AI) and omnichannel customer engagement; the chief financial officer's (CFO's) digital wish list includes financial analytics and blockchain; and so on. These discrete user-facing digital tools and technologies can be thought of as the tip of the digital iceberg (see the sidebar, "The digital iceberg" for more details).

CIOs' valuable technology perspective provides them with the unique opportunity to proactively focus on an enterprise-wide digital strategy. The VP of marketing of a financial services organization that is working on a horizontal digital approach told us, "Within the C-suite, we realize that you have to have an end-to-end view of digital across all the different functional areas and there's a sense of urgency around that. Each one of the functional leaders needs to look at their role differently, and you need to have a good strategy that clearly lays out goals and objectives."[12]

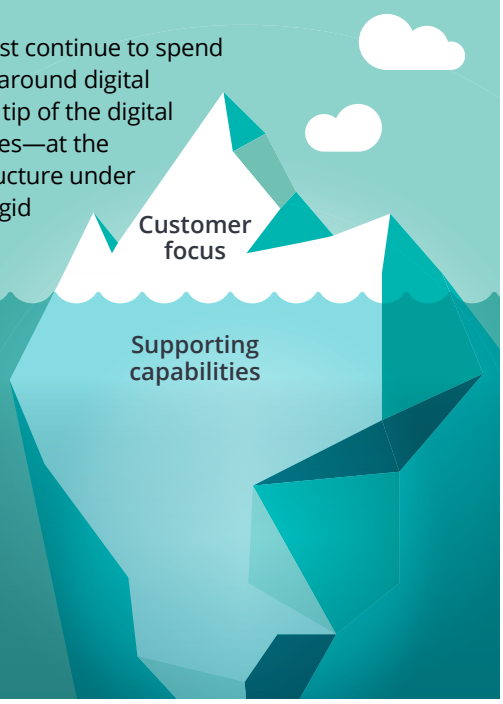
As president of emerging business technologies and global CIO at Merck, Clark Golestani is responsible for the biopharmaceutical company's portfolio of digital health services and solutions companies, including its venture and equity funds. Golestani's previous experience in venture investment enables him to be deeply involved in the oversight of Merck's venture fund, which has invested in more than 40 health tech companies. "Fundamentally Merck is a biopharma company driven by therapeutics, but there is a recognition that the business of the future is going to be more health tech-enabled than not," he says. "We have opportunities in other spaces that can help us leverage health technology and prepare for future disruption."[13]

Build ecosystems to foster rapid innovation

To execute their digital strategies, some organizations may require capabilities and resources that cannot be quickly cultivated internally. Ecosystems can create scale when IT has a resource deficiency, and their support can often help CIOs shift their attention to more strategic activities.

THE DIGITAL ICEBERG

As business priorities shift toward the customer, CIOs must continue to spend time looking at current and future business expectations around digital transformation. Some business leaders may focus on the tip of the digital iceberg—customer-facing, front-end tools and technologies—at the expense of the supporting skills, capabilities, and infrastructure under the iceberg's surface. This can include legacy systems, a rigid organizational culture, and antiquated processes that can encumber the shift toward digital.



Unlike many other CXOs, CIOs commonly have a view of these beneath-the-iceberg capabilities. CIOs' broad technology outlook can give them a unique opportunity to navigate their organizations around the digital iceberg by creating the strategy, platforms, and services to realize a holistic digital enterprise rather than a collection of disjointed departmental investments.

CIOs can contribute to the digital agenda by building capabilities in concert with ecosystem partners. To do this, the CIO focuses on investing in and orchestrating the business ecosystem to drive and support the digital agenda. This likely requires the business ecosystem to expand beyond traditional vendors, suppliers, and other collaborators—although these relationships remain critical—to include innovation labs, technology hubs, business incubators and accelerators, venture capitalist and private equity firms, start-ups, universities, and other organizations that foster rapid innovation.

For example, one large health insurer collaborated with a local health technology incubator to assist health tech start-ups. Through mentoring, roundtable discussions, and other engagement opportunities, the insurer helps entrepreneurs and start-ups design and launch products that tackle some of health care's most vexing challenges. In exchange, the insurer gains access to technologies that can help its customers.[14]

Ireland's Ulster Bank partnered with a provider of co-working space and other companies to create a Dublin-based innovation hub and business accelerator that supports fintech and other start-ups. Ulster Bank uses the environment to integrate with the broader technology ecosystem, including partnering with others to build new products and solutions for the banking sector.[15] The bank recently validated a blockchain pilot project there.[16] "From an ecosystem point of view, we've placed a stake in the ground, deliberately positioning ourselves in the center of Dublin's fintech ecosystem," says Robin Marshall, CIO of Ulster Bank. "It has created a lot of advocacy for what Ulster Bank is trying to do in fintech, and I believe it will help us on the talent front moving forward."[17]

In some organizations, the CIO's ecosystem includes end users. For example, global health care services and products company Cardinal Health established Fuse, an innovation center near its Ohio headquarters where its engineers, creative designers, and scientists work together with pharmacists, physicians, and even patients to understand issues and design and test solutions. Both customers and employees suggest ideas that are screened and tested using agile one-week sprints. "It's not just about bringing people in," says Brent Stutz, senior vice president of commercial technologies and chief technology officer of Fuse at Cardinal Health. "It is about getting them out and observing."[18]

A set of collaborators with diverse skills and capabilities is likely critical. CIOs may be challenged to think past traditional external ecosystem members. Those who are uncertain about collaborating with small, emerging, or low-profile organizations may need to extend beyond their comfort zone by seeking new ecosystem partners to discover new ideas, source or acquire new capabilities, and build out digital skills.

One CIO who had in the past relied on a single vendor as a "one-stop shop" to assist in project execution recalibrated his ecosystem to include multiple collaborators. "Now we have a wider range of suppliers and partners and a much broader set of capabilities to choose from," he says. "We've made room at the table for many more voices and ideas."[19]

CIOs have a lot of room for growth in developing ecosystems, according to the 2016–2017 Global CIO Survey. Less than a third (31 percent) of those surveyed say that leveraging ecosystems and partners is a core organizational capability that is essential to their success,[20] and about the same percentage (32 percent) describe their IT team's capability in this area as leading or excellent.[21]

Thirty-one percent of CIOs surveyed say that leveraging ecosystems and partners is a key ability of a successful technology leader.[22]

Transform business to support digital business

Often CIOs must manage massive change to support digital change. It would be a mistake to categorize this change as operational. On the contrary, CIOs who support business transformation only spend 18 percent of their time on operations; about 41 percent of their time is spent leading change efforts.[23] Although this is likely the most common digital leadership scenario that CIOs will face, only 11 percent of participants in the 2016–2017 Global CIO Survey say that they have taken on this role. Sixty-one percent of these transformation-focused CIOs say they took on the role to deliver digital capabilities to their organizations.[24]

Valvoline's CIO and chief digital officer (CDO) Victor Rios is responsible for all of the company's IT initiatives, as well as digital marketing, e-commerce, mobile technologies, and the digital ecosystem. Since he took on the role in June 2016, Rios has been heads-down driving internal transformation to support the consumer goods company's digital strategy. Projects include the standardization and automation of platforms across the corporate organization and its retailers and an upgrade of capabilities for e-commerce, customer e-learning, and security. "These capabilities aren't always considered 'digital,' but they're required for digital strategy to be successful," he says. "Even these types of foundational changes require cross-functional cultural acceptance and change. Many companies, especially those that didn't grow up during the age of the Internet, have to make a very big mind shift."[25]

Because the digital agenda likely has multiple owners, CIOs often must cultivate strong collaborative relationships with other business and functional leaders. CIOs are responsible for delivering technologies to help these leaders transform work processes that are often decades old—for example, connecting with CMOs to enable customer-centric technologies or COOs to implement the IoT. CIOs also typically provide business transformation and collaboration tools to all business areas to improve information access and decision-making across the enterprise.

> Only 11 percent of participants in the 2016–2017 Global CIO Survey say they spend their time leading change efforts.[26]

At Johnson & Johnson's Consumer Products Division, CIO Jeff Steinhorn and CMO Alison Lewis work in close partnership on digital strategy. "There's so much technology that's driving marketing," says Steinhorn. "Between the digital evolution and the analytics evolution, [the CMO and CIO] have to work together to leapfrog ahead."[27] Lewis concurs. "Very early in my career, IT represented the people who fixed your computer. Now IT is a competitive advantage," she says. "We are dealing with disruption from e-commerce and technology. So the CIO and I partner more closely than ever before."[28]

As Debora Tomlin, CMO of CSAA Insurance Group explains, "I'll never be the person who makes decisions or purchases for technology or manufacturing—that's the CIO. But when it comes to user experience requirements, customer perspective, channel capability, etc., there needs to be a partnership between the CMO, someone in the business, and the CIO."[29]

KEY TAKEAWAYS

Regardless of whether CIOs are involved in strategy, ecosystems, or transformation, these key takeaways can help them drive their organizations' digital agendas.

CIOs are digital leaders—but not necessarily the only digital leader. When it comes to the digital agenda, CIOs can be the most proactive leader in the enterprise. As their organization's technology leader, the CIO likely has a tremendous opportunity to be a booming voice in the digital discussion. With their disposition to accept risk and confrontation, CIOs who have added business leadership skills to their portfolios can step up and lead their organizations' digital efforts.

However, although technology is fundamental, it is only a single variable in a complex equation. Cross-functional collaboration, investments, and commitments can be equally important. Depending on the CIO's role, he or she may be collaborating with or supporting other C-suite executives or functional leaders, multiple types of ecosystem partners, IT talent, and even customers.

Digital is not an initiative—it's a mind-set. Nor is digital a business strategy—although it can support and enable business strategy. Because CIOs have insight into both the external customer- and user-facing technologies at the tip of the digital iceberg and the supporting infrastructure below its surface, they are often in a good position to lead.

"Digital means using technology to grow value for the company and its customers in all areas of the business," says Valvoline's Rios. "Leadership has to commit to a new way of doing business that's focused on how technology can create more value more quickly and in different ways than in the past."

Get to know the end customer. As part of their emphasis on strategy, these digital CIOs should shift their focus to include external as well as internal customers. The 2016–2017 Global CIO Survey data showed a clear link between digital technologies and customer focus—77 percent of CIOs who selected customers as a business priority indicated that they were also investing in digital.[30]

CIOs with insight into customer needs, habits, and preferences can leverage their technology expertise to help create solutions that solve customer problems and exceed customer expectations. This can help them collaborate with other business leaders on digital initiatives.

Digital agendas require digital cultures. CIOs may need to nurture a new type of IT culture that accepts and rewards risk-taking, fast failure, iterative development, agile delivery, experiments, pilot tests, and cross-functional project teams.

The digital culture should extend beyond IT into the entire enterprise. "One of the greatest challenges in executing digital strategy is the culture in the organization," says Merck's Golestani. "You can get IT colleagues to shift and move fast but to really drive change and move quickly, the entire business has to be more agile."

Lead, follow, or get out of the way. General George S. Patton's advice can be applied both to CIOs seeking to lead digital agendas and businesses striving to become digital market leaders. A proactive approach to digital leadership will likely be more successful than a reactive one. For CIOs, this likely requires developing the needed business leadership skills, being responsive to the needs of the business in choosing a digital leadership role, and developing an operations model that supports continual innovation and experimentation to gain and maintain competitive advantage.

ENDNOTES

1. Khalid Kark, Mark White, Bill Briggs, and Anjali Shaikh, *Navigating legacy: Charting the course to business value*, Deloitte University Press, p. 57, November 10, 2016.
2. Gerald C. Kane, Doug Palmer, Anh Nguyen Phillips, David Kiron, and Natasha Buckley, *Achieving digital maturity*, Deloitte University Press, p. 20, July 13, 2017.
3. Deloitte's 2017 *Global Human Capital Trends* report identified three types of digital leaders: digital pioneers who lead winning digital strategies; digital investors who build ecosystems where innovation thrives; and digital transformers who manage radical business transformation. For more information, see Anthony Abbatiello, Marjorie Knight, Stacey Philpot, and Indranil Roy, *Leadership disrupted: Pushing the boundaries*, Deloitte University Press, February 28, 2017.
4. Kane, Palmer, Phillips, Kiron, and Buckley, *Achieving digital maturity*, p. 25.
5. Kark, White, Briggs, and Shaikh, *Navigating legacy*, p. 6.
6. Abbatiello, Knight, Philpot, and Roy, *Leadership disrupted*.
7. Ibid.
8. Kane, Palmer, Phillips, Kiron, and Buckley, *Achieving digital maturity*, p. 21.
9. Kark, White, Briggs, and Shaikh, *Navigating legacy*, p. 47.
10. Ibid.
11. Kane, Palmer, Phillips, Kiron, and Buckley, *Achieving digital maturity*, p. 22.
12. Anonymous VP of marketing interview, October 2, 2017.
13. Clark Golestani interview, September 28, 2017.
14. HCSC, "Health Care Service Corporation announces collaboration with MATTER to foster health technology research and innovation," July 30, 2015.
15. Dogpatch Labs, "Partners: Ulster Bank," accessed September 17, 2017.
16. Ciarán Hancock, "Banks join forces to test new payment technology," *Irish Times*, May 15, 2017.
17. Robin Marshall interview, May 10, 2017.
18. Kane, Palmer, Phillips, Kiron, and Buckley, *Achieving digital maturity*.
19. Anonymous CIO interview, September 28, 2017.
20. Kark, White, Briggs, and Shaikh, *Navigating legacy*, p. 56.
21. Ibid., p. 57.
22. Ibid., p. 51.
23. Ibid., p. 27.
24. Ibid., p. 29.
25. Victor Rios interview, September 28, 2017.

26. Kark, White, Briggs, and Shaikh, *Navigating legacy*, p. 29.
27. Jeff Steinhorn interview, August 2, 2017.
28. Alison Lewis interview, August 11, 2017.
29. Deborah Tomlin interview, May 4, 2017.
30. Kark, White, Briggs, and Shaikh, *Navigating legacy*, p. 22.

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ACKNOWLEDGEMENTS

The authors would like to acknowledge **Siri Anderson** of Deloitte Digital and **McKenna Begin** of the Deloitte CMO Program for their thoughtful insights and invaluable logistical support.

Deloitte *CIO Insider* is developed by the Deloitte CIO Program's Research and Insights team. This issue would not have been possible without the expert data analysis and quality assurance provided by **Keara O'Brien** and **Allen Qiu**.

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