The Digital Workplace is Key to Digital Innovation

Success in the digital era at established companies depends on transforming how work is done to create digital workplaces and improve employee experience. This entails addressing two dimensions—responsive leadership and employee connectedness—with three design levers for each dimension. Based on the transformational journeys of three established companies, we show how digital workplaces drive success and how IT leaders play a critical role in the transformation. We provide recommendations for CIOs about to embark on workplace transformation journeys.

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Succeeding in the Digital Economy Requires New Ways of Working

Traditional, large companies have structured work—and work environments—for their employees based on command-and-control models. They have created clearly defined managerial hierarchies with controls and well-documented and well-executed business rules framed around organizational silos. Such structures have worked well for designing efficiency into the organization. However, as companies respond to digital disruption by building new customer experiences (integrating products and services to provide customer solutions that are delivered faster), traditional command-and-control structures make it much harder for employees to respond rapidly to customers’ demands and needs. At the very time when companies need their employees to work faster and more collaboratively for rapid innovation, they place command-and-control “speedbumps”\(^2\) in their way that slow them down and make working life complex.

Employees’ working environments in traditional organizations are characterized by siloed technologies, segregated physical spaces and asynchronous email communications. Behaviors,

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1 Nils Urbach is the accepting senior editor for this article.

2 By “speedbumps,” we mean any practices implemented for different purposes related to rules, or simply still in place in the form of legacy infrastructure, that are slowing work and making it more difficult.
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Technologies and physical constraints in these workplaces result in a fundamental disconnect between what employees can accomplish and what companies need them to do in the digital era.

Companies are increasingly responding to the challenges of the digital era by redesigning how their employees work. We refer to the outcomes of these initiatives as "digital workplaces." We define digital workplaces as "the physical, cultural and digital arrangements that simplify working life in complex, dynamic and often unstructured working environments." IT leaders have to guide these initiatives and collaborate effectively with senior business leaders across the company to make them a success.

The research findings presented in this article are based on a series of semi-structured interviews with executives involved in designing and managing digital workplaces. The purpose of the interviews was to understand:

1. How high performing companies redesign their workplaces to enable employees to work effectively in the digital era
2. How these workplaces create business value

Our research showed that the digital workplace transformation journeys in high performing companies are designed to enhance employee experience by addressing two digital workplace dimensions: (1) employee connectedness and (2) responsive leadership. The IT function plays a vital role both in framing these two dimensions and in leading investments, as described in the next section.

The findings also draw on case evidence from three of the most insightful companies in our study: DBS Bank in Singapore, Deloitte Australia and AUDI in Germany. (The research methodology that underpins this article is described in the Appendix.) The experiences of these companies illustrate how digital workplaces can successfully enable and support digital business strategies. We describe the three companies' transformation journeys and show how they all focus on employee experience as an integral component of their ability to deliver customer-focused innovation. Although there are similarities in what these three companies did to build effective employee experiences, there are differences in how they approached both employee connectedness and responsive leadership. The article concludes with valuable lessons derived from these three cases for CIOs and IT leaders of companies embarking on a transition toward digital workplaces.

Effective Digital Workplaces Require a Dual Focus on Employee Connectedness and Responsive Leadership

Designing a digital workplace requires leaders to address two dimensions: employee connectedness and responsive leadership. From our interviews, during which companies described their investments in digital workplace capabilities, we identified six design levers—space, systems and social (which address the employee connectedness dimension), and sustaining leadership, systemic learning and symbols (which address the responsive leadership dimension). Figure 1 depicts the two digital workplace dimensions and the six design levers.

The Employee Connectedness Dimension

Connectedness refers to the extent to which employees can engage with each other, with stakeholders and customers, with information and knowledge, and with ideas. Traditional command-and-control work environments typically inhibit connectedness, particularly across functional or product silos, geographies and company boundaries.

We found that high performing companies were working to improve employee connectedness with various integrated approaches using three design levers that

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3 High performing companies in our study score highly on our industry-related performance measure that includes revenue growth, profit growth, growth in market share, ability to attract new customers and employee satisfaction.

4 A summary of this study can be found in Dery, K., Sebastian, I. and van der Meulen, N. “Building Business Value from the Digital Workplace,” MIT CISR Research Briefing (16:9), September 2016.

enhance digital and physical communication: systems, social and space (as shown on the left side of Figure 1).

These companies implemented new technologies to support and enable work activities needed for rapid innovation and for delivering more integrated customer experiences. They focused on offering the latest technology solutions (e.g., videoconferencing, mobile phones, robotics and IoT [Internet of things] sensors) to make it easy to find (new) colleagues and collaborate anywhere, at any time. They used (enterprise) social media platforms to reach out to employees, speed up collaborative work and support "ideation" (forming new ideas)—both internally and externally. Finally, these companies designed inspiring physical spaces that were open, flexible and activity based, with the specific aim of supporting collaboration and creating new interpersonal connections.

These companies also overcame the constraints of traditional organizational boundaries by supporting teleworking, creating innovation hubs and engaging with partners to enable new ways of knowledge sharing, as well as providing opportunities for employees to work in co-working spaces. In combination, these initiatives created a collaborative, integrated employee experience that was essential for delivering more complex customer solutions.

The Responsive Leadership Dimension

Responsive leadership refers to the extent to which management prioritizes the activities that focus on the development and continuous improvement of employee experience in the organization. We found that high performing companies were working to build responsive leadership using three design levers that focus on driving new behavioral norms throughout the organization: a sustained leadership focus on employee experience, systemic learning mechanisms and symbols that make the workplace strategy explicit (as shown on the right side of Figure 1).

To develop responsive leadership, traditional companies that embark on a digital
transformation must change their management mindset. In high performing companies in our study, responsive leaders facilitated workplace design rather than directed it. They were open to employee initiatives and responsive to feedback on employee experience. They continuously engaged with senior management and middle management to develop workplace effectiveness. These leaders encouraged experimentation with new technologies and new approaches to work, had a high tolerance for dynamically re-evaluating and changing workplace initiatives, and provided continuous learning opportunities. Their focus on systemic learning meant they continuously gathered data from multiple sources (employees, but also IoT sensors, IT helpdesk queries and continuous performance feedback systems) to enable evidence-based decision making on workplace design.7

Responsive leadership also includes communicating a clearly articulated vision that links new workplace design to the strategic objectives of the organization, and driving new behavioral norms. Responsive leaders create symbols and brands to highlight the importance of the workplace strategy for digital innovation.

We observed that IT leaders in many high performing companies took the primary role in developing responsive leadership and employee connectedness. To perform this role, they tended to form cross-functional digital workplace leadership teams with representatives from HR, facilities, legal and internal communications departments.8

Three Workplace Transformation Journeys

The three workplace transformation journeys described below started between six and 10 years ago and are ongoing. Each organization's journey has reaped considerable success: DBS was recently named the world's best digital bank; Deloitte Australia has risen from the lowest performing professional services firm in the market to No. 2—and is snapping firmly at the heels of No. 1; and AUDI has received several innovation awards and was ranked as the 36th most valuable brand worldwide.9 While the successes are quantified in terms of their customer-facing value creation, all three firms consider workplace transformation to be at the heart of their achievements. They have all addressed both employee connectedness and responsive leadership in significant ways.

Table 1 summarizes the three case organizations and their digital workplace transformation journeys. All three have innovation at the heart of their workplace transformation strategies, and each provides lessons on how to successfully transform and illustrates approaches to enhancing employee experience.

The three cases represent companies in different industries and different countries, with various approaches to digital transformation and the design of digital workplaces. DBS Bank in Singapore recognized the need for rapid transformation from a traditional (and successful) banking model to meet the future challenges of a digitally transforming world. Deloitte Australia, in contrast, achieved a significant turnaround from a low performer to a company that is now an industry leader with digital strategy at its core. It recognized that there was an opportunity to reverse its fortune and capitalize on opportunities made possible by new digital capabilities. Transforming the behaviors and norms of employees and the way they worked was central to the extraordinary turnaround at Deloitte Australia. Investment in the digital workplace has positioned the company well in a professional services environment that is increasingly characterized by digital innovation. AUDI in Germany is a successful company whose leadership recognized the impending threat of digital disruption in car manufacturing. Senior business leaders saw innovation as the way forward, and AUDI developed an innovation portfolio with digital workplace initiatives as a key component.

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8 For a discussion on more responsive ways of leading flexible, mobile workplaces, see Van Heck, E., van Baalen, P., van der Meulen, N. and van Oosterhout, M. “Achieving High Performance in a Mobile and Green Workplace: Lessons from Microsoft Netherlands,” MIS Quarterly Executive (11:4), December 2012, pp. 175-188.

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Case 1: How DBS Bank Reshaped the Future of Banking

"It is not just about developing mobile apps but about rethinking the organization. How do you rewire an organization [for digital transformation]?” David Gledhill, Head of Group Technology and Operations, DBS Bank

DBS Bank is the largest bank by assets in Southeast Asia, with over 280 branches across three major Asian markets and is rapidly expanding in all areas of banking. In 2016, DBS was named the world's best digital bank. But it hasn't always been that way. Back in 2009, DBS had a reputation in Southeast Asia for slow response times and poor customer service. It was a traditional, clunky, slow bank hampered by legacy systems and a hierarchical structure and culture.

The turnaround of DBS started in 2009. It was led by CEO Piyush Gupta and took the bank on a journey that now has it rated as No. 1 in Asia for customer service. This success is underpinned by the bank's shared purpose of making banking joyful—joyful for customers in all of their interactions with the bank and, just as importantly, joyful for employees.

DBS's impressive journey to joyful banking was facilitated by principles known as RED: Respectful, Easy to deal with, Dependable (drawn from the bank's strong Asian heritage), which put technology at the core of the banking business. These principles have been central to the digital workplace strategy and how DBS assesses employee experience outcomes, which the bank identified as central to its customer experience strategy.

Table 1: Summary of the Three Digital Workplace Transformation Cases

<table>
<thead>
<tr>
<th>Employees</th>
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<td>20,678</td>
<td>6,000</td>
<td>86,001</td>
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<th>Revenue</th>
<th>Employees</th>
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<tr>
<td>Singapore $10.8 billion ($7.56 billion) +12% from 2015</td>
<td>6,000</td>
<td>86,001</td>
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<tr>
<td>AUD $1.53 billion ($1.1 billion) +15% from 2015</td>
<td>YEN 30.13 billion euros ($32 billion) +1.2% from 2015</td>
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<th>Industry</th>
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<tr>
<td>Banking and Financial Services</td>
<td>Professional Services</td>
<td>Auto Manufacturing</td>
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<tr>
<th>Workplace strategy</th>
<th>Workplace strategy</th>
<th>Workplace strategy</th>
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<tbody>
<tr>
<td>Making banking joyful by being RED (Reliable, Easy to deal with, Dependable)</td>
<td>Playful culture with serious intent</td>
<td>“Vorsprung durch Technik” (Advancement [or progress] through Technology)</td>
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<tr>
<th>Essence of the digital workplace contribution to digital innovation and transformation</th>
<th>Essence of the digital workplace contribution to digital innovation and transformation</th>
<th>Essence of the digital workplace contribution to digital innovation and transformation</th>
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<tr>
<td>Define and enable employee journeys, linked to customer journeys, to empower employees</td>
<td>Change how employees connect with/within the organization</td>
<td>Simplify and empower day-to-day collaboration of employees</td>
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<th>Digital transformation outcomes</th>
<th>Digital transformation outcomes</th>
<th>Digital transformation outcomes</th>
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<tbody>
<tr>
<td>Rapid transformation from traditional banking model to a digital bank</td>
<td>Turnaround from low performer in professional services to an industry leader with digital strategy central to offerings in all sectors</td>
<td>Preparation of a successful company for digital disruption in car manufacturing</td>
</tr>
</tbody>
</table>

10 OneSource Global Business Browser.
11 All currency conversion rates in this article are as of April 2017.
14 In July 2016, Euromoney named DBS “World’s Best Digital Bank”—the first time an Asian bank had won a global accolade from this financial publication.
Employees now work very differently at DBS. The physical workspaces have been redesigned to look very un-bank like, with open plans, flexible work areas and décor that signals to all employees that DBS is an innovation-focused and innovative place to work. DBS’s workspaces have shifted from traditional office layouts to large, unstructured spaces that enable collaboration and integrated behavioral and skills training. Training spaces have been critical to the workplace transformation, particularly for middle management. DBS further focused on implementing IT systems for knowledge/data sharing to empower frontline staff to make real-time customer-facing decisions without needing to refer to more senior managers.

As DBS shifted from a command-and-control environment to one of testing new ideas, learning and implementing changes continuously, the vision and greatest challenge has been to lead a more empowered workforce. Leaders are constantly scanning employee experiences for speedbumps. This is a far cry from the slow, traditional DBS of the past. As all employees become more digitally engaged, the focus on innovation is pervasive, and the design of the workplace is critical to support this transformation.

Investing in Employee Connectedness at DBS. In 2011, Paul Cobban (DBS’s Chief Operating Officer, Technology and Operations) led the first redesign of an employee workspace. The new design deliberately replaced the physical boundaries of the workplace with completely “hackable” open and flexible meeting and learning spaces. The aim of this human-centered design approach was to “hardwire” new employee behaviors into the physical environment and send strong signals that collaboration and innovation were now part of the company’s DNA.

“If you design people spaces with behaviors in mind, you can make quite significant advances in your transformation program.”
Paul Cobban, Chief Operating Officer, Technology and Operations, DBS Bank

Integral to the open, flexible workspaces was the introduction of new workplace technologies, such as enterprise portals for sharing data, a unified communications infrastructure, videoconferencing systems and social media platforms. DBS’s priority was to provide employees with all the information they needed to deliver a better experience for customers.

Empowering employees in new ways has led to a massive cultural shift. For example, call center employees set up social media platforms (e.g., on Facebook) to share ideas, collaborate across silos and self-organize. One of the most significant self-managing social platform developments was shift bidding (with options to trade shifts, breaks and leave), which replaced the traditional top-down scheduling and significantly enhanced employee experience.

“The attrition rate in our call center is world class—absolutely rock bottom. It’s been a fabulous journey.” Paul Cobban, Chief Operating Officer, Technology and Operations, DBS Bank

DBS has increasingly deployed digital solutions that help employees address customer needs more seamlessly and thus make working life easier. According to Paul Cobban, simplifying connectedness and building a common dialogue to existing approaches to work “changes the minds of our people. Not only can they deliver better customer service, but they start to think, feel [and] behave like a GANDALF company.”

Investing in Responsive Leadership at DBS. DBS’s new approach to cultivating digital leadership among senior management was a significant component of the digital transformation process. The company established the Customer Experience Council, comprised of both business and IT executives and led by the CEO. Described by Paul Cobban as “the one place where various customer journey visions come together,” the council was charged with developing and executing the bank’s vision and strategy, and cultivating digital innovation throughout the business. The council held the leadership team of 250 general managers accountable for designing, implementing and...
linking digital journeys that operationalize employee and customer experiences.17

“The overall experience [of employees] is made up of a number of journeys, whether it's the onboarding experience, whether it's the training experience, whether it's the work experience, doing travel expenses and getting approvals.” Paul Cobban, Chief Operating Officer, Technology and Operations, DBS Bank

By focusing management’s attention on employee journeys, DBS has fundamentally changed employee experience. For example, one initiative empowered employees to resolve customer issues quickly to improve the customer experience. Senior management, together with customer service employees, set a target of saving 10 million customer hours.18 Employees were authorized to access a new budget that allowed them to spend up to $200 per customer to resolve situations immediately. Management then analyzed data from all transactions and monitored employee performance to shape coaching and training, which led to improvements in employees’ problem resolution capabilities.

Customer service employees shared their experiences and ideas on the enterprise social network and worked with an in-house journalist to publish stories of their experiences and thus further foster learning. The combined efforts from this initiative (and other initiatives to save customer hours) surpassed the target, ultimately saving 250 million hours.

DBS requires senior leadership to focus more on facilitation and innovation and less on control. As part of its significant investment in training, DBS implemented a leadership development program to embed digital thinking and skills through experiential learning. All leaders participate in regular hackathons,19 where they team up with young coders for a week.

17 Currently DBS has 300 digital journeys in play. While employee experience features in most customer-facing initiatives, just over a third such initiatives are dedicated exclusively to improving employee experience.

18 Customer hours are a measure of waiting time when evaluating customer experience.

19 Events, typically lasting several days, in which a large number of people meet to engage in collaborative computer programming.

“We really think we have ignited a very magical spark that changes people’s thinking.” Neal Cross, Chief Innovation Officer, DBS Bank

Case 2: How Deloitte Australia Transformed Professional Services through Digital Innovation

“We needed people who could develop new digital solutions for clients, be able to re-imagine how we delivered our services in a digital world, and use digital capabilities to make better decisions.” David Redhill, Director of Marketing, Deloitte Australia

During the period 2006 to 2015, Deloitte Australia has undergone a comparable transformation to that of DBS in Singapore. At the start of its journey, Deloitte was regarded as the “sick puppy” of the Australian professional service firms, with performance figures that placed it by far as the worst of the big four.20 By 2014, Deloitte had reversed the downward slide and had revenues of over AU$1.3 billion ($0.9 billion), taking it to No. 2 in the Australian professional services market. Deloitte Australia won awards for digital innovation, workplace initiatives and diversity management (particularly women in management positions: the number of female partners increased from eight to 108 in eight years).21

The transformation at Deloitte Australia was also based on a strategy to embed digital innovation into the DNA of the organization. It started with a dramatic overhaul of the way in which employees connected with each other, with organizational conversations and new ideas, and with stakeholders more broadly.

Deloitte Australia established symbols to reinforce the company-wide transformation and to disrupt thinking, change conversations and provide daily reminders of the new digital strategy. The company decorated walls with the works of new and emerging artists, added a Green Dot to the Deloitte logo and used social media tags such as @GreenDot and @AU_Deloittian to...

20 The big four are the leading Australian professional services companies: PwC, Deloitte, Ernst & Young and KPMG.

symbolize that traditional ways of doing business should be challenged and changed. These symbols got people “talking digital” and communicated a distinct cultural shift from a traditional, conservative organization to a “playful culture with serious intent.”

**Investing in Employee Connectedness at Deloitte.** Deloitte Australia’s turnaround strategy focused on driving digital innovation into all facets of the business by getting every employee to actively communicate and collaborate across hierarchies and service silos. The company, however, did not perceive physical location to be a barrier to innovation. Instead, it recognized that cultural norms and the psychological restraints imposed by the company’s hierarchy inhibited cross-silo interactions and corporate conversations that could transcend roles and positional power structures. IT leadership therefore had two priorities for the digital workplace: (1) develop digital proficiency across the company to enable as many processes as possible to be digitized and (2) build connectedness to maximize collaboration and innovation by simplifying access to corporate conversations. The goal of the digital workplace transformation was to make it easier for employees to communicate effectively regardless of location, role and position in the hierarchy. Social media was central to making this happen.

The first step in establishing digital capabilities was to get every employee working in a social media environment. Deloitte deployed Yammer (an enterprise social network [ESN]), which became the main channel for everyone (regardless of position, location, skill base or experience) to initiate or engage with corporate conversations. The CEO and executive team engaged daily in discussions on the ESN, with the aim of flattening the corporate structure, stimulating and engaging with new ideas, identifying speedbumps and co-creating innovative responses to resolve problems.

Those who resisted discussions on the ESN were enticed to participate in several ways. Deloitte Australia regularly celebrated new ideas and outputs on the ESN and implemented reverse-mentoring programs where graduates helped senior partners to get involved. Communications shifted from email and voicemail toward the ESN. In addition to sharing internally, employees were also encouraged to share ideas externally as the company began to use other social networking platforms like Twitter, LinkedIn and Facebook. A weekly roster was established to encourage every senior executive to take a shift in the Deloitte “Twitter seat.”

As a consequence, the organization developed a heightened collective level of digital awareness, with new social media skills being developed, stories of digital engagement and ideas being shared and new uses of digital capabilities being rewarded. People who had never crossed paths in the organization connected as they focused their attention on ideas rather than on isolated products, services and relationships in the hierarchy. Expertise and contribution to ideas became a more important source of influence than hierarchical power. Today almost all employees actively engage with Yammer and other social media platforms. The ESN remains the main platform for organization-wide interactions and hosts approximately 1,400 special interest and project groups, ranging from social activities to business project challenges.

**Investing in Responsive Leadership at Deloitte.** Using social media to drive Deloitte’s digital transformation was a controversial move. It was therefore critical that the company built a leadership team firmly committed to workplace change and a digital future, and had a highly motivated digital innovation team. The dedicated workplace management team established new governance practices, which shifted the traditional top-down approach to framing business rules to a bottom-up process.

For example, the original business rules for social media use—a dense three-page document with traditional legal language—was not only indecipherable by most employees, but also a significant hurdle to effective use of social media; employees feared they might inadvertently break a rule hidden in the document. By crowdsourcing a set of guiding principles and working with the legal department, Deloitte Australia reduced the business rules to three paragraphs that were easily understandable and could be effectively

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22 For more discussion on the Deloitte Australia culture and to provide context for this quote, see “About Deloitte Australia,” available at https://www2.deloitte.com/tl/en/pages/about-deloitte/articles/about-deloitte-australia.html.
communicated. The dynamic process of listening helped the company to reduce this speedbump (and others) and enabled it to build an innovative, digital workplace that underpinned the dramatic turnaround.

The digital transformation journey at Deloitte is ongoing. A cross-functional leadership team (legal, marketing, strategy and HR) continues to question and simplify business rules to remove speedbumps. The team is committed to dynamic "sensing and shaping" so it can better understand issues through informed conversations and debates that are directed toward the company's strategic priorities. Senior executives have established and lead four pillars that frame debate and decision making: Data, Digital, Design and Deloitte Access Analytics. "These pillars are central to all that we do," explained Chief Strategy Officer John Meacocks. "They frame all of our conversations at Deloitte and are embedded deeply in our language." Social media is central to making that debate transparent and actionable.

Case 3: How AUDI is “Attacking” Digital Disruption in the Auto Industry

"Never before in nearly 130 years of automotive history has our industry changed as fast and as completely as now: How we engineer our cars, how we produce them, how we present a new model, where we sell it, who we sell our cars to and who we work with in the future," Rupert Stadler, CEO, AUDI

In 2010-11, AUDI began a transformation to address digital disruption in the automotive industry. New competitors had begun to change customer expectations about cars (e.g., Tesla) and related services (e.g., Uber). AUDI’s leadership saw digital innovation as the way forward and decided to "attack digitally" by developing a portfolio of digital innovations that would transform customer- and employee-facing processes, products and business models. It transformed the production process into "smart factories," introduced a cloud-based solution to connect cars with services, experimented with mobility services like car sharing, digitized customer touchpoints and launched initiatives to enhance employee experiences through collaboration. AUDI’s Board of Management launched an enterprise-wide digital workplace initiative to enhance employee experiences, particularly for the younger generation of digitally competent workers. This project, known as Audi Enterprise 2.0 and led by the IT department, was critical to the transformation strategy and the new innovation portfolio.

By 2015, AUDI's transformation efforts were beginning to pay off. Not only did AUDI continue to be one of the most successful manufacturers of automobiles in the premium segment, but it also received a variety of innovation awards. These awards included the Digital Transformation Award for accomplishments with social media in less than 18 months;24 most active car manufacturer in connected cars (according to PwC) and a ranking in Boston Consulting Group's most innovative companies.25

Investing in Employee Connectedness at AUDI. AUDI identified interdisciplinary collaboration as critical to its digital transformation and therefore began to restructure the business from corporate hierarchies to cross-functional competence networks and agile teams.26 To make this restructuring more effective, AUDI’s board chose a systems approach (which incorporated a variety of sophisticated social media) as the anchor point for transforming employee connectedness. The initiative (called Audi Enterprise 2.0) began in 2013 and focused on efficient and effective team collaboration and productivity. Audi Enterprise 2.0 replaced fragmented initiatives in different departments with a corporate-wide system to deliver a consistent and coherent employee experience for team collaboration and a social


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media platform for generating and implementing innovative ideas across the business.

Based on an analysis of inefficiencies, over the next two years, the IT department introduced five collaboration tools for different needs and for enhancing connectedness:

1. "Audi dox" enables teams to easily share files
2. "Audi team" allows teams to create collaborative workspaces and use efficiency-enhancing apps (such as helping employees find the location of a meeting room and the best route and means to get there)
3. "Audi contacts" enables employees to easily find topic experts within the company (replacing the previous corporate directory)
4. "Audi wiki" is an internal user-generated knowledge base
5. "Audi mynet" is the portal to all other services—including corporate and departmental news and conversations.

“When you look outside to social media, there is not [just] one single platform: you have Facebook, YouTube, Dropbox. All address completely different needs of your collaboration. We translated this into a business context for AUDI.”

Michael Wadosch, Project Manager, Audi Enterprise 2.0

Employees quickly began to use these tools to develop efficiency innovations. For example, the R&D department used "Audi team" to change the process for documenting and distributing meeting minutes, decreasing the time required from two or three weeks to just hours. The department shared the new process as a best practice through "Audi mynet," which soon became the conduit for customer-centric digital innovations driven by employees.

In another example, the leadership team used "Audi mynet" to run a two-week contest to create innovative mobile customer apps. Employees generated 250 ideas. The Board of Management selected the top 10 based on the most "likes" from other employees and financed feasibility studies for several of these. Two were immediately funded for full development and rollout. Learning about these success stories, other companies in the VW group subsequently asked AUDI to share its experiences and followed suit.

According to Michael Wadosch, Audi Enterprise 2.0 project manager, a critical success factor that stimulated rapid (and voluntary) adoption of "Audi mynet" was “fun.” For the first couple of weeks after the platform’s launch, employees could use it only for non-work related topics and competitions—which resulted in 73% of employees adopting it within the first 14 days. For example, a step-by-step recipe for the perfect butter-bread posted by one of the first communities ("Audi is cooking") went viral and won a competition.

“People were completely astonished that AUDI would allow something like this. People either loved us for the party and game and fun, or they rejected our initiative. [Critics posted comments such as] ‘We knew all the time that Enterprise 2.0 is just a waste of time.’ To prove their point, they shared the butter-bread post and spread the word.”

Michael Wadosch, Project Manager, Audi Enterprise 2.0

Physical space was not a primary focus at the start of AUDI’s digital workplace initiatives. Over time, however (similar to Deloitte Australia), AUDI began experimenting with the role of physical space in facilitating collaboration and creativity. In 2016, the first 1,000 employees moved into a new office complex with an open office structure, a flexible architecture and a focus on collaboration spaces.27

Investing in Responsive Leadership at AUDI. AUDI’s leadership viewed the digital workplace transformation centered on Audi Enterprise 2.0 as a cultural change:

“We spent a great deal of time stressing to employees that Enterprise 2.0 is not something you can implement as a technology; you have to grow with this topic; it is a cultural topic. This has been our

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The biggest challenge was breaking away from established roles and processes. AUDI’s leadership aim was to change the corporate mindset away from car-centric to customer-centric innovation, in conjunction with collaboration across functions and all management levels. The starting point was to motivate and inspire senior management to advocate the change, while constantly emphasizing the overarching transformation goals and facilitating permanent dialog between business and IT teams through competence networks.28 AUDI’s board recognized that Audi Enterprise 2.0 was a key driver of the cultural change and new innovation portfolio, and was committed to a holistic and enterprise-wide approach.

IT leaders, rather than departmental heads, were put in charge of leading the enterprise-wide digital workplace transformation. The IT department’s role in general was changing from order taker to digital transformation driver. IT leaders developed responsive leadership capabilities by working with around 700 key users outside of IT who were open to experiments, would provide early feedback, were IT savvy and were willing to act as “evangelists” for other employees.

AUDI’s leadership empowered employees to implement productivity innovations in their own processes and share their experiences as best practices. The Board of Management closely followed Enterprise 2.0 innovation contests and immediately funded and rolled out winning ideas.

Identifying Patterns for Building Effective Employee Experiences in the Three Cases

Thus far, we have provided a description of how each case company transformed and managed their workplaces to build effective work environments for the digital era, thereby driving digital innovation. All three companies invested in enhancing employee connectivity and taking new responsive approaches to leadership. We learned that both of these dimensions are important, but we did not identify a common starting point for these transformations. In this section, we therefore look across the three cases to identify different approaches to building effective employee experiences.

Employee Connectedness: Enabling Collaboration and Innovation with Different Anchor Points

DBS Bank, Deloitte Australia and AUDI each had a strong focus on enhancing employee connectedness and “amplifying the employee voice.” Even so, they had different approaches to using the three design levers—space, systems and social (shown on the left in Figure 1) to build and sustain these capabilities. Each transformed from a traditional organization with product-based and functional silos, little formal cross-communication and a hierarchical structure that reinforced siloed work. Breaking away from this structure and connecting people based on ideas (rather than reporting lines) was an enormous challenge in each organization. Table 2 summarizes the ways in which the case companies approached employee connectedness with the three design levers. Each company leveraged all three levers, though with varying starting (or anchor) points and focus. The different anchor points inevitably had consequences for the role of IT leaders during the transformation journeys.

The anchor (or starting point) for each company is shown by the shaded cells in Table 2. DBS used new physical workspaces to symbolize new ways of working and as the foundation for introducing new technologies, business practices and reward systems to change traditional work practices and enhance connectedness. Deloitte Australia’s focus was on engaging all employees in the corporate conversation to build and share new ideas across business units and hierarchies. Its approach was anchored in enterprise social media. AUDI was concerned with efficiency, innovativeness and workplace attractiveness. Its primary goal was to simplify the day-to-day collaboration of employees in all areas, by

28 For further discussion of AUDI’s leadership approach, see: Fonstad, N. O. and Mocker, M., op. cit., October 6, 2016.
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Table 2: Case Companies’ Different Approaches to Employee Connectedness

<table>
<thead>
<tr>
<th>Physical Space</th>
<th>DBS Bank</th>
<th>Deloitte Australia</th>
<th>AUDI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Starting point/anchor of digital workplace initiatives—human-centered design to hard wire innovative behavior:</strong></td>
<td><strong>Supporting:</strong></td>
<td><strong>Supporting:</strong></td>
<td><strong>Supporting:</strong></td>
</tr>
<tr>
<td>• Completely “hackable” open, flexible meeting and learning spaces</td>
<td>• Initial redesign based on design thinking practices for innovation (i.e., communal spaces, training spaces and meeting areas)</td>
<td>• New office spaces incorporate opportunities for collaborative designs (2016 onwards)</td>
<td>• New office spaces incorporate opportunities for collaborative designs (2016 onwards)</td>
</tr>
<tr>
<td>• Un-bank-like décor</td>
<td>• Traditional offices maintained according to managerial and partner hierarchies</td>
<td>• Informed by the principles and learning from the Office of the Future project</td>
<td>• Informed by the principles and learning from the Office of the Future project</td>
</tr>
<tr>
<td>• New physical workspaces as a foundation for introducing new technologies, business practices, reward systems</td>
<td>• Recent experiments focused on evidence-based workplace design decisions (e.g., IoT sensors)</td>
<td>• Focus on health and well-being, integrated with robotics and digital computing in the manufacturing plants (assistive wearables, seatless-chair)(^29)</td>
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</tr>
</tbody>
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<table>
<thead>
<tr>
<th>IT Systems</th>
<th><strong>Supporting:</strong></th>
<th><strong>Supporting:</strong></th>
<th><strong>Supporting:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• New workplace technologies to support open, flexible workspaces (enterprise portals for sharing data, unified communications infrastructure, telepresence conferencing systems)</td>
<td>• New systems that enable employees to connect anytime, anywhere</td>
<td>• Single, shared platform (Audi Enterprise 2.0) with five collaboration tools</td>
<td>• Single, shared platform (Audi Enterprise 2.0) with five collaboration tools</td>
</tr>
<tr>
<td>• Increasing number of digital solutions to help employees address customer needs seamlessly (i.e., digitization of processes)</td>
<td>• Digitization of as many processes as possible</td>
<td>• Primary goal: enable employee-led initiatives to improve team efficiency and productivity, while ensuring a consistent and coherent experience across the organization</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social Media Platforms</th>
<th><strong>Supporting:</strong></th>
<th><strong>Supporting:</strong></th>
<th><strong>Supporting:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Sharing ideas, collaborating across silos, connecting with senior management</td>
<td>• Starting point/anchor of digital workplace initiatives—team efficiency:</td>
<td>• Starting point/anchor of digital workplace initiatives—team efficiency:</td>
<td>• Starting point/anchor of digital workplace initiatives—corporate-wide engagement:</td>
</tr>
<tr>
<td>• Self-organizing (e.g., shift bidding replaced top-down scheduling)</td>
<td>• New systems that enable employees to connect anytime, anywhere</td>
<td>• Single, shared platform (Audi Enterprise 2.0) with five collaboration tools</td>
<td>• Focus on ESN for corporate-wide discussion and information exchange—getting every employee to actively communicate and collaborate across corporate silos</td>
</tr>
<tr>
<td></td>
<td>• Digitization of as many processes as possible</td>
<td></td>
<td>• Shift communications from email and voicemail to ESN</td>
</tr>
<tr>
<td></td>
<td>• Data gathering, dissemination and analytics systems</td>
<td></td>
<td>• Promote external social networking tools for active use by employees (e.g., Twitter, LinkedIn, Facebook)</td>
</tr>
</tbody>
</table>

| | **Supporting:** | **Starting point/anchor of digital workplace initiatives—corporate-wide engagement:** | **Supporting:** |
| | | • Focus on ESN for corporate-wide discussion and information exchange—getting every employee to actively communicate and collaborate across corporate silos | • Audi Enterprise 2.0 social media capabilities extended beyond team efficiency/productivity to enable corporate-wide discussion, sharing of experiences and innovation challenges (e.g., leadership used “Audi mynet” to run a two-week contest for innovative mobile customer apps) |
| | | • Shift communications from email and voicemail to ESN | |
| | | • Promote external social networking tools for active use by employees (e.g., Twitter, LinkedIn, Facebook) | |


providing them with a single, shared platform and tools that enabled them to improve their productivity through employee-led initiatives, while ensuring a consistent and coherent experience.

The initial role of IT leaders differed in each case company. At AUDI, IT leaders took the leadership role in building the digital workplace, as IT systems were central to the workplace transformation. They developed an integrated approach to IT systems and social media to build firm-wide connectivity. At Deloitte Australia, IT leaders had a support role in the early transformation (with the ESN initiative led by the...
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innovation and internal communications teams) but played an increasingly important role in defining the requirements for mobility and data. At DBS, both the CIO and chief operating officer were central to the workplace transformation, as they led the thinking on how systems could transform the way work is done and support changes in physical space.

In building employee connectedness, IT leaders were critical to developing an integrated approach that prevented islands of connected communities being created. In other companies in our study, islands of connectedness (such as isolated innovation hubs, digital technology departments or siloed cloud-based innovations led by a committed and digitally enlightened manager) appeared when IT leaders did not take charge of integrating systems. Building true cross-silo collaboration (such as that found in high performing digital companies like DBS, Deloitte Australia and AUDI) requires a strong emphasis on leadership that develops integrated, evidence-based test-and-learn environments for employees. These approaches to employee connectedness ultimately require an intimate involvement of senior IT leaders, often the CIO.

Responsive Leadership: Making Working Life Simpler and Driving Innovative Behaviors with Common Leadership Principles

All three case companies had made significant investments in building leadership capabilities to ensure a sustained focus on simplifying employees’ working lives and driving innovative behaviors. They focused on thoroughly understanding workplace speedbumps and removing them, and on solutions for more effective ways of working. The three companies have different business models, are different in size and have differing challenges in managing their people. Even so, we identified significant common leadership principles and capabilities that guided the design and management of their digital workplaces, as summarized in Table 3. In contrast to employee connectedness (where we tended to find the case companies had similar objectives but differing implementation anchor points), the leadership principles and capabilities were relatively similar across the three companies.

A good example of how Deloitte Australia, DBS and AUDI applied common principles to responsive leadership is the way they addressed workplace speedbumps. All three had a legacy of systems, business rules and behavioral norms that inhibited connectedness and slowed down innovation and creativity at the very time that they needed to speed them up. While some speedbumps may remain important in the digital era, other existing ones were associated with poor performing technologies, outdated policies and procedures, and complex processes that had remained in place for historic reasons known only to the original creators. Identifying these speedbumps and acting on them was a primary focus for leadership at all three companies, and IT leadership was critical.

DBS leadership invited employees to submit innovative solutions to eliminate workplace speedbumps that hindered seamless customer experiences. The “Ask Piyush” online forum created a direct channel to senior management, allowing pain points to be raised directly with the CEO and resolved quickly or addressed at regular Town Hall meetings. As employees connected across silos and adopted innovative behaviors, IT leaders played an increasingly important role in the workplace leadership team to foster and sustain these dynamics.

“We encourage people to speak up, to put their views on the table. We want people with the change agenda. This is a big shift in culture.” David Gledhill, Head of Group Technology and Operations, DBS Bank

DBS had a team that triaged the challenges identified by employees. Team members changed depending on the problem and, according to Paul Cobban, could be:

“... an ethnographic researcher, a tech guy, an agile guy, a business guy, along with some wildcards to look at understanding an area in detail. All these people come together to share ideas and perspectives before we even define what the problem is and what we want to try and solve ... We do this for customer and employee problems ... again trying to shift the way people think about the way they work and encouraging people to challenge everything they do.”
At Deloitte Australia, the CEO together with a digital innovation team, designed activities that encouraged employees to actively search for speedbumps and develop new ways of removing them. Senior partners used Yammer (and another internal social media platform, called Fasttrack) to gain a clear view of customer and employee pain points that had been identified by employees. They derived new and innovative solutions from crowdsourced employee ideas.

At AUDI, workplace speedbumps were the trigger for the digital workplace transformation, which centered on the Audi Enterprise 2.0 social media platform. Employees were frustrated with the limitations of the technology environment, which prevented them from collaborating effectively (e.g., the sole focus on email for communications). AUDI's IT leaders took charge of identifying and removing the speedbumps, starting by analyzing six years of helpdesk data with an average of 4,000 calls per day. This data provided rich insights into workplace inefficiencies (e.g., problems sending emails with large attachments) and was a primary source of requirements for the new Enterprise 2.0 tools. These tools increased employee productivity by enabling them to collaborate more effectively in teams, and to more easily find experts and share knowledge and ideas within the company. IT leaders also focused on seamless integration of the different tools (with each other and with the existing work environment) to prevent new speedbumps being created. For example, "Audi contacts" replaced the old corporate directory rather than adding yet another tool.

| Table 3: The Case Companies Used Common Approaches to Responsive Leadership |
|---|---|---|
| **Sustaining Managerial Focus** | **DBS Bank** | **Deloitte Australia** | **AUDI** |
|  | • Senior management focused on customer and employee journeys, enforced by the Customer Experience Council, led by CEO and comprised of business and IT executives | • Committed cross-functional leadership team (strategy, legal, HR, marketing, internal communications and IT) that closely collaborated with an innovation team | • AUDI’s board and senior management were key supporters of Audi Enterprise 2.0 |
|  | • CEO commitment for a direct channel to senior management (Ask Piyush online forum) | • CEO and executive team engaged daily in Yammer discussions to flatten the corporate structure, engage with new ideas, get feedback on transformation | • IT led the digital workplace transformation, relying closely on 700 key users/evangelists across the organization |
| **Systemic Learning** | • Continuous training for all levels on new ways of working | • Dynamic “sensing and shaping” and four pillars of decision making | • Management was committed to rewarding employee innovations (e.g., immediate funding for winning ideas in innovation challenges) |
|  | • Reverse mentoring/ experiential learning for senior leadership on digital thinking | • Regular celebration of new ideas and outputs in Yammer |  |
|  | • Reverse mentoring | • Reverse mentoring |  |
|  | • Sharing stories of digital engagement, rewarding new uses of digital capabilities | • Sharing stories of digital engagement, rewarding new uses of digital capabilities |  |
| **Brands and Symbols** | • Beginning the journey with physical symbols of change: completely “hackable” space without status boundaries | • Beginning the journey with social symbols of change to symbolize cultural shift to “playful culture with serious intent:” Green Dot logo, social media tags (@GreenDot, @AUDelotitian) | • Beginning the journey with system symbols of change: providing collaboration tools and explicitly empowering teams to create efficiency and productivity innovations |
|  |  |  |  |
At all three companies, responsive leadership established more effective ways of capturing data on workplace speedbumps and developed new ways of connecting and getting things done. Leadership teams were chaired by leaders from different areas of the organizations (see table 3) but typically included strong involvement of IT leaders, as well as people from HR, facilities, legal and internal communications. They gathered evidence from across the organization to identify workplace speedbumps and then find ways to remove them. These test-and-learn environments supported distributed leadership approaches, with employees actively engaged in identifying problems and their potential solutions. Typically, the solutions depended to a great extent on IT capabilities.

**Recommendations to CIOs for Creating Successful Digital Workplaces**

Transforming the workplace is essential for digital innovation and success. The greatest challenge in many organizations, however, is to cultivate a focus on re-imagining the employee experience among senior leaders who must then ensure that this focus permeates throughout the entire organization. Such a focus is a prerequisite for successful workplace transformation. John Meacock, Deloitte Australia’s Chief Strategy Officer, describes this management challenge succinctly: To be successful in this complex, unstructured environment “you want to be in a situation where you are able to challenge things that have never been challenged before, whether business ideas or processes. Too often we see things being done because that’s the way they’ve always been done.”

IT leaders are often the first to recognize the need to transform the workplace for the digital era, and therefore often assume a leadership role. Our research has shown that high performing companies like DBS, Deloitte Australia and AUDI were driving innovation through an iterative approach to designing and implementing the digital workplace, which required them to address both the responsive leadership and employee connectedness dimensions. IT units are no longer simply “order takers” that provide technology and follow software upgrade cycles for workplace technologies. Instead, they increasingly play a leading role in developing and managing their companies’ digital workplace strategies, which are of fundamental importance to the execution of digital customer strategies and digital innovation.

Leading workplace transformation is a new challenge for CIOs and other IT managers, and brings new requirements for collaborating with the company’s board or executive committee and other business functions (including real estate/facilities, HR, internal communications and legal). The technologies that are integral to the digital workplace are themselves challenging, with employees able to reach out beyond the company’s IT portfolio and access workplace-related technologies freely from the cloud. These behaviors and capabilities mean that the IT department is often playing catch-up.

We therefore provide four recommendations to CIOs and other digital leaders trying to map a journey to create a successful digital workplace that promotes innovation and builds business value.

1. **Ensure the Organization Appoints a Digital Workplace or Employee Experience Leader**

   The CIO or Chief Digital Officer needs to drive the appointment of a C-suite level leader who has end-to-end accountability for employee experience and keeps the digital workplace high on the strategic agenda. Once appointed, the CIO should actively partner with this leader to effectively manage a test-and-learn environment focused on employee experience. Passive involvement of CIOs in workplace redesign tends to result in Facilities taking the lead, with a cost focus for the physical design of workspaces and the related technologies. In contrast, active involvement by the CIO will ensure an integrated approach that addresses both employee connectedness and responsive leadership—the prerequisites for driving innovation in the digital era.

2. **Define Customer Experience and Employee Experience and Use Them as the Basis for Digital Workplace Design**

   CIOs should take a major role in defining customer experience and employee experience.
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Both are linked closely to each other and to a variety of workplace technologies. One way to define these experiences is to map customer journeys and employee journeys and then explicitly link them when considering the requirements for the digital workplace. The workplace design should enable employee experience targets to be built into every customer digital innovation.

Mapping employee experience also helps to coordinate the quality of three types of systems that are essential for employee experience: systems that support communication, systems that support HR operations and systems that enable changes to the ways work is done. A coordinated approach will avoid creating a plethora of cloud-based solutions across business units and functions that can ultimately result in technology-induced silos and thus undermine the requirements for improved connectedness.

3. Develop an Evidence-Based Approach to Managing Employee Experience

CIOs should instill a services mindset in the IT department. Such a mindset will enable CIOs to continuously assess employee journeys, identify speedbumps that add workplace complexity, rapidly and systematically eliminate the speedbumps, and measure the value of new initiatives to enhance employee experience.

We recommend that IT leaders develop systems that provide an evidence-based approach to managing employee experience. To do this, they must leverage a variety of data sources, such as online platforms that encourage employee feedback and idea sharing, social media analytics, usage data provided by IoT sensors, helpdesk queries and interaction with digital workplace champions. They must develop effective online systems (e.g., dashboards) for distributing real-time insights from these multiple sources to employees and leadership, thus enabling an iterative, organization-wide management approach to continuously assessing and improving employee experience.

4. Distinguish Between Systems that Improve Employee Experience and Employee Wellbeing

Employee experience is about the day-to-day experience of collaborating with others and encountering workplace complexity. Positive employee experiences can enable innovation; negative employee experiences can inhibit innovation. In contrast, employee wellbeing is about aspects such as health, happiness and physical comfort. Both are important, but for different purposes. Employee experience drives innovation in day-to-day work; employee wellbeing helps to attract and retain digital talent.

Systems that improve employee experience include fast log-in, mobility, efficient onboarding and other capabilities that enable employees to get their work done more effectively. These systems are distinct from those that support employee wellbeing (e.g., lighting control, heating regulation, control of window coverings, apps that manage health funds or order coffee, etc.). By including both types of systems under the management of the CIO, IT leaders can ensure that they define and deliver a great employee experience, rather than simply being focused on enhancing employee wellbeing.

Concluding Comments

For established companies to succeed in the digital era, they will need to transform how work is done. Our research has found that high performing companies design digital workplaces that enhance the employee experience by addressing two dimensions: responsive leadership and employee connectedness. We have identified and described the six design levers that organizations can use to address these dimensions.

In this article, we have also outlined the digital transformation journeys of three companies—DBS Bank, Deloitte Australia and AUDI—to illustrate how digital workplaces drive success at established companies and how IT leaders play a critical role in guiding the transformation. Finally, we have provided recommendations for CIOs and other IT leaders as they set out on their journeys to create successful digital workplaces.

Appendix: Research Methodology

During 2015 and 2016, we studied large, global organizations that were implementing digital workplaces. Overall, we conducted semi-structured interviews with 63 executives from
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27 participating companies. These executives were global directors and senior managers from departments such as IT, digital innovation, facilities, internal communications and HR. These organizations were included in our study based on their responses to a “request for participation” email that was distributed to a broad industry cross section of large organizations in the U.S., Europe and Australia. Participating organizations represented a variety of industry sectors, including consumer goods, financial/professional services, healthcare, manufacturing, and oil and gas.

Our initial goal was to identify emerging themes about how organizations rethink the ways work is done in digital environments. We first conducted exploratory interviews that allowed the executives to openly share their experiences. Following a grounded theory approach,\(^{30}\) we transcribed the interviews to preserve the richness and complexity of the data. We then coded the data to discover emerging patterns, and from this coding, we identified the six digital workplace design levers depicted in Figure 1. Subsequently, in late 2015 and 2016, we conducted semi-structured interviews to investigate the strategic use of the design levers to improve employee experience through addressing the employee connectedness and responsive leadership dimensions of the digital workplace.

This article reports (as case studies) the experiences of the three most insightful organizations we identified from the interview phases of the research—DBS Bank, Deloitte Australia and AUDI. The case write-ups are based on interviews conducted by MIT CISR Research Scientists with senior business, IT and digital innovation executives, who had leadership roles in digital workplace transformation and employee experience. The table above summarizes the interviews with the three companies. The DBS and Deloitte Australia interviews were conducted as part of the 63 interviews of our research study. The AUDI Germany interviews were conducted as part of a research study on innovation practices.

We also drew on numerous published interviews and documents\(^{32}\) to develop a rich data set to understand digital workplaces. This combined effort resulted in the case syntheses depicted in Tables 2 and 3 of this article.

**Summary of Interviews with Senior Digital Workplace Leaders in the Three Case Companies**

<table>
<thead>
<tr>
<th>Firm ID</th>
<th>Interviews (number of hours)</th>
<th>Interviews Conducted</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBS Bank</td>
<td>7 hours with CIO and COO</td>
<td>Nov 2015 and 2016</td>
</tr>
<tr>
<td>Deloitte Australia</td>
<td>11 hours with five senior leaders and partners involved in digital transformation, strategy, marketing and innovation</td>
<td>Oct 2014 - Jan 2017</td>
</tr>
<tr>
<td>AUDI(^{31})</td>
<td>8.5 hours with eight senior leaders: CIO, Enterprise 2.0, IT infrastructure, operating systems and vehicle IT, strategy and Audi mobility, digital retail, brand and sales development, IT production</td>
<td>Oct 2015 and Jan 2016</td>
</tr>
</tbody>
</table>

27 participating companies. These executives were global directors and senior managers from departments such as IT, digital innovation, facilities, internal communications and HR. These organizations were included in our study based on their responses to a “request for participation” email that was distributed to a broad industry cross section of large organizations in the U.S., Europe and Australia. Participating organizations represented a variety of industry sectors, including consumer goods, financial/professional services, healthcare, manufacturing, and oil and gas.

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\(^{31}\) Data collection at AUDI was conducted in the context of the case study reported in Fonstad, N. O. and Mocker, M., op. cit., October 6, 2016.

\(^{32}\) Including the case study on AUDI, ibid.
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(CISR). She currently leads research projects focused on: (1) the design and management of the digital workplace and how organizations deliver value from more effective management of the employee experience, and (2) the impact of new ways of recruiting and managing talent in the digital era and the corresponding impact on the design of the workplace.

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