Building the Digital Workplace
What comes next in the mobile revolution
About the research

Oxford Economics worked with Citrix on a global study of the ways maturing mobile technology and changing approaches to work are affecting organizations of all types.

We surveyed 600 executives around the world and across industries about how they are integrating mobile technology and digital work into their strategies. We also conducted a series of in-depth interviews with individuals from UBS, Algonquin College, Herman Miller, and the University of Sao Paolo, for real-world insights and lessons learned.

- **Industries:** A range, including financial services (26%), education (25%), healthcare (25%), and retail (8%)
- **Seniority:** 50% C-level, 50% direct report to C-level
- **Function:** 50% IT, 50% business
- **Age:** 14% 18–30, 46% 31–45, 36% 46–60, 4% 61–70
- **Company size:** 6% less than $50 m in revenue, 12% $50 m–$500 m, 35% $500 m–$750 m, 20% $750 m–$1 bn, 18% 1 bn–$5 bn; 9% over $5 bn

<table>
<thead>
<tr>
<th>Country</th>
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<tbody>
<tr>
<td>US</td>
<td>26%</td>
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<tr>
<td>UK</td>
<td>10%</td>
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<tr>
<td>Canada</td>
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<td>China</td>
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<td>Germany</td>
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<td>Mexico</td>
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**Introduction**

The days when having a job meant traffic jams, cubicles, and a 9-to-5 schedule are coming to an end. Work now comes to you, and with you, wherever and whenever you decide. Mobile technology and new approaches to management are creating a new kind of digital workplace that can increase productivity, lower costs, and reduce stress. The implications for organizations of all kinds—and for society as a whole—are profound.

Oxford Economics worked with Citrix to survey 600 business and IT executives around the world and across industries to measure their progress toward digital work. The results show that digital workplace strategies drive improved performance, though most organizations still need to update their strategies and practices; few respondents have done enough to change technology, policies, or culture to capitalize on these transformational developments. Among our key findings:

- **Mobile maturity on the rise.** Ten years into the smartphone era, most companies have invested in technology without rethinking the old ways of doing business. But change is coming—fast—with mobile maturity expected to rise sharply in three years.

- **Creating the digital workspace.** This explosion in mobile maturity will drive the development of digital workspaces. Employees increasingly will work remotely and on flexible schedules, and more companies will develop mobile-first business processes that help maximize the value of this new way of working.

- **The digital work advantage.** Organizations that develop specific strategies to support digital work—including creating new procedures for security, enabling off-site environments, managing contingent employees, and mitigating burnout among always-connected workers—will see improved performance in a broad range of areas, from employee productivity to profitability.

One group of respondents stands out from the broader survey sample in terms of preparedness for mobile work and the value realized from their digital workspace strategies. These organizations—we call them Digital Workspace Leaders—have created cohesive, integrated strategies for mobility, changed
policies to support off-site work and flexible schedules, and have metrics in place to measure value from these efforts. And they are performing better in a range of areas, including employee development and financial performance.

Other organizations must move quickly to get strategies in place for this new era—or risk being left behind by the competition. Giving people the flexibility to work outside the traditional constraints of place and time creates value in general business operations and in specific industries like healthcare, education, and financial services. And the changes ripple outward as well, as flexible schedules remake job descriptions and affect everything from diversity, gender inclusion, and talent availability. The next phase of the mobile revolution is digital work, and it is about to take off.

**Keys to building a digital workplace**

- Invest in technology, people, and skills that support digital work.
- Rethink—and rebuild—core processes around mobile technology and digital work.
- Embrace a flexible, digital culture—not just for leadership, but for all employees.

**Meet the Digital Workspace Leaders**

We isolated a set of respondents (roughly 12% of the sample) who come from organizations that demonstrate the strongest capabilities for mobility and digital work. To qualify for this elite group, organizations must:

- Have a coherent, integrated strategy for transforming their business around mobility, or have core processes that were built primarily for mobile work.
- Have changed virtual work strategies to support off-site work environments.
- Be able to accurately measure the effects of mobile technology and digital work on their organization.
- Be realizing significant value from digital work.

These leading organizations are performing at a higher level than their peers in a broad range of areas. They are more attuned to the human factors that technology-driven strategies often overlook, and report stronger financial performance than other firms surveyed. Look for statistics throughout this paper on how these Digital Workspace Leaders stack up against less-mature organizations.

“By getting much greater flexibility, we get better efficiency.”

— Andrew Owen
Managing Director for Corporate Services, UBS
Mobile momentum

A changing environment

When student protests flared several years ago at the University of São Paulo, Brazil’s largest university, day-to-day operations were disrupted for nearly two months. “We lost a lot of time, and spent a lot of money to solve the problem,” says Cyrano Rizzo, the university’s IT director. The events inspired USP to make sure professors and students can do their work from other locations. Now, both students and faculty can access information from anywhere with an internet connection—the school even has virtual laboratories. “People cannot stop the university anymore,” says Mr. Rizzo.

Ensuring business continuity is just one reason organizations are embracing digital work. It also can help companies address talent gaps, as anytime, anywhere work widens the pool of available workers to different geographies and to individuals once limited by family obligations or other circumstances. And employees working remotely even some of the time can allow management to reduce overhead in terms of real estate and utilities. “Our intention right from the start was to provide much greater flexibility in the way we operated our real estate,” says Andrew Owen, Managing Director for Corporate Services at Swiss bank UBS, which recently opened a large London office without desk assignments. “By getting much greater flexibility, we get better efficiency.”

Driven by such core business concerns, the shift to digital work is well underway. Nearly one-quarter of executive respondents to our survey say at least 20% of their workforce is remote most the time, and another 70% say a similar number of employees are remote at least some of the time. This trend is gaining momentum: while just 38% say they allow most workers to set their own hours today as long as they get their jobs done, that number rises to 48% in three years.

The number of organizations executing a coherent strategy to transform around mobile will nearly double over the next three years (44%, up from 23% today).
Top payoffs from digital work include process efficiency, better customer experience, and profitability.

Fig. 1: The rise of flexible work

Q. What percentage of your employee base (full-time and non-payroll/contract) works remotely most of the time?

And it is important to remember that the digital workspace is not necessarily an offsite location. More than half of executives say that, when in the office, employees are mostly in open layouts, a floorplan that has created a new breed of on-the-go workers. Open-plan spaces can be great for collaboration and relationship-building among employees, but they are noisy enough that most people will need to move to quieter space to do focused work—and they need the infrastructure and tools to do so.
The foundation of the mobile economy

Mobile devices and applications are the foundation for these new ways of working, yet many organizations have taken an ad hoc approach to the technology. Nearly one-third (29%) have not made any significant changes to policies or strategies for mobile technology; another 39% are only bolting mobile onto existing processes, rather than rethinking those processes to get maximum value from mobility and digital work.

Yet big changes are on the way. The number of organizations executing a coherent, integrated strategy to transform around mobile will nearly double over the next three years (44%, up from 23% today), and significantly more organizations plan to have mobile-native core processes in the same time frame.

Fig. 2: Mobile strategy is at an inflection point

Q. Which of the following statements best describes your organization’s relationship to mobile technology?

- We have not made any significant changes to our policies or strategies with regard to mobile technology (29%)
- We use mobile technology to augment our existing processes (30%)
- We are executing a coherent, integrated strategy to transfer our business around mobile (44%)
- Our core processes were built to run primarily or exclusively on mobile devices (for example, Uber) (22%)
What has gotten in the way of organizations making these changes already? A lag in technology adoption contributes to the restrained progress so far. Most respondents to our survey are still implementing the foundational technologies that enable digital work: when asked which technologies are expected to have the greatest impact on their organization over the next three years, cloud (41%), Big Data (36%), and mobile (33%) are most commonly top of mind. Meanwhile, next-generation technologies such as artificial intelligence and virtualization get less attention—for now (see sidebar on page 13).

The mobile advantage
Digital work already is having a meaningful impact on the ways organizations operate, even given current shortcomings in strategy and technology. Process efficiency, customer experience, and profitability are top payoffs, but other areas as diverse as agility and turnover rates benefit from mobile technology and digital work.

Fig. 3: Broad gains from mobile and digital work
Q. How have mobile technology and virtual work affected your organization’s performance in the following areas?

- Process efficiency: Made somewhat better 38%, Made significantly better 41%
- Customer experience: Made somewhat better 41%, Made significantly better 41%
- Profitability: Made somewhat better 21%, Made significantly better 21%
- Employee productivity: Made somewhat better 20%, Made significantly better 41%
- Employee satisfaction: Made somewhat better 18%, Made significantly better 41%
- Security: Made somewhat better 24%, Made significantly better 34%

Leading organizations are more likely to say their organization makes data available anytime, anywhere to all relevant users (65%, vs. 59% of others).
One key area of improvement is employee performance. Organizations report boosts to worker capabilities such as problem-solving, customer service, collaboration, and even stress management. “Employees feel they’re being valued by their company, using the same technologies regardless of seniority,” says Ashley Davis, Managing Director for Technology Services at UBS. “It’s a really important point that can feed into productivity.”

But until mobile strategies mature, companies will not see the full impact of the technology and the digital work it supports. Fewer than half of respondents say they are getting full value from mobile technology and virtual work—and even those claiming full value may be overstating things, considering the work that still remains to bring technologies and strategies up to speed, the widely acknowledged inability to accurately measure the value of mobile investments, and the still-evolving nature of digital work itself.

**What Leaders do differently**

Digital Workspace Leaders are more focused on mobility than their peers. Not only do these organizations have either mobile-built core business processes or an integrated strategy for mobile transformation (a criterion for inclusion in the group), they also are investing more to implement and capitalize on those plans. An overwhelming majority (91%) of these organizations have increased spending on mobile technology over the past three years, compared with 49% of others. And nearly three-quarters (71%) have increased spending on virtual work, compared with 50% of others.

The payoff? Digital Workspace Leaders report more value from mobile technology and digital work. According to executives from these organizations, digital work helps employees solve problems more creatively (96%), provide better customer service (87%), and collaborate more effectively (90%).

**More than mobile**

**Rebuilding processes for digital work**

Getting full value from this new way of working demands more than just investment and broad plans for change: throwing money at IT, handing out laptops and smartphones, or letting employees work from home on Fridays are not sufficient conditions for success. Real transformation requires an overhaul of business...
processes, security plans and procedures, and culture—but few organizations have taken the necessary steps to remake these areas.

One reason for this shortfall is the ongoing rush of innovation: executives cite technology change and the increasing pace of change as top concerns for the next three years (only perennial challenges like increasing competition and global economic conditions rank higher on the list of concerns). The pressure to innovate may be one reason strategy often lags adoption when it comes to emerging technology—and mobile and digital work are no exceptions.

Few have given the necessary attention to details such as support from IT and HR for off-site work environments, IT procurement processes for endpoint devices, or the types of technology invested in by their organization. Business models, business processes, and office layout also demand more focus than they currently receive. These shortfalls are understood by executives, and expectations for change over the next three years are high—but achievable—as respondents see major advances ahead, while recognizing that transformation takes time.

Fig. 4: Digital work requires broad-based change

Q. To what extent have you changed your mobility and virtual strategies in the following areas? “To a meaningful extent” and “To a significant extent” responses

<table>
<thead>
<tr>
<th>Area</th>
<th>Past three years</th>
<th>Next three years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workflows and business processes</td>
<td>38%</td>
<td>53%</td>
</tr>
<tr>
<td>Support for off-site work environments</td>
<td>35%</td>
<td>52%</td>
</tr>
<tr>
<td>Leadership and management culture</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>HR policies</td>
<td>36%</td>
<td>50%</td>
</tr>
<tr>
<td>Office size, design layout and tools</td>
<td>33%</td>
<td>47%</td>
</tr>
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Digital Workspace Leaders tend to be more proactive about process change: respondents from these organizations are more likely to say they are changing the types of mobile technology they invest in (83%, vs. 24% of others), IT procurement processes (77%, vs. 31% of others), and other areas. They also are more likely to say their organization makes data available anytime, anywhere to all relevant users (65%, vs. 59% of others).

Securing the digital workforce

In an ideal digital work environment, security risks are drastically reduced: a lost or stolen device no longer puts valuable company knowledge at stake, information is limited to only relevant users, and all devices on a network are managed. In fact, for well-run organizations, security can become a driver of business value.

But attempting to move to digital work without putting the proper protections in place has the opposite effect, increasing the risk that information will be compromised. Most organizations understand this imperative—70% see a connection between the quality of security and business performance—yet few are doing enough to effect change. Less than two-thirds have built mobile workers and virtual workspaces into their overall risk strategy, and only 63% effectively manage the security of employee-owned devices.

The rise of contingent employment adds complexity to the security challenge. As more companies turn to contract workers for key elements of their day-to-day operations, they must ensure that those workers have the information they need while protecting the organization from IP theft, inadequate technology supplied by contract workers allowed to use their own devices, or lack of training. Less than one-third of respondents have the policies in place to safeguard sensitive information when contract workers leave. And just 28% provide training on technology to contract workers, which could put company data at risk even in the absence of malicious intentions.

Similar challenges face schools and universities, which have no control over what devices their students use or what information they access over the network, yet still must maintain security. The sheer volume of end-points to be covered can be an issue, says Farbod Karimi, Chair of Learning and Teaching Services at Ontario-based Algonquin College, where roughly 30,000 students on average are on the network at a given time. “We did a survey, and each of our students have two-and-a-half devices running at the same time. Imagine the pressure on our Wi-Fi.” Karimi says the college
has not experienced any major breaches, but is investing heavily to prevent that in the future.

**Fig. 5: A security soft spot**

Q. To what extent do you agree with the following statements? “Agree” and “Strongly agree” responses

<table>
<thead>
<tr>
<th>Statement</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>We have policies to secure mobile technology</td>
<td>74%</td>
</tr>
<tr>
<td>We have a communications plan in place to make sure all employees are up to speed on security protocol</td>
<td>70%</td>
</tr>
<tr>
<td>Our overall risk strategy effectively accounts for mobile workers and virtual workspaces</td>
<td>65%</td>
</tr>
<tr>
<td>We effectively manage the use and security of employee-owned devices</td>
<td>63%</td>
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Even Digital Workspace Leaders have room for improvement when it comes to security. Although these leaders are more likely to provide training on technology and policies to contract workers (38%, compared with 27% of others), just 28% have policies in place to safeguard information when contract employees leave, and only 25% say they use software and services to secure the information available to these contract workers.
But Digital Workspace Leaders do have some advantages: they are more likely to say their risk strategy effectively accounts for mobile workers and virtual workplaces (84%) and that all employees are up to speed on security protocol (81%). And they understand the imperative: 91% of leader organizations say there is a connection between security and business performance.

**Cultural changes required**

The digital workspace delivers unique advantages to organizations and employees, collapsing the old divide between personal time and work time in ways that can pay off for everyone. But digital work also introduces fresh challenges for workers and managers. The ability to work from home can upset work/life balance; combined with a near-constant use of technology, on the job and off, employees are more vulnerable to stress and burnout. In fact, well over half (59%) of executives say burnout is an issue for their organization—the same number that say they expect employees to be available after-hours.

**Fig. 6: Risk of burnout in the digital workplace**

**Q.** To what extent do you agree with the following statements? “Agree” and “Strongly agree” responses

<table>
<thead>
<tr>
<th>Statement</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>We encourage employees to pursue work/life balance</td>
<td>79%</td>
</tr>
<tr>
<td>We encourage employees to disconnect after hours</td>
<td>66%</td>
</tr>
<tr>
<td>We allow employees to conduct personal business during work hours as long as they get their jobs done</td>
<td>61%</td>
</tr>
<tr>
<td>We expect most employees to be available after hours</td>
<td>59%</td>
</tr>
<tr>
<td>Employee burnout related to constant connectivity is a problem for our company</td>
<td>59%</td>
</tr>
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</table>

Well over half (59%) of executives say burnout is an issue for their organization—the same number that say they expect employees to be available after-hours.

66%

Our virtual workspace culture/flexible work mentality allows us to attract and retain superior talent.
Organizations must remain conscious of employee rights and well-being even as they look for productivity gains from digital work. That means being open to a truly flexible schedule, in which employees are able set their own hours or location (just 38% say they allow this today). Keeping employees happy is a top priority for Herman Miller, the highly respected maker of office furniture. “We have a very progressive HR policy that supports and even in many cases encourages remote work relationships,” says Kevin Miller, the company’s Chief Information Security Officer. “We do everything we can to support our employees, and we pride ourselves on that.”

Digital Workspace Leaders are just as likely to acknowledge that burnout is an issue (62%, compared with 58% of others), but may be navigating these challenges more effectively: 77% say they allow workers to conduct personal business during work hours, as long as they get their jobs done, compared with 59% of others, and they also are more likely to encourage workers to disconnect after-hours (78% vs. 65%). As a result, Leaders are more likely to say their virtual work culture helps them attract and retain superior talent (86%, compared with 64% of others).

Preparing for next-generation mobility

New applications for mobile devices, including the increased use of virtual reality and artificial intelligence, are coming fast. As emerging technologies enter the mainstream, companies will need to move beyond hype to integrate them into business goals and processes, including those related to mobility and virtual work.

Survey respondents expect to increase investment in next-generation technologies over the next few years. Big Data/analytics (47%), virtualization (37%), the Internet of Things (35%), and blockchain (34%) are top investment priorities today, with artificial intelligence (30%), 3D printing/additive manufacturing (28%), and robotics (27%) expected to enter the fray in three years’ time.
Q. Which of the following emerging technologies are investment priorities for your organization?

<table>
<thead>
<tr>
<th>Technology</th>
<th>Today</th>
<th>In three years</th>
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</thead>
<tbody>
<tr>
<td>Big Data/Analytics</td>
<td></td>
<td>47%</td>
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<tr>
<td>Virtualization</td>
<td></td>
<td>37%</td>
</tr>
<tr>
<td>Internet of Things</td>
<td></td>
<td>35%</td>
</tr>
<tr>
<td>Blockchain</td>
<td>13%</td>
<td>34%</td>
</tr>
<tr>
<td>3D printing/Additive manufacturing</td>
<td>15%</td>
<td>28%</td>
</tr>
<tr>
<td>Augmented Reality/Virtual Reality</td>
<td>14%</td>
<td>13%</td>
</tr>
<tr>
<td>Artificial intelligence/Machine learning</td>
<td>14%</td>
<td>30%</td>
</tr>
<tr>
<td>Robotics</td>
<td>9%</td>
<td>27%</td>
</tr>
<tr>
<td>Drones</td>
<td>3%</td>
<td>14%</td>
</tr>
</tbody>
</table>

But most do not have set strategies for deriving value from emerging technology: although one-third of companies have IT criteria for evaluating emerging technologies, just one-quarter integrate plans for emerging tech into their business strategy. Digital Workspace Leaders have a more mature approach: these respondents are more likely to say business needs drive adoption (62%) and that their primary focus for emerging technologies is for internal processes (45%). They also are more likely to have defined IT criteria for evaluating emerging technologies (43%).
Not all advances in the use of technology are made at the cutting edge. Herman Miller is focusing on the integration of now-familiar tools into the physical world as a way of extending their impact. The furniture-maker’s Living Office plan uses mobile to transform the office. “Our next step in this journey is to create connected furniture solutions that allow employees to personalize their work experience through their mobile devices,” says Ryan Anderson, the company’s director of product and portfolio strategy. Users will be able to check into a shared desk, automatically adjusting it to their preferred sitting and standing heights—with an ultimate goal of reducing sedentary workplace behaviors by encouraging them to stand more often.

Conclusion

The future of work is mobile and digital. Organizations must rebuild technology, processes, and culture around this new reality—and do so quickly. As our analysis of Digital Workspace Leaders shows, sticking with old ways of working means losing out on productivity gains, higher employee engagement levels, and even financial rewards.

What must companies do to become a Digital Workspace Leader?

■ **Invest in technology, people, and skills that support digital work.** Just letting employees use their mobile phones for work will not cut it in this new environment—organizations must have the infrastructure, IT and HR support, and tools to make information securely available to relevant employees anytime, anywhere.

■ **Rethink—and rebuild—core processes around mobile technology and digital work.** Business processes must change to accommodate new ways of working. Organizations must think strategically about how new technologies and digital work will affect procedures in various lines of business, and make adjustments accordingly.

■ **Embrace a flexible, digital culture**—not just for leadership, but for all employees. Leaders must make sure the ability to work 24/7 does not create unrealistic expectations for employees and cause burnout. Opening lines of communication between managers and employees about expectations for after-hours work and flexible schedules or locations is a good first step.