
Organizations are reshuffling projects and accelerating investments that were already underway, leaning heavily on technology to stay competitive.

Amid the covid-19 pandemic, shifting business priorities





As business leaders plod through the uncharted landscape of a global pandemic, disruption and uncertainty are clearing the path for innovation. We saw this immediately, during the early days of the crisis, when organizations swiftly spun up remote office environments where workers could be safely productive. Technology providers leapt to deliver free or discounted tools to enable these new virtual workplaces, and banks, grocers, health-care organizations, and government agencies fast-tracked digital adoption to continue providing critical services and information to their patrons, patients, and communities. The force of such dramatic, concentrated change has swept transformation forward, bringing the projects that businesses once thought could wait to the top of the list.

When the initial shock of those first few weeks had settled, speculation about the “new normal” began. How will industries and workplace culture be transformed? Which changes will be permanent? How can businesses bend to the new social and economic realities of our post-pandemic world? New research, including the following report by MIT Technology Review Insights, is yielding some early answers to these questions, with data that points to shifting strategies and lessons learned.

Adding to the conversation, Inference Solutions’ recent report, [“Intelligent Automation Post-Covid,”](#) found that nearly two-thirds (64%) of US IT decision-makers plan to increase their investments in automation technology over the next year as a result of covid-19, with 71% noting that intelligent self-service has been key to remaining agile during the crisis. These findings seem to reflect the surge in activity that has flooded contact centers these past few months, as sheltered-in-place consumers have sought crisis-related services and information. But the research also indicates that increased service automation will be an ongoing trend, as businesses strive to remain competitive in the face of evolving market conditions and consumer expectations.

Though more than half (58%) of the survey respondents had already implemented an automation

strategy before the crisis, 76% agree that more automation, specifically for customer support, would benefit their workforces. Additionally, 73% agree that automating more support tasks would improve customer relationships and loyalty, and 69% believe customer service automation will play a significant role in their organizations’ resilience over the next two years. Automating even a few routine customer support tasks can produce immediate, tangible results in contact centers, illustrated by the 68% of survey respondents who agree that intelligent self-service has yielded a return on investment for their organizations.

IT leaders also seem to recognize a need to strengthen their workplace support channels. When survey respondents were asked about the business outcomes they are prioritizing over the next year, increasing employee efficiency and productivity was the top priority (even more so than

cutting costs), and 54% believe employee service automation, such as IT help desk, will be key to organizational resilience. Perhaps the rapid shift to remote work has identified, or created, opportunities for organizations to improve their employee experience.

In the wake of this shift, many businesses are also prioritizing tools that can streamline innovation. Three-quarters of IT decision-makers agree that tools that allow them to build and manage their own applications are important to their automation strategies. Having more control over application management can help IT leaders overcome the top barriers to adoption that they flagged in the survey: cost, time to development, and reliance on professional services for implementation.

As you will read in the following report, the need to adapt and evolve, along with a parade of fresh case studies in expeditious transformation, is helping businesses of all types move past barriers on the path to innovation. And so, with shifted strategies and lessons learned, the trek continues.

26%
of IT decision-makers expect to ramp up automation investments by 11% or more as a result of the pandemic.

1 OUT OF 3
organizations will invest in voice-based virtual customer service agents.

Learn more about how covid-19 affected the way IT decision-makers are using automation in Inference Solutions’ [“Intelligent Automation Post-Covid”](#) report.

Remember all those articles you read in January with headlines like “2020 trends to watch in your industry?” You tossed those predictions out long ago. But while everyone knows that the coronavirus pandemic changed everything, none of us is sure how.

As efforts to contain covid-19 crippled entire economies, put millions out of work, and forced office workers to clock in and out at home, every business – and every individual – has made changes. Some adjustments are or were short-term, such as [commercial airlines offering cargo flights](#) or even staid organizations [permitting staff to work remotely](#). But it's evident that deeper business transformations are underway. Organizations are reshuffling existing priorities and accelerating investments in technology to remain competitive while supporting the needs of their workforces.

To get insight into organizations' plans and expectations, MIT Technology Review Insights surveyed 372 business leaders from its Global Panel executive group to learn about covid-19's financial impact on organizations, its effect on their strategic decisions, and where management is investing company resources.



Nearly two-thirds of survey respondents expect covid-19 to disrupt the way their companies innovate.

The financial impact is significant. Among respondents, 62% expect 2020 company revenue to decrease – a quarter of them by more than 25% (see page 4).

To survive, businesses must adapt, and to accomplish that, they are leaning heavily on technology. Nine out of 10 business executives agree that corporate technology adoption will increase in speed because of covid-19. In fact, 44% “strongly agree.”

About this report

Based on a combination of survey-based market research and in-depth executive interviews, this report explores organizations' digital preparedness for the unprecedented business disruption caused by the 2020 coronavirus pandemic. It is sponsored by Inference Solutions, and the views expressed within are those of MIT Technology Review Insights, which is editorially independent.

- In June 2020, MIT Technology Review Insights surveyed 372 senior business leaders and academics – more than half of whom are C-level executives or directors. Survey respondents are members of the MIT Technology Review Global Panel, a group of professionals asked to share their expertise on technology and business.
- Survey respondents are global, with 41% from North America, 26% from Europe, and 19% from the Asia-Pacific region.
- Respondents work in more than a dozen industries; IT and telecommunications, at 24%, represented the largest response group, followed by professional services (14%), and education (12%).
- Respondents were asked to evaluate how the pandemic would affect revenue, technology investment, and innovation models at their organizations.



Whatever the impact on their own organizations, these leaders expect an overall shakeup in business as usual: 81% of them expect governments to increase technology adoption, and half think it's possible for Silicon Valley to lose its preeminence as the source of tech innovation. The changes also hit close to home. Nearly two-thirds, 62%, expect the coronavirus pandemic to disrupt the way their companies innovate.

Same initiatives, new importance

The pandemic is shaking up corporate priorities rather than introducing new ones. Nearly three-quarters (72%) report that covid-19 has acted as a catalyst to their companies' innovation, but fewer (53%) have changed their technology roadmaps substantially.

Projects that might have been top priority in January may be pushed back in favor of other initiatives – and vice versa. For instance, government agencies that postponed upgrades to the software that manages unemployment claims had to make emergency investments when systems failed. This prompted many of them to prioritize technology advancements, since ongoing demand requires agencies to provide more data and respond to a high volume of citizen queries.

The pandemic has caused other organizations to amplify or expand current technology projects. For example, customer support centers were already moving in the direction of automation, says Donna Fluss, president of DMG Consulting, an advisory company specializing in customer-service technology. That's because automation



Businesses are building new capabilities and ecosystem partners and automating as much as possible.

gave them an opportunity to improve across the board. “The best investments do three things,” Fluss points out: improve productivity, improve customer experiences, and improve the employee or agent experience.

Callan Schebella, CEO of Inference Solutions, can attest to the fast pivot to automation during the pandemic. The company develops virtual agents – software that uses artificial intelligence (AI) to simulate human customer-service reps and automate routine support tasks. Schebella says the number of customer interactions processed by virtual agents among Inference's customers has increased by 260%. Three reasons: contact centers are seeing spikes

Revenue expectations for 2020

Nearly two-thirds of companies worldwide see their revenue falling to some degree in 2020. Just 15% expect an increase.

Source: MIT Technology Review Insights' survey of 372 Global Panel members, June 2020

7%

DECREASE MORE THAN 50%

19%

DECREASE 25%-50%

35%

DECREASE UP TO 25%

23%

REMAIN FLAT

12%

INCREASE UP TO 25%

3%

INCREASE MORE THAN 25%

in demand, software doesn't need to worry about physical distancing, and virtual agents can work 24/7. Those are good attributes when workforces that used to be in call centers are now working from their homes, a new reality that could involve children home from school or relatives in need of medical care.

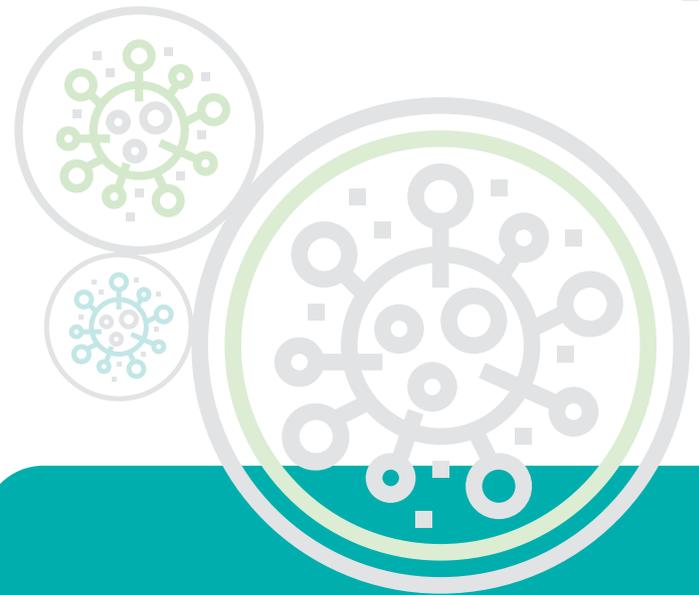
"The people who have made the investment in the technology are able to leverage it so much more, or they are leveraging it so much more because of, essentially, the pandemic," Schebella says.

An organization that saw an immediate benefit from its tech investment is UBS. The Swiss investment bank invests 10% of revenue in technology in order "to have the right sort of rock-solid infrastructure and digital capabilities which are client-centric," says CIO Mike Dargan. When workers migrated to their home offices earlier this year, they connected to the corporate system through a virtual desktop infrastructure. The bank could handle the surge because of a robust cloud system that allows for fast scaling up or down in response to demand. "Cloud is something that is absolutely critical to us to enable more burst capability in how we operate," he says.

The initiatives that have become more important because of the pandemic are a focus on new partnerships (55%) and accelerating the adoption of AI and automation (53%) (see this page). The most straightforward implication is that businesses are building new capabilities and ecosystem partners (that is, extending what the company can do) and automating as much as possible – for reasons ranging from implementing physical distancing to providing more services online to coping with a smaller workforce.

For instance, call-center agents who now work from home have to deal with family interruptions (and more) and need to adopt new practices and tools to ensure regulatory compliance, says Schebella. Health care-related help desks can't permit unauthorized people to overhear conversations – not even agents' children, and anyone doing e-commerce has to consider payment privacy. Schebella says virtual agents can help remote workers adhere to requirements set by the Payment Card Industry Security Standards Council and the Health Insurance Portability and Accountability Act.

The need for rapid change can stress an organization's flexibility and its ability to adapt to new environments.



Corporate priorities during covid-19

The coronavirus pandemic has many organizations reranking ongoing or planned business initiatives.

Seeking new partnerships

55%

Accelerating the adoption of AI and automation

53%

Focusing on workplace culture, including diversity, ethics, and rights of workers

37%

Increasing efficiency in R&D

29%

Increasing investment in R&D

23%

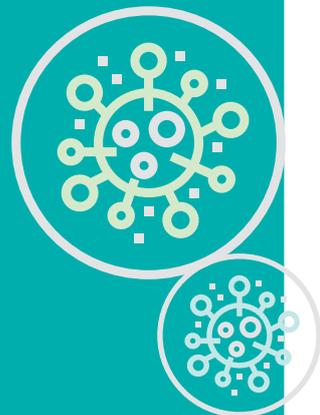
Diversifying innovation locations

23%

Sharing data with other public-or private-sector organizations

22%

Source: MIT Technology Review Insights' survey of 372 Global Panel members, June 2020



Partnerships can help, because they enable organizations to seek outside expertise when it isn't feasible in-house.

"We could expect business to change its resource allocations," suggests Brian Marks, executive director of the entrepreneurship and innovation program at the University of New Haven. Those might be a matter of personnel – such as a reexamination of staffing – but also might be technology-inspired partnerships. "We are likely to see a drive toward not only autonomous vehicles but other processes that could leverage computer-driven technology," he adds.

Recharting the course

Clearly, businesses are attempting to spend wisely as they face pandemic-driven challenges. As organizations look for partners to help them adapt, they make choices about the most appropriate technology investments for their needs.

For example, organizations' financial situations may affect business priorities. Consider the 15% of survey respondents who say their companies' revenue will increase because of the pandemic. With money to spend, they expect to increase investments in new partnerships and collaborations (68%) and accelerate AI and automation (59%). They're less likely to invest more in research and development – just 18% are prioritizing R&D, compared with 29% overall.



As organizations look for partners to help them adapt, they make choices about the most appropriate technology investments for their needs.

All eyes on diversity

Covid-19 did not merely prompt corporate changes to technology investment. The secondary set of changed business priorities identified in the MIT Technology Review Insights survey are cultural. More than a third of respondents report a sharpened focus on workplace culture, including diversity, ethics, and workers' rights.

A quarter of organizations will increase diversity-and-inclusion efforts in the wake of the pandemic, according to a study by British technology vendor Attest. The heightened attention to diversity follows widespread social-justice protests inspired by the death of George Floyd at the hands of Minneapolis police in May, which coincided with spreading coronavirus infections and the subsequent economic lockdown.

But even well-intentioned efforts are questionable if organizations don't know how to pull them off. While businesses talk about diversity, they aren't necessarily ready to put plans into action, says Rebecca Wettemann, at market research company Valoir. "Only one in 10 companies say they've significantly increased diversity-and-inclusion efforts or investments since March – and more than half have made no change."

One that made big changes before the pandemic is Seventh Generation, which sells eco-friendly cleaning products. Five years ago, the company, based in Vermont, was largely homogenous: less than 6% of its employees were people of color. "We're now at about 16%, which is still not anywhere close to what we need to be," said CEO Joey Bergstein.

DMG Consulting's Donna Fluss says now more companies will finally get serious. "After years of lip service on diversity, we are now going to see more than lip service. I think it's going to be a benefit to many people."



A year ago, just the thought of rapid business change would have rattled many people. But one happy discovery in the pandemic is organizations have learned how quickly they can adjust.

These are also the top priorities for those with new belt-tightening needs (55% for partnerships; 55% for AI), but the cash-strapped are more likely to invest in R&D (33%) than are the more profitable companies. That suggests a pressing need for innovation and longer-term thinking.

As business leaders redraw their technology roadmaps, they're investing more in product and service digitalization – that is, using digital technologies to produce new value (81%), data analytics (63%), supply chain digitalization (63%), and cloud migration (61%). These are long-term initiatives that have been underway for quite some time, across all industries (see this page).

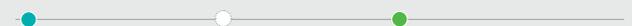
Changes in investment priorities

With work, recreation, and shopping increasingly done online, organizations are investing more in digital technologies to generate revenue.

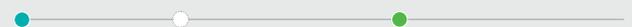
PRODUCT AND SERVICE DIGITALIZATION



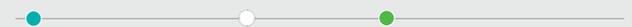
DATA ANALYTICS



SUPPLY CHAIN DIGITALIZATION



CLOUD MIGRATION



AI



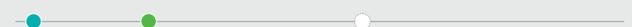
INTERNET OF THINGS



ROBOTIC PROCESS AUTOMATION



ROBOTICS



Source: MIT Technology Review Insights' survey of 372 Global Panel members, June 2020

More interesting, as an overall marker, is a significant rise in AI investments (say 53% of respondents) and the internet of things (46%). Wearsafe Labs is one tech company seeing some of that new interest. The Hartford, Connecticut, company makes mobile personal safety products and emergency communication services using internet-connected devices, mobile phones, and Global Positioning System technology. "We connect seniors who are alone, health-care workers on the front line, and insurance companies that want to offer their customers more," says CEO David Benoit. "We have seen a massive increase in overall use in these categories."

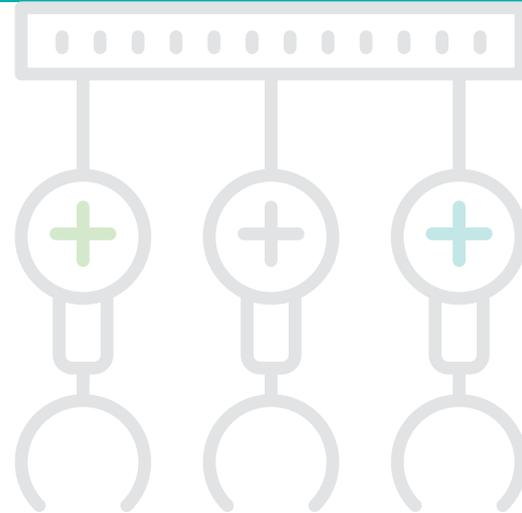
Key takeaways

- 1 Organizations are leaning heavily on technology to adapt to the economic environment the coronavirus pandemic created. Nine out of 10 business executives say technology adoption will increase, an MIT Technology Review Insights survey shows.
- 2 The crisis has prompted many organizations to reshuffle business priorities, moving some initiatives down their to-do lists in favor of other, often technology-related projects. Other organizations are expanding existing tech investments.
- 3 Pandemic-recovery strategies differ across organizations. For example, organizations that expect revenue to be hit hardest by the pandemic are more likely to invest in research and development than better-off organizations, which plan on forging new partnerships and accelerating artificial intelligence adoption.



Some technologies are especially relevant to particular industries. Manufacturers are more likely to benefit from hardware-driven initiatives, for example, especially as they contemplate how to reorganize factories so workers no longer work shoulder to shoulder. But those projects aren't particularly meaningful to, say, a university. Thus, there is some increased investment overall in robotic process automation, and robotics – 40% say they are investing more in RPA; 22% in robotics – though not at astonishing rates.

Technology priorities vary depending on how well organizations have weathered the coronavirus storm. For instance, 85% of companies that took the biggest financial battering expect to invest in product and service digitalization, compared with 70% of the organizations whose income increased during the pandemic. The “doing just fine” set is increasing investments in data analytics (75%) – but so are 65% of the organizations whose belts have been tightened.



A year ago, just the thought of rapid business change would have rattled many people. Few large organizations are nimble, and even fewer have a tradition of making changes swiftly. But one happy discovery in the pandemic is businesses have learned how quickly they can adjust – when they have to.

The important thing, in a time of great uncertainty, is to have the technological capability to thrive. At UBS, the unknowable doesn't shake CIO Dargan. “Will that be a consistent step change, and do we expect people to always be working from home and shopping from home and doing stuff from home?” he says. “The reality is to a certain extent yes, but I think also it's too early to know.”



“Amid the covid-19 pandemic, shifting business priorities” is an executive briefing paper by MIT Technology Review Insights. We would like to thank all participants as well as the sponsor, Inference Solutions. MIT Technology Review Insights has collected and reported on all findings contained in this paper independently, regardless of participation or sponsorship. Jason Sparapani and Laurel Ruma were the editors, and Nicola Crepaldi was the publisher.

About MIT Technology Review Insights

MIT Technology Review Insights is the custom publishing division of MIT Technology Review, the world’s longest-running technology magazine, backed by the world’s foremost technology institution – producing live events and research on the leading technology and business challenges of the day. Insights conducts qualitative and quantitative research and analysis in the US and abroad and publishes a wide variety of content, including articles, reports, infographics, videos, and podcasts. And through its growing MIT Technology Review Global Panel, Insights has unparalleled access to senior-level executives, innovators, and thought leaders worldwide for surveys and in-depth interviews.

From the sponsor

Inference Solutions Intelligent Virtual Agents (IVAs) help businesses of all sizes automate their customer care workloads while empowering human service agents to focus on the highest-value activities. Inference’s cloud-based, code-free IVA development platform makes it easy for businesses and service providers to build and manage omni-channel self-service solutions that leverage leading conversational AI technologies by Google, Amazon, IBM Watson, and more. The Inference platform gives organizations greater choice, flexibility, and control in launching self-service applications that deliver highly engaging and efficient customer experiences.



Illustrations

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