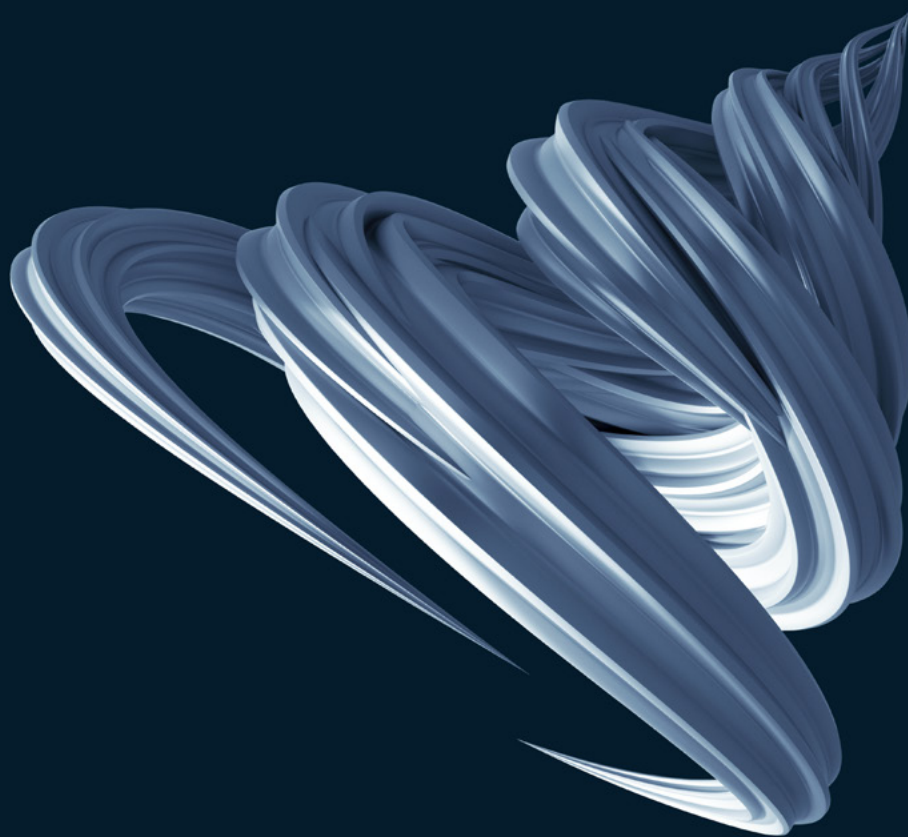


How chief data officers can navigate the COVID-19 response and beyond

Chief data officers play a pivotal role in enabling data-driven decision making that will help their organizations respond to COVID-19 and emerge from the crisis in a position of strength.



*This article is written collaboratively by global leaders of McKinsey Technology including **Kevin Buehler, Holger Harreis, Jorge Machado, Satyajit Parekh, Kayvaun Rowshankish, Asin Tavakoli, and Allen Weinberg.** We integrate deep expertise and thought leadership from the best of McKinsey's experience in this unprecedented COVID-19 crisis to explore how data leaders can act across three horizons to shape the way forward: ensure data teams—and the whole organization—remain operational, lead solutions to crisis-related challenges to come, and adapt to the next normal.*

As the COVID-19 pandemic spreads across the globe, so too does its extraordinary impact on nearly every country, business, and individual. Each day, the world wakes up to rising case counts and reports of unprecedented government efforts to both keep citizens safe and stem economic impacts—efforts that rely on access to trusted, quality data.

Industries at the forefront of the crisis are also relying on data in innumerable ways to inform their response to the crisis. Healthcare providers, for instance, are leveraging data from countries that were affected earlier by COVID-19 to forecast needs for hospital beds, masks, and ventilators. Grocery chains are using sales data to help distributors identify and ship the items most important to their customers. Meanwhile, the sectors we rely on to keep the wheels of the economy moving are using data to inform their operations. Telecom players, for example, are using network traffic data to decide where to upgrade capacity in response to the tremendous demand for bandwidth from an increasingly remote workforce.

Chief data officers (CDOs) in every industry will play a critical role in crisis response and the next normal that follows. In today's high-stakes environment, where misinformation proliferates and organizations must make decisions at a rapid pace, there's arguably never been such an imperative for CDOs to provide organizations with timely and accurate data.

Senior executives will need ready access to both new and newly critical data to make unprecedented decisions in the short term and inform adjustments to their business strategies and operational plans in the medium to long term. Banks, for example, will need to rethink credit models. Manufacturers will need to reconfigure supply chains. CDOs must not only lead the way in sourcing, storing, and serving up the necessary data but also work alongside business and functional heads to identify and drive these new priorities. All the while, they'll tackle other mission-critical responsibilities such as enabling rapid reporting, mitigating new data-related risks, and helping their organizations shift to a predominantly digital operating model.

In this article, we highlight three waves of actions CDOs should consider to help their organizations navigate the crisis and the uncertain landscape that lies ahead:

- ensure data teams—and the whole organization—remain operational
- lead solutions to crisis-triggered challenges to come
- prepare for the next normal (and execute soon)

These insights are based on our discussions with data leaders across industries over the past few weeks and our experience from previous crises, both financial and health related.

Ensure data teams—and the whole organization—remain operational

The priority for CDOs is to take steps to protect employees and help keep the organization up and running, safeguarding data as companies move fast to respond to the crisis.

Enable business continuity. Many institutions have data technology or operations in multiple locations, including offshore, which must remain closed or operate with skeletal capacity. CDOs

must continue to provide for the health and safety of their team members and colleagues first and foremost. As the situation develops and shifts, data leaders should continue to revisit the business-continuity plans for their data operations to ensure that there is adequate support on core data platforms, identifying key personnel and obtaining the required government waivers for maintaining the critical infrastructure.

Set up a dedicated COVID-19 data nerve center.

The COVID-19 data nerve-center team should include report owners, data stewards, data engineers, data scientists, and data-visualization specialists. This group should be tightly integrated with the enterprise-wide COVID-19 response team that is likely already in place and drive data efforts that address the broader team's needs as well as those of other leaders, such as rapid development of executive dashboards and daily reports on company performance. In response to these urgent requests, we're seeing companies quickly adopt tools such as robotic process automation to ingest and process data much more rapidly than they could in the past.

Ensure data protection and privacy. Organizations are being forced to operate in ways they have never had to consider, such as having a large portion of their staff working remotely for extended periods of time. As organizations rapidly adapt to these changing needs, they are exposing their data assets to a variety of new attack vectors as well as increasingly aggressive versions of existing foes (bad actors that deploy ransomware, for example, know hospitals do not have time for lengthy negotiations). There are also rising data-security concerns around providing riskier employees

with remote access to personally identifiable information (PII), since traditional data controls may not work. CDOs need to work with their information-security peers to update the controls in place, particularly on their key data assets by, for example, limiting the ability to export data. CDOs could also update policies to incorporate the remote-worker role with limited permissions, for example, to take and print screenshots or use external storage devices.

Lead solutions to crisis-triggered challenges to come

Organizations will face a vast number of challenges in the coming months as they adjust to new ways of working and serving customers, and potentially confront additional waves of the virus's spread. CDOs can help in several areas.

Plan for likely stress scenarios. During the 2008 financial crisis, banks struggled to aggregate the data needed to prepare reports for mitigating risk. Since then, many banks have invested in these capabilities—driven in part by the regulatory push of the Basel Committee on Banking Supervision regulation 239 (BCBS 239) principles—an investment that's paying dividends in the face of the COVID-19 crisis. CDOs in other industries should adopt similar practices in an effort that supports their company's plan-ahead team. The effort should begin with identifying the probable stress scenarios—such as another rapid increase in the infection rate, geopolitical events, or bankruptcies—defining the types of reports required to monitor each of them and surfacing the data needed to build them. They will also need

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to adjust data processes to adapt to the typical challenges observed during times of stress—for example, “shutting off” or at least limiting nonmaterial data streams to reduce the load in an environment where key employees might be absent or redeployed on crisis-related projects.

Proactively tap new data sources. During this time, the CDO should become the go-to person for all data needed across the organization—not just existing sources, but also new and alternative ones, such as video, audio, and geospatial. Some retailers, for example, are using state-level COVID-19 trends to manage inventory, categorizing their merchandise into two buckets: essential or nice to have. To guide their data sourcing, CDOs should proactively engage business leaders now to understand the challenges likely to arise throughout the phases of the crisis and its aftermath so that the data is on hand when it’s needed. In addition to helping to identify and provide data, we see CDOs in some industries supporting the execution of analytics use cases such as store-closure prediction, sentiment analysis, or supply simulation. Forward thinkers are proactively setting up data labs to identify indicators of economic recovery from customer, supplier, and vendor signals.

Contribute to data ecosystems for public good. Evaluate opportunities to exchange data (including that which may not have been deemed useful earlier) with peers at adjacent companies, government agencies, and nongovernmental organizations (NGOs) to help solve societal problems related to the current crisis. An alliance of researchers and technology leaders recently launched the COVID-19 Open Research Dataset (CORD-19) and were supported by the White House in issuing a call to action to develop new text- and data-mining capabilities to help answer questions about the disease. The European Commission is convening a group of leading telecoms in Europe to leverage anonymized cell-tower data to enable cross-country relief efforts for impacted regions. Participating in data ecosystems will not only help citizens but also help organizations develop the ecosystem-building capabilities and partnerships they’ll need to

compete going forward as industry boundaries continue to blur.

Prepare to reduce cost surgically. Take a “reprioritize and invest” approach to the current portfolio of data initiatives rather than a “slash and hold” approach. Organizations that radically reduced their portfolios during previous crises came out on the other side of them markedly less prepared than those that did not. In the automotive industry, for instance, investing in digital sales channels is critical for success in the long run (and also helps in the nearer term by bypassing complex dealer structures affected by COVID-19). Cost reduction is an important priority, but adapting the business model through data and analytics in the longer term is as well.

Prepare for the next normal (and execute soon)

CDOs should begin planning and executing initiatives that allow their firms to emerge from the crisis with better data capabilities and organizational resiliency.

Leverage momentum to invest in the future. Chances are that CDOs will build out new capabilities or showcase the value of existing ones as they contribute to the crisis response. Some of these could serve as the building blocks for long-deferred initiatives, such as developing a 360-degree view of the customer, adopting consistent tool sets and processes, or modernizing their data architecture and moving to the cloud. They can also serve as a catalyst to recommit to—or perhaps even set bolder—organizational aspirations to become data driven. Businesses are likely getting even more practice using data as they make decisions on the back of crisis-related data. Build on these efforts by setting stretch goals such as having *all* meetings and key decisions backed by data. While implementation of these initiatives will require time, they have the potential to shore up the health of the organization and prepare it for the future.

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Review and revamp offerings. The crisis will force CDOs to review their offerings based on new needs arising from the next normal, which is likely to be more digitized than ever before. Risk reports and other business intelligence will likely change along with the data that populate them. Data and models for churn or attrition, workforce management, relationship deepening, digital marketing, and supply-chain and market analytics will all need to be refreshed. This will be an intensive and significant undertaking for the entire organization, requiring visionary and communicative CDO leadership.

Hire and retain top talent. Good data employees can be hard to replace, so finding ways to protect them should be a top priority for the CDO. Additionally, as smaller organizations and start-ups face financial instability through the crisis, top data talent may be looking for work. Make it a priority to hire this talent for the betterment of society, the economy, and your team. Some companies have already taken measures to establish themselves as a “safe-harbor brand” on the talent market and are bringing in top talent who were previously not interested in joining. They are using this momentum to transform their culture and ensure that top-tier talent remains onboard.

Build resiliency for future crises. Invest in additional capabilities that will allow the organization to create more flexibility and timeliness in data aggregation and reporting. One example would be to proactively conduct “drills” to simulate a scenario and produce and discuss ad hoc reports. By strengthening this muscle, we expect that organizations will be much

better prepared for any subsequent outbreaks or other crises—which are likely throughout the coming decades.

Rethink and digitize physical processes and footprints. Many organizations will need to rapidly reinvent processes that previously required physical documents, to become paperless. Enabling the submission of scanned copies for document verification and supporting contactless servicing capabilities (for example, by creating digital forms to replace physical forms and enabling electronic-signature capture) will likely be key priorities. Organizations finding rapid success in these areas are adapting solutions that are already used by other business units or for other products. Any entirely new processes that are developed will require ample time for testing.

For sectors with a significant physical footprint, such as brick-and-mortar retail, CDOs should lead the way in enabling key decisions—for example, by crossing geospatial data for their stores with data on propagation of the virus to help leaders decide on physical-store closures and where to employ augmented-staffing models.

Reinforce the ethical use of data. As organizations make these new pushes, it will be important for CDOs to drive home the tenets of data governance and ethical data usage to all data citizens across the company. Although crises often require rapid action, the cornerstones of any data initiative should continue to be data risk, privacy rights, and ethics. While the crisis lasts,

CDOs might have to employ quick-hit tactics, such as defining and circulating ethical data-usage principles and educating teams new to using data on the fly. Leveraging programs such as data and analytics academies and making significant use of online learning can make this type of important education ongoing and give it greater depth.

This is a difficult time for everyone—corporations, governments, customers, and employees. While CDOs' near-term focus should overwhelmingly be the health and safety of employees and enabling crisis response, as the situation stabilizes, they must step up and make a big contribution to the long-term viability of their organization by empowering it to make effective data-driven decisions.

Kevin Buehler and **Allen Weinberg** are senior partners in McKinsey's New York office, where **Jorge Machado** and **Kayvaun Rowshankish** are partners; **Holger Harreis** is a senior partner in the Düsseldorf office, where **Asin Tavakoli** is an associate partner; and **Satyajit Parekh** is an expert in the Waltham office.

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