Three Types of Chief Digital Officers and the Reasons Organizations Adopt the Role

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Executive Summary

Digital innovation impacts every industry, and in response many organizations have introduced a new leadership role—the chief digital officer (CDO). Based on interviews with CDOs from various sectors, we have identified three types of CDOs—digital accelerators, digital marketers and digital harmonizers—and three domains where successful CDOs build digital capabilities (digital innovation, data analytics and customer engagement). As shown below, each type of CDO focuses specifically on one of the digital capabilities. The table also shows the primary objective of each type of CDO and the reasons for establishing that role.

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<th>Three-Stage Evolution of AUDI toward Big Data Analytics</th>
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<td><strong>Key capability</strong></td>
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<td><strong>Primary objective</strong></td>
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<td><strong>Reason for Establishing</strong></td>
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Digital Accelerator CDOs. The common characteristic of digital accelerator CDOs is that they drive digital innovation—typically complementing existing IT leaders who are predominantly involved with supporting operational and mission-critical activities, with a strong emphasis on reliability, performance and security. The scope of the CDO is different from that of IT executives in their organizations—less focused on operational reliability and more focused on experimenting with new capabilities in novel areas. Digital accelerator CDOs complement more conservative IT organizations by focusing on rapid development and evaluation of digital technologies. The role of digital accelerator CDOs is to achieve fast results by facilitating continual experimentation with minimal viable products of digital innovations.

Digital Marketer CDOs. This type of CDO guides the organization’s digital marketing efforts with an emphasis on customer intimacy through technologies like social media and mobile computing, as well as intensive analysis of customer data. Digital marketer CDO roles have been established to streamline online and offline marketing channels for engaging with customers. These CDOs complement marketing efforts by deploying digital technologies that can enhance products, customer relationships and competitive position.

Digital Harmonizer CDOs. In addition to complementing the IT or the marketing functions, some CDOs (digital harmonizers) are brought in to take an aggregate view of all ongoing digital initiatives. These CDOs are charged with linking together a wide variety of digital initiatives in many different areas of their organizations. The digital harmonizer role is a way of bringing these initiatives under a single, typically more strategic, umbrella. Digital harmonizers aggregate the disparate digital efforts distributed across the organization into a single unit and coordinate them. They emphasize governance and the need for transparency in digital projects.

1 The full article is published in the June 2017 issue of MIS Quarterly Executive, available online at www.misqe.org.
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Digital Innovation Capability. To accomplish digital innovations, CDOs need to be comfortable with indeterminacy and with continually experimenting. We found that successful CDOs take an agile approach to innovation and continually drive experimentation and iteration. The experimentation approach involves creating a minimal viable digital product and developing it further based on a pilot implementation and feedback. Successful CDOs need to be comfortable with indeterminacy, experimentation, learning and adaptation.

Data Analytics Capability. In the age of “big data,” CDOs need to develop or acquire capabilities for data analysis so they can gain insights from both internal and external data sources. Not all CDOs need to be able to analyze data directly—but they do need to understand what data can do for their organizations and lead the efforts to analyze data for new insights. Note that it is not necessary for CDOs to fully understand data analytics. But again, they should take an experimentation-oriented approach to building analytics capabilities. Successful CDOs are comfortable with learning as they go.

Customer Engagement Capability. CDOs focus intensely on relationships with their organizations’ customers—understanding the customer experience and the role of digital technologies in this experience. The end customer was the center of attention across our sample of CDOs. Without exception, the CDOs we spoke to have a laser-like focus on the end customer.

Bridging Traditional IT (CIO’s Domain) and Digital Innovation (CDO’s Domain)

Experiments with digital innovations may not be high on CIOs’ agendas because their primary focus is on maintaining large-scale mission-critical systems performance in a reliable and secure manner. Often, CIOs simply cannot add more responsibilities to their agendas. The challenges faced by large, preoccupied IT departments, the necessity of digital marketing, and other units like marketing and HR initiating their own digital innovation projects are all catalysts for adopting a CDO role. In many ways the CDO acts as a buffer between the business and the IT unit. The CDO complements the IT unit, focusing on end customers and integrating existing and new digital initiatives.

However, CIOs provide a solid foundation for CDOs to build digital capabilities. Over the years, CIOs have established stable robust infrastructures that provide the platform for what CDOs are able to accomplish. Without integrated processes, data transparency and information management policies in place, CDOs would not have a good basis for scaling their initiatives.

Our research shows that a new executive role is needed to fill specific gaps in an organization’s IT landscape. These gaps may be filled by existing executives (the CIO or the CMO) or by new digital executives (the CDO), but the key is to clearly delineate the space that the executive occupies. It is also important to define clear key performance indicators for all executives driving digital innovation. By clearly defining the roles of executives involved in digital innovations, it is possible to avoid situations where one person tries to navigate the whole digital transformation.

Over time, the title “CDO” might evolve into other related roles, such as “chief innovation officer,” “director of emerging platforms,” “director of digital technologies” or “head of digital innovation.” In some organizations, the CDO role may re-merge with the existing CIO role or with the marketing unit. Nevertheless, all current evidence points to a future where “digital” will remain one of the top priorities in organizations, and executive leadership for digital innovation will be needed in one form or another.

In summary, we found that CDOs are central to innovative digital transformation efforts. To provide a reference point for future studies, we have characterized the three CDO types along three dimensions. The CDO types differ along these dimensions and have distinct focal domains in which they build digital capabilities. The distinction between CDO types and digital capabilities provides a framing for the role of future digital leaders whatever their label might be. The CDO role is still emerging and more and more organizations may decide to adopt the role. Alternatively, the CDO role may, in time, transform into other roles. At present, it is not possible to say which route will be most popular. In the meantime, organizations should consider appointing a CDO as a way to capitalize on the potential of digital innovation. The full article provides guidance on deciding whether to adopt this executive role.