THE NEW CHIEFS OF COMMERCE IN THE DIGITAL ENTERPRISE

The New Role of CDOs and CIOs in Driving the Digital Transformation of Enterprise Commerce

Executive Summary

Nothing will be as it is today in two years' time. Digital has changed everything. Which companies lead, and which stagnate – or fold – will largely depend on decisions about who's leading their digital transformation.

To truly transform, to change the internal mindset as well as everything customer facing, organizations are hiring rebels. Often with the title of Chief Digital Officer (CDO), these individuals have a limited life span; the best ones work themselves out of a job in 2-4 years.

In this first-of-its-kind research from commercetools, the driver of the digital transformation of commerce in the enterprise, we sought answers from billion-dollar enterprises about how they face complete organizational transformation. We asked who leads the charge, who executes the vision, and how the C-Suite has changed and adapted. Some organizations have it clearly handled while others seem to be struggling to get it right.

But in order to better understand how they transform, we knew we needed to understand why. Why do large enterprises blow apart long-standing organizational silos? Why do companies hire firebrand change agents to mollify mindsets?   It turns out that although the customer is in fact the driving force for digital transformation, it's really about where, when and how the shopper becomes a buyer.

"That's both why I think most organizations have a digital organization, and why I think the digital portion will eventually blend into the rest of the business"

The Top Three Drivers of Digital Transformation Are Punctuated by Commerce

For most enterprises today, online commerce is no longer an isolated channel managed by a crack team of web programmers and marketing campaigners. It has become a core source of revenue attribution and thus has impacted nearly every business process across the organization. But the extent to which commerce drives digital transformation in the enterprise is astounding. Some analysts believe this is because commerce is considered 'low hanging fruit' - that it is an area where the team can show a quicker win with quantitative ROI. In our research, the three most critical motivating factors for digital transformation initiatives outlined below, commerce is an element of each.

1. Online Transformation: As more and more people shop online, businesses need to find a way to maintain their market share by providing the platform that some customers prefer to research and purchase products. This is driving companies to enable robust e-commerce as a core competency of their business to remain competitive and relevant to modern customers.

"If you put a tablet, a laptop and a handset in front of an 18 year old and told them to buy something, they will pick the handset every time."

2. Everywhere Commerce: There is a wide recognition that business needs to service customers through the channels that customers prefer, rather than trying to force customers through channels that have been historically convenient for businesses.

"The way we look at it, I don't care where that customer wants to flash that credit card, we are going to take it wherever they go."

Additionally, companies want to offer customers a more unified shopping experience and allow customers to move seamlessly from web to mobile to in-store. This not only increases customer satisfaction but increases the quantity and quality of data that companies are able to collect on customers. This, in turn, allows organizations to deliver an ever more personalized experience. In truth, companies are looking beyond "satisfied customers", and are seeking to provide an experience that causes customers to become brand ambassadors.

3. Pure Players: The pure players are companies like Amazon, Alibaba, etc. They are the proverbial "We're a tech company that happens to be a retailer" e-commerce leaders. Interviewees see them as the gold standard for order fulfillment and shopping efficiency. Interviewees are reluctant to fold in under the pure players because it greatly limits access to highly valuable customer data. The example of Amazon, and the desire for their own data, is driving companies to create ecommerce sites of their own rather than cede selling power and data to online hyperscale ecommerce businesses.

When the Chief Digital Officer is at the Helm of Transformation

In all of the companies interviewed for this project, there is a person high up in the organization that drives change. At most companies this person is the Chief Digital Officer. The CDO role exists because there is no one business unit that can drive the change. Marketing can't transform the in-store experience. The retail arm isn't going to provide online social interaction with customers. The CDO is tasked, directly by the CEO, with breaking down silos and enabling cross-department digital initiatives. To succeed, they must bring together e-commerce, social, marketing, retail, logistics, operations, sales, finance, IT, data science, and other departments.

> *"Even as digital marketing rose, opportunities are missed. Companies would send communications that didn't mention their loyalty program, but they didn't, because the loyalty information was in a different system. In so many specialty retail categories, it's driven by repeat users, and you need to have a strategy around that."*

Companies with CDOs or CDO-esque positions can be split into two categories: rebels and innovators.

The Rebels: There are companies where the CDO is the "rebel." It is this CDO's job to evangelize the digital transformation, and they have ~4 years to complete their mission. If they succeed, they will have worked themselves out of a job. If they fail, they're just out of a job, and the company is woefully behind.

The change that is being driven here is a "human change." Instead of just putting new technology in place, these people are tasked with changing mindsets – something that is much more difficult and time consuming to implement than a new software platform.

> *"It's this continuum of 'we're going to do this ourselves, because we don't think you guys can do this yourself as part of the organization' - it's not all skill, its mostly cultural. And then, we're going to help you understand what we are doing, and then help you do it, then it becomes redundant at a point."*

The Innovators: There are also companies that are innovative at heart. At these companies, the CDO role is largely already gone or it has been replaced by a CDO/CIO combination. These companies have already been through their "human change" and are able to focus on implementing new technologies and integrating technology into every part of the company strategy.

> *"The role has shrunk out of the marketing and operations area but grown broader in the technology space."*

CIOs Lead in a Digitally Mature Organization

As previously mentioned, the CDO role is split into two categories based on the digital maturity of the organization.   Forrester groups digital maturity into three segments: beginner, intermediate, and advanced. (Forrester: Digital Business 2018: Benchmark Your Digital Journey – The Digital Business Playbook, Feb. 2018). Our research identified a clear leadership difference between companies in the advanced category – or companies that have embraced digital and have integrated it into every part of the company - versus the beginner companies - those that are not yet providing a digital first, end-to-end customer experience.

At companies still in the middle of their transition, the CDO has the role of being the agent of transformation – spearheading the transition and convincing their organization that a transformation is the right move for the long term. This is the human change. Because of the nature of this role, the CDO is seen as something that is temporary – these people are only successful if they put themselves out of a job.

> *"There should not be a separate digital role, because that is when it conflicts with what the CIO wants to do. It also drives the thinking of CIO becomes old school where you are maintaining your network, your security you are doing end user computing and serving internal customer needs while the digital becomes all the new and the sexy stuff that is driving the growth of the business. Combining these two becomes critical in making thinking digital become part of your DNA. Once it becomes part of your DNA across the enterprise you no longer need a CDO, everyone is thinking digital."*

While the CDO at these companies is focused on bringing technology into more aspects of the company strategy and disrupting old technology, the CIO is often the guard of the "old school" way of thinking. They are focused on the technology that is already in place, and how to make that run more efficiently without causing financial burden. The CIO is also often ROI focused, and the CDO is often not under the same constraints. Companies in this stage are often facing an existential threat to their existence, and the CDO's job is to keep the company relevant in a rapidly transforming market and in the face of changing customer expectations.

> *"There are certain activities where ROI modeling is easy, but in other areas where you don't have priors, you can't do that. Some of it isn't to grow the business, it's innovation that needs to happen to just keep the business where it is."*

This conflicting priority list between the CDO and CIO is one of the reasons that companies who have already made this "human change" generally fold the CDO role into the CIO's responsibilities. At these companies, it is no longer necessary to have someone whose main goal is to evangelize a movement towards a technology driven end-to-end customer experience – the CDO has already performed that role. Instead, the CIO can focus on implementing that technology without getting pushback from within the company.

	CDO	CIO	Combined Role
Beginning Transformation	The Change Agent: Focused on 'human change'; evangelizing the need to transform across the organization	The Guardian: focused on how to make existing technology run more efficiently; ROI focused	
Digitally Mature			CIO as the executor: implements new technologies freely without internal pushback

CDO & CIO roles change based on digital maturity of the enterprise

Ideal CDO Outcome

As change agents, CDOs often come into companies that are typically way behind and playing catchup on digital transformation. Many of these companies are still running services largely, if not entirely, on-premise and have a traditional (less-digitally focused) view of marketing. Additionally, most of the organizations seem heavily siloed, which impedes company-wide initiatives. During this period, the role of the CDO is that of "Chief Evangelist" – they are the person that is tasked with getting the entire organization on board with the goal of using technology to enable a fundamentally different customer experience.

"The role is a little more focused on the delivery of the technology."

"We got to a point where it made sense to bring those teams together, with an expertise around digital and a diminishing expertise around some of the more traditional marketing materials."
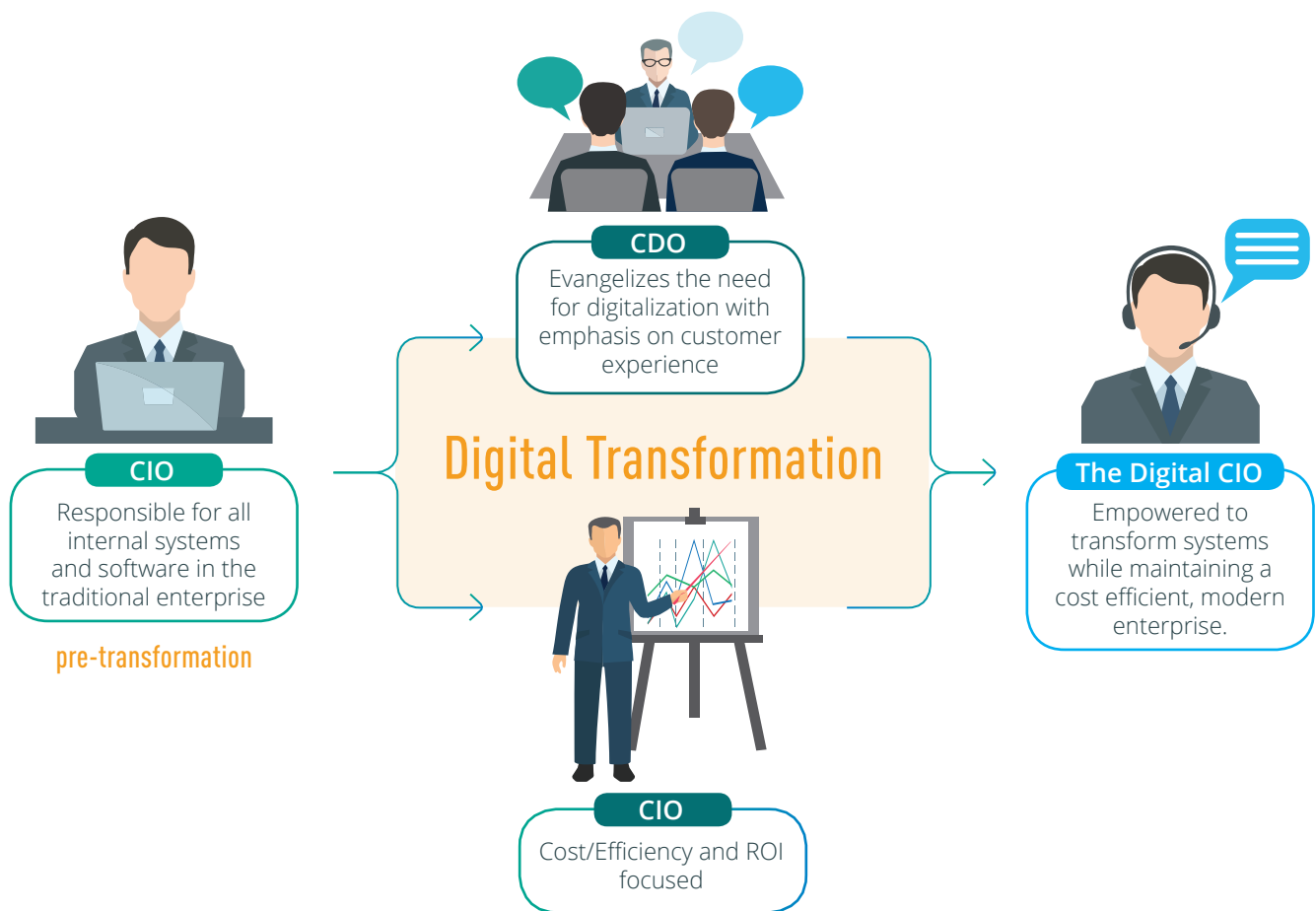
"We're making it so that a customer can create a wish list online, and the rep can pull that up in the store."

"There's a ton of work to get your customers to participate in digital. Starbucks is seen as this huge digital success, but it only has 10% of their customers order digitally. With Pizza, it's 50%. With clothing, it's really hard to get fit just right. You're seeing retail transitioning to using their stores as distribution centers. Hotels are shifting to apps so that you can have a hotel experience inside and outside the hotel. Grocery pickup is finally starting to work after a decade."

A successful CDO will be able to show that the organization has changed fundamentally in their attitude towards digital technology. A concrete outcome of this is that instead of having a marketing team and a digital marketing team, these two teams will have merged into one team that has a shared focus and goals. E-commerce and retail will also be merged or brought closer together. Another outcome is that the IT team will be looked at as less about laptops and email, and more as a key partner of every aspect of the business. At the end of this time, the role of the CDO would be combined with the CIO.

"A few years ago, we saw the emergence of the CIO, and the industry was like 'what does the CIO do?' The CIO evolved into leading a technology organization – they would work with the business, understand the business and then deliver something through technology. And then that phase evolved into the CTO. They are not only delivering to the business requirements but also setting the strategy in terms of technology. Other than delivering the business needs they would decide 'what kind of technology do we need to move into.' The technology leaders were starting to play a more influential role on the business folks. And now you see the industry moving into the CDO and CIO roles combined. What that means is not only do you influence the technology, but you also influence the business strategy. You sit with the business partners from day one, understand existing business process while you are defining the future business process, and have digital be at the center of it. The reason this has become part of the CEO's staff is the digital mindset has to start from the top so you can have executive influence across the enterprise, it's a shift in mindset, and everybody has to buy into it."

CIO
Responsible for all internal systems and software in the traditional enterprise

pre-transformation

CDO
Evangelizes the need for digitalization with emphasis on customer experience

Digital Transformation

CIO
Cost/Efficiency and ROI focused

The Digital CIO
Empowered to transform systems while maintaining a cost efficient, modern enterprise.

Commerce Drives Digital Transformation

As previously mentioned, commerce platforms are the logical focal point for most companies' digital transformations. There are several reasons this is the case:

Movement to Online Purchase: As more and more people and businesses begin to purchase items and services via online platforms/applications, traditional brick and mortar businesses are feeling the competitive squeeze if they have not made a concerted effort to ramp up their online business.

Desire for a Unified Shopping Experience: Continuity between an online shopping experience and an in-store shopping experience is an increasingly important piece of many companies' value propositions.

> *"We have conversion from web to store of 70%. They look online and then buy in the store. We don't try to push customers to buy in any particular channel anymore – we let them buy where they want."*

Need to Drive Customers to Purchase: Marketing and content is increasingly focused on digital. If your company does not have a commerce platform to direct traffic to, you are failing in your omni-channel strategy, even if your content/marketing is driving enormous amounts of traffic to your website.

Necessity of Owning Customer Data: Data ownership is increasingly important. When companies have a large portion of their sales going through e-commerce platforms they do not control, they are not collecting data on these customers and have no way to predict their purchasing patterns. Owning data and analytics capability is also a strong driver of e-commerce. As more and more data is brought into companies, it drives companies towards a more digital approach – there is a need to analyze the data that is collected.

Commerce Technology for the Post-Web Era

Interviewees report that digital transformation is not as simple as the addition of a web-based purchasing platform as a different form of channel strategy. Rather, this is a push to integrate pieces of the online purchasing experience into every aspect of the business and transform the customer experience that the business provides.

For e-commerce platforms to do this, business leaders often feel that it needs to be built from the ground up to perfectly fit their brand and strategy. Many companies feel that they can't get a unique experience for their customers if they purchase a turn-key e-commerce product because, based on their experience with other turn-key products, these systems just aren't customizable enough to support whatever the business imagines. And the worst possible outcome is to spend a bunch of money and be told "you can't get there from here."

> *"If you want to play with the pack, you can go with a package and say 'we're doing ecommerce and we're doing pretty well cause we're going with Oracle ATG, IBM, etc. We don't believe we want to play with the pack, we want to pick the areas that we think are strategically important to our customers and exceed the pack. The only way to do that is to develop these things on your own."*

The most important capability of any ecommerce system for a large company is customizability. The CDOs we spoke with were largely not interested in turn-key solutions. These entities prefer to have complete creative control over the environment their customers encounter, much as they do for their brick and mortar stores. This is one of the main drivers behind corporations building their own ecommerce sites with small and agile development teams.

> *"You can spend $10 million on an oracle ATG license and you can pay $2.5 million a year for them to give you nothing going forward, other than telling you that you have to upgrade to address any of your problems."*

As a result, even though it's a huge investment, most companies interviewed have gone the route of developing their own ecommerce system from scratch. Today, these are often being developed under a DevOps methodology as a microservices architecture.

Development teams love this modular way of building infrastructure because it doesn't require refactoring everything if you want to rebuild a small portion of your system. It allows improvements without disrupting the ecommerce platform as well as allowing continuous deployment of new features. These microservices also allow companies to pick and choose which areas they want to excel in. For example, according to one CDO, they see most purchase order systems as equivalent, and don't see a point in creating a new system. With microservices, it is extremely easy to integrate a purchased PO system to save development time for the core areas.

> *"What we love about the microservices is we can do lots of deployments. We don't have to take this huge project and take waterfall developments and run them through QA. Teams can be autonomous and deploy capabilities within their scope of microservices, test them and get them out the door. You can do dozens and dozens of deployments on a regular basis without too much risk of changing too many things."*

The Amazon Factor

The final elephant in the room is Amazon. Amazon is a company that has technology woven throughout every aspect of its business. Because of this, they are looked up to as the example of "this is what our business should look like."

The Amazon web store is another aspect of Amazon that is looked up to, not because it looks especially great, but because of how effective it is.

> *"Amazon's site isn't sexy or pretty, but it sure is effective. You can find what you want in a couple of clicks and have it on the way to your doorstep."*

At the same time, Amazon is seen as one of the major competitive threats to many businesses because of their fulfillment and shipping capabilities.

> *"Why should a customer go to our website when you can find the same products for 10-15% cheaper on Amazon? They can afford to lose money on shipping and not care."*

As there are many platforms on the market that can perform all types of necessary functions around commerce systems, CDOs and CIOs now think of potential capabilities of systems from a much higher level. CDOs have higher expectations for what their commerce platforms are capable of including:

- The ability to offer shopping on every touchpoint
- Integration with any/every other system a company may be using
- Providing customer data for the purpose of running advanced analytics

The Evolution of Commerce:
From Features to Capabilities

CDOs see a few key trends in the coming years and are keen to keep an eye on these and how they can integrate solutions into their own organizations.

1. Mobile marketplaces will become more important as web stores decline. The amount of time spent on mobile devices has skyrocketed over the past 5 years at the same time that there have been massive declines in desktop devices. This convergence to a single platform may allow companies to focus their energies more efficiently in one area.

> *"There are a couple things that I believe will go fairly quickly. I think companies in a few years will not have web stores. They are all going to have mobile apps. I just don't see the trajectory on the web stores themselves."*

2. Mobile devices will behave contextually based on where they are – there will be a different experience in the home versus in the brick and mortar store. This is also a result of companies wanting to provide a more unified experience between the home and the store.

> *"I think we are going to see this crazy shift of 'my phone is going to behave differently when I am in a store vs outside of a store but it's going to give me a logical continuity across both experiences."*

3. Machine learning to tailor to the buyer's preferences. One of the CDOs we spoke with found that it is much more cost effective and accurate to have software pull together visually similar items (such as clothing) than it is to have a human salesperson perform the same function.

The Bottom Line

Every organization is going through seismic transformation to better engage customers across every touchpoint and remain competitive. Pulling in the right leadership to evangelize the mindset shift within an organization is critical. But also merging digital into the organizational DNA is equally important so that the CIO becomes the new digitally saavy commerce chief. The other key element is shedding older generation commerce technology that limits the organization's ability to innovate and create unique customer experiences. A combination of in-house custom development plus a modern commerce platform that enables innovation can expedite a firm's ability to build ideal experiences and compete with pure play giants like Amazon.

To find out more about how you can power your digital transformation initiatives with a platform for the post web era, visit www.commercetools.com or get in touch with us to schedule a one-on-one conversation.

Research for this paper was conducted by Cascade Insights. Chief Digital Officers, Chief Information Officers, Chief Transformation Officers, Executive Vice Presidents of Digital and Chief Marketing Officers in companies from a variety of industries, with over $1 billion (US) in total revenue and no less than $100 million (US) in revenue from online sites were interviewed. Interviewees reported directly to the CEO and were heavily involved with their company's ecommerce platform and strategy. Cascade Insights is a boutique research firm focused on the B2B technology sector. To learn more visit www. cascadeinsights.com

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Next generation commerce

commercetools is a next generation software technology company that offers a true cloud commerce platform, providing the building blocks for the post web era. We combine the reliability and stability enterprise businesses need to thrive with the agility, flexibility, and speed that is essential for success in the digital industry. Our leading-edge API approach helps retailers create brand value by empowering commerce teams to design unique and engaging digital commerce experiences everywhere – today and in the future. Our agile, componentized architecture improves profitability by significantly reducing development time and resources required to migrate to modern commerce technology and meet new customer demands.

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