ECOMMERCE TECH GUIDE: THE LATEST TOOLS FOR BRIDGING THE PHYSICAL-DIGITAL GAP SPONSORED BY Quivers **ONLINE SHOP** STORE retail TquchP@ints°

TECH GUIDE



INTRODUCTION

Many industry experts commented on the speed with which retailers — even those that had been slow to embrace online sales, such as grocers — pivoted their operations in the suddenly ecommerce-heavy environment of 2020. The agility they displayed was remarkable, but it was made possible by the existence of technologies that had been waiting for their moment to shine. Retailers accelerated implementations, many of which were already part of their long-term IT roadmaps, and consumers embraced the solutions.

"Last year we witnessed a convergence of technologies making the user experience frictionless," said Matt Maher, Founder of technology-focused consultancy M7 Innovations in an interview with Retail TouchPoints. "That made adoption so much easier. I do truly believe if the tech wasn't there, if there was still, for example, a lot of friction to get to checkout, then people probably would have physically taken more risks to go out to retail."

Instead, consumers and retailers alike readily adopted new digital and "phygital" shopping behaviors that look like they're here to stay. **Double-digit** growth in U.S. ecommerce is **expected to continue** in 2021, according to eMarketer, which also projects that digital sales in the U.S. will surpass **\$1 trillion** in 2022. And yet, despite this recent huge growth in ecommerce, physical retail still maintains a **firm foothold**: Forrester predicts that the vast majority of retail — **72%** — will still take place offline as far out as 2024.

Where does that leave retailers? In a very similar place as they have been for the last decade — in search of **true omnichannel alignment**. The difference now is that the accelerations of the last 18 months have advanced both merchants' and consumers' understanding of — and willingness to adopt — new technologies that bridge the divide between physical and digital. **Now more than ever before, the true realization of omnichannel retail is possible**. Here's a glimpse of what this looks like:

- **Channel agnostic:** Consumers no longer distinguish between physical and digital retail; to them it's all one brand experience, and retailers need to have the same mindset;
- **Frictionless:** The advancements of the last year have made it clear that consumers want less friction and more options in their shopping experiences;
- **Democratized:** The integration of technologies like AR, 3D modeling and visual recognition are bringing commerce experiences to the individual level via the mobile phone; and
- **Headless:** Modular ecommerce ecosystems are becoming the norm as functions get more sophisticated and speedy adaptation becomes a necessity.



OMNICHANNEL DESIGNED FOR CHANNEL-AGNOSTIC CONSUMERS

Somewhat paradoxically, the next stage in the evolution of ecommerce actually involves physical stores to quite a large extent.

"Retail has survived since biblical times roughly in the form of a physical space with product available to sell and the exchange of funds for that product," said Jonathan Sharp, Managing Director at the **Alvarez & Marsal** Consumer and Retail Group in an interview with *Retail TouchPoints*. "Don't get me wrong, I'm not pretending ecommerce doesn't exist, but I think it would be a real failure of imagination if this is the moment, 2,000 years on, where we can't imagine a future for the physical shop. That would be quite something."

As the separation between physical and digital continues to blur, retailers must throw out traditional ideas about the role physical locations play in the customer journey. Stores will become **inspiration hubs** and **fulfillment centers** as much as they are **purchase points**, and ecommerce touch points such as apps and websites will be crucial facilitators for all stages of shopping.

"Where we're moving to, it's not going to be siloed into physical and digital," said Maher. "It's going to be one customer experience, and [shoppers] are going to want what they want, when they want it, wherever they want it."

Key to success will be the ability to offer a unified, seamless flow, from online to brick-and-mortar and back again. That means having **one system of record for customer data** that all others systems can tap into, said Emily Pfeiffer, Senior Analyst at Forrester: "[Store] retailers and digital businesses still talk about the experiences they create as if they are two separate things, but customers don't think about it that way," she said in an interview with *Retail TouchPoints*. "[Consumers] have an experience with a brand or a retailer — **it's all tied together whether they're in an app, in a store, online, talking to someone or calling**. And if they have an interaction in one channel that the next channel is unaware of, they feel like they're **not understood, not respected by that retailer**. That omnichannel view of understanding is terribly important."

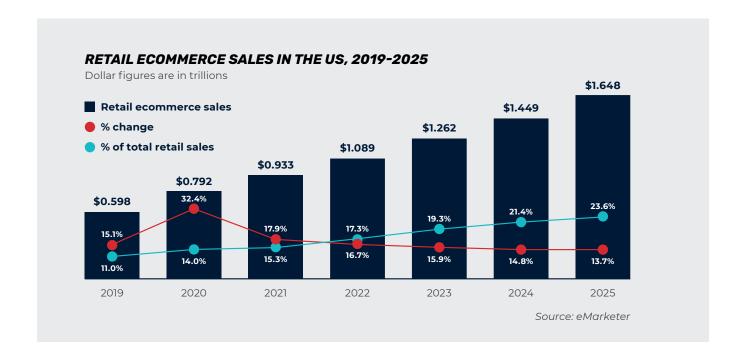


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For example, if a customer returns an item and the reason for that return is logged, yet that same customer continues to see recommendations for similar products or items with the same problematic feature, retailers are missing not only opportunities for future sales but also for building rapport with that customer.

"My biggest advice to retailers is to break down the silos, and build partnerships that continue to blur the lines, because **when [business units] stay in their own tunnel of singular experience with the consumer, they're limiting themselves,**" said Pfeiffer.





A SHIFT AWAY FROM SELF-SERVICE: CONSUMERS WANT LESS FRICTION. MORE OPTIONS

With once-rare functionalities such as BOPIS, same-day delivery and curbside pickup now established as the norm, retail is **in the midst of a paradigm shift**. It's akin to when the **Piggly Wiggly** realized back in 1916 that customers would actually prefer to select their own items rather than order at a counter. Whereas customers and retailers in the early 20th century were discovering the convenience and cost savings of self-service, today's consumers are rediscovering the utility of having someone else assemble their orders for them.

"We know that today, the fulfillment option that consumers most hope to continue to use moving forward is **curbside pickup**," said Pfeiffer. "Before the pandemic, it was something that a few retailers were maybe testing, but it wasn't pervasive. It took a pandemic to give consumers a fulfillment option it turns out they really wanted. And although [curbside] is No. 1, the other preferred fulfillment options are in really close succession, so **what consumers really want is options**."

To deliver on this, stores are increasingly doing double duty as fulfillment centers. In fact, the growth of ecommerce could lead stores worldwide to dedicate as much as **one-third** of their space to online order fulfillment, according to research from **Edge by Ascential**.

The overarching themes of the coming decade are finding ways to remove friction at every turn, and offering consumers the options to shop in whatever way best suits them in the moment: "Checkout is also a huge piece, meaning not having to fill out all your information, so having things like single sign-on or authentication through Apple Pay," said Maher. "If you don't have checkout that's really fast, if you don't have great customer service just in case anything goes wrong and if your logistics and operations aren't sound, then people are not going to be happy and/or they'll just not shop with you again."

One thing that the pandemic also proved was the speed at which new technologies and services could be put in place. Offerings that might have taken **three to five years** to roll out pre-pandemic were put in place in a matter of weeks. "If there's any lesson to take away from 2020, it's that we have to move so fast," said Pfeiffer during a recent **webinar**. "We can't just sort of limp along with our technology, with the way we serve customers, with any of it. **Everyone had to move really fast in 2020 just to keep up with what was going on, and those expectations from consumers will perpetuate."**

One aspect of today's technology architecture that made these rapid deployments possible has been the increased use of application programming interfaces, or APIs. Essentially, an API is a software intermediary that allows two applications to talk to each other — for example, a retailer's ecommerce platform and a third-party OMS solution or customer data platform (CDP).

Additionally, the **increasing modularization of ecommerce systems** is facilitating this acceleration by allowing retailers to pay only for the technologies they need, as well as providing the ability to plug in, try and modify new services quickly and easily. "This modularization is what's fueling retailers' and brands' ability to experiment with new technologies and to plug in really specific, pointed solutions," said Pfeiffer. "Because everything is so API-first, you can just plug it in, and it doesn't really matter who owns it."





DEMOCRATIZING COMMERCE VIA THE MOBILE PHONE

Gone are the days of the simple e-store; consumers now expect an enhanced experience that makes the process of shopping online easy, fun and customized at every site they visit. "Probably the biggest advantage of digital shopping is the ability to personalize from the moment [a customer] 'enters' the store," said Alvarez and Marsal's Sharp.

One thing ecommerce has had a hard time replicating, however, is the try-on experience. That problem could soon be safely in the rear-view mirror thanks to the rapid advancement of AR and 3D modeling technologies. "With 3D modeling, we're up to a quality now where we can make digital twins that are indistinguishable from the real product," said M7 Innovation's Maher. "This cleans up the ecommerce experience, because I don't need 15 photos of that Timberland boot anymore, I just need the one 3D model. And this isn't CGI, it's photogrammetry — that's hundreds of high-definition photographs reconstructing the actual boots. You're actually seeing the physical boot, and you can move it around and interact with it.

"The second thing is the actual try-on [with AR technology]," Maher added. "We see it now in eyewear. It's coming out a lot in shoes. We're starting to see it with necklaces and hats. You can get a great sense of what it looks like on you, with dynamic lighting and shadowing. It's going to eliminate returns, and it's going to further devalue what [physical] retail can offer. The biggest thing that no one's really talking about is how quickly [these technologies] are going to make an impact."

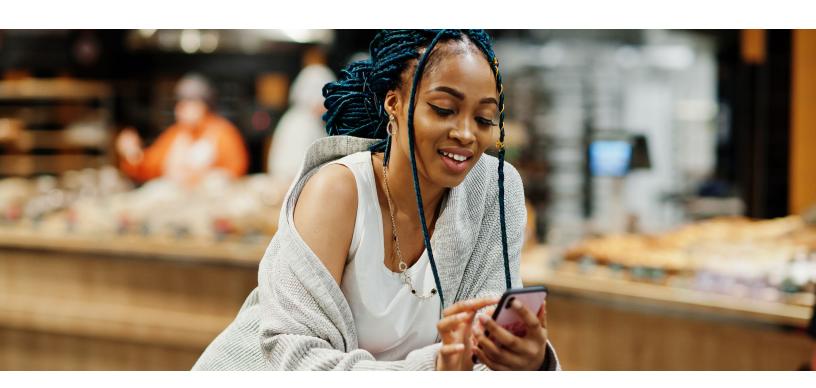
These technologies also play prominently on social commerce, which is quickly becoming a crucial piece of all brands' ecommerce mix. In that regard, Maher sees a future where the mobile phone has a central role in all shopping trips, whether digital or physical, by allowing users to: scan products IRL and then learn more online; make a purchase from the website and have the item shipped; or, if they're in a store, process their payment and walk out with the item — all through their phone. Much of the beginning stages of this customer-centric shopper journey are already happening on social platforms.

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— Matt Maher, M7 Innovations

"This is democratizing commerce to the actual person, and the tech is catching up," Maher said. "We're getting close to a world where whatever I see, I should be able to scan and purchase it in seconds. It's always a battle of hardware versus software. On the software side right now you have **Google Lens**, you have **Pinterest Lens**, you have **Snapchat Screenshop** that all have visual recognition within their respective software. All of these have scaling issues though, because if you don't sell on Snap, you're not going to show up there [when someone scans your product]. Same thing with Pinterest. Same thing with Google Lens.

"Where that starts to scale is in the hardware — that's Apple and Android," Maher added. "Samsung phones are already building this kind of AR overlay or visual tech into some of their new models. I very much believe Apple will do the same thing. **Once we get to the hardware level with the native camera app, then adoption is going to absolutely explode.**"





GOING 'HEADLESS' ALLOWS MERCHANTS TO MOVE AT THE SPEED OF THE CONSUMER

Offering any of the aforementioned advancements relies on a sophisticated, nimble ecommerce tech stack, and in that regard, **headless commerce** appears to be the wave of the future. As Pfeiffer explained, the concept of headless is fairly simple, but it can seem complicated because the term is frequently mis- or over-used. Basically, headless commerce means **decoupling the front-end ecommerce experience from the back-end operations engines instead of having a single solution that handles everything.**

The front-end segment includes things like a CMS, digital experience platforms (DXP), marketing and automation, personalization, search, merchandising and product information management (PIM). The back end includes the OMS, inventory visibility, payments, tax, pricing, dropship support, customer service, post-purchase notifications and returns processing. And in the middle sits shared data and services accessed by both sides, such as orders, customer segmentation, the actual product catalogs, promotions, analytics and commerce/POS.

"Commerce is becoming more and more modular," explained Pfeiffer. "It has been splitting apart for decades because each of these functions became so much more complex [that] they needed their own space, so they spun off. That's not new. What is new is this microservices-based architecture, tech that's born in the cloud and is API-first. That really enables things to be broken into these micro bits and for everything to move more quickly.

"What is really valuable that's happening is commerce is shrinking," added Pfeiffer. "You have the experiences on the front end, operations and orchestration on the back end, and commerce sort of hovers in the middle, but what's left of commerce is smaller and smaller. What's really exciting about what's happening is not headless. What's exciting is the componentization of the entire commerce ecosystem, and how it's reassembling itself."

Not only do these technology developments allow vendors to get really good at one piece of the puzzle rather than trying to be a jack-of-all-trades, but componentization also allows retailers to target their investments toward just the services they want, **creating custom ecosystems that meet their unique needs.**

Headless also offers a nimbleness that is becoming increasingly crucial in a world where consumer behaviors and expectations — as well as the technologies to support them — are evolving rapidly. Modularization means retailers can easily test out new innovations without long development windows. Instead, you either fail fast and move on to the next tech, or quickly scale when something works.

When looking at all the shifts happening in commerce today, "I always go back to Moore's Law," said Maher, referring to the thesis that even as the number of transistors on a microchip doubles every two years, the cost of the computers containing them is halved, essentially creating faster and more functional computers that cost less. "It will be a gradual burn, but then it will start to speed up, and we're going to wake up in a world with all these converging technologies."

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