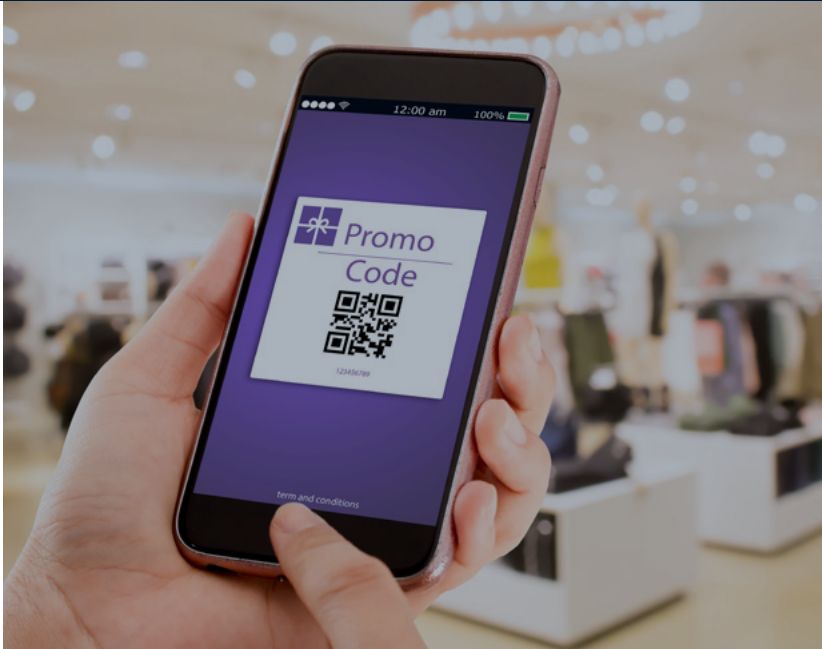


DISSECTING ADVANCED ECOMMERCE TOOLS:

3D IMAGERY, VISUAL SEARCH AND HEADLESS COMMERCE





INTRODUCTION

The bar is high in the land of ecommerce, with more consumers **turning to online channels** than ever before and bringing with them expectations set by their experiences with tech giants like Amazon and Apple. At the same time, competition online is heating up, with third-party marketplaces and SaaS solutions like Shopify lowering the barrier of entry to become an online retailer.

To keep up and stand out, retailers must be more than just first-class merchandisers with a great product — they must become tech experts, strategically deploying the latest cutting-edge solutions to constantly evolve all aspects of their ecommerce ecosystems.

But with a seemingly endless supply of new technologies, deciding where to focus and what is worth the investment can be overwhelming, to say the least.

“You can measure what is a great tech by how reductive it is, meaning how it makes the user experience easier,” said Matt Maher, Futurist and Founder of **M7 Innovations** in an interview with *Retail TouchPoints*. “Take virtual reality: getting a giant PC computer, putting on a \$2,000 headset and downloading a bunch of software just so you can go check out what a Rolex looks like on an N64 polygon wrist — that’s not reductive. But something like augmented reality where you’re a scan away, you can actually physically see what it looks like, and it’s photogrammetry so it’s the actual watch itself — that’s reductive, that’s better.”

Here are three key areas for retailers and brands looking to fine-tune their ecommerce experience:

- **Moving beyond the basic 2D** web experience with 3D modeling and augmented reality;
- **Creating new ways for consumers to discover and engage** with your brand and products through the use of QR codes, visual search and voice commerce; and
- **Creating an agile, flexible ecommerce ecosystem** that will support continual evolution and quick decisioning by aligning omnichannel data and systems, and potentially moving to a headless website model.



MOVING BEYOND 2D

COVID presented a unique set of circumstances that not only drove consumers online but also saw the 2D world of our smartphones and computer screens *replace* the 3D world, at least for a time. This spurred a huge demand in innovations that had been around for years but didn't have the consumer support to propel them into the mainstream — things like **3D modeling** and **augmented reality**. But now that consumers have had a taste, they want more.

"If you think about the massive shift of people that go online now, and go online first before they visit the physical store, **you've got to start getting rid of these old, 2D, boring websites** and start implementing things like **virtual stores** or 3D visualizations or **livestream commerce**," said Tom Litchford, Head of Worldwide Business Development for Retail at **Amazon Web Services** in an interview with *Retail TouchPoints*. "All these things make it a much better experience in terms of working with customers when they come into your digital properties."

The good news is that these technologies already have a proven ROI and offer multiple use cases. For example, Shopify **reports** that merchants on its platform that have added 3D content to their stores see a **94%** conversion lift on average.

The best part is that using 3D models can be a relatively low lift and even save money in some cases. **"If a company designs or manufactures their product, they probably already have a 3D model somewhere** that would just need to be reformatted for other uses," said Ashley Crowder, Co-founder and CEO at 3D SaaS platform **VNTANA** in an interview with *Retail TouchPoints*. "Once you have a 3D model, you can create whatever 2D images you want from it, which can actually get rid of the need for most of your photoshoots. You might still want some [lifestyle imagery], but if you just need that flat image, you can create all that from a 3D model."

In many cases, a 3D model lays the foundation for the next step in multi-dimensional product visualization — augmented reality. **AR try-on** tech is becoming commonplace across categories such as beauty, home goods and fashion accessories (it's not quite there yet for apparel), at retailers including **Sephora**, **Macy's** and **BJ's Wholesale Club**, to name just a few. **Gap** and **Walmart** have even bought their own AR try-on startups.

This AR application is appealing to retailers in particular for its potential to reduce return rates: Macy's reported a return rate of less than **2%** for **AR-assisted furniture purchases**, well below the industry average of **5% to 7%**.

Even if AR try-on isn't a fit for all product categories, once you have 3D models, the options for reformatting are virtually (pun intended) limitless. Not only do they provide an immediate **enhancement to product detail pages** (PDPs), but they can also **be integrated into marketing** campaigns to create more engaging ads, or be **deployed in AR environments** on platforms like **Facebook**, **Pinterest** and **Snap**. Those 3D models can potentially even **become digital products** worn by consumers in virtual worlds.

"3D models are the goods that are going to make up the metaverse," said Maher. "Now does everyone need to go build a virtual fashion division tomorrow? Probably not. **But if you model these things today, not because you're trying to build a virtual good or an NFT but for a better user experience, you're going to be ready for the metaverse tomorrow.**"

A BRIEF SIDENOTE ON THE METAVERSE

While the metaverse is certainly the topic du jour, it's not necessarily as "new" as the media furor might suggest, and it probably doesn't warrant "top priority" status at most brands and retailers.

"The metaverse very much exists right now," said M7's Maher. "Gaming is the start, and gaming has been around for a while. Think of *Second Life* back in 2003 — that was essentially a metaverse. **Really, we're just talking about the internet, and the internet constantly evolves.** It's been a fluid thing for the last 30 years, and all that's happening now is people are starting to look forward and say, how do I get ready for the next iteration?"

"The metaverse isn't urgent [except] for a few categories," added Rick Watson, Ecommerce Strategist and CEO and Founder of **RMW Commerce Consulting** in an interview with *Retail TouchPoints*. "**Most people should just be learning about what it is, so that when they need to do something about it later on it's not a foreign world.** Honestly, it's not even a test-and-learn moment right now, it's literally just learn."

Among the categories that might be exceptions to this rule, according to Watson, are:

- **Luxury**, because of the potential of the blockchain to offer new secure digital solutions for authentication and provenance details;
- **Collectibles**, in particular items like trading cards that are built on the concepts of exclusive ownership and trading; and
- **Celebrity- and culture-oriented brands** with digitally savvy customers and a community centered on "events" like exclusive drops and custom merch.

"The idea of owning something digitally is a very powerful idea that will continue to play out over the next **15** years, but we don't really know how yet," said Watson.

That's not to say that retailers should be writing off these concepts altogether — far from it. "I used to always talk about how retail can often be laggards with new technology," said AWS' Litchford. "But now I'm seeing them start to wake up and say, 'Maybe we should be on top of some of these new things, just to see where they go.' That's the cool thing, seeing retailers say, 'We need to watch this early' versus being behind the eight ball."





Amazon's new Style store will use QR codes as a key service feature.

NEW WAYS TO SEARCH AND DISCOVER

In the annals of tech comebacks, **the QR code** certainly deserves a special place. All but dead prior to COVID, it's now hard to escape across America. This relatively low-tech tool has become a very high-performing mechanism for brands to connect more deeply with consumers. Case in point: QR codes will play a central role in **Amazon's** new **tech-driven Style stores**.

"There's a reason the QR code has been wildly successful in China for the last 15 years — they've always made it so that the camera app in mobile devices can read QR codes," said Maher. "We didn't do that in America. We decided that you were going to have to download an app to read a QR code, which is pretty dumb. Then Apple and Google started to put it natively in the camera app and with the pandemic everyone needed to be hands-free — it was the perfect coming out party for the QR code.

"What I get really frustrated with is **brands and retailers are under-leveraging QR codes horribly**," he added. "I'd say nine out of 10 QR codes just go to a dot.com site. For example, I have a Sprite can and the QR code takes me to Sprite.com. Why would I go Sprite.com? I don't care about Sprite.com. With QR codes, there are two things that happen: there's a trigger and there's an experience. The QR codes are the trigger, people now know something will happen. The problem is everyone is under-executing on the experience. **We should be making QR codes more contextual, creating experiences that add a digital layer to the physical product.**"

With sports eyewear brand **Bollé**, for example, M7 Innovations created QR codes that were integrated into the brand's campaign posters. When fans scanned the images, the eyewear of the athlete in the poster was "ripped off their face and you could essentially try them on virtually," said Maher.

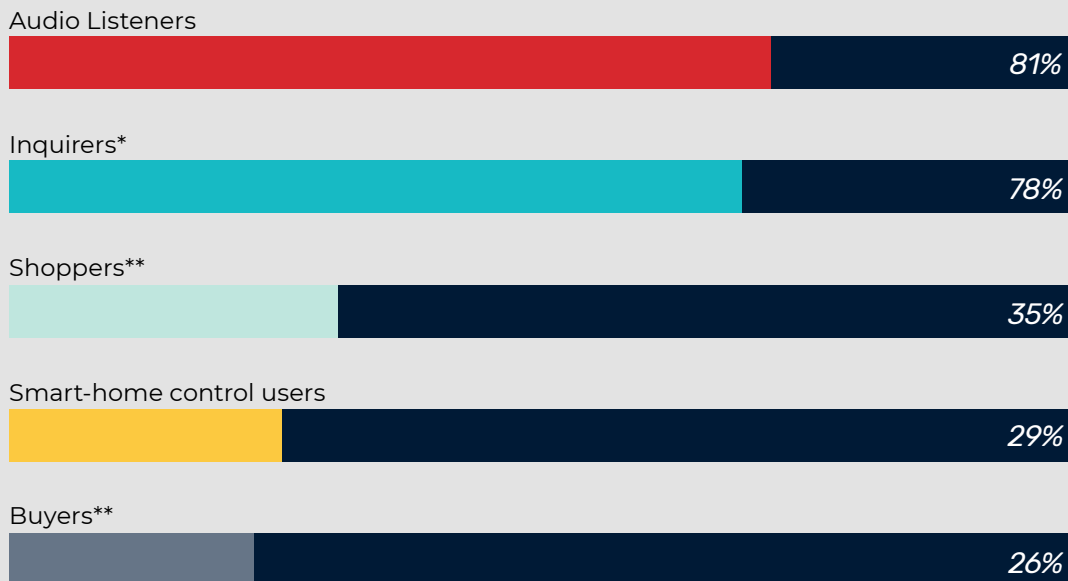
Additionally, "the QR code is the gateway drug into **visual search**," said Maher. "Americans now know when they scan a QR code they'll get something digitally. **The next step is that anything I see in the world, I can scan, and I'll be able to get either information or I can buy that product or get an experience from [the brand]**. Look at Google. They own something like **93%** of the **\$150 billion** search market and even they said a few years ago that the future of search is not what they have, it's going to be **visual** and it's going to be **voice**."

In addition to Google's Lens visual search offering, **Snap** and **Pinterest** also are introducing their own visual search functions to get a piece of the action, and solutions like Syte help brands **integrate visual search** into their own ecommerce sites.

In contrast, **voice commerce** has had a tougher road. While **eMarketer** projects that **47%** of the U.S. population will use voice assistants like Siri or Alexa at least once a month in 2022, buying on these devices has yet to gain traction. Just over one-quarter (**26.8%**) of smart speaker users ages 14 and older made a purchase via the device in 2021, accounting for just **11.5%** of the total population of digital buyers in the U.S.

US Smart Speaker Users, by Activity, 2020

% of smart speaker users



Note: Includes individuals of any age who use a smart speaker for each activity at least once per month.
*Ask a smart speaker questions via voice command; excludes inquiries about weather, news and traffic.
**Ages 14+; at least once in the calendar year

Source: eMarketer

“The trust just isn’t there,” said Maher. **“Especially without a screen, it’s hard to do the full end-to-end transaction and the financial piece. People want to see what they’re buying.** I think the next step will be to **marry multimodal experiences.** You can use voice as a driver, but there needs to be some type of screen, whether it’s a smartphone or the Echo Show or the Google Hub where you can add things and converse, with your voice as the main driver, but then you can swipe through like we’re used to as shoppers.”



BACK TO THE BASICS

As with most things in life, if the foundation is weak, the rest of the structure will fail, and ecommerce is no different. While it might not be as exciting as augmented reality or visual search, the first, most important tech to get right for ecommerce success in 2022 is the website itself.

“There are a lot of companies that don’t get the basics right and end up chasing something that’s too advanced, which then ends up not producing the results they expected,” cautioned RMW’s Watson. “For example, **many retailers don’t have a good handle on their backend data**. This information is often in different systems and not tied together, so it’s very hard to make quick profitability decisions on an ongoing basis.”

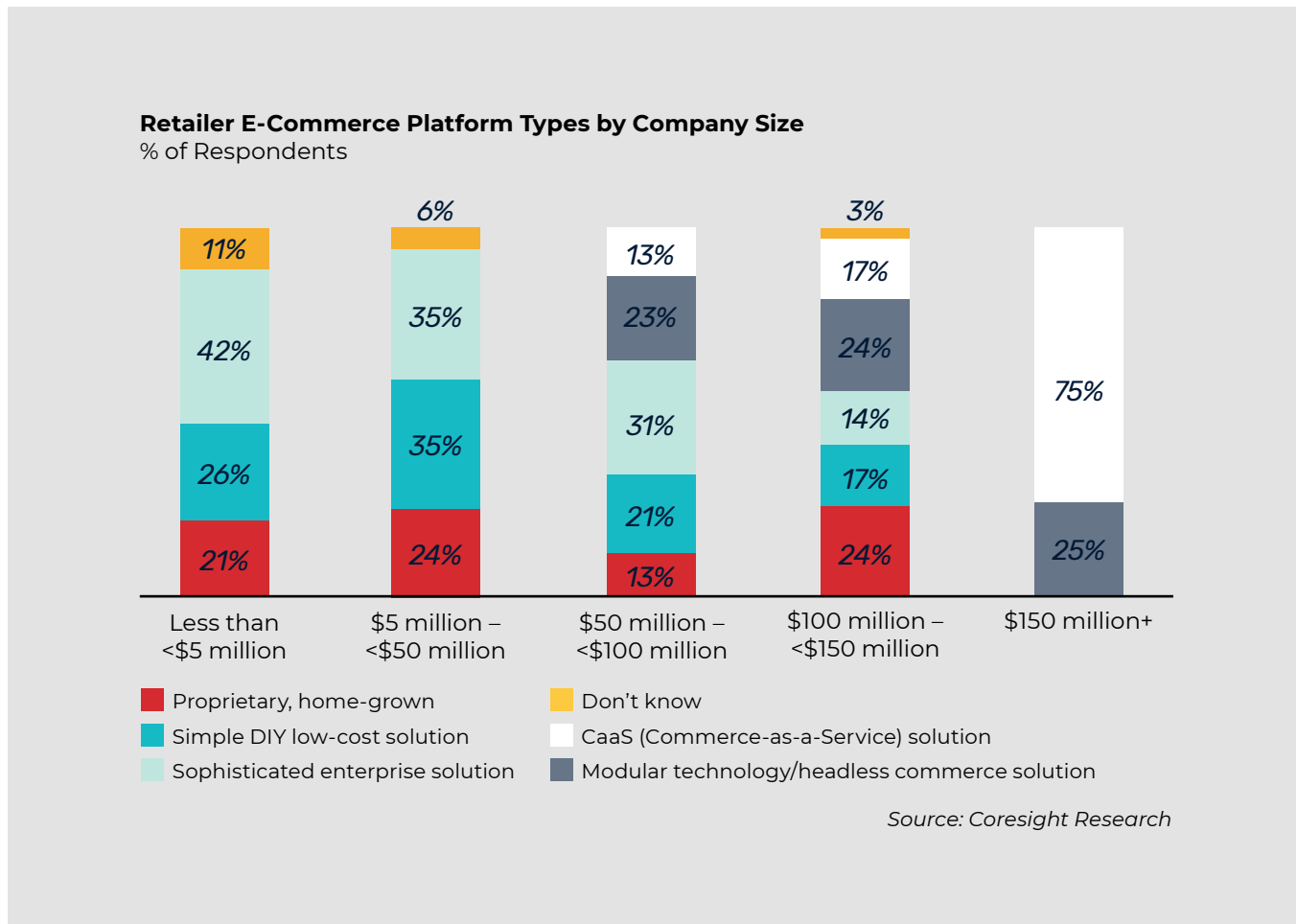
As retailers respond to increasingly channel-agnostic consumers by ramping up their omnichannel credentials, they need to bring that same channel-agnostic lens to their tech stack, said Litchford: “Why would you have an ecommerce recommendations engine and a separate engine to talk to your store associates when the customer is in front of them? Then there’s the transaction engine itself: why do you have a cart on an ecommerce system and then a separate point of sale in your stores? It should all be the same system. That way when you start looking at cost and services and agility and ability to respond to the market, you’re working with one system.”

One of the strategies many retailers have begun to use to build more flexibility and agility into their platforms has been to transition to MACH (Microservices-based, API-first, Cloud-native and Headless) architecture, which was pioneered by, you guessed it, Amazon.

“Amazon.com is not a monolithic ecommerce platform, it’s made up of **over 1,000** microservices,” explained Litchford. “They can literally update the Amazon website every second of the day if they want to. On the old monolithic sites you can plan maybe two releases a year because you have to do all this backward migration and testing and making sure everything works together.”

However, while headless is becoming the new baseline for higher-volume retailers, it might not be necessary for smaller ones. “For retailers below \$50 million in revenue, I don’t think it’s a foregone conclusion,” said Watson. “Their needs are often better met by off-the-shelf software. When you start to get into headless and MACH you add a lot of technical complexity to your infrastructure. That gives you a lot of flexibility, but you’re also either committing yourself to a very expensive agency or an internal team that’s very savvy, and that you have to then recruit and retain. **It’s not as straightforward as ‘every online retailer needs this functionality.’**”

Coresight Research predicts, though, that more small retailers will begin to adopt headless solutions as they look to mimic the capabilities and experiences offered by the bigger ecommerce players.



Of course, no solution is one-size-fits-all and it can be easy to get caught up in the hype around new concepts. That's why the first step for every retailer, no matter its size or technological proficiency, is to realistically assess the business as it stands today and then consider which investments will help create the future it wants for the brand tomorrow, while also offering more immediate ROI.

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