

# VIRTUAL REALITY IN RETAIL • 2019 AND BEYOND



**50%**

Share of India's Internet users who are predicted to buy their products online by 2026

**100** MILLION

Expected number of AR/VR headset users by 2022

**1.2** MILLION

Number of AR/VR headsets shipped in the first half of 2018

# TABLE OF CONTENTS:

## 04 Introduction

- 04 VR and its impact on modern retail
- 06 Combining the store experience with in-home comfort

## 08 In-store

- 10 How retailers are using VR to change in-store experiences
- 12 Moving beyond each magic mirror
- 13 VR's role in the eCommerce landscape

## 14 At home

- 16 How VR could revitalize the at-home shopping experience
- 18 VR lessons from the gaming industry

## 20 Sidebar

How Facebook's Oculus headsets are bringing VR mainstream

## 22 On the phone

- 24 Virtual reality and the smartphone problem
- 26 Changing the way consumers shop

## 28 Looking forward

The future of retail

## 30 About



# INTRODUCTION

The days when retailers could rely on fashionable window displays to entice customers are long over — today's connected consumers are not won over so easily. This shift in consumer tastes follows the shift from brick-and-mortar to digital stores. As more customers move their shopping online, merchants have the opportunity to make their marks as smart retailers by delivering experiences that digitally connected consumers expect.

With merchant competition increasing, it's more necessary than ever for in-store features to pair with engaging experiences in digital channels, where consumers now spend the majority of their time. Although it can be difficult for retailers to catch consumers' attention when they're bombarded in an ever-present digital landscape of content, subscriptions, games and ads, the rise of nascent technologies enables businesses to bring their brands right to consumers' fingertips.

Virtual reality (VR) is one such technology, affording both retailers and customers a glimpse into the way shopping could be in just a few years. As with augmented reality (AR), VR has the potential to change how consumers think about shopping, how they approach relationships with retail brands and whether they decide to purchase a product from one store over another.



A VR experience in retail could entail anything from test-driving a new car without leaving the dealership to using a headset to virtually furnish the ideal living room. With customer participation and trust, the technology allows consumers to skip physical storefronts while enabling retailers to bring instant recommendations and purchases to their digital doorsteps.

In *Virtual Reality in Retail: 2019 and Beyond*, PYMNTS examines the effect VR is having on retail, as well as the impact it could have on the future of shopping. The report explores how retailers are experimenting with VR for better, personalized in-store and at-home experiences, as well as how consumers are responding to this emerging technology.



## COMBINING THE STORE EXPERIENCE WITH IN-HOME COMFORT

VR is a popular curiosity for both retailers and consumers, with some predicting that the tech will have a massive impact on the retail industry's future. According to industry research, VR is expected to generate \$1.8 billion for retail and marketing in 2022.<sup>1</sup> To meet that market potential, retailers must increase consumer awareness of the technology's benefits to shopping. This is because some may still view it as more of a novelty than a sales opportunity.<sup>2</sup>

Some retailers are still skeptical that this technology will encourage a consumer to buy a pair of shoes or a new lipstick. These detractors maintain that consumers must still feel or touch certain items in the real world.<sup>3</sup> Even they expect the technology to establish itself as part of the retail industry, however. For these industry voices, VR will be more about cementing a unique brand presence in customers' minds, rather than making a particular impact on sales.

Others believe VR could completely change the traditional shopping experience. The technology addresses three of the key needs in retail: consumer engagement, accessibility and a better way to share product information. It also has the potential to be much

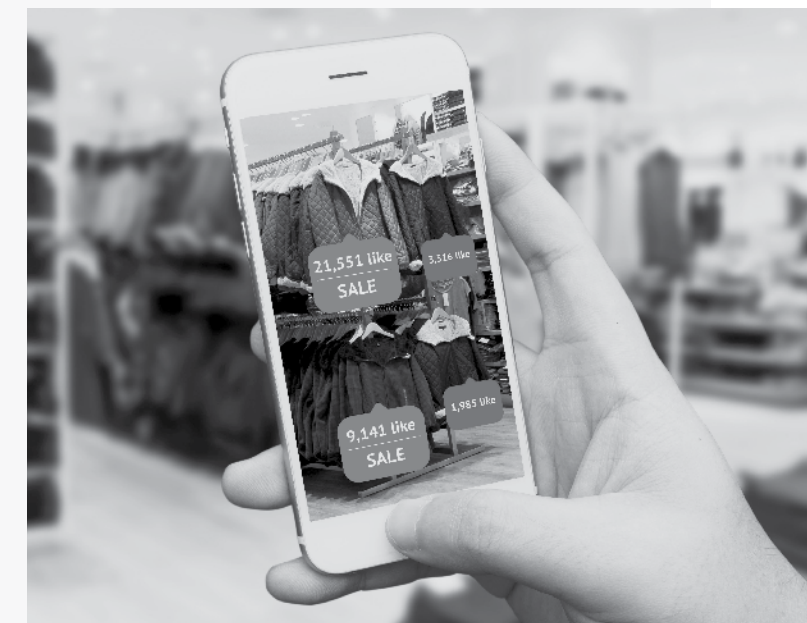
more personalized than AR, as it offers an experience that's completely immersive instead of projecting an altered image onto a person's surroundings. In the future, the ideal VR store will marry the speed and convenience of digital shopping with the tactile sensation of shopping in-store.



Some retailers are already investing in VR, using tailored mobile apps and headsets to create exclusive experiences for their customers. As the technology continues to advance, retailers are also incorporating it into in-store experiences, such as those provided by smart mirrors.<sup>4</sup>

VR adoption among retailers appears to align with consumers' growing appetites for the tech. The number of people using it jumped from 85 million to 171 million in 2018. Additionally, revenues from VR software are expected to increase by 3,000 percent over the next four years, suggesting that customers are just as eager to experience it.<sup>5</sup>

The potential for VR in retail is high, but that doesn't mean it's well-equipped for every area of the industry. To determine where it is working and where it's not, PYMNTS examined areas in which the technology is being employed and whether customers are using it in-store, via a mobile device or through a headset. Most importantly, PYMNTS explored how VR will likely change the retail industry in the future.



<sup>1</sup> Author unknown. Virtual reality in retail and marketing to generate US\$1.8 billion in 2022. ABI Research. 2018. <https://www.prnewswire.com/news-releases/virtual-reality-in-retail-and-marketing-to-generate-us18-billion-in-2022-300620952.html>. Accessed January 2019.

<sup>2</sup> Author unknown. Virtual reality in retail: the next big thing or just a flame? Whisbi.com. <https://www.whisbi.com/info/omnichannel/solution/retail/in-store/virtual.html>. Accessed January 2019.

<sup>3</sup> Kendal, R. What virtual reality means for retail in 2018. My Total Retail. January 2018. <https://www.mytotalretail.com/article/retail-vr-what-virtual-reality-means-for-retail-in-2018/>. Accessed January 2019.

<sup>4</sup> Lacy, L. How Macy's is reinventing itself as a tech-savvy, omnichannel retailer. Adweek. September 2018. <https://www.adweek.com/digital/how-macys-is-reinventing-itself-as-a-tech-savvy-omnichannel-retailer/>. Accessed January 2019.

<sup>5</sup> Baron, K. How Lucasfilm's immersive entertainment lab will reimagine retail's horizon. Forbes. September 2018. <https://www.forbes.com/sites/katiebaron/2018/09/06/how-lucasfilms-immersive-entertainment-lab-will-reimagine-retails-horizons/#7d06235e7f4d>. Accessed January 2019.

# IN-STORE



# HOW RETAILERS ARE USING VR TO CHANGE IN-STORE EXPERIENCES

**ANYONE WHO'S TRIED A FLIGHT SIMULATOR OR WATCHED A MOVIE AT AN IMAX THEATER MAY HAVE AN IDEA OF HOW VR COULD HELP CONSUMERS SIMULATE EXPERIENCES WITH PRODUCTS.**

This could be especially effective for industries in which consumers often research items before they get to the store, such as with a car purchase, where a test drive is an integral part of picking a new model. Car dealers are leveraging VR to make test drives and other aspects of model selection less of a hassle for customers who want to try before they buy.

This is the same concept behind the smart mirrors employed by brands like Macy's, Sephora and Saks Fifth Avenue. The mirrors use AR and VR that allows consumers to "test-drive" new outfits or makeup without the mess.<sup>6</sup> Approximately 50 Macy's locations have smart mirrors installed.<sup>7</sup> This technology caters to one of the in-store shopping experiences consumers still enjoy: seeing how products fit them personally. VR's crowning feature is its ability to replicate this while eliminating the inconvenience of waiting in line for the fitting room.

Some retailers are using VR to entice users to take a second look at their brands, deploying it first as a marketing strategy to better connect specific visuals

with their brands in consumers' minds, with sales as a secondary component. Last year saw a boom in brands using VR in this way, including U.K. clothing retailer Topshop, which used it to take shoppers on a waterslide through central London.<sup>8</sup>

This isn't a new tactic, either. Tommy Hilfiger employed it to send users to 2015's Fashion Week, and clothing and outdoor gear brand The North Face used VR to send customers to Yosemite National Park. North Face customers could view 360-degree footage of the park while sitting on top of a mountain, providing them with soaring visuals and, hopefully, enhancing consumer connections.<sup>9</sup>

This tactic may not be new, but the value it adds to the in-store experience is nothing to ignore. With brick-and-mortar stores becoming more like showrooms as eCommerce grows, offering a setting where customers can interact with this kind of technology could provide a new way for retailers to engage with consumers.

<sup>6</sup> Sumner, T. Can retailers successfully leverage augmented reality and AI? IoT For All. September 2018. <https://www.iotforall.com/retail-iot-augmented-reality-ai/>. Accessed January 2019.

<sup>7</sup> Lacy, L. How Macy's is reinventing itself as a tech-savvy, omnichannel retailer. Adweek. September 2018. <https://www.adweek.com/digital/how-macys-is-reinventing-itself-as-a-tech-savvy-omnichannel-retailer/>. Accessed January 2019.

<sup>8</sup> Kendal, R. Why virtual reality is retail's 'try before you buy' engine. Retail Customer Experience. May 2018. <https://www.retailcustomerexperience.com/blogs/vr-retails-try-before-you-buy-engine/>. Accessed January 2019.

<sup>9</sup> Kendal, R. Why virtual reality is retail's 'try before you buy' engine. Retail Customer Experience. May 2018. <https://www.retailcustomerexperience.com/blogs/vr-retails-try-before-you-buy-engine/>. Accessed January 2019.

## MOVING BEYOND EACH MAGIC MIRROR

For some, these types of experiences will be the main power of VR for the next few years, despite skepticism over whether an immersive view of nature can be translated into sales figures.<sup>10</sup> The same skepticism applies to smart mirrors. Though plenty of customers are interacting with them, a Macy's official said customers have not yet used them to check out.<sup>11</sup>

While a VR experience can help cement a brand in a consumer's mind, brick-and-mortar retailers need to move beyond smart mirrors if they want to keep up with the modern shopper. That means they need to stop using the technology as an experiential tool and start making it one that will help them sell products.

Macy's is moving beyond its smart mirror by allowing shoppers in select locations to strap on a VR headset and decorate a virtual space, giving them full design freedom. Consumers can, for example, swap out one rug for another in their living rooms, add a lamp, change the color of the curtains and more.<sup>12</sup>

As mentioned earlier, one of the best use cases for the technology is in the auto industry. German automaker Audi crafted a VR headset installation last year that allows users to view the interior of the car, down to the

smallest details, as well as information on the make and model.<sup>13</sup> This is what makes the "try before you buy" facet of VR such an interesting tool for retailers: They can pair product information with a 360-degree experience customers can manipulate.

Audi isn't the only automaker utilizing VR in this way. Luxury brand Lexus is employing the Oculus Rift VR headset to allow customers to test-drive its vehicles.<sup>14</sup> Volvo and Jaguar also have VR test drive experiences. The companies use headsets and other wireless hardware to bring test drives inside their showrooms.

Mazda is teaming up with U.K. shopping center owner intu to create retail tours for its models.<sup>15</sup> Of course, there would be no point to a VR-enabled test drive if it simply replicated the same old highway. Instead, the solution offers several scenic route simulations for consumers to experience. Users can go on a drive through the Italian Alps or cruise on a racetrack in Surrey, England.

The VR experience is slowly creeping out of stores and into other areas of retail, most notably eCommerce. As more shoppers move online, VR is beginning to play a larger role in the digital shopping ecosystem.

## VR'S ROLE IN THE ECOMMERCE LANDSCAPE

When it comes to in-store experiences, the real future of VR could come from big players like Walmart. The retail giant has long been fighting with eCommerce seller Amazon to win over shoppers, and it is looking to VR to give its thousands of brick-and-mortar stores an edge over Amazon's speedy warehouses.

Walmart recently acquired VR company Spatialand and plans to use its capabilities to transform its physical stores into something more. The acquisition speaks to Walmart's serious interest in the technology's capacity for change, which it could use to compete with other brands while it banks on the strength of its numerous physical storefronts.<sup>16</sup>

Amazon is making its own VR push into the physical world. In an effort to promote its biggest online sales event, Prime Day, the company set up several VR kiosks in India that allow customers to interact with products.<sup>17</sup>



<sup>10</sup> Kendal, R. What virtual reality means for retail in 2018. My Total Retail. January 2018. <https://www.mytotalretail.com/article/retail-vr-what-virtual-reality-means-for-retail-in-2018/>. Accessed January 2019.

<sup>11</sup> Lacy, L. How Macy's is reinventing itself as a tech-savvy, omnichannel retailer. Adweek. September 2018. <https://www.adweek.com/digital/how-macys-is-reinventing-itself-as-a-tech-savvy-omnichannel-retailer/>. Accessed January 2019.

<sup>12</sup> Murray, R. How virtual and augmented reality are changing the way you shop. whio.com. September 2018. <https://www.whio.com/news/local/how-virtual-and-augmented-reality-are-changing-the-way-you-shop/knAekZS8XdrM70BhujqiOM/>. Accessed January 2019.

<sup>13</sup> Author unknown. Audi launches virtual reality technology in dealerships. Audi MediaCenter. August 2017. <https://www.audi-mediacy.com/en/press-releases/audi-launches-virtual-reality-technology-in-dealerships-9270>. Accessed January 2019.

<sup>14</sup> Stenquist, P. Virtual reality is carmakers' latest selling tool, at shows and in showrooms. *The New York Times*. March 2018. <https://www.nytimes.com/2018/03/29/business/car-show-marketing-tech.html>. Accessed January 2019.

<sup>15</sup> Author unknown. Mazda brings virtual reality to customers with retail tour and new app. *Automotive World*. July 2018. <https://www.automotiveworld.com/news-releases/mazda-brings-virtual-reality-customers-retail-tour-new-app/>. Accessed January 2019.

<sup>16</sup> Del Ray, J. Walmart has acquired a virtual reality startup as part of its tech makeover. *Recode*. February 2018. <https://www.recode.net/2018/2/6/16977006/walmart-vr-virtual-reality-spatialand-store-no-8>. Accessed January 2019.

<sup>17</sup> Sun, L. Amazon follows Alibaba's lead into VR shopping. *The Motley Fool*. July 2018. <https://www.fool.com/investing/2018/07/19/amazon-follows-alibabas-lead-into-vr-shopping.aspx>. Accessed January 2019.

# AT HOME







# HOW VR COULD REVITALIZE THE AT-HOME SHOPPING EXPERIENCE

**EVEN THOUGH IN-STORE RETAIL IS A \$4 TRILLION INDUSTRY, BRICK-AND-MORTAR RETAILERS ARE WELL AWARE OF THE GROWING ROLE OF DIGITAL MARKETPLACES. IT'S LITTLE SURPRISE, THEN, THAT SOME RETAILERS ARE TESTING OUT VR TO REMAIN COMPETITIVE IN THE ECOMMERCE SPACE.**

It's still likely that customers feel as though something is missing from online shopping. After all, the ability to touch a bracelet, examine the cut of a shirt or roam and search through product aisles is hard to replicate when scrolling through a website. But that's exactly the gap VR may be able to fill.

This idea got its start with AR — the technology that underpins games such as Pokémon Go, which allows players to use their smartphones to see a Pokémon character in the real world, or services like Wayfair's app, which enables users to see how a piece of furniture might look in their homes.<sup>18</sup>

VR has the potential to take this to the next level, effectively turning a person's own home into a virtual store. Companies like eCommerce giant Alibaba are looking to make this concept a reality in the next few years. The Chinese company released a promotional video in 2017 that showed a customer walking through and interacting with a virtual store while using a VR-equipped device. This followed the 2016 launch of Buy+, a VR shopping app that allows users to interact with products and pay with Alipay.

Amazon is also experimenting with using the technology to create a virtual store, but, as with its

Chinese counterpart, the solution hasn't yet launched.<sup>19</sup> Amazon's experiments have made VR more available to users who want to try it out for themselves. It also sells an increasingly wide array of VR products on its eCommerce platform, including devices and apps like HTC's Viveport.

Amazon is also pushing the technology into fast-growing markets such as the one in India, which is set to expand its online shopping use over the next few years. According to Morgan Stanley, over 50 percent of the country's internet users are expected to buy their products online by 2026, compared to the 14 percent of internet users who did so in 2016.<sup>20</sup>

The virtual store concept could have a large impact on the way today's consumers shop on the web. While customers may have a tendency to buy more when they shop online, they also tend to return a significant share of their purchases. A virtual store could address this problem, eliminating what's called the home try-on effect — in which users order several products to try out at home, only to return the bulk of them — by as much as 25 percent.<sup>21</sup> VR is able to give users a better sense of the products at hand because they can manipulate clothing or furniture before they buy it.

<sup>18</sup> Author unknown. New data shows what consumers want from virtual reality shopping. L.E.K. Consulting. August 2017. <https://www.lek.com/press/new-da-ta-shows-what-consumers-want-virtual-reality-shopping>. Accessed January 2019.

<sup>19</sup> Sun, L. Amazon follows Alibaba's lead into VR shopping. The Motley Fool. July 2018. <https://www.fool.com/investing/2018/07/19/amazon-follows-alibabas-lead-into-vr-shopping.aspx>. Accessed January 2019.

<sup>20</sup> Sun, L. Amazon follows Alibaba's lead into VR shopping. The Motley Fool. July 2018. <https://www.fool.com/investing/2018/07/19/amazon-follows-alibabas-lead-into-vr-shopping.aspx>. Accessed January 2019.

<sup>21</sup> Ffiske, T. Shifting shopping habits with VR. Virtual Perceptions. September 2018. <https://virtualperceptions.com/2018/09/24/shopping-habits-vr-infosys/>. Accessed January 2019.

## VR LESSONS FROM THE GAMING INDUSTRY

All of these potential use cases rely on customers who are willing to adopt the technology in the first place. With that in mind, retailers need to ensure that consumers will bring VR devices into their homes. Some analysts predict that the technology won't truly hit its stride until 2022, especially as some VR developers have shifted their focus to AR because of the high costs associated with creating the former technology.<sup>22</sup>

Although mobile AR took a bite out of the initial hype surrounding VR, it also opened a door for both technologies to grow. As with AR, the road to more VR devices and apps may be through the entertainment industry.

Film and television companies like Lucasfilm, for instance, are experimenting with it. The company's ILMxLAB division, which exclusively works on VR and entertainment technologies, is combining it with artificial intelligence (AI) to create intricate fantasies and immersive games that play out around the user – such as displaying scenes from the Star Wars franchise.<sup>23</sup>

Like other VR studios, such as Magic Leap, the lab wants to make these worlds as personalized as possible by creating dialogues and storylines with the highest possible level of immersion.

So, how does this relate to the future of VR in retail?

First, consumers are far more likely to purchase a headset or hardware when it's billed as a tool for entertainment, rather than a device that can be used to make purchases. This can be seen from the growth of VR devices like smart glasses – think Microsoft's HoloLens, for instance – a niche of the tech that is expected to have millions of users by 2022. The combined AR/VR headset market is projected to total more than 100 million users by that year, according to some estimates.<sup>24</sup>

Second, advances in this area are bound to bleed over into VR's retail applications. The ILMxLAB is looking to create "hyper realities" with its technology in an attempt to achieve the same suspension of disbelief that users

have when they're watching a movie or immersed in a virtual game. This would mean creating a VR experience in which users who touched a virtual wall would feel as though they had touched a real one, eliminating one of the last sensory barriers to fully imitating reality in the digital world.<sup>25</sup>

This would be a key development for retailers, as it would give at-home users the ability to feel the fabric of a dress or a shirt before making a purchase. This would also put VR technology at the center of users' lives through devices they would rely on to make purchases, interact with friends and seek entertainment.



<sup>22</sup> Author unknown. Ubiquitous \$90 billion AR to dominate focused \$15 billion VR by 2022. Digi-Capital. January 2018. <https://www.digi-capital.com/news/2018/01/ubiquitous-90-billion-ar-to-dominate-focused-15-billion-vr-by-2022/>. Accessed January 2019.

<sup>23</sup> Baron, K. How Lucasfilm's immersive entertainment lab will reimagine retail's horizon. Forbes. September 2018. <https://www.forbes.com/sites/katiebaron/2018/09/06/how-lucas-films-immersive-entertainment-lab-will-reimagine-retails-horizons/#7d06235e7f4d>. Accessed January 2019.

<sup>24</sup> Author unknown. Ubiquitous \$90 billion AR to dominate focused \$15 billion VR by 2022. Digi-Capital. January 2018. <https://www.digi-capital.com/news/2018/01/ubiquitous-90-billion-ar-to-dominate-focused-15-billion-vr-by-2022/>. Accessed January 2019.

<sup>25</sup> Baron, K. How Lucasfilm's immersive entertainment lab will reimagine retail's horizon. Forbes. September 2018. <https://www.forbes.com/sites/katiebaron/2018/09/06/how-lucas-films-immersive-entertainment-lab-will-reimagine-retails-horizons/#7d06235e7f4d>. Accessed January 2019.

# SIDEBAR

## HOW FACEBOOK'S OCULUS HEADSETS ARE BRINGING VR MAINSTREAM

Positioning VR to be a customer's main point of interaction with the world is a daunting task, but it might be one that social media companies like Facebook are particularly suited to. Facebook is approaching this technology in a way that could have a huge impact on how consumers will use VR for retail, as well as for social connection.

Could Facebook make VR more mainstream? If so, what does that mean for the future of the technology in retail?

The company's VR push could affect retail in two key areas: the availability of the technology and consumers' comfort with using social media. Facebook is hoping that its Oculus headsets will hit these two factors as it brings them into the larger consumer market.

The Oculus Go headset was released this past May and sold for \$199. The much-anticipated product offered users the ability to view and manipulate a range of content at will.<sup>26</sup> The company, which put billions of

investment dollars into these headsets, will release another headset – the Oculus Quest – next year for \$399.<sup>27</sup>

Something of note about the Oculus headsets are their affordability – a key factor when it comes to the adoption of any new technology. Offering a range of prices is essential to the wider acceptance of these headsets. Putting them at roughly the same price points as other digital devices (and still less expensive than new iPhones) means that more consumers are likely to take them for a spin.

While using an Oculus device for entertainment purposes may not affect retail spending, it does mean that consumers are getting used to manipulating the technology and what it can do for them. This cultivated comfort could have important impacts on retail as consumers get used to the way it works.

Seventy percent of consumers are interested in

virtual shopping or in using VR to try on clothes and accessories. As with all other retail factors, however, that experience needs to be easy – and that means they need practice with the technology.<sup>28</sup>

Facebook's Oculus devices could prove to be important training wheels for consumers. These headsets are primarily designed for gaming and entertainment – a broader application of VR that has the potential to capture consumers' interest in a way that other applications don't. This type of immersive experience is tailored to VR, with consumers expressing more interest in gaming than for video or other services.

It's worth noting that the gaming market for VR has been slow to start, with sales of VR and AR headsets actually falling 30.5 percent between 2017 and 2018 – approximately 1.2 million headsets shipped in Q1 2018.<sup>29</sup>

Much of this decline is due to the fact that brands that offer these headsets stopped most of their marketing

offers. Retailers originally bundled them with new smartphones, for instance, which blurs the overall cost of the headsets and pushes them further into the public eye. This is indicative of a broader market for VR devices – one that Facebook's investment in the Oculus headsets may just ignite. While the headsets are still primarily focused on entertainment, that doesn't mean consumers won't use them to make retail purchases in the future.

The focus on gaming and the subtle type of immersion it provides in VR is key. Gaming, as one of the more sensory experiences one can have through any type of screen, has the potential to get even more immersive through VR, versus a movie, where there's no way to manipulate characters or surroundings past a certain point. From there, it's only a small step to get the customer to use the headset to browse other types of content, connect socially and, eventually, go shopping.



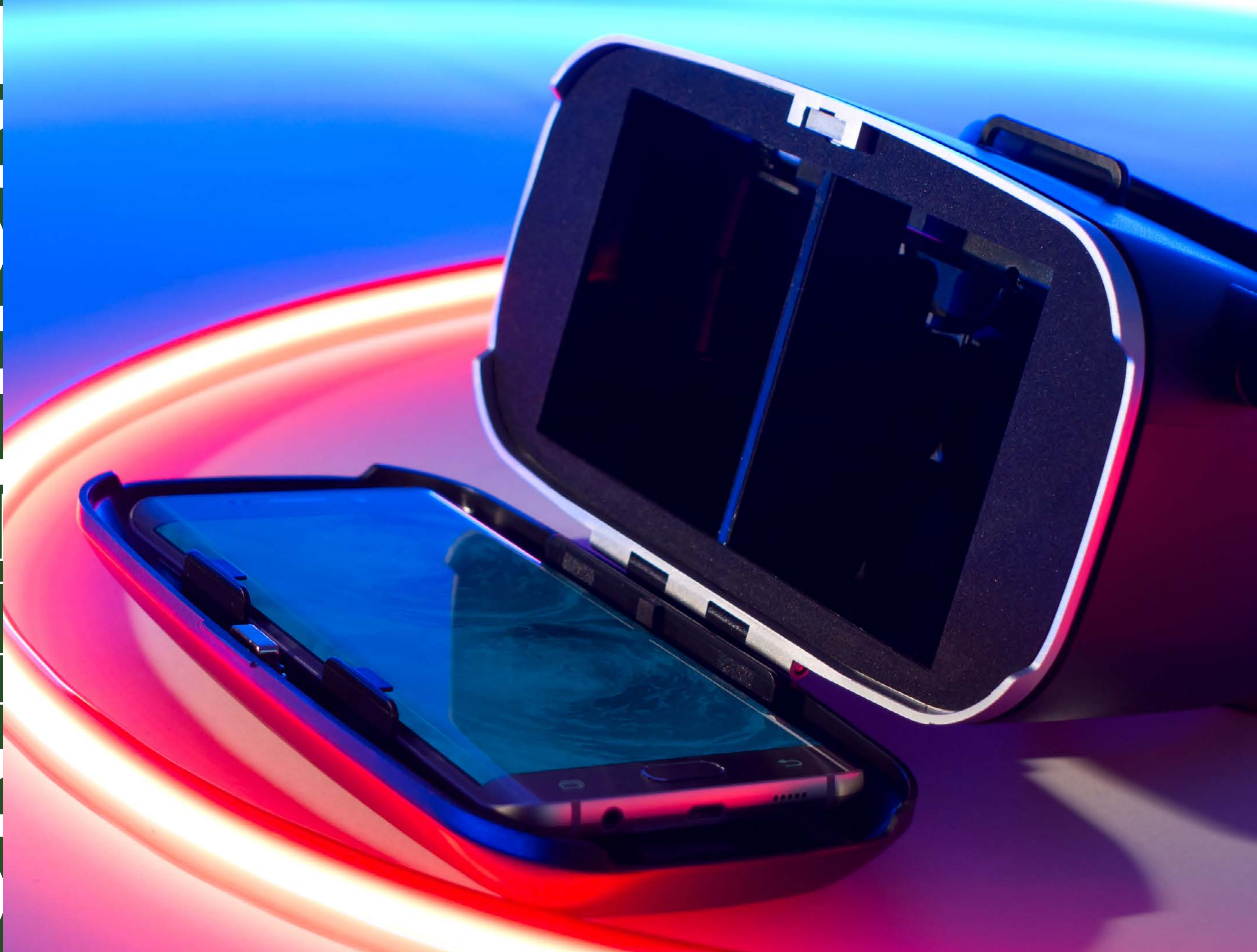
<sup>26</sup> Pruden, J. Retailers must skip AR and embrace VR. The Drum. May 2018. <https://www.thedrum.com/opinion/2018/05/31/retailers-must-skip-ar-and-embrace-vr>. Accessed January 2019.

<sup>27</sup> Kolakowski, N. Virtual reality is transforming into a niche sub-industry. Dice. November 2018. <https://insights.dice.com/2018/11/04/virtual-reality-transforming-niche-sub-industry/>. Accessed January 2019.

<sup>28</sup> Author unknown. New data shows what consumers want from virtual reality shopping. L.E.K. Consulting. August 2017. <https://www.lek.com/press/new-data-shows-what-consumers-want-virtual-reality-shopping>. Accessed January 2019.

<sup>29</sup> Corbette, K. IDC: AR, VR headset sales are down, but don't panic. Tom's Hardware. June 2018. <https://www.tomshardware.com/news/vr-ar-quarterly-sales-down,37335.html>. Accessed January 2019.

ONLINE PHONE



VIRTUAL REALITY AND

# THE SMARTPHONE PROBLEM



**THE CENTER OF THE SOCIAL WORLD HAS NARROWED, SHRINKING DOWN TO THE FEW INCHES OF LEDS AND GLASS THAT MAKE UP A SMARTPHONE'S SCREEN. THE SMARTPHONE HAS BECOME THE GATEWAY FOR PEOPLE TO CONNECT, MAKE PLANS, PAY BILLS AND — MORE AND MORE — SHOP.**

The number of consumers who make purchases on their smartphones is growing every year, and retailers are changing their online strategies accordingly. When it comes to VR, the smartphone is one area retailers will have to approach with caution. An inches-long screen is not the best canvas for a full-on immersive experience. Unlike AR, which is tailored to respond to a smartphone's camera to project images, VR cannot rely on them to dazzle users.

Retailers with tailored VR experiences are using smartphones as auxiliary devices to tap into the larger consumer consciousness. These are mobile apps that add additional information to an existing VR experience to replicate what exists inside of a brick-and-mortar store or provide a similarly immersive mobile experience after creating a virtual store.<sup>30</sup>

Most of these retailers, like Macy's, have a long history of experimenting with the technology and have apps that are attached to several of their VR capabilities.<sup>31</sup> Other retailers combine AR and VR to bring similar experiences to both in-store and at-home shoppers. An example of

this comes from outdoor apparel retailer Timberland, which recently opened a virtual fitting room where shoppers can use hand gestures to try on clothes using VR.

Timberland's approach might be the best example when it comes to VR and its use in the mobile phone industry. The company's in-store experience relies on customers walking past mirrors specifically designed to respond to their movements — something that's difficult to fully replicate at home. For those who aren't making their way to a physical store, the company's mobile experience utilizes smartphone cameras via the Facebook app for a similar effect — though this experience does use more AR than VR.<sup>32</sup>

The fact that VR isn't a perfect match for mobile isn't slowing its development for retail, whether online or in-store. Consumers' interest in it is high, and while they don't yet consider VR headsets or platforms to be crucial technologies, like their smartphones, that may change.

<sup>30</sup> Ffiske, T. Shifting shopping habits with VR. Virtual Perceptions. September 2018. <https://virtualperceptions.com/2018/09/24/shopping-habits-vr-infosys/>. Accessed January 2019.  
<sup>31</sup> Murray, R. How virtual and augmented reality are changing the way you shop. whoo.com. September 2018. <https://www.who.com/news/local/how-virtual-and-augmented-reality-are-changing-the-way-you-shop/knAekZS8XdrM70Bhujqi0M/>. Accessed January 2019.  
<sup>32</sup> Terry, L. VR in retail: The future of shopping is virtual and augmented. Samsung. July 2018. <https://insights.samsung.com/2018/07/31/vr-in-retail-the-future-of-shopping-is-virtual-and-augmented/>. Accessed January 2019.

## CHANGING THE WAY CONSUMERS SHOP

Some estimates predict that the emergence of AR and VR will completely change the way that consumers shop by 2050.<sup>33</sup> With that in mind, it's likely that consumers will want to move beyond simple mobile apps, especially as VR headsets become more affordable and eCommerce becomes the preferred way to shop.

Consumers are already responding well to virtual fitting rooms and stores, with profitability for retailers increasing by as much as 20 percent, as customers are less likely to return clothing that they've "tried on." These users are also more likely to be loyal to retailers, studies have found, as virtual stores take the time to save personal details like height, weight and hair color.<sup>34</sup> This convenience keeps customers coming back.

Users are also excited by the possibilities virtual rooms provide. Eighty percent of consumers said they wanted to use AR and VR to design a room.<sup>35</sup> This curiosity, combined with the fact that VR makes it possible for users to get a 3D view of a product – and, potentially, the ability to feel it as though it were a real object – means that future shoppers might skip mobile shopping entirely in favor of VR.

That's a long way off, though, as retailers are still experimenting with the best ways to bring VR into both eCommerce and the physical store. Consumers' receptivity to the technology means they are getting used to shopping outside of familiar devices, as well as familiar brick-and-mortar institutions – something that will be key to the adoption of AR and VR going forward.



<sup>33</sup> Ffiske, T. Shifting shopping habits with VR. Virtual Perceptions. September 2018. <https://virtualperceptions.com/2018/09/24/shopping-habits-vr-infosys/>. Accessed January 2019.

<sup>34</sup> Ffiske, T. Shifting shopping habits with VR. Virtual Perceptions. September 2018. <https://virtualperceptions.com/2018/09/24/shopping-habits-vr-infosys/>. Accessed January 2019.

<sup>35</sup> Author unknown. New data shows what consumers want from virtual reality shopping. L.E.K. Consulting. August 2017. <https://www.lek.com/press/new-data-shows-what-consumers-want-virtual-reality-shopping>. Accessed January 2019.

# LOOKING FORWARD

## THE FUTURE OF RETAIL

Shopping will get only more personalized in the future, and retailers already view VR as the tool that can craft these tailored customer experiences. Car dealerships like Audi and Jaguar are already using the technology to provide virtual test drives, and Macy's is bringing the tech into every area of its retail empire, from mobile apps to in-store smart mirrors. The number of brands that are using VR experiences to appeal to their customers is growing across the retail industry, from clothing players like The North Face, Timberland, Topshop and Tommy Hilfiger, to big-box stores like Walmart. Even eCommerce companies like Amazon and Alibaba are looking to put VR at the center of the consumer experience.

The future of shopping is in flux, as more retailers begin to integrate the technology into their in-store and online presences. More than ever, consumers are turning to online and mobile shopping as ways to browse and shop for goods, and they want an experience that responds to their specific needs. With VR home devices becoming more prevalent and affordable every year, the future of retail is sure to be virtual.



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