



Retailer's Guide
to the galaxy

12

transformations in the retail industry
for the next 25 years



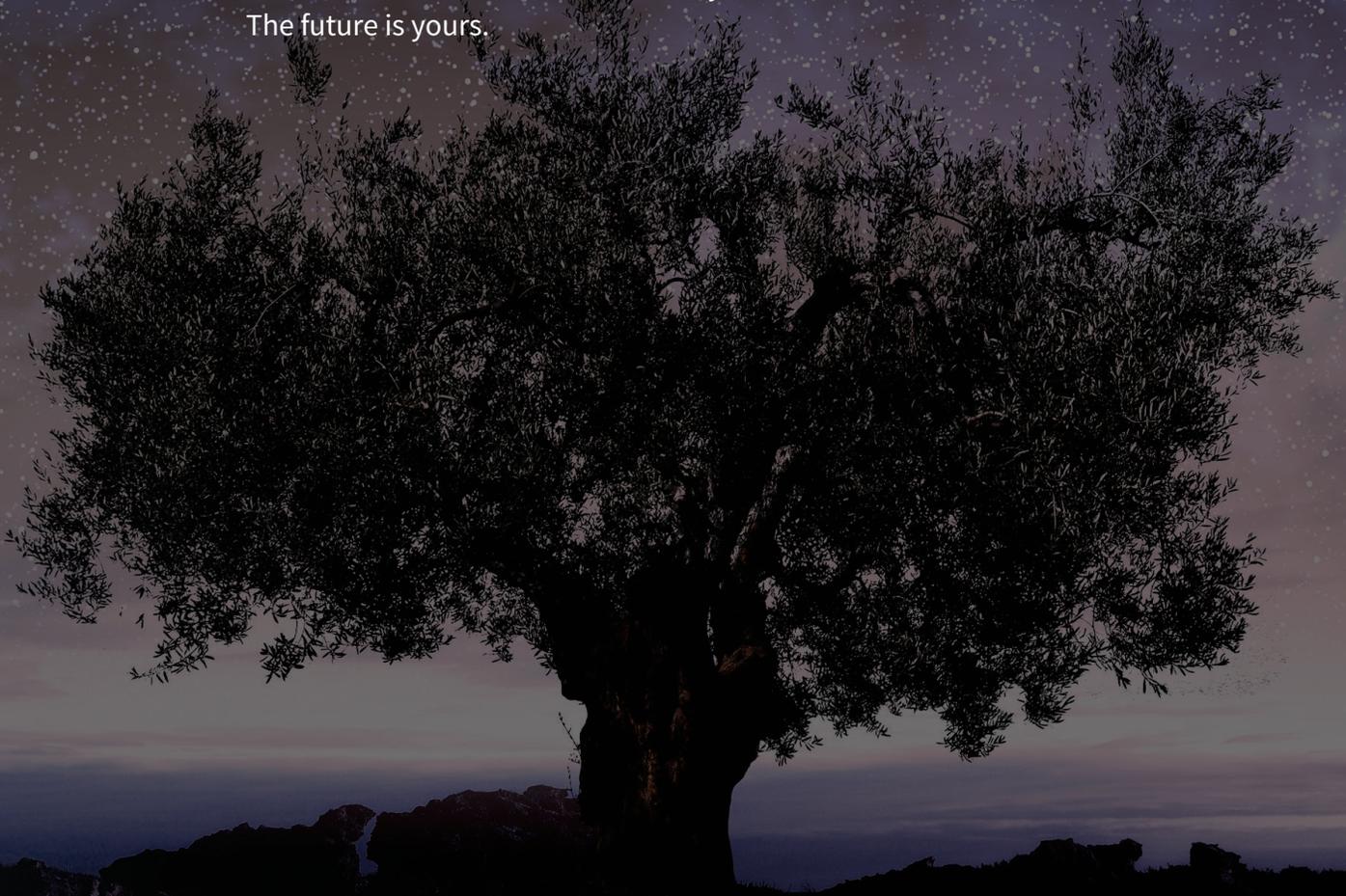


Don't Panic

A part of your job as a retailer or shopping center owner is future-proofing your business. But with so much else to do, there's little time to think about the future. You're busy just trying to get through the day. Don't panic. This guide will help you prepare for what lies ahead.

We have collected and distilled the top 12 trends that will shape the future of retail and real estate. This report is organized on a time horizon, with near-term trends in the front and long-term ones in the back. Each trend is led with a short impact statement that tells you the expected magnitude, timing and affected parties.

You can refer to this guide by topic, read it front to back or flip through it quickly and look at the pictures. However you tackle it, you'll know more about the future of retail than when you started. Good luck, time traveler. The future is yours.



This report is a timeline of the top 12 trends that will shape the future of retail and real estate. You can read front to back, or skip ahead to any point in the future.

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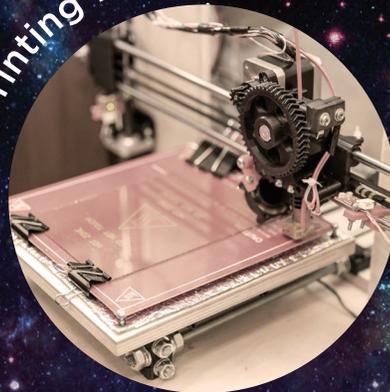
5 YEARS

10 YEARS

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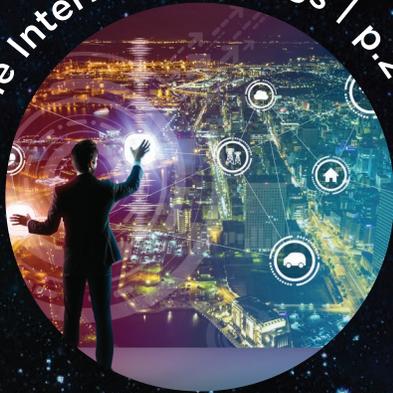
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15 YEARS

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GEOFENCES

Lasso shoppers for
retailers and owners



5 YEARS

10 YEARS



It used to be that the only way retailers could understand their shoppers was to hire interviewers to stand outside stores and question them. Today, all that's needed is a geofence. It's a virtual boundary that can be drawn around any place, like a store, shopping center or neighborhood. When a location-aware device, like a smartphone, enters a geofenced area, market researchers can track the steps of the shopper holding the phone. Even without shopper identities, aggregated data can be quite useful in answering important questions. Where

tailor merchandise and promotions for an exact fit. For example, a home goods retailer may discover that shoppers often head next to a pet store. A logical move would be to start carrying merchandise catering to pet lovers.

When customers use a retailer's location-aware app, a response is initiated that triggers outbound messages when shoppers cross the geofence. The response could be a special discount offer tailored to the individual. Apparel retailer American Eagle Outfitters turned to geofencing to boost both

to entice hungry customers to download its mobile ordering app. Taco Bell targeted the under-30 demographic and saw a six percent increase in sales.

But it's not just retailers who benefit from geofencing. Mall owners can use the technology smartly to create better consumer loyalty programming, support leasing efforts and learn more about local competition. Knowing where customers go before or after shopping at their mall provides valuable insights. Owners can re-tenant vacancies and make better merchandising mix decisions once they see cross-shopping patterns at different locations within a market.

Using geofences as a tool for market research and customer loyalty will become even more common over the next few years. According to a recent report by MarketsandMarkets, location-based services are forecast to grow to \$39.87 billion in 2019, up almost five-fold from \$8.12 billion in 2014.

What's the impact: Geofences are virtual geographic boundaries, defined by GPS or RFID technology, by retailers or shopping center owners. The technology enables software to trigger a response when a mobile device enters or leaves a particular area. Expect geofencing technology to become more widespread in the next five years.

do shoppers come from before they visit a store? What places do they go after stopping in at a certain mall? What neighborhoods do they live and work in?

Geofencing allows retailers to understand shoppers' behavior profiles so they can

foot traffic and revenue at its outlet stores by pinpointing shoppers who entered the geofenced mall parking lot and offering them promotions. The campaign resulted in tripled sales. Fast-food chain Taco Bell took a similar approach, using geofencing

\$39.87 billion

IN 2019

\$8.12 billion

IN 2014

Location-based services future growth

15 YEARS

20 YEARS

25 YEARS

Image Courtesy: Shutterstock

Spending made Simple with mobile ←

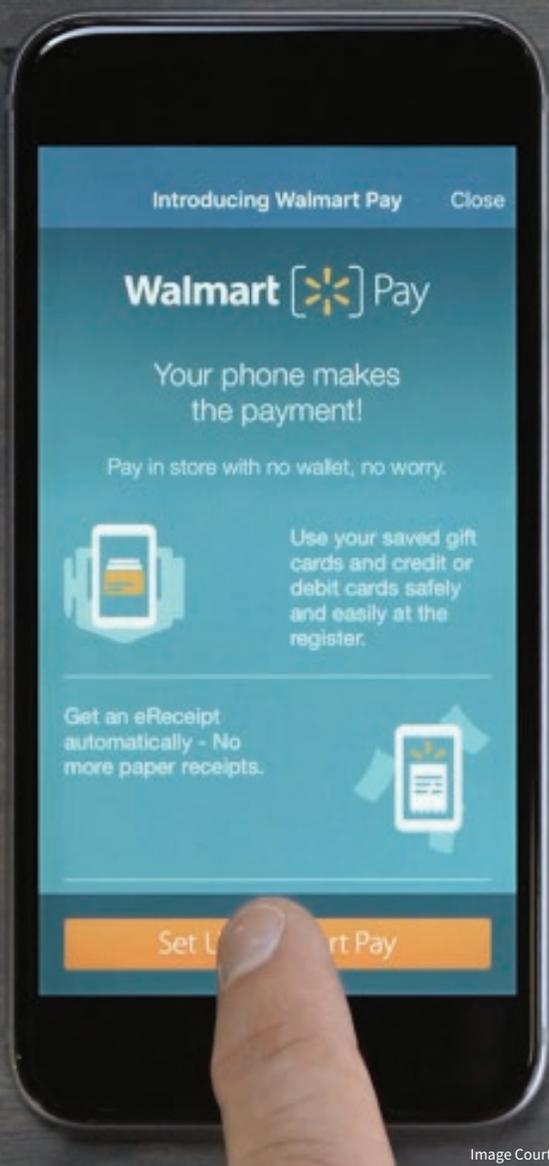


Image Courtesy: news.walmart.com

It used to be that cash or check was the only way to pay. Now credit and debit cards are standard. But will plastic someday become a quaint relic of the past? Probably so, as mobile payments are poised to go mainstream.

Apple Pay and Google Pay are the major digital wallet and payment systems in the United States, but the landscape is quickly evolving. The research firm eMarketer estimates that by 2019,

the total value of transactions made by tapping a phone on an in-store terminal will reach \$210 billion, up from \$8.7 billion in 2015. By 2020, 90 percent of smartphone users will have made a mobile payment. This capability has gone from a nice-to-have to a must-have. Retailers and major banking institutions are jumping onboard to create their own products to satisfy consumer demands, negate transaction fees and vie for their share

90% By 2020

Smartphone users will have made a mobile payment

5 YEARS

10 YEARS

What's the impact: Mobile payment options will become nearly universal. This trend will have a medium impact on physical retailers in the next five years.

of the mobile pie that Apple and Google have been gobbling.

Retailers are building mobile apps to enable in-store payments, improve customer experience and reduce the pains of checkout lines. Starbucks' Mobile Order & Pay program launched last year now has 8 million transactions per month, 19 million app users and ordering usage that doubled year over year.

Walmart started accepting payments through its U.S. mobile app, and about 22 million

shoppers are using the tool, which connects to a debit or credit card, to improve the checkout process.

However, most retailers will not need to develop a proprietary app to accept mobile payments, just as most shoppers won't want a different payment method for each store they visit. Retailers will adopt whatever mobile payment system seems most popular and then enjoy the benefits of having workers who spend less time manning cash registers.

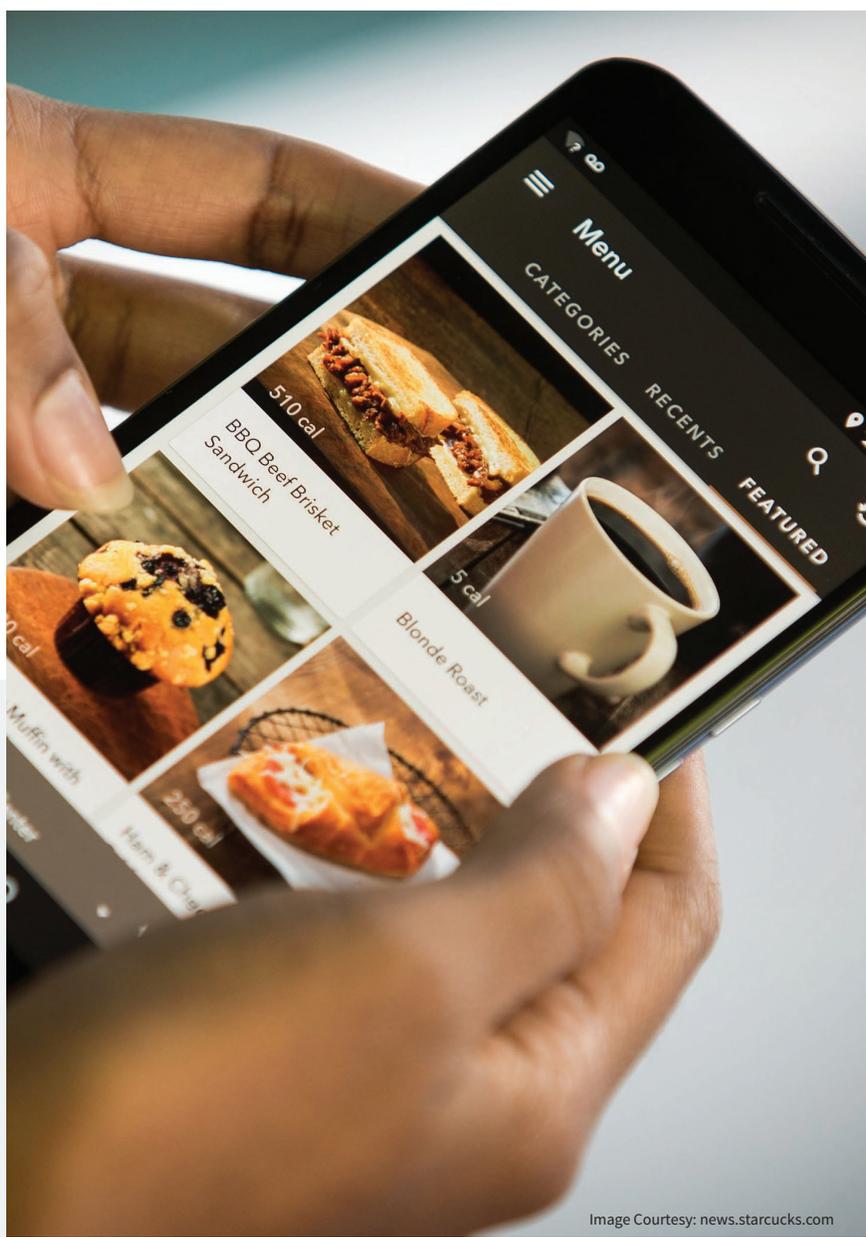


Image Courtesy: news.starbucks.com

**22
million**

Shoppers are using Walmart mobile payment app which connects to a debit or credit card

15 YEARS

20 YEARS

25 YEARS



Image Courtesy: Shutterstock

5 YEARS

10 YEARS

Picking and Packing

Do we still need people?

News about trials of drones that deliver burrito, taco and pizza has made it seem like home drone delivery is just around the corner. But large-scale programs don't yet make logistic sense. Drones may be an efficient solution in mountainous terrains and on islands, but regulations in areas with sophisticated infrastructure make last-mile drone delivery a complicated undertaking.

Meanwhile, the use of drones inside retail stores is gathering momentum. One top retailer filed a patent involving the use of drones for inventory management and product delivery inside the big box. Flight paths would be coordinated

using sensors and 3D mapping to prevent drones from colliding with shelving displays. While drones will likely hover over our heads in stores before they deliver a package to our doorsteps, neither concept has yet been profitably deployed. But there are more realistic uses. Retailers could put them to work in warehouses and outside stores for security and to track shopper movement. Drones could circle store perimeters and parking lots while transmitting video back to the store. They also could aid site selection and construction management, or help employees with the warehouse picking and packing process.



Image Courtesy: Shutterstock

What's the impact: Stores using drones will have a small impact on efficiency and customer service in the next five to 10 years. The bigger impact will be on supply chain logistics but it won't be felt for 15 to 20 years.

15 YEARS

20 YEARS

25 YEARS

Your office lobby is the next happy hour

Hot Spot

More companies are offering employees unique and comfortable workspaces that encourage collaboration, build morale and draw talented people. Part of this strategy is to break down traditional boundaries between life, work and play by adding retail- and hotel-style amenities to office spaces.

Employers are mixing business with pleasure, adapting workspaces to include coffee shops with professional baristas and beer taps with bartenders. Entire office buildings are activating common spaces by bringing outside retailers in from the perimeter and encouraging people to drink, dine and socialize in office lobbies. Rooftops and interior office spaces are providing new opportunities for retailers to serve a consumer base that is by its nature a very captive audience.

The reverse is also occurring, as underutilized retail space is being tested

as a destination for more traditional office users. Last year, office supply retailer, Staples, rolled out a plan to convert some space within its large stores into co-working areas.

Partnering with office-sharing startup Workbar, Staples launched a pilot to rent desks and conference rooms to subscribers between 2,500 and 3,500-square foot portions of its stores, complete with Wi-Fi, printing and mailing services.

In 2015, the Macy's in downtown Seattle sold its top four floors to Starwood Capital Group to be converted into creative office space. Not only does this deal offload the underutilized retail space, but also the proximity to a new workforce is likely to bring in more shoppers to the Macy's just a few floors below. At Westfield San Francisco Centre, a portion of the lonely fourth floor was transformed into Westfield Bespoke,



Image Courtesy: Shutterstock

5 YEARS

10 YEARS



Image Courtesy: Shutterstock

*Featuring event space
in the mall helped
Westfield attract
additional shoppers*

100,000
shoppers

a co-working space for retail tech startups. The new tech hub features an event space as well as an area for pop-ups and demos. Westfield estimates that in its first year, Bespoke drove an additional 100,000 shoppers through the doors of this popular urban mall.

Starbucks and coffee shops, in general, have been blurring the lines between office and retail for years. They see the value in having patrons feel they can be productive in the store because the longer they stay, the more money they spend. As the geographic lines between live, work and play continue to blur, office and retail spaces will further mix over the next decade, increasing the vitality and attractiveness of both types of properties.



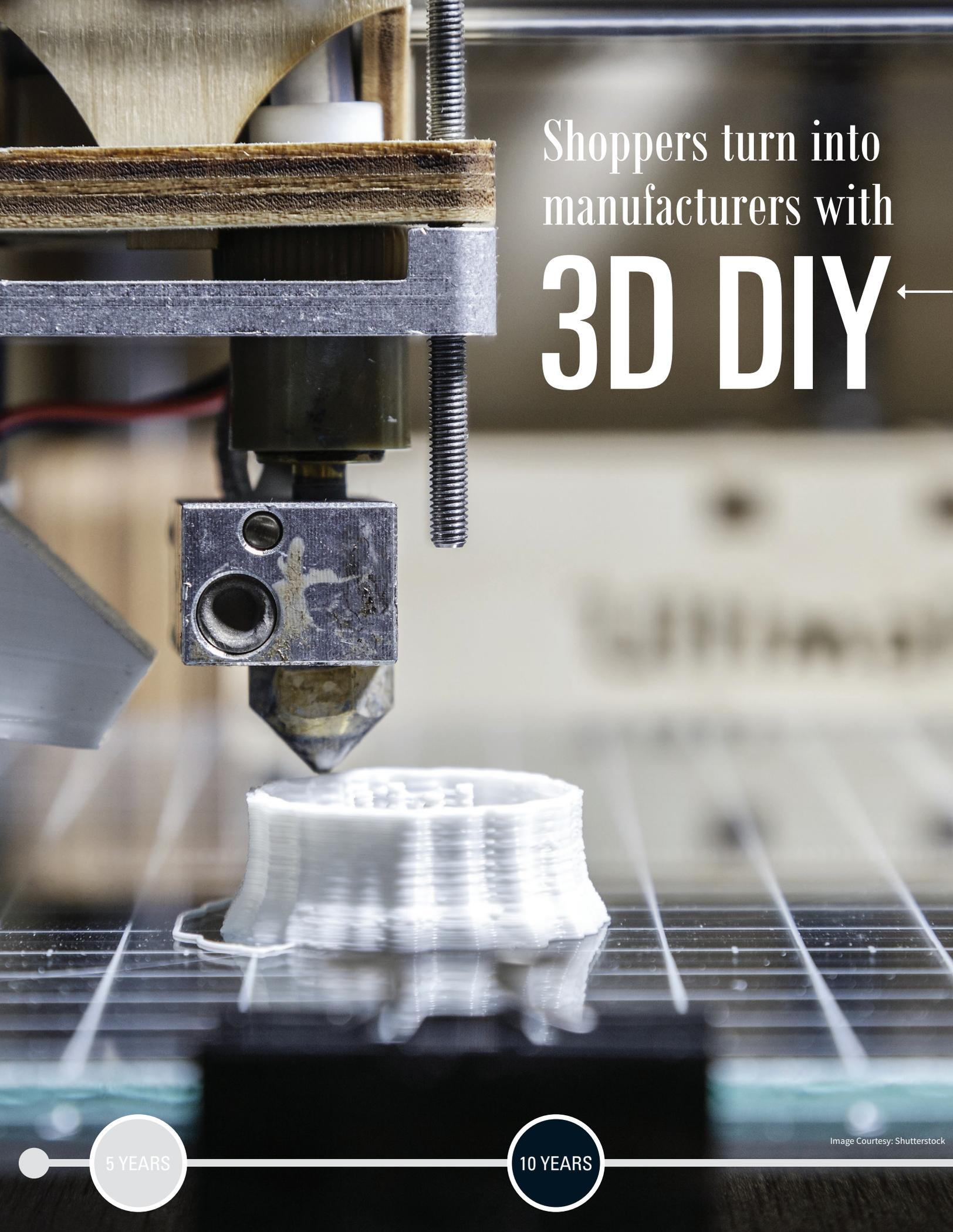
Image Courtesy: Shutterstock

What's the impact:
The blurring of lines between where we work and where we shop will have a medium impact on shopping centers, restaurants, bars and office buildings over the next decade.

15 YEARS

20 YEARS

25 YEARS



Shoppers turn into
manufacturers with

3D DIY ←

5 YEARS

10 YEARS

Image Courtesy: Shutterstock



Image Courtesy: Shutterstock

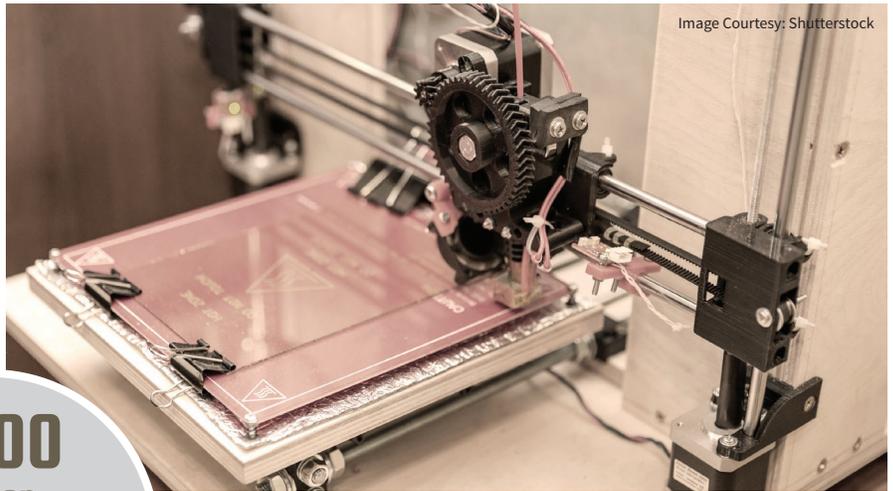


Image Courtesy: Shutterstock

\$400 million
Macy's renovated its Herald store where 3D printing lets shoppers create iPhone cases & jewelry

3D printing could be the third industrial revolution, allowing regular people to fabricate three-dimensional objects on-demand at home or in a store. For the consumer, 3D printing promises faster, cheaper and more customized goods. For retailers, it could offer on-demand manufacturing and on-the-spot personalization of products that appeal to shoppers. But the promise of 3D printing is emerging slowly, and the technology is still common only in the realm of hobbyists and specialists. It will likely be another 10 years before the retail realm feels its impact.

Retailers are experimenting with the technology, using 3D printing to improve the shopping experience and the quality of products. Part of Macy's \$400 million renovation of its Herald Square store in 2015 was One Below, a 53,000-square-foot space dedicated to teens. A 3D printing shop lets customers create their own iPhone cases and jewelry.

Athletic apparel retailers Under Armour, Adidas and Nike all have released 3D-printed shoes in the past year. The Adidas version is made from recycled ocean waste. These retailers are using 3D printing for its ability to translate customized measurements into bespoke sneakers that perfectly fit a person's foot.

Home improvement giant Lowe's was the first retailer to launch 3D printing both in-store and in space. Lowe's Innovation Labs collaborated with aerospace company Made in Space to send a 3D printer to the International Space Station. The goal was to allow astronauts to print specialized tools quickly and efficiently in zero gravity. Here on earth, Lowe's 3D printing and scanning services for DIY (Do it Yourself) projects is called Bespoke Designs. Partnering with Authentise, a 3D printing technology company, Lowe's

now has stations at its New York store in Chelsea, where plastic items can be printed on the spot for customers. Items requiring metal and ceramic are shipped directly to homes. Customers also can digitally reproduce broken parts or customize cabinetry hardware by working with 3D technicians to scan objects and create digital files for printing.

For now, most 3D printers cost thousands of dollars. But as costs inevitably fall, rapid adoption is sure to follow. Home consumers will print simple, single-substance items as needed – at least at first. As the technology evolves, the types of items that people will be able to produce will increase. Online platforms like MakerBot's Thingiverse already provide thousands of 3D designs free for download. More retailers will be able to use 3D printing technology to quickly create products. There will be less need for manufacturing facilities and logistics suppliers as more consumer goods are made on-demand using local printers.

What's the impact: 3D printing technology could disrupt retail by turning the consumer into a manufacturer. But while the impact will be large, it will be at least a decade before the technology is prevalent and affordable.



Image Courtesy: Shutterstock

15 YEARS

20 YEARS

25 YEARS

Future Talk



I've come up with a set of rules that describe our reactions to technologies:

1. Anything that is in the world when you're born is normal and ordinary and is just a natural part of the way the world works.
2. Anything that's invented between when you're 15 and 35 is new and exciting and revolutionary and you can probably get a career in it.
3. Anything invented after you're 35 is against the natural order of things.

– *Douglas Adams, The Salmon of Doubt*

“We need to create a state of flow where the consumer almost forgets that they're shopping while still spending money. They need to really enjoy the experience, making it frictionless, and create an affinity and connection with the brand. The shopping experience should be able to seamlessly transition between online and offline.”

– *J. Skyler Fernandes, the founder and former Managing Director of Simon Venture Group. He researches and invests in retail innovation that enhances the shopping experience.*



Image Courtesy: Shutterstock

AR vs. VR

Which will win the in-store shopping transformation ←



Image Courtesy: Shutterstock

5 YEARS

10 YEARS

What's the impact: Virtual reality devices will have a medium impact on the e-commerce shopper experience and may help to decrease retail space demands in the next 10 to 20 years. Augmented reality will have a big impact on the in-store shopping experience over the next 10 years.

\$30 billion
by 2020

According to Harvard Business Review, retailers' investments in AR and VR could be high transforming the way consumers interact with retail brands.

The potential value of a tailored customer experience through augmented reality (AR) and virtual reality (VR) technology is not to be underestimated. According to the *Harvard Business Review*, retailers' investments in AR and VR could be as high as \$30 billion by 2020, transforming the way consumers interact with retail brands. VR and its sister technology, AR, offer distinct opportunities for retailers and their customers.

VR technology immerses the user in an entirely simulated world, and requires stand-alone devices such as headsets and controllers. This makes VR the ideal platform for gaming and other experiential uses tied to movies and TV shows. Location-based VR experience companies—Nomadic, founded by veterans of Disney, EA and other media giants, are snapping up vacant mall spaces and cinemas across the United States and equipping them with VR experiences like *Ghostbusters: Dimension*, a story-driven virtual playground created by The Void.

VR is not only transporting users to fantastical worlds, but also occasionally serving a practical retail purpose by allowing them to visit malls from the comfort of their sofas. Startups like London-based Trillenium have experimented with the possibility of employing VR devices, such as Oculus Rift, Google Cardboard and Samsung Gear VR, to transport customers to virtual malls. They can walk through virtual stores, examine virtual versions

of real-life products and make purchases just as they would in the real world.

Despite VR's expected growth as an industry (approximately \$38 billion by 2026), one of its main pitfalls is the technology itself. Unless it's for gaming purposes, consumers are reluctant to wear VR devices, even in their own homes. Although this may gradually change over time, the immediate future of online retail seems to be the domain of AR.

AR, at its most basic level, overlays aspects of the virtual world with real-life objects and locations, using devices such as smartphones and tablets. The most notable example is *Pokémon Go*. In the world of retail, AR technology may revolutionize the shopping experience for apparel, cosmetic and home goods by helping shoppers visualize products either on themselves or in their homes. Pottery Barn's 3D Room View enables customers to visualize rugs, lamps or couches in their own homes, and Sephora's Virtual Artist allows shoppers to virtually apply makeup without ever stepping into a store. Other retailers are adapting this emerging technology to increase convenience and personalization for consumers.

Lowe's is employing a hybrid strategy when it comes to AR and VR by focusing on in-store technology. The home improvement retailer is rolling out an AR app that tells shoppers the fastest way to find items in the store. Powered by Google's Tango, an indoor-mapping technology, the app overlays a yellow line along the aisles,

guiding users to the next item on their list through their phone screens. The app is currently limited to a single Tango-enabled device, the Lenovo Phab 2 Pro, but there are plans to expand the app's reach to other devices. Lowe's is also testing the functionality of VR technology, using an HTC Vive headset and controllers to allow customers to simulate DIY projects like retiling, painting and reflooring to encourage better recall—a much more effective teaching tool than a YouTube video. The Lowe's Holoroom How-To VR experience is available at its Framingham, Massachusetts, location and two stores in Canada.

In an age where 80 percent of American consumers do at least some online shopping, retailers must learn how to virtually engage with consumers or risk getting left behind. AR technology is likely to be an effective bridge.



Image Courtesy: Shutterstock

15 YEARS

20 YEARS

25 YEARS

Artificial Intelligence

Customer service without hassle or hustle



What's the impact: As artificial intelligence (AI) and machine learning become increasingly sophisticated, retailers will use it to enhance customer experiences. Expect AI to have a big impact in retail in the next 10 years as it becomes common in everyday activities.

5 YEARS

10 YEARS

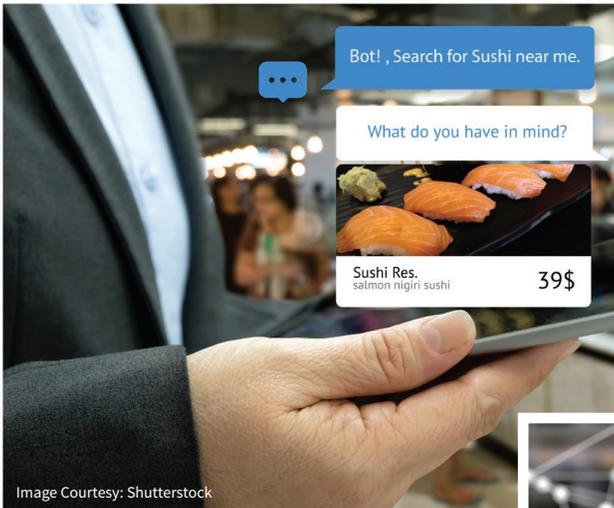


Image Courtesy: Shutterstock

Technology like Watson will transform the retail industry by changing the way consumers interact with products and brands.



Image Courtesy: Shutterstock



Image Courtesy: Shutterstock

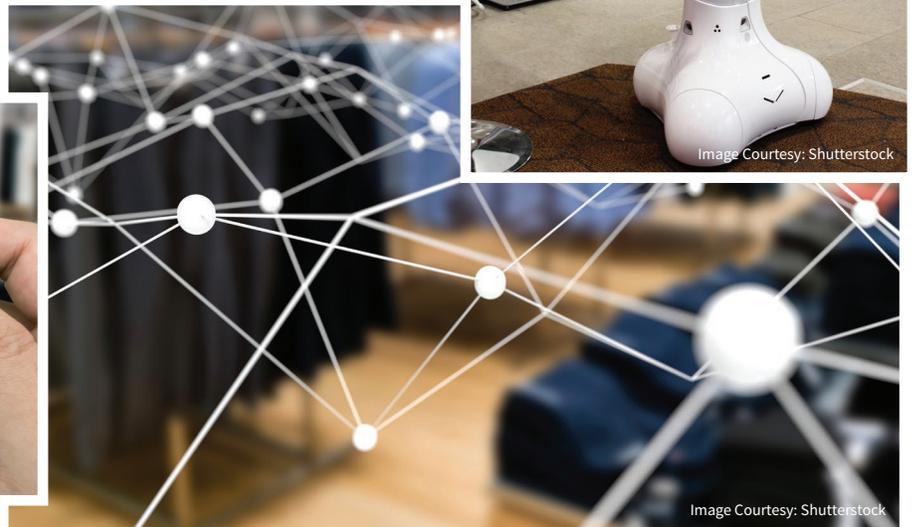


Image Courtesy: Shutterstock

With the help of AI software, retailers are capitalizing on advances in cognitive computing. In other words, software that can learn. Several retailers have teamed up with IBM to use its Watson technology to power an AI assistant that operates in select stores across the United States. “Macy’s On Call” answers questions and guides shoppers to their destinations. Customers simply open the site on any smartphone and type in their question – no human interaction needed. “Macy’s On Call” is a novel way for the store to interact with consumers on a personal level, boosting customer engagement. Watson also made its way into Fashion Island Mall in Newport Beach, California, in the form of a chatbot. Shoppers can text a question to a specified phone number, and Watson will reply, acting as an enhanced mall directory. The

more customers use these tools, the more Watson learns and the more accurate it will be when answering questions. Machine learning allows computers to become more intelligent without being explicitly programmed.

AI software can process massive amounts of data quickly to create endless opportunities for innovation. Under Armour teamed with IBM’s Watson to buff out its health and fitness app, UA Record, giving users real-time information about their personal health and fitness program. Watson monitors and analyzes daily exercise, sleep habits and food intake (manually entered by the human), and provides personalized insights based on the data. North Face launched an app to help shoppers find the right coat depending on where the shopper is going, what time of year it is and what activities are planned.

Amazon’s Alexa, the brain behind the Echo, is an AI assistant for the home or office. Google Home, a similar product, completes simple tasks and answers the user’s questions. These technologies allow for two-way conversation between machine and human. AI not only supplies companies with more information than ever before, but also gives customers personalized experiences that enhance day-to-day activities.

Technology like Watson will transform the retail industry by changing the way consumers interact with products and brands. But more importantly, retailers will be able to digest and comprehend unprecedented amounts of data.

As AI becomes more sophisticated, it will tackle even more complicated tasks. There’s no telling how much more work artificial intelligent software may take on.

Imagine a world where supply and demand are in perfect harmony. Goods are sold at prices that factor in available supply, current customer demand, competitor prices and any number of other influential factors. It's a perfect market in real time and has the potential to change how retailers price goods, both online and in stores. Retailers use dynamic pricing to price goods based on different variables, such as time of day and demand. During happy hour, for example, a bar drops drink prices to encourage consumers to come during slow times.

Ride-sharing companies use surge pricing to encourage drivers to stay out despite heavy traffic or bad weather. As major retailers expand their use of technology, the complexity and sophistication of dynamic pricing will continue to develop.

E-tailers have led the way in dynamic pricing, thanks to their access to data and technology. Dynamic pricing succeeds when retailers have immediate access to all the variables and components that go into correctly pricing goods. Just as important is a system that correctly interprets that data and sets prices accordingly to beat the competition. In the physical world, one new bookstore doesn't even place printed price tags on products, allowing the retailer to charge different prices for different customers. A digital price tag lets any retailer quickly change prices based on the time of day, competitors' prices, proximity to a major holiday and countless other variables.

One obstacle to this practice may be the universal dislike of "price gouging." It seems unfair to some shoppers that different groups would pay different prices. As more retailers roll out dynamic pricing online, they'll need to develop transparent pricing policies to make the practice successful in physical store.

Setting the Perfect Price Every Time

5 YEARS

10 YEARS

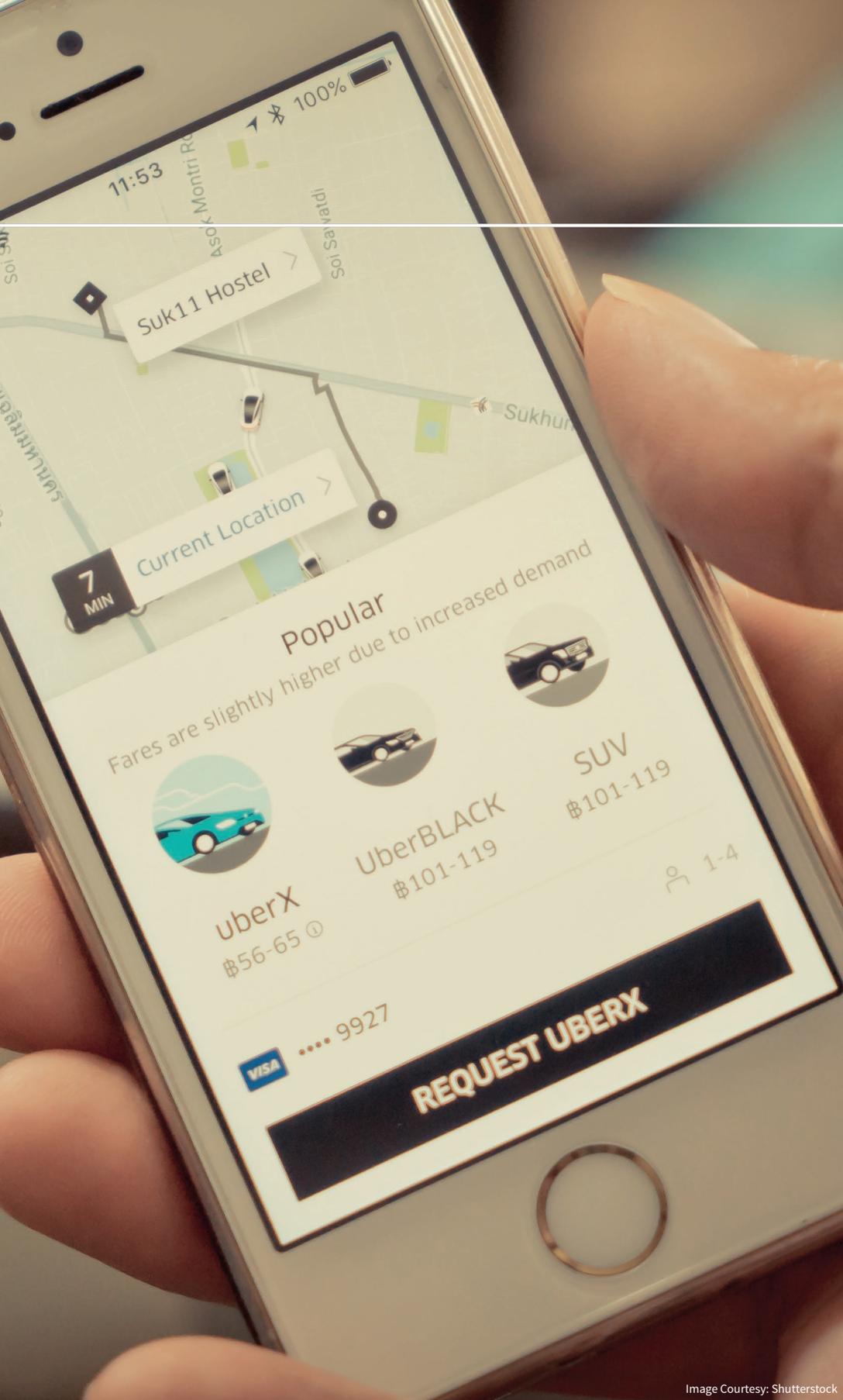
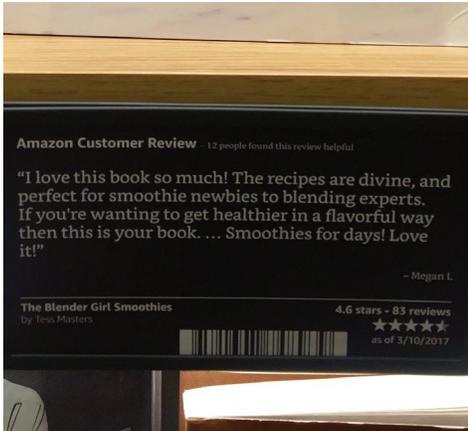


Image Courtesy: Shutterstock

What's the impact:
Dynamic pricing depends on real-time data to perfect the supply and demand model. Online stores have already embraced it, so further impacts in that arena will be minimal. Expect bigger impacts for physical stores in 10 to 15 years, when the technology is broadly available and affordable.



15 YEARS

20 YEARS

25 YEARS

A Network of Everything

What's the impact: Expect that in the next 10 to 15 years IoT will have an even bigger impact on physical shopping and e-commerce as retailers get more in tune with buyer preferences and real time trends.

5 YEARS

10 YEARS



Imagine the world as a galaxy. Each person is a sun with planets revolving around. Those planets are sensors and devices that communicate to bridge information seamlessly in orbit around each person. This is the Internet of Things (IoT). The growing IoT will affect city planning, security, medicine, logistics and shopping. Sensors in homes, clothing, cars and phones will communicate with store aisles and shelves, and even individual products, and then relay information to a retail distribution system. This IoT platform can contain information that could be used to make decisions about what to sell, for how much, to whom and when.

The transition to an IoT world has already begun, albeit modestly. Considering the complexity of working with huge volumes of data and interactivity among countless devices, as well as issues around security and privacy, it will be 10 to 15 years before the retail industry feels the biggest

impact. A handful of retailers are experimenting with this technology today to enhance the customer experience, generate revenue and improve inventory management. The worldwide cost of overstocks, stockouts and shrinkage is \$1.1 trillion. Reducing this can lower inventory costs by as much as 10 percent.

Smart shelves with weight sensors can send restock notifications when levels run below a certain threshold. Levi Strauss & Co. has piloted a system created by Intel using RFID tags that tell employees exactly what is on a shelf and the sizes and colors that are running low. The system reports on which items have been touched or tried on so retailers can optimize merchandising and store layout.

Hugo Boss has deployed heat sensors in its clothing stores to track customer movements. This allows managers to place premium products in high-traffic areas and give the retailer a deeper

understanding of customers' paths to purchase. Many retailers rely on IoT technology to use weather patterns to forecast grocery sales and stock certain products accordingly. Kroger uses sensors to monitor goods as they are transported, as well as in-store to keep frozen foods at their optimum temperature.

BI Intelligence predicts that by 2020, there will be more than 24 billion IoT devices on earth. The potential total economic impact of IoT will range from \$410 billion to more than \$1 trillion per year by 2025, according to McKinsey & Company. But because of the complexity of the systems involved and the level of investment needed, this is a long-term development. Already, 21 percent of retailers surveyed in a recent study by Zebra Technologies have implemented IoT, and another 27 percent are deploying in the next year. By 2021, 70 percent of retailers surveyed plan to invest in IoT.

Image Courtesy: Shutterstock

15 YEARS

20 YEARS

25 YEARS

Grab-and-Go, and get charged later ←

What if you never had to wait in line again? Or if you could complete your purchase without ever pulling out your credit card? A cashierless shopping experience has seemed just around the corner for quite some time, and recent moves by major retailers have fanned the anticipation.

Amazon opened an 1,800-square foot retail beta store for employees in Seattle that has no checkout. Using computer vision, sensor fusion and deep learning, the store tracks what customers carry from the store and charges their accounts the appropriate amount.

Walmart is testing a smartphone app called Scan & Go at four locations. It allows shoppers to scan items as they add them to their shopping carts, pay through a mobile app and walk out of the store. However, shoppers still must

prove to an employee that payment has been made before leaving.

In major airports across the country, travelers sit down at a restaurant table and are greeted with a touch-screen tablet that allows them to view the menu, order and pay. Employees are still there to deliver food and offer help if needed, but gone are the days of hurriedly flagging down a server to pay a check when boarding has begun.

Self-checkout technology has been around for many years and seems to be getting better, but no retailer has created a truly cashierless store, where shoppers can stroll in and out freely while an all-seeing technology keeps perfect tally. And even when that ideal is perfected, it will be costly to implement this technology on a large scale across a chain of stores. It's likely that when cashierless stores do make the scene, rollouts will be limited.

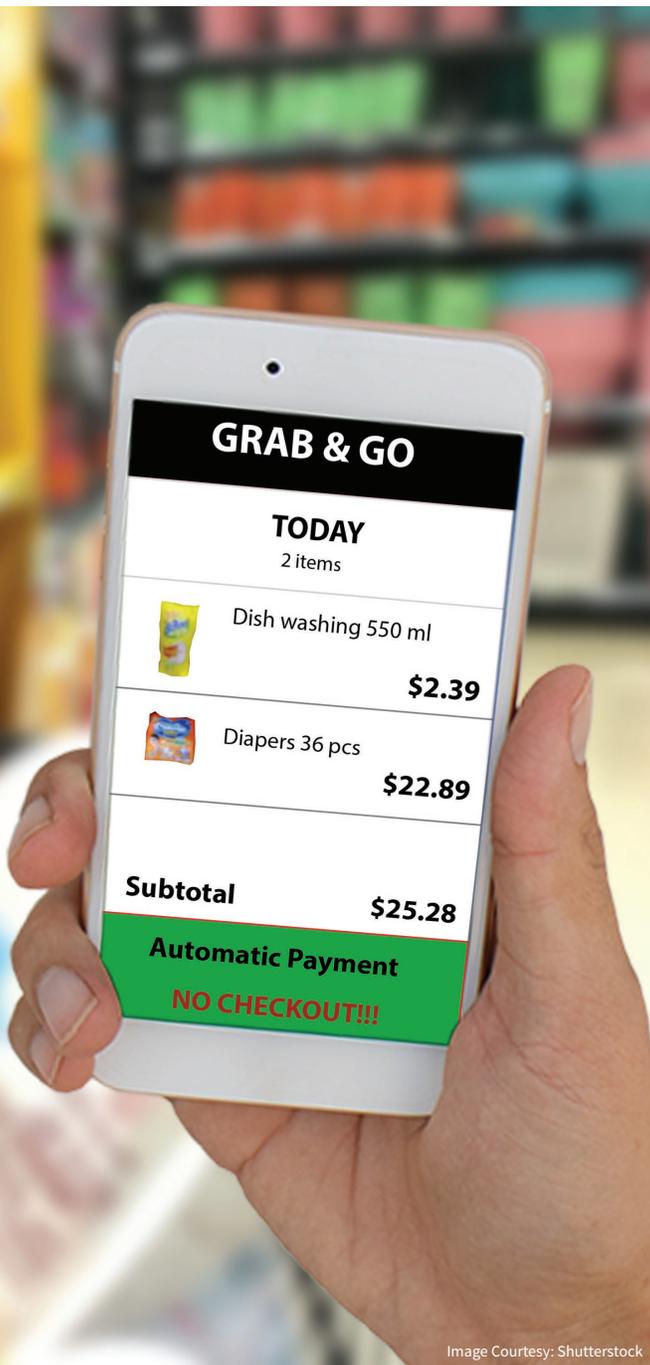


Image Courtesy: Shutterstock

1,800
square feet

Amazon opened retail beta store for employees in Seattle that has no checkout

5 YEARS

10 YEARS



Image Courtesy: Shutterstock

What's the impact:

Walking out of the store without having to stop and pay sounds great, but in the short-term, the technology will be too expensive to see widespread adoption. Expect a moderate impact on physical stores and a full landing for payment systems in 20 years.



Image Courtesy: iStock

15 YEARS

20 YEARS

25 YEARS



Sunny Weather is a Struggle



Image Courtesy: Shutterstock

The world is getting warmer, weather patterns are becoming more severe and sea levels are rising. Climate change is a global phenomenon with local impacts on retailers. Given current projections, climate change will impact retail in several ways in the next 20 years. There will be disruptions to supply chains, property damage due to severe weather events and changes in consumer behavior.

Severe weather that affects power lines, roads and other infrastructure hinders retail activity. Last year, the National Oceanic and Atmospheric Administration announced that the United States had seen eight consecutive years with weather event damages exceeding \$10 billion. After the severe drought of 2012

5 YEARS

10 YEARS



for Retailers

Image Courtesy: Shutterstock

destroyed agricultural crops, global food prices increased 10 percent between June and July of that year, according to the World Bank.

As extreme weather events become more common, they can only hurt businesses and the everyday lives of millions of Americans who have to shop for clothes, food, supplies and household items. Retailers and property owners must adapt to meet new demands created by climate change. In some regions, longer summers and shorter winters will force retailers to adjust the type of apparel they sell and when it's available. Consumers may demand more sandals and shorts earlier in the season instead of jackets and gloves. These shifts may already be

impacting retailers' bottom lines. In late 2016, Express blamed diminished sales on unseasonably warm weather, and its shares dropped 21 percent.

Fear of climate change also has reshaped consumer preferences. According to a 2015 Nielsen study, 66 percent of global respondents claimed they are willing to spend extra money on products from businesses that are committed to positive social and environmental impact. This figure is 11 percent higher than the previous year and 16 percent higher than in 2013. Retailers are responding by advertising their environmental and sustainability efforts. Starbucks, for example, has publicized its commitment to use more recycled and reusable cups.

What's the impact:

The impact of climate change on global weather patterns will affect consumer behavior as seasonal needs shift with extreme weather. Expect a moderate impact in about 20 years. In short term, environmental awareness will become more prevalent among retailers.

15 YEARS

20 YEARS

25 YEARS



Image Courtesy: Shutterstock

→ Long distances made shorter with

Driverless Cars

What's the impact: Autonomous vehicles will cause a huge shift in how physical spaces are planned, making some retailers obsolete and giving rise to new ones. Expect a large impact on physical stores to be fully felt in 25 years.

5 YEARS

10 YEARS

15 YEARS

While companies like Google and Uber are testing driverless cars in real-world settings, and Tesla has offered autopilot functionality to owners of its electric vehicles, cars that drive themselves are still not a regular part of our lives. It will be decades until the technology is widespread enough that nearly every car on the road is autonomous. But as that change happens, we will see widespread impacts on the physical environment. The way our mobility changes as a result will have substantial effects in many business sectors, including retail.

Autonomous vehicles will alter the way humans organize themselves spatially around urban centers. Fairly rapid deurbanization could result once the use of driverless cars becomes widespread. Many will no longer want to pay the higher costs of living in dense urban cores when commuting in becomes a hassle-free experience. Yet it also could mean an increased importance for prime urban corridors. The cost and inconvenience of parking are common reasons to avoid the city. Without those obstacles, even more shoppers may take excursions to top city centers.

With fewer cars on the road, fewer expansive parking structures in central

locations will be needed. McKinsey & Company reports that driverless cars could save up to 61 billion square feet of unnecessary parking space, which takes up one-third of the overall land in some American cities. In typical suburban malls, more space is taken up by surface parking lots than by the mall itself. These spaces could be repurposed for retail, housing or office uses, and new developments would be more feasible. Removing or reducing the parking requirement for projects would reduce the barrier of entry for certain retailers and developers.

Fast food, the cuisine of the American highway, could also be impacted. Drivers who aren't paying attention to the road won't feel the pull of the next set of golden arches. CB Insights reports that 70 percent of McDonald's sales come by way of drive-thru windows, and that area of its business is heavily dependent on the whims of drivers who pass by a location and decide to stop for food. Driverless cars could affect the incidental and walk-in traffic that other retail categories experience, too. Without the demands of operating a vehicle, drivers will be free to use both hands to eat on the go. Pizza as road food, your time has come!



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