

# Purolator Predicts: Shaping the Future of Delivery





# Introduction

When thinking about the future of delivery, it's easy to think that some of the concepts are far-fetched or straight out of science fiction. For those who are content to stick with the status quo, these "out there" ideas might even be unsettling. In the not-so-distant future, we may look up into the sky and see delivery drones flying by or have our parcels delivered by robots. Before we look too far ahead, let's step back and remember the delivery processes that were available a mere few decades ago.

E-commerce brought delivery efficiency, convenience and speed to the forefront of innovation. But, back in the '90s there was a lack of transit visibility and inconsistent delivery time, spanning around 4-8 weeks. And consumers were okay with that because that was the norm. Fast forward to today and we're no longer waiting 4-8 weeks. We're presented with

convenient A-B options at e-checkouts such as same-day or next day delivery. Nowadays, we expect these options, which makes it easier to wrap our heads around the innovations that have yet to happen. Who knows? In 20 years, next-day delivery could be an outdated timeframe. Only time and technology will tell.

In this report, we discuss the following questions:

- ✔ What's shaping the changes to consumer expectations?
- ✔ How are businesses are keeping up?
- ✔ What's still to come in the future of delivery?

## What is shaping the change? The shifting expectations of consumers and businesses.

The shifting expectations of customers continue to disrupt supply chain processes. No matter how many times we speed up deliveries or add automation to supply chains, these requests stay consistent across all B2X verticals. And this isn't just a B2C demand for ambient, small retail merchandise. The Head of Supply Chain at Wayfair predicts consumers may expect same day furniture deliveries in the near future.<sup>1</sup> But, let's take a step back – beyond consumer expectations, what's driving their need for change? Some sources state that Amazon has created the requirements for innovation amongst competitors. In order to compete within e-commerce you must be able to coexist with Amazon. But, Amazon was simply at the forefront of some already-necessary upgrades to our delivery models. Consumers and

businesses alike are empowered (and somewhat dictated) by the internet of things (IoT) and social media. Forget sifting through newspapers and catalogues. Convenience and instant gratification have built today's world. Push notifications and phone alerts broadcast personalized notifications in real-time, with no obvious cost attached. Consumers have become so used to the way information is delivered, we expect our tangible online purchases to be delivered similarly.

So, what do consumers want? They want their deliveries to be **fast, cheap, personalized** and **visible**. The specific requirements of these measures are fluid and ever-changing. Here are some of the most up-to-date expectations that shape our future of delivery:



# 80%

of consumers want to see same-day shipping as an option

### Fast

"Fast-and-free" shipping is the number one driver for consumer purchases – and has been for the last five years. While the features are desirable as a pair, there's a growing demand for almost "instant" deliveries. This trend opens the market for more spontaneous purchases, with less buyer's remorse. There's also the convenience of an instant delivery that surpasses an attached cost. Currently, the trend of instant delivery is often fuelled by urgency in the commercial/industrial space. Important documents couriered from building to building, and medicine from hospital to hospital. But the trend is shifting to personal deliveries, too. According to a recent study, 92% of consumers want to see free, same-day shipping as an option.<sup>2</sup> The expectations don't stop there: 55% of consumers say that a two-hour delivery option would increase their loyalty to a brand.<sup>3</sup> In any event, a U.S. report states the same-day delivery market is projected to be valued at \$9.6B in 2022 – more than doubling in size from 2018.<sup>4</sup>



# 50%

of consumers pick their delivery options based on the price

### Cheap

For deliveries that aren't time-sensitive, the price still outweighs the speed of delivery. In the catalogue/early digital era, free shipping wasn't common practice and consumers were used to adding shipping costs to the total. Nowadays, 50% of consumers pick their delivery options based on the price, versus the amount of time it takes. And for some, free shipping is more lucrative than the product price itself. 34% of consumers look for fast and free delivery, even if it means paying more for the item.<sup>2</sup>



**33% +**  
of online  
shoppers avoid  
having orders  
shipped to  
their homes

## Personalized

Today's consumers are busy people and seem to be getting busier. Technology makes it easier to keep lifestyles as productive as possible, and time is precious. With this in mind, consumers expect delivery services to adhere to their schedules, not vice versa. Consumers no longer feel it necessary to have to wait at home for a package. Businesses are providing more delivery choices for a personalized experience to benefit everyone. It's not uncommon to have at least three delivery timeframes, and some even have guaranteed 1-or-2-hour delivery windows. Many businesses allow personalized delivery instructions, such as "leave on the porch" or "call # when you arrive". This kind of personalization is increasingly important to keep up with convenience. Over 33% of online shoppers admit they avoid having their orders shipped to their homes because of the anxiety of not being able to receive them. In fact, more than half of shoppers would pay a premium for an evening or weekend delivery when they know they'll be home to sign for it.<sup>5</sup>



**93%**  
of consumers  
want to receive  
updates on their  
order throughout  
its journey

## Visible

Consumers want control over their delivery by receiving continual verification of its status and location. And, it's not only selective consumers who want this – 93% want to receive updates on their order throughout its journey.<sup>6</sup> Businesses need to recognize that by providing clear visibility, even when the consumer didn't ask for it. It sends a clear signal that they care about their reliability as much as the consumer does. The amount of visibility also matters, a package can no longer be "out for delivery". An insufficient level of visibility will impact future sales and loyalty. 47% of consumers won't order again from a brand that provides poor delivery visibility.<sup>7</sup>

## The rise of e-commerce = the rapid rise of returns.

The convenience of e-commerce accounts for many additional sales, but it also creates a swell in the number of returns. More consumers are using fast and cheap shipping to spontaneously buy multiple items to compare products or try on items at home. Their expectations aren't to keep everything they purchase. Returns to a store can be costly, but factoring in return logistics only adds to the expense. Statista estimates U.S. return deliveries will cost \$550 billion this year, which is 75.2% more than four years ago.<sup>8</sup> But a generous returns policy is worth it, in the long run, to stay competitive. 90% of consumers "highly value" free returns and 62% "would buy again" from a business that offers free returns or exchanges.<sup>9</sup> In order to keep up with the competition, businesses need to provide consumers with e-commerce experiences that are comparable to browsing in-store.



## How are businesses keeping up? Finding new ways to stand out from the crowd.

Over recent years, businesses have become more adaptive and proactive to changes shaped by consumer habits. With the bar always rising, how are businesses shifting their services to upkeep their presence and innovation?

### Using crowdsourced delivery models is one way...

Instant gratification isn't going anywhere in the e-commerce space. So, neither is the need for quicker delivery, whatever the demand. According to McKinsey, fast delivery options (same-day and instant) will account for about 25% of consumer deliveries by 2025.<sup>10</sup> Thus, feeding consumers' desire to shop (and receive deliveries) around the clock. Businesses' delivery models need real-time scalability, handling fluctuations without impacting the bottom line. In a recent shift, crowdsourced deliveries have broken away from the confines of the restaurant industry. There is more and more prevalence in the retail and CPG [consumer packaged goods space – and beyond. So far, utilizing local couriers can be a way to deliver fast but they often lack assets and the supply chain skill set of premium couriers.

### ...but will crowdsourced deliveries make it into the future?

In urban centres, it's hard to go a block without spotting a crowdsourced delivery service. Though in the future, their current state looks uncertain. We can see some of the downfalls from Uber's attempt at a delivery-only service, UberRUSH (operating 2014-2018). The model failed due to unpredictable demand and associated costs. It costs around as much as their ride share service to transport a package. There is a silver lining though. These crowdsourced services have an opportunity to adapt by shifting their focus away from drivers. It's predicted that the IT platforms that match transport requests and collect fast feedback will continue to be a valuable model. Though, advancing artificial intelligence (AI) means services could become automated, such as replacing local couriers with autonomous vehicles.





## Providing an omnichannel experience...

Within the last decade, the way people shop has evolved dramatically. The consumer buying decision is now more omnichannel than ever before. Progressing technology can track processes in a central hub. So, businesses are expanding their intricate web of online/offline sales tactics. While most purchases are still made in-store, 45% of survey respondents said they'd purchased from a brand website in the last six months. And, while brick-and-mortar stores are still standing strong, there's more to the story. Nowadays, consumers are hyper-connected to their prospective purchases. They will take the time to do some heavy research before handing over money. Over a third of consumers will visit a brand's website, read customer reviews and/or attempt an online price match first.<sup>11</sup> In short, businesses have to pass through many e-checkpoints before finalizing a sale, even in-store.

## ... but how does the omnichannel consumer behaviour affect a supply chain?

With so much information exposed online, businesses have had to make "saving the sale" as easy as they can. Otherwise, a consumer may soon find an alternative, using the same online tactics that vetted the sale in the first place. Items must be available almost instantly, whether in stock or not. Businesses are shifting inventory from warehouses, distribution centres and stores, to other stores, customer addresses and warehouses. There's no longer a one-way supply chain. Managing inventory at a granular scale is required to succeed with these new fulfillment experiences, too. For example, if local stores ship the majority of units to enable same-day home delivery, the supply chain must quickly replenish in-store inventories. To keep deliveries in-sync, and supply chains running, the future of omnichannel optimization is likely in the eyes of robots. Quite literally. There are consistent advancements in visibility across all internal operations. But soon, consumers will also be able to see in real-time stock levels, too. Automated robots in development will keep a tally of in-store and warehouse stock at double the efficiency of a human employee. With real-time information, notifications can inform a consumer if a product is available for pick-up or delivery.

## Eco-friendly solutions...

Currently, we're in the middle of two movements in consumer behaviour, which in some ways work against each other. Consumers care about sustainability, and there's increasing awareness and importance of global issues. Consumers care that businesses care, too. Currently, 57% of consumers will blacklist brands that don't evidently share the same social

beliefs.<sup>12</sup> While sustainability is important, more consumers are utilizing e-commerce and fast deliveries. Keep up with the influx of e-commerce isn't enough for consumer satisfaction. Sustainable practices are an important contributor to business success in today's market space.

## ...but what are delivery providers doing to assist in the sustainability of our environment?

Delivery providers are currently developing technologies and trials for low-carbon vehicles and fuel. Sometime soon, we can expect to see commissioned fleets of electric vehicles, including full-size trucks. In more urbanized areas, e-bikes may deliver certain products. E-bikes deliver a limited number of products at once, but come with a unique perk – they navigate cities much quicker. They can surpass the drop-offs of a van in an urban location, as they aren't susceptible to traffic jams. Real-time tracking technology will continue to

improve journey efficiency. In turn, benefiting environmental aspects and business costs. Global positioning systems (GPS) assist the routes of fleets of trucks and autonomous vehicles. They track traffic and suggest alternative routes to stay on schedule and avoid unnecessary fuel use. Such systems also track drivers' speeds, which benefits the environment and the business. By limiting speed to 100kph, a truck can save as much as 15% in fuel expenses.





## What is still to come? The innovative future of delivery.

According to current predictions, there are two delivery models we'll soon rely on – neither requiring human interaction. These models will use autonomous delivery vehicles and drones. Bike couriers will also account for about 2% of deliveries, for instant deliveries. They'll deliver in urban areas, where drone use will be heavily regulated. These changes are coming up fast. 65% of Americans think robots and drones will be making most city deliveries by 2037.<sup>13</sup> With this statistic in mind, we're predicting that only 35% of deliveries will need human interaction. This might be

an unsettling statistic in a few ways. Firstly, consumers still need to develop a relationship of trust in robotics. Also, there will be less need for human labour, so likely a loss of jobs following other industries such as retail and mechanics. People won't likely use traditional methods for their human factor either. It's plausible that traditional deliveries will only occur due to technical constraints. Constraints might occur in large B2B drops and specialized deliveries (fragile goods). Also, robotic deliveries can't assist in carrying packages inside a building, yet.

### Warehouses operated by robots.

Our supply chains are now closer to being a supply web. Technology makes our world smaller, but it's also creating a complex global supply chain, and will continue to do so. We are starting to expect transparency and visibility in every step of the process, whether we are a distributor, supplier or customer. One of the ongoing advancements of optimization is further automating supply chain processes. The focus is to reduce the distance required by human warehouse workers to find and collect an item within a large warehouse. There are a few examples of robots deployed to bring the shelf stacks to human employees. These robots can travel many kilometres a day, at speeds quicker than a human can walk – and they don't need breaks. Currently, deploying robots instead of using “warehouse pickers” is a costly investment. And many

warehouses can't be easily navigated by robots – due to their age, previous use or floor plan based on human use. Though with the rise and certainty of e-commerce, businesses will need to move to (or build) to spaces where automation can be easily integrated. So, when will there be fully automated warehouses? Well, it looks like we're not that far off. The most advanced example of what's to come is currently sitting in a 40,000 sq ft facility in China.<sup>14</sup> An e-commerce giant recently opened the world's first fully automated warehouse. The warehouse is operated solely by robots. This means that robots have taken over tasks such as packing, lifting and transporting packages to loading docks. Expect many warehouses of the future to follow this model.





## Autonomous vehicles with parcel lockers.

“Autonomous vehicles” is a holistic term for a driverless vehicle. It encompasses any mode of transport controlled remotely, or automatically. The autonomous last-mile delivery market is projected to generate \$91.5B by 2030 – that’s over seven times greater than 2019.<sup>15</sup> A prevalent concept for delivery is a ground vehicle equipped with parcel lockers for the consumer. An end-consumer will get an alert when the vehicle is at the destination. They’ll receive a code that can only open the locker holding their package. Due to low labour costs and high fulfillment efficiency, this mode of transport will overtake the majority of current delivery services. Another benefit of a moving parcel locker is the ease of re-deliveries. When a package isn’t delivered the

first time around, it’s inconvenient for the consumer and costly for the delivery provider. Autonomous vehicles could park after hours, serving as stationary lockers for packages. This would mean consumers could pick up items at a more convenient time, such as after work or overnight. And, there are extra savings with a stationary location. Businesses wouldn’t need to budget for high costs of permanent store space for alternative pick-ups. Autonomous vehicles can work beyond the time constraints of shift work and even surpass laws that restrict labour. For example, in many European countries, labour on Sundays is restricted or even prohibited. Autonomous vehicles could work around this rule, due to the lack of labour enforced.

## Smart front doors to take your delivery for you.

An autonomous supply chain adheres to many of the expectations of the future. But, what about the final step in the last mile? To get your delivery through your front door, someone needs to be home to take it inside. Innovative alternatives are starting to create safe ways to get a package inside a home without this requirement. Smart locks allow customers to use Bluetooth and wifi to remotely control a

door lock, but that still creates a security risk. LG has created a revolutionary concept. A front door that scans your face and palm to allow you access. For deliveries though, there are two side compartments that can securely be accessed from outside and inside the home. This creates an ultimately safe and convenient delivery, but it’s a concept that’s yet to be made publically available.<sup>16</sup>



## Drones.

Delivering packages by drones could address some of today's transportation challenges. Traffic delays, labour costs and uncertain ETAs could be minimized through autonomous flight. Though there's a lot of talk about the progression of drones, they're predominantly used for other reasons. For example, to carry light cameras and sensors for surveillance, military use and filming.

Delivery is a working progress – UPS has piloted drone deliveries with CVS in specific markets, and Amazon and Walmart have also piloted their own drone services. But do we think they will make it to market soon? According to research from 2016, it was predicted that autonomous vehicles (including drones) will account for 80% of deliveries by 2026.<sup>17</sup> Although, some of the biggest limitations in drone delivery are its capabilities, such as the size and weight it can carry. Another big consideration is its safety and liability. A drone carrying a weighted package, particularly above a populated area will need to be extremely secure.

There are already heavy regulations around drone use, but there's likely to be a lot more scrutiny for delivery drones over the coming years. The amount of time a drone can remain airborne is still being worked on. Even with the current progression of developing drones fit for delivery, they aren't able to fly for a far distance quite yet. One workaround (which may become common practice) is using mini-helipads on top of delivery vehicles. The drones and packages would be transported to a centralized location via ground vehicle. Then, the drones take packages on the final stretch of a journey, where the routes become nuanced for each end-destination.

Beyond the likely efficiency of drones, it's also expected they will transform the delivery experience for a lot of rural areas. Drones can travel at high speeds (some surpassing 120kph). If drones do become a reliable delivery model, this means they'll likely be reliable enough to allow for same-day deliveries to rural communities. They'll also be able to predict a small time-window for arrival that's comparable to that of urban locations.

## In the future, the bar will only get higher.

In 10 years, fully-automated warehouses and vehicles could be the norm. Soon, the norm could be receiving deliveries across the globe via rocketship or underground vacuums. Deliveries could even be eradicated, with 3D printing of purchases available in our homes. In other words, fast will need to be faster and visibility will need to be more visible. The overall experience will be even more convenient and personalized than it is now. The bottom line is this: if your business' future is to include delivery, choose a delivery partner who will help you stay in line with – and even ahead of – ever-increasing customer expectations.



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