



PREPARING FOR LIFTOFF

As various players – led by Amazon.com – push for drone deliveries in the U.S., we query several thought leaders to discuss the potential and to help brands and retailers prepare for the possibility

By Dan Ochwat

Any mention of “drones” in the e-commerce landscape is swiftly followed by the name “Amazon,” the clear leader and most transparent in an effort to launch unmanned delivery quadcopters that will fly from the distribution center to the front porch in 30 minutes. Of course, Amazon.com is not the only player talking drones; Walmart applied to the U.S. government for permission to test drones, and Alphabet Inc., the holding company for Google, announced Project Wing and set sights to be using drones in the U.S. by 2017.

Amazon has been the most forthcoming about what these drones will look like (from an Amazon Prime Air quadcopter in 2013 to a more airplane-like device in November 2015), what they’ll carry (up to 5 pounds), how far (a range of 15 miles), how low (400 feet) and how fast a delivery (less than 30 minutes). Amazon has uploaded videos of Amazon Prime Air drones in action and posted photos as well as a full-on FAQ at Amazon.com. The company is putting on a face that these babies are ready to fly (and they’re testing overseas already). The holdup in the U.S. is the Federal Aviation Administration.

Jessica Knopp Cunning, an Ohio-based lawyer, has insights on the legal process below. Four other thought leaders in the industry go beyond, because as Tony Bynum of RTC says: “In the future, it’s not going to be about delivery alone. Delivery is the enabler of something unique and different.” There’s a lot of discussion about the legal

barriers and how far they fly, but how should traditional retailers and CPG brands be preparing for drones? None of our participants has had a client ask about drones yet, but it’s never too early.

Tony Bynum, Director of Client Innovation & Program Strategy, at RTC

Following a model set forth by higher education called SAMR (Substitution Augmentation Modification Reinvention), Bynum has put together a working framework on how to think about introducing drones (and all technology). At that first step in the model, drones are a substitute for current delivery, he says. There are issues to face such as how will packages be confirmed and deliveries accounted for, but there’s already a system in place with trucks dropping boxes off on doorsteps, so current delivery culture may cross over. At a higher level in the model, brands and retailers can look at how drones augment or modify the delivery game. Bynum sees two new modalities:

■ **Intra-chain.** A shopper visits his local Best Buy, but

“Deadpool” on Blu-ray is out of stock. The salesperson can “drone” one over from the store 10 miles away.

■ **Inter-chain.** Best Buy has “Deadpool” on Blu-ray, and guess what, through a partnership with the Kroger down the street, here’s a free bag of popcorn that will be “droned” over after purchase.

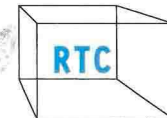
Bynum further riffed on the idea of a customer being able to leverage a drone as a market aggregator. What if, online, a shopper has a drone pick up multiple items at different locations? It makes five stops to complete a recipe or project and brings items to a single location. It’s an example, if anything, of the last step in the model: to reinvent. He says brands and traditional stores that reinvent will win.

Greg Gruzinski, Director of Insights and Analytics, at Catapult Ecommerce

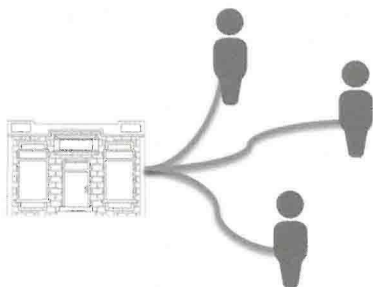
Catapult is one of a few, select agencies to be named a Trusted Creative Partner of Amazon. It’s a role that makes it a functioning liaison between Amazon and brands to leverage advertising and Amazon Media, so the agency knows Amazon and e-commerce. And so to Gruzinski, forget the legal issues and whether or not a drone will crash into commercial aircraft. Real threats? Yes, but how will drones solve the last mile for Amazon? “What has to happen for a drone to be more efficient than a UPS truck,” he asks. “The basics of delivery have to do with root density, which



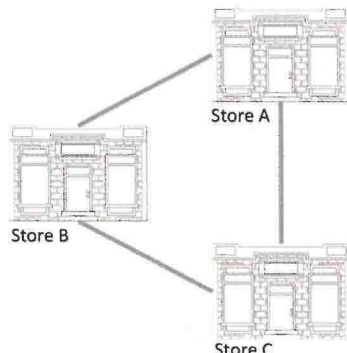
Potential Applications & Delivery Scenarios



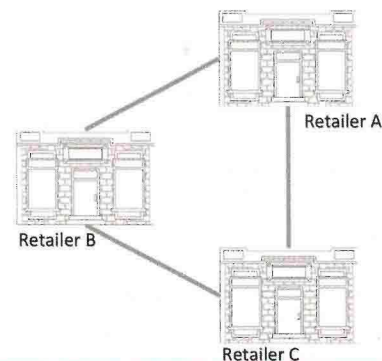
SCENARIO 1. CONSUMER DELIVERY Retailer → Consumer



SCENARIO 2. INVENTORY LEVELING & DEMAND CONTROL (intra-chain) Store → Store



SCENARIO 3. COMPLEMENTARY VALUE (inter-chain) Retailer → Retailer



WORKING FRAMEWORK

| Descriptive Framework, B2B & B2C Application for the use of Drones within the Retail Industry 2.15.16

is how many deliveries am I making on a trip, and how many items am I dropping at each stop. So for a drone that has to go out and back for each delivery, it's going to be an expensive proposition."

Gruzinski says Amazon took a big hit in Q4 on delivery costs, so it's obvious why it is looking at a more efficient way. He has seen estimates reported at around \$10 to \$20 for a drone delivery. Amazon has tremendous resources to iron out the legal complications, he says. "It's good for their brand to be seen as, 'we're out in front of this and we're doing everything we can to get product out to you faster.'" In the meantime, Amazon will take the help. "If Amazon paves the path for this kind of last-mile distribution, and opens it up where a lot of startups and venture capitalist dollars get attracted to the opportunity, that's a huge advantage to them, even if they aren't running the fleet of drones."

Scott Lachut, President, at PSFK Labs

Less is the vision of a drone copter lowering a package to a front yard than it is of a drone copter shuttling from distribution center to different nodes scattered throughout a city, according to Scott Lachut at PSFK Labs. "Or each node serves as both a distribution and receiving point, where human professionals can safely handle the loading, unloading and storage." The nodes could be close to a home for consumer pickup, he adds.



Lachut has a lot of questions about the logistics of drone delivery. What is the payload capacity? Can they handle multiple deliveries? What role do human pilots play? And

what does the customer experience look like here? The questions lead to a larger question that brands could potentially help with and think about: "How do retailers educate their customers about this option and how comfortable – in terms of trust and confidence – will they be in using this technology?"

Lee Peterson, EVP, Brand Strategy and Design, at WD Partners

Before Amazon, says Peterson, there was Alibaba, which used drones to deliver tea in China. Last February, Alibaba tested drones to deliver 12-ounce packages of tea. Peterson mentions Alibaba though, because it's a visual of Amazon being able to tackle small deliveries like books, even if it were just a test in a marketplace like Seattle. "Out of pure speculation, there will be a test in place by holiday," Peterson says. There's a pattern where Amazon likes to announce its new technologies (e.g., Dash and Echo) around the holidays.



As for CPGs, he says they should snuggle up to Amazon now. He says Procter & Gamble has Amazon in their warehouses, so why not discuss a drone option to ship a beauty kit of P&G brands or a dental kit directly from the P&G warehouse to a consumer in a half-hour? And while Peterson has significant doubts about a drone's ability to deliver in densely populated cities, it makes for good PR and it also adds to the fast-fail mentality that Amazon has compared to traditional retailers. "I ask the retailers, what have you done? It's brand touchpoints or really good PR even if not executed."

Jessica Knopp Cunning, Associate, at Vorys, Sater, Seymour & Pease LLP

Knopp Cunning focuses her practice on oil and gas litigation, toxic tort litigation and general commercial litigation. She has written articles for publications on the issue of retailers using drones in a commercial airspace. She says by the end of this year, there will be a better idea on the future of drones.



The biggest current hurdle is a "line of sight requirement" by the FAA, meaning a drone can only be flown if it is within the visual line of sight of the drone operator, "which would essentially prohibit retailers from being able to use drones for package deliveries." The retailer response – and Amazon released a video in November highlighting this function – is an on-board camera that allows an operator to see the drone while it's flying to avoid obstacles and change flight course. The retail industry is hoping to change the FAA's mind and permit "sense and avoid" technology, she says.

Knopp Cunning highlights other obstacles outside the FAA like inclement weather, multi-story apartment buildings, homes near an airport, theft of packages and the drone itself, as well as the fact that a retailer could be sued for property damage or causing a car accident. Some insurance companies already offer drone liability coverage.

She says, as of Feb. 5, the FAA has granted more than 3,300 Section 333 petitions to fly a drone for commercial use. That petition is an exemption a retailer needs to secure from the FAA after it applies for an aircraft registration number called an N-Number. She says the process takes six to eight months.

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