



Elkins School District
Alternate Method of Instruction (AMI)



AMI Day # 2

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| School Name | Elkins High School |
| Teacher Name | Amanda Coleman |
| Subject / Course Name | Introduction to Supply Chain Management |
| Assignment Description | ONLINE: PAPER HARD-COPY: |
| Contact Information | PHONE/TEXT: (if teacher wants to give out this information EMAIL ADDRESS: acoleman@elkinsdistrict.org OTHER: (maybe website, google, remind app, etc.) |

Assignments will be graded and entered into the gradebook according to the teacher's grading system. Attendance will be recorded based upon completion of the assignment.

Read the article below and then create a concept map with the information that is in the article.

How your Amazon deliveries are changing cities, and breaking the backs of mail carriers

· Published on November 22, 2017

Written by Poppie Mphuthing and [Alexander Besant](#)

As Black Friday and Cyber Monday approach, the so-called "shipocalypse" is ramping up, with millions of cardboard boxes full of gifts and goodies setting out from fulfillment centers across the country, making their way to homes at breakneck speeds.

Experts forecast that Black Friday will be the [busiest digital shopping day in U.S. history](#), and with that comes spiking delivery volumes as merchants seek to cash in on [\\$1.05 trillion in sales](#) during the holiday period, according to Deloitte forecasts. The rise of e-commerce, and its contribution to the brick and mortar 'retail apocalypse,' is [well documented](#) — as is the [staggering rise of Amazon](#) and its disruption of many sectors.

Robert Daemmrich/Getty Images

While the majority of Americans still shop at stores, the growth of e-commerce is about 8 to 12% per year, [according to BI Intelligence](#), citing National Retail Federation data. Compare that to about 2.5% for brick-and-mortar stores. Amazon Prime counts 85 million people among its membership base, which benefits from ultra-speedy service -- that's over [one-quarter of the US population](#).

As delivery times get faster, consumers can get their hands on purchases taking advantage of free shipping within two days — and increasingly within a day, or even an hour or two at a nominal extra cost. Amazon's Prime Now service [delivers goods within 60 minutes](#) for the bargain price of \$7.99, or free for those willing to wait an extra hour — online retail could one day eclipse in-store sales. Though the world's largest retail company, Walmart, is lagging behind Amazon in delivery volume and speed, it too offers a [free two-day delivery service](#).

While shopping carts defined the 1980s and 1990s, the humble cardboard box has become a symbol of the 2000s, whether they are piled on stoops, litter package rooms or tower in delivery trucks, they are now clogging America's (and the world's) streets.

On average, every person in the U.S. generates demand for roughly [60 tons of freight each year](#), according to the National Capital Region Transportation Planning Board. Last year, the United States Postal Service -- which has overtaken both FedEx and UPS as the largest parcel-delivery service in the country -- delivered more than 5.1 billion packages.

These mountains of cardboard filled with everything from shirts to humidifiers to canned tomatoes, will test not only logistics networks and the backs of mail carriers, but also the will of mailroom workers and the best laid plans of building designers.

Here are a few ways that simple recycled corrugated fiberboard affects our daily lives:

Residential buildings have to adapt

Architects have had to redesign buildings to ensure that package rooms are robust enough to handle the constant inflow and outflow.

Karen Asprea, director of design firm Whitehall Interiors, says the rise of online deliveries to residential buildings has reoriented how her company approaches spatial design.

“Nowadays everybody has everything delivered, whether it’s Amazon, FreshDirect, Maple or Blue Apron, everything is based on these delivery services so we have to make sure that our building amenities accommodate that,” Asprea says.

She notes that the luxury condominiums her firm designs include spatial package design as “definitely part of the amenity package” in the marketing pitch to potential residents.

“Five years ago is when we really started to say, ‘Wait a minute, let’s make sure that there’s space’ and then even calculating, ‘OK, there’s 300 apartments in this building, how many deliveries a day are they going to get?’” she adds.

Asprea says these considerations even impact personnel decisions, noting that buildings increasingly look to have a concierge, receptionist and doorman to ensure that packages are received efficiently, while building security is maintained.

In buildings that do not have front-desk services theft is a real problem. As many packages are left on stoops or in the lobbies of older buildings that don’t have package rooms, the possibility of having them stolen increases. Though the data is scarce on the topic, one need only ask big city building dwellers about their own e-commerce package theft story.

Traffic congestion is getting worse

As delivery gets speedier, there are more trucks circling city blocks around the clock.

“Some of the major shippers around the city are reporting that in the past 5 years they’re seeing a 30% increase in delivery.”

[A report in Slate last year](#) cited findings that traffic on the streets of cities like New York was getting worse due to package delivery trucks blocking the streets.

Charles Ukegbu, assistant commissioner from the New York City Department of Transportation, told LinkedIn that the city doesn’t have hard data that freight and delivery truck increases are overwhelmingly impacting traffic volume and congestion in the city. However, he noted that, “even if there’s one truck on the block the perception that it is impacting traffic flows is very significant ... there’s the reality and then there’s the perception.”

Keith Getter/Getty Images

New York City’s Department of Transportation Commissioner Polly Trottenberg told LinkedIn that: “Some of the major shippers around the city that we work with are reporting that in the past

5 years they're seeing a 30% increase in delivery." Given that this "is clearly a trend that's going to accelerate in future years," according to Trottenberg, the city is taking steps to alleviate traffic flow congestion, such as its Clear Curb initiative in a sub-section of Midtown, Manhattan from 6th Ave to Madison, and 45th to 50th, as well as specific sites in Brooklyn and Queens.

"We're going to try just during the rush hour period in the morning and afternoon to completely clear the curbs," Trottenberg says. "So, no deliveries, no activity at the curb to really see if we can get several moving lanes during those rush hour periods."

Trottenberg says that for the initiative to work, it will require partnering with local business to work out alternative delivery schedules or drop-off sites, as well strategic partnership with NYPD to keep the curbs clear.

Warehouses are now hot commodities

While warehousing might be seen to be the least sexy business in the world, it's become all the rage, as retailers look to get their goods closer to customers to deliver to them faster.

E-commerce is reportedly pushing industrial warehouse space to the max, raising rent prices and [shrinking vacancy levels to historic lows](#). A report [in the Wall Street Journal](#) sheds light on this phenomenon. In some areas, warehouses now command as much rent as office space.

Citing data from real estate services firm JLL, the Journal reported that US industrial rents reached a record \$5.35 per square foot in Q2 of 2017, up from \$5.25 in the first quarter. Despite this, it is still only a fraction of the overall cost to retailers of getting deliveries to customers — around 5%, the Journal reported.

The key phrase in the age of speedy delivery is "last mile." As retailers try to get closer to urban centers, which contain the bulk of their customers, the more securing warehousing nearby becomes vital.

Peter Macdiarmid/GettyImages

E-commerce impacts the environment

Piles of cardboard boxes, snarled traffic because of delivery trucks and the emissions it took just to get you a stick of deodorant that is wrapped in mounds of plastic, makes one wonder how terrible buying stuff online is for the environment.

The truth, however, is more complicated than it seems.

"There's mixed evidence and there's pros and cons," Don Fullerton, an expert in economics and the environment at the University of Illinois, told LinkedIn. "People see all these boxes and see them delivered to houses but it's not necessarily wasteful and it's hard to tell which way is worse given that boxes get delivered to a store where people drive to pick up stuff."

Retail stores get products from manufacturers in massive boxes, wrapped in huge amounts of plastic. Just because that waste is behind the store rather than on your stoop, doesn't mean it's not adversely affecting the environment.

Fullerton says, though, that as long as cities are picking up the boxes and doing the recycling, e-commerce, at least in terms of cardboard, can be somewhat sustainable. The garbage and plastics that go inside the boxes may, of course, be a different matter.

Finally, pity your super and your delivery person

The rising volumes of boxes and packages presents significant logistical challenges, not least of all for delivery personnel and letter carriers whose jobs now entail a back breaking amount of carrying, folding and hauling cardboard to the curb.

“I now work 10 hour days when I used to work six, because now it’s not letters, it’s all parcels,” according to a US postal worker who asked not to be named and services the Empire State Building, where LinkedIn is located. “When we got the Amazon contract about four years ago the mail got bigger and it became all parcels.”

“We don’t write love letters anymore. People just order stuff on Amazon and I carry the boxes to them.”

Another US postal mail carrier from Brooklyn, who also declined to be named, complained that: “We used to deliver letters,” when asked about USPS delivering larger packages more frequently. “But we don’t write love letters anymore. People just order stuff on Amazon and I carry the boxes to them.”

In a Brooklyn apartment building the superintendent is candid about his opinion on the flood of boxes.

“It’s gotten a lot worse lately,” he says. “We’ve got way more boxes than even a year ago. In the last few years I’d bet the number of packages coming to my buildings has tripled.”

He doesn’t mind so much but bristles when asked about people casually discarding their boxes without taking them apart.

“Makes me feel quite under-appreciated,” he says, “especially since no one sees the effort and countless hours I spend daily picking up and breaking down these boxes.”