How the Pandemic Will Affect Holiday Shopping

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Traditionally, Thanksgiving weekend signals the beginning of the U.S. holiday shopping season, with big chain stores opening late on Thanksgiving night or early on Black Friday, and crowds of shoppers lining up to take advantage of doorbuster deals.

However, this year — like almost everything in 2020 — holiday gift buying will be different because of Covid-19. We spoke to three logistics experts at Georgia Tech’s No. 1-ranked H. Milton Stewart School of Industrial and Systems Engineering who forecasted how the pandemic may affect consumer purchasing in November and December.

The Black Friday shopping weekend already looks different.

Retailers are responding to the impact of the pandemic by announcing that stores will be closed or have significantly reduced capacity on Black Friday weekend. Some retailers began offering Black Friday deals immediately after Halloween, which will stretch the seasonal shopping calendar.

“Because the Covid-19 pandemic is limiting retailers’ resources, these companies are offering a longer sale period as a way of mitigating peak demand for seasonal shopping,” said Dr. Steven Hsu, director of the Center for the Study of Manufacturing at the Stewart School. “This will help spread out the demand and reduce the need for large crowds at retail locations.”

Retailers are also leveraging technology to facilitate safe shopping experiences. Many are offering curbside pickup and online shopping options, which have become more popular in recent months. Some stores are even offering same-day delivery to ensure customers can receive their holiday gifts in a timely manner.

For those who choose to shop in-store, social distancing measures will be strictly enforced. Retailers will limit the number of customers allowed in the store at any given time and require shoppers to wear masks, practice social distancing, and sanitize their hands.

Thanksgiving Testing Hours

Testing will end Tuesday, Nov. 24, at noon for the Thanksgiving holiday. Get your weekly test prior to that time to get results before Thanksgiving.

For updated testing site locations and hours, visit health.gatech.edu/coronavirus/testing.

Meet True Merrill, senior research scientist

VICTOR ROGERS
INSTITUTE COMMUNICATIONS

True Merrill is a team player. When interviewed about his efforts with Georgia Tech’s Covid-19 surveillance testing program he repeatedly said how proud he is to be part of the campuswide team working on it.

“I’ve never had the opportunity in my career to work on a problem where I could help so many people in my own community and see those results in real time,” Merrill said. “Throughout my work, I’ve always had the desire to help people, but I’ve never had the chance to see the results in real time.”
Ph.D. work and career at the Georgia Tech Research Institute (GTRI), we’re frequently thinking about either far out future technologies or rare or difficult problems that might occur in the distant future. Now one of those problems is real, and it’s here now. It is really gratifying to feel like we’re able to have an impact today and you see it immediately.”

In his ‘regular’ job as a senior research scientist at GTRI, Merrill’s group works primarily on defense problems related to Chemical, Biological, Radiological, and Nuclear (CBRN) defense.

“We think about worst case scenarios of how to protect soldiers or civilians from chemical or biological attacks,” Merrill said. “We’re a bit of a unicorn because there aren’t many other teams in Georgia who have that kind of thinking experience. That’s part of the reason why when the pandemic occurred we were mobilized to start work on testing.”

Merrill is a senior scientist on the team that developed and implemented Georgia Tech’s Covid-19 surveillance testing program. His research group has been tracking the coronavirus since January.

“There were points in January and February where we could have told you how many cases were in each Chinese province. We were following it very closely, and so it wasn’t a surprise when it was here in March,” he said.

In April the State of Georgia asked GTRI to come up with ways to use the University System of Georgia’s (USG) resources to expand coronavirus testing to support the Georgia Department of Public Health. Early in the pandemic the supply chain for testing supplies was stressed, with critical reagents sometimes backordered for months. To lower costs and reduce supply risk, the GTRI team developed a saliva-based PCR test, which uses local and Georgia-based suppliers. GTRI clinically validated the saliva test at specimen point of collection sites operated by the Georgia Department of Public Health.

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Young adults appear to be the primary drivers of the pandemic today, so it’s really essential to control the spread on campuses in order to control it in Georgia. Young people are more mobile and they tend to be more asymptomatic, so they get more people sick without appearing to be sick themselves. To control the degree of spread, testing young people is really important.”

Since August Georgia Tech has conducted almost 130,000 cumulative surveillance tests.

Merrill said the most rewarding parts of his job are being able to see its immediate impact and working to solve new problems.

“I’m never bored. I have the advantage of working with some of the best colleagues within GTRI and also on campus. There’s very little that we can’t go tackle, and that is attractive because it gives you the flexibility to adapt to the really pressing problems,” he said.

“One of the big advantages of working at GTRI is that I can completely change my technical domain and not leave my seat, and I do that all the time. In my current role I work as a chemist and as an optical engineer — and as a biologist, as I am right now in Covid-19 testing,” he said.

Merrill earned a Ph.D. in physical chemistry from Georgia Tech in 2013.

“A long time ago I was more interested in biology than chemistry. But gradually I fell in love with the mathematics behind physical chemistry and as I gained experience I was just really motivated and interested in systems that I could explain with math. So even in physical chemistry I migrated naturally toward physics.”

**Away From the Office**

True Merrill has been a runner for about 10 years. He ran his first marathon in 2015 and he would like to run another one when he has time to train properly. In the meantime, he runs occasionally through the Druid Hills, Emory University, and Decatur neighborhoods.

“It’s awesome just to be able to see where I can go on my own feet and look at all of things you miss when you’re driving a car,” he said. He also likes to grow cacti and he has a succulent collection.

“They are fascinating plants, so well adapted for the environment they live in, and they come in all kinds of varieties,” he said.

One more thing — True is a family name. Long ago in New Hampshire there was a True Family and a Merrill Family. Through the union of the two families they combined their name to True Merrill.

“I have distant ancestors named Nathaniel True Merrill and James True Merrill,” said Merrill, who is named for his grandfather. “My name is James True Merrill, and I have always been called True.”

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FACES OF TESTING

When faced with the spread of Covid-19, Georgia Tech’s sprang into action to develop and implement a way to test the campus community. Everything, from packing test kits and self-administering tests to analyzing samples and providing incentives to encourage testing, was developed and executed by faculty, staff, students, and partners. Meet a few of the people who keep the testing program running at c.gatech.edu/faces.
employees,” explains Benoit Montreuil, who studies smart, hyperconnected, and sustainable supply chains.

**Store shelves may be empty.**

For many Americans, the erratic availability of toilet paper, paper towels, and cleaning products earlier this year remains an all-too-fresh memory. With supply chains for consumer goods from Asia still shaky, buyers may find in-demand gift items are hard — if not impossible — to find on store shelves. But availability may be variable.

“The big chains like Target and Walmart, and of course e-commerce giants like Amazon, will have greater access to important product suppliers when compared to smaller retailers and local stores,” says Alan Erera, an expert in transportation and logistics systems planning and control. “They will be less likely to have shortages of popular items.”

**Online shopping will continue to grow exponentially.**

“Because of the pandemic, e-commerce in the U.S. grew from 15% market penetration to 35% this spring,” notes Chip White, who researches supply chain productivity and risk mitigation, citing a McKinsey & Co. analysis. “That’s 10 years’ worth of growth in three months.”

With Covid-19 cases surging again around the country, e-commerce remains a key way for consumers to get what they need. Holiday shopping will put further pressure on supply chains and delivery systems.

“Last-mile deliveries will increase dramatically as a result of increased e-commerce penetration during the holidays,” White says.

**Last-mile delivery may be challenging.**

The “last mile” represents shippers getting packages from a delivery hub into the hands of the consumer, and this is a significant stress point in the supply chain. Delivery companies traditionally hire seasonal workers to deal with the increased delivery volume during the holiday shopping season. With demand at an all-time high, these companies are already directly competing with one another to employ additional workers.

Amazon is the behemoth to beat in all of this. In March, the company hired 175,000 new workers to help manage the surging demand in e-commerce. They have since announced that they will permanently retain 70% of those new employees and hire an additional 100,000 seasonal workers. This will help solve the company’s own last-mile delivery challenges, but every worker employed by Amazon means one less person available to UPS, FedEx, and the U.S. Postal Service for their last-mile deliveries.

“The 2020 holiday season will set the stage for retailers adapting to the rapidly approaching ‘new normal,’” Montreuil says. “Last-mile delivery, especially in dense metropolitan areas, is under considerable pressure to become more efficient, reliable, and convenient. Cities and retailers will have to get smart at incentivizing delivery service providers and citizens to share delivery assets and consolidate flows — and to avoid citywide situations where there are multiple, nearly empty delivery trucks on the same street at the same time.”

**Delivery times could be delayed.**

Given the aforementioned item scarcity and last-mile delivery issues, consumers should not rely on projected delivery dates for the goods they purchase online.

“There will inevitably be issues with getting purchases delivered in a timely fashion for the holidays,” explains Montreuil. “Don’t believe the delivery schedule a retailer gives you. Nothing is guaranteed until the purchase is physically placed on your doorstep or in your mailbox.”

**Begin your holiday gift buying sooner rather than later.**

Given all of the uncertainty around holiday buying, what’s the best approach for shoppers?

“Start shopping — right now,” Erera advises. “Don’t wait until Black Friday. If consumers start buying holiday items sooner rather than later, they are more likely to find what they’re looking for and to avoid shipping delays that may result from pressures on last-mile delivery capacity.”

“And by starting early, it’s more likely that shoppers will have their items delivered and in hand before the celebrations where gifts will be exchanged,” Montreuil says. “Retailers and their supply and logistics partners indeed face enormous uncertainty in demand, in delivery capacity, and in product availability. These companies must be agile, smart, and proactive to make most deliveries successful — and this is a huge challenge.”

The key to gift buying this year, as with so many other pandemic-related challenges, is to be flexible and kind: Almost everyone will be feeling these impacts. Have backup ideas for gifts you want to give. And — while this goes without saying by now — if shoppers do venture into stores in search of the perfect present, they should wear face coverings.

“That protects everyone,” White says.