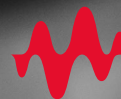


When every day is Black Friday.

How retailers can win in the **digital age.**

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**Nasdaq predicts that
95% of all purchases will
be facilitated through
eCommerce by 2040.”**

24/7 peak time.

Black Friday is traditionally lauded as one of retail's most profitable days, and it's becoming more digital:

- Approximately 40% of shoppers made online purchases on Black Friday 2019
- The trend is expected to grow to 61% this year [1]

While the holiday shopping season is certainly a peak time for online retailers, the truth is that consumers are increasingly relying on eCommerce channels for a variety of their shopping needs year round.

As shoppers' reliance on digital properties increases, so too is their expectation for performance, reliability and an engaging customer experience. Gone are the days when companies could rely on customer loyalty to weather technological challenges. Countless studies have documented consumers' willingness to abandon a brand if they are disappointed in the digital experience it provides.

With the competition just a click away, how can you compete and win in the digital retail age?

Navigating new retail realities.

The COVID-19 pandemic illustrates that digital commerce isn't just about getting the latest Black Friday deal. With lockdown restrictions in place across much of the globe, consumers flocked online for essential items and services:

- Between mid-March and mid-April, online sales in the U.S. increased nearly 50% [2]
- More than one-third of consumers report shopping online weekly since the virus hit [3]

Curbside pickup, contactless payment, social commerce and virtual consultations also soared in popularity during the pandemic. As we navigate the impact of COVID-19, a period many analysts have dubbed “the Next Normal,” it's likely many of these changes are here to stay.

In tandem with these changes is the ever-increasing importance of the experience itself. As a recent McKinsey report puts it, “Value perception—the combination of price, quality, and service by which consumers judge whether they're getting a good deal—will become even more critical as we emerge from the current COVID-19 crisis.” [4]

The path forward.

Nasdaq predicts that 95% of all purchases will be facilitated through eCommerce by 2040 [5]. And a digital experience that delights is key to success in this environment, as 87% of consumers who rate a company's customer experience as very good are likely to repurchase [6].

As you plan for the future of eCommerce, there are a number of retail trends to consider, among them:

Augmented reality: AR powered functionality allows customers to replicate much of the traditional in-person shopping experience, for example, virtually trying on clothing or envisioning how furniture would look in their homes. The technology also has implications for customer service in the form of troubleshooting and issue resolution.

Social Commerce: Numerous retailers have already integrated social commerce features into their applications, and this will become an increasingly important and profitable channel in the months and years ahead.

Digital Self-Service: Chatbots and other digital assistants are becoming the preferred method by which customers can check order status, communicate problems and obtain answers quickly.

What do these and other retail trends have in common?

A desire to meet customers where they are and win lasting loyalty through compelling digital experiences. As such, it follows that software and application testing is more important than ever.

Modern challenges demand a modern testing approach.

Many eCommerce providers today have a complex technology environment comprising:

- Legacy systems
- Current generation software
- Emerging innovations such as those detailed above

Sound familiar? If this describes your environment, then you also know how critical it is that these systems talk to each other. Lack of communication or integration issues could result in performance problems with a negative impact on revenue.

To prevent this, retailers need a continuous automated testing platform that can easily test the heterogenous technology environment even as new innovations are introduced. But, because the customers' experience is so often the deciding factor between retail success or failure, it's also imperative that companies test their technology through the eyes of this critical demographic.

The rise of customer-centric testing.

It's time to put the notion of testing as a compliance function to rest. Rather than focusing on code, testing needs to look at how users are interacting with digital properties and how technology can be optimized to enhance this experience. Alldriven testing enables you to:

- **Experience** websites and applications through the eyes of your users
- **Evaluate** how these customers are interacting with the technology
- Determine how technical elements can be tweaked to **improve** the digital experience and, ultimately, drive positive business outcomes

In addition, modern testing feeds testing data back to DevOps, helping meet growing expectations for faster release while simultaneously keeping pace with emerging innovations such as AR and the IoT.

How does it work?

So, how exactly does this all occur? By expanding automation beyond test execution to the full testing process. It's also important that modern testing platforms move beyond monitoring for problems to identifying areas for improvements—and the business impact of making them.

There are a variety of innovations fueling next-generation testing solutions for the retail sector, among them:

Image-based testing: In order to view the screen as it appears to a customer, image-based testing is essential

AI and machine learning: AI and ML can help organizations uncover the riskiest areas of their technology and also identify which components and functionality are most critical to the customer experience

Automation: Workflows can then be automated to test this customer experience and other key KPIs within every environment at every stage.

Continuous optimization: Continuous, intelligent testing enables retailers to predict the impact of new releases and investigate other “what if” scenarios, so that all upgrades are timed to optimize the digital experience.

Relating technology behavior to business outcomes: It's also important to monitor desired business outcomes like basket conversions, session length, or new customer acquisitions. After all, if a drop in these or other KPIs is detected, you need to know as soon as possible whether it's a functionality, performance or usability problem.

Case study

Dressed for digital success.

Studio Retail Limited is one example of a company that modernized its testing approach for the digital age. Studio, one of the UK's fastest growing digital retailers, has over 1.8 million customers and 6 million orders annually.

Putting the customer in the tester's seat.

Delivering a consistent high-quality experience at every interaction and on every operating system, device and platform is one of the company's top priorities. As Chris Platt, Studio's Head of IT delivery, says, "It's critical that we showcase our products in a way that keeps our customers happy and engaged and makes them want to come back and shop with us again." This was a primary driver in the company's decision to modernize its testing environment.

Studio ultimately selected Eggplant for its ability to truly put the customer in the tester's seat. As Rob Lorton, Front End Web Development Manager at Studio, puts it, "Eggplant allows a good diagnostic deep dive for problems, enables us to compare before and after, and check different page

components—including those of our eCommerce partners and other third parties. By doing this with our customers always at the forefront, we can ensure that our technology is delivering a consistent experience that delights our customers and makes them want to shop with us again."

"Our technology is delivering a consistent experience that delights our customers."

Optimizing improvements with real user data.

With Eggplant, Studio can draw on real user data to augment and guide its testing strategies and make continuous improvements to drive better business outcomes.

For example, Studio's web team was able to spot a performance issue stemming from a third party's A/B test and take steps to prevent it from recurring. Lorton elaborates, "We paused the test and watched the page load time in Eggplant—they improved immediately as the vendor's caches cleared. The updated A/B test code was redeployed later that month and we quickly saw the same degradation, so we were able to stop it again quickly."

Additional benefits of Studio's Eggplant implementation include:

Predicting the quantified customer impact prior to release. For example, the company was able to predict that a drop in load times of 1.5 seconds on the Android UX translates in a £8 million increase in revenue

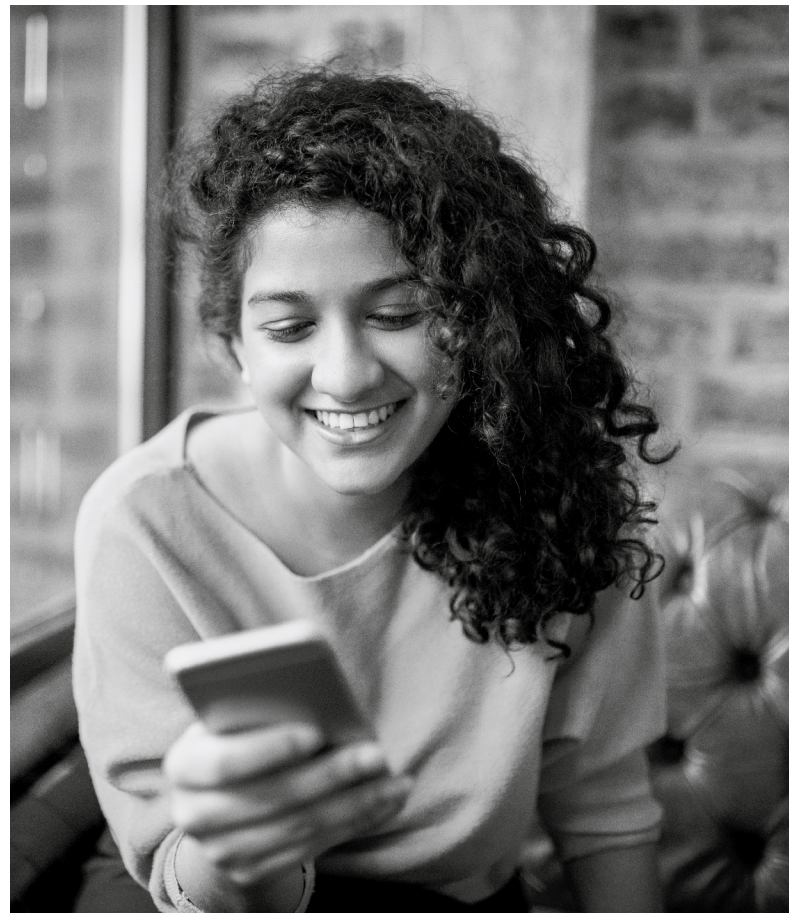
Optimizing testing resources. Studio discovered that 40% of regression testing efforts were aimed at areas of the site that were rarely used, and redeployed resources to focus on the customer journeys that matter

Increasing testing efficiency. Regression test creation, for example, which once took 4 days now can be done in just a few hours

The performance imperative

To put it simply, you can't compete in the digital age if you're not testing for the customer experience. Whether it's an eCommerce site, mobile app or an innovative AR tool, retailers only have one shot to get it right in their customers' eyes. That's why Eggplant is the ideal partner for any company seeking to compete on the digital customer experience.

As Steve Jobs famously put it, "You've got to start with the customer experience and work backward towards the technology — not the other way around [7]." Eggplant helps companies embrace this ethos and ensure a high-quality digital experience, even in today's always-on retail environment.



Buyers guide:

Evaluating test automation solutions.

This guide comes loaded with key considerations, common pitfalls to avoid and practical questions every business should ask when choosing a test automation solution.

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