

CUSTOMER EXPERIENCE REIMAGINED

The Ultimate Omnichannel Testing Playbook

eggplant

Test Automation Software

Executive summary

Today, providing a seamless customer experience across desktop, mobile, tablet and voice is a critical requirement of a customer-focused strategy. This playbook explores the shift in customer expectations and examines the importance of omnichannel testing in delivering on them.

Introduction

Delivering an outstanding customer experience (CX) is high on the agenda of business.

They are right to have this focus. Research shows the rewards for achieving an outstanding CX are high.

A cornerstone of CX is delivering a seamless, omnichannel experience across desktop, mobile, tablet and voice. This reflects the fact that many customers will start their journey on one device but complete it on another. They expect to be able to pick up where they left off and feel confident throughout the process.

But creating this seamless experience is easier said than done.

Testing teams have a wealth of tools for multi-channel testing – checking features work on individual platforms. The difficulty they have is in connecting the data stack to enable omnichannel testing – testing the user experience across multiple platforms, especially in environments where time and resources are under pressure.

This playbook explores how CX has changed as technologies have developed, looks at the challenges of omnichannel testing and offers a solution for pressurized testing teams.

Keeping pace with users' expectations

When looking at omnichannel experience, it's worth reminding ourselves how far we've come in such a short space of time.

Just a few years ago, smartphone technology was taking off. It took time for business to catch up. For a time, an impressive mobile experience was rare. Users expected to have to work hard to view a website on a mobile device. That changed rapidly. It had to. By 2013, more than half of digital consumers in the U.S. engaged on both computers and mobile devices. [1] And in recent years, mobile usage has overtaken desktop usage. The landscape looks set to change again in future years too, with the rise of voice-activated technologies.

Market share [2]	
January 2015	January 2020
Mobile 38.62%	Mobile 52.02%
Desktop 56.25%	Desktop 45.29%
Tablet 5.13%	Tablet 2.7%

These shifts add up to one thing. Simply having a website that's optimized for multiple platforms is not enough in the 2020s. Users expect a seamless experience across all devices.

This is true in consumer environments, where users may start topline research on one device but complete detailed research – and make a purchase – on another [3].

It is also true in working environments, especially where users aren't desk-based. The ability to connect the data from sales teams on-the-road with data from colleagues back in the office has improved sales and marketing effectiveness. And sectors such as healthcare and defense have been transformed by having access to mobile devices out in the field.

Providing this seamless CX is increasingly important to businesses.

Gartner research shows the overwhelming majority of businesses say they're competing mostly or completely on the basis of CX [4]. Accordingly, Gartner also found that three-quarters of organizations increased CX technology investments in 2018 [5].

There is good reason for their focus: it makes a significant difference to the bottom line.

“Companies with well-defined omnichannel customer experience management programs achieve a 91% higher year-over-year increase in customer retention rates when compared to organizations without omnichannel programs.” [6]

Customer lifetime value year-over-year

+3.4% with
omnichannel program

-0.7% without
omnichannel program [7]

Omnichannel testing is an essential requirement of this new landscape

Delivering this seamless experience is the responsibility of the testing team. It is also a responsibility that places new demands on them because it represents a significant shift in ways of working.

There is a critical distinction to draw at this point.

Testing to ensure a website works on every platform is one thing. This multi-channel testing is something every testing team does. But this doesn't deliver the outcome that is required.

The important factor is whether the experience is seamless across every platform. This is omnichannel testing.

Multi-channel testing vs omnichannel testing

Omnichannel testing puts the focus on the user. It looks to ensure consistent experiences and touchpoints across channels. It is essential in sectors where a user might initiate an activity on one platform but move to a different platform to complete the process.

For example, in retail, a user might browse different options on a mobile to develop a mental shortlist but move to a desktop to complete detailed research and make a final buying decision. In defense, it might be one user back at base discussing mission-critical options with a user on a mobile device in the field.

Multi-channel testing looks at the usability of features across different devices but is less concerned about making the process seamless. For example, a bank's website and a bank's mobile app need to have the same feel but needn't necessarily have the same touchpoints.

The difference translates to two different ways of working for the testing team. In a multi-channel testing environment, different teams can test different platforms. In an omnichannel testing environment, each team has to test all platforms.

Of course, both ways of working have their place in the testing setup. But it is perhaps better to see multi-channel testing as a baseline requirement – it is essential to know that all features work on all platforms. Knowing there is a seamless experience that meets or exceeds customer expectations is the differentiator that will deliver better ROI.

Omnichannel testing is the black hole in the testing team's toolkit

It is easy to make the argument for the importance of omnichannel testing. It is much harder to implement it in practice.

The testing world has a wealth of tools that enable multi-channel testing.

Testing teams have a wealth of applications they can draw on to test many more features in much more depth much more quickly.

But these tools follow the journey through one platform. They can't connect the data stack across multiple platforms.

This creates a headache for the testing team. In many cases, omnichannel testing requires manual testing. Manual testing offers a wealth of advantages but the volume of tests that can be conducted by automated testing is at an order of magnitude greater than the volume of tests a manual tester can conduct.

This means that while omnichannel testing is where testing teams need to place their focus if they are going to maximize the difference they make to the bottom line, the reality is the volume of testing given to it is simply not enough.

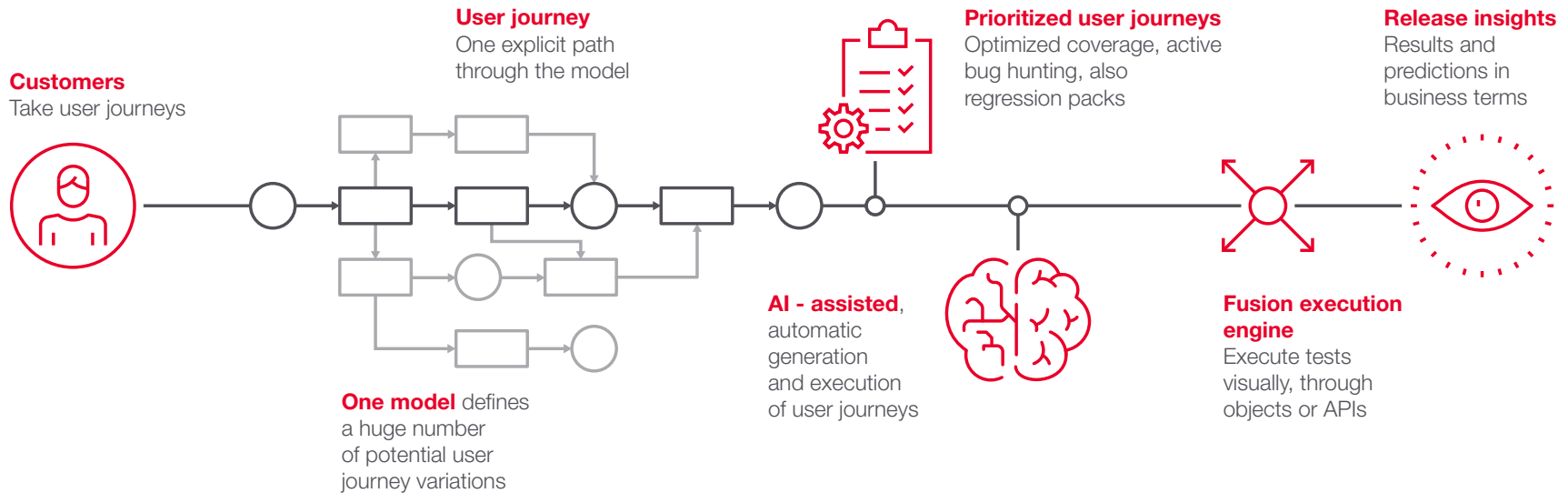
What is needed is a suite of tools that recognizes the shift in the landscape of CX and connects the data stack to give businesses a clear competitive advantage.

The market in this area has yet to mature, but there is one tool that is already making the difference for future-focused businesses. That tool is Eggplant Digital Automation Intelligence (DAI).

Test smarter to deliver a seamless customer experience

Test smarter and rid the world of bad software with AI-powered automation that views technology from the users' perspective, improving how you test, develop and deliver in the digital age.

Eggplant DAI removes the need for traditional siloed systems, testing the full digital experience against business outcomes, enabling you to optimize resources, release faster, and deliver higher quality software and applications.



Eggplant DAI also delivers several key advantages that help testing teams maximize their KPIs.

Obtain actionable intelligence to optimize the digital experience you deliver

Test real user journeys by continuously tracking actual user movements through your website or application. Relate this user behavior to desired business outcomes and determine what, if any, technical factors led to a drop in these outcomes.

This unique combination of testing and monitoring capabilities allows you to learn from experience and feed testing insights back to DevOps.

Future-proof your testing by combining automated exploratory testing and fixed regression packs

Dramatically simplify testing scenarios with Intelligent Test Scheduling, which combines these traditionally separate disciplines and present testing data in business terms.

Access enterprise scale testing capabilities via a single user interface

Author, schedule, execute and analyze test results via a single modern, intuitive UI. You can then customize rich graphical reports to provide actionable testing insight that moves beyond static pass/fail notices to identify root causes of failures.

Test any technology at every layer in any way

Eggplant's platform-agnostic approach can test any device, OS or technology at any layer.

Eggplant's unique, patented, Fusion Engine can intelligently understand and control the user interface as a human would, but also via APIs, objects and databases.

Empower domain experts to become automation engineers

Support digital transformation initiatives via a low-code/no-code platform that can be utilized by domain experts, building analysts and full stack developers.

Automatically run performance load tests on your system with no technical knowledge, no coding and modernize your testing approach without adding additional budget or resources.

Automated testing tools and AI have transformed the world's multi-channel testing tools in recent years

Case study: Amazing UX for fashion-forward demographic

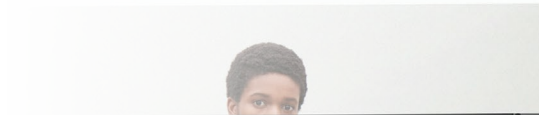
PrettyLittleThing (PLT) (prettylittlething.com), offers teens and twenty-somethings affordable, catwalk-inspired fashion, inspired by of-the-moment celebrity influencers.

PLT's strategy has worked well and has established them as a dominant player in the fast-fashion market. Just a few years ago, PLT was recognized as the fastest-growing online retailer after experiencing a 400-percent increase in sales and 663-percent increase in site traffic.*

It was a good challenge for us. Because Eggplant Functional is easy to use, we were able to write these new tests for our new checkout process and do it very comfortably across all of the devices we use, says Jenkins



NECK T-SHIRT



Testing across all devices and platforms

PLT's goal is to be the leading women's online fashion retailer. This means it needs to provide a flawless user experience (UX) — especially on mobile, which is the preferred way to shop for PLT's target demographic. Any issues on the company's website or application can make or break a sale and negatively affect revenue.

To meet customer expectations, PLT takes a continuous development approach, characterized by frequent releases and updates, and relies heavily on its small testing team. "We were doing two or three live releases a week and spending a lot of that time doing manual regression tests," says Scott Jenkins, lead QA engineer at PLT.

"Our short-term test goal was to automate all our regression tests across all of our devices. Our long-term test goal was to have all of those critical regression tests happen automatically."

Taking advantage of its established relationship with QualiTest, PLT sought a solid recommendation for an easy-to-use automated testing solution that would help improve testing efficiency and control costs. After evaluating a few test automation solutions, Rory Cruickshank, senior automation consultant at QualiTest, put together a proposal for PLT. "Eggplant was my recommendation for them, partly because one of the major requirements was that it had to test across all e-commerce platforms and all devices — mobile more than desktop," he notes.

In addition to Eggplant, PLT's test team also considered using Selenium. "Because 70 percent of our web traffic comes from mobile, we needed to perform our automated tests on real devices," says Jenkins. "Both Eggplant and Selenium were the top products on the market for that." PLT ultimately

went with QualiTest's recommendation for Eggplant. "The biggest reason why we suggested Eggplant over Selenium WebDriver was because PLT wanted to do everything on their own," explains Cruickshank. "It's time-consuming to manage the day-to-day upkeep of Selenium and all the peripheral add-ons required to get a proper test setup. Plus, it was important for them to have an easy-to-use solution for non-technical testers."

Eggplant and QualiTest helped PLT kickstart its automated testing by initially writing the first set of automated regression tests based on various critical testing scenarios that Jenkins and his team were manually performing across the website.

Hands-on training happened during a two-day engagement where PLT's team put scripts together via the different methods that Eggplant and QualiTest had already developed. "During the practical demos, they were quickly seeing the benefits of automation and the benefits of not needing huge amounts of coding experience or knowledge to use Eggplant," adds Cruickshank.

Armed and ready with a suite of regression tests to put into action, Jenkins says it didn't take long for them to get comfortable writing and editing their own scripts. The true test came a month later when the entire checkout journey changed on PLT's website.

Conclusion

The team now runs a single Eggplant script to test across iPhones, Android devices, tablets, and desktop browsers, as well as a single script to test any new site features.

Because the team tests two to three live releases per week, they have to stay on top of their scripts, but Jenkins explains that it's easy for them to change things as well as add new scripts themselves.

Since we've been using Eggplant Functional and have all of our tests running across all of our devices, it's just saving us so much time

Learn more at: www.keysight.com/find/eggplant

For more information on Keysight Eggplant products and solutions, please [contact us](#).

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