APPLAUSE

WHITE PAPER

IN-THE-WILD TESTING

ENSURE YOUR DIGITAL PROPERTIES WORK EVERYWHERE,
EVERY TIME, AND FOR EVERYONE

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WHERE YOUR USERS LIVE, WORK, AND PLAY

Are your digital properties designed and built for the real world? A world where users aren't running the latest and greatest devices under perfect conditions?

Your users expect your digital properties to work perfectly, instantly, and every time. In today's digital marketplace, brands cannot afford escaped bugs without risking the loss of users – or worse, revenue. This shift in user expectations puts additional stress on in-house QA teams to find more bugs on the same timeline, cover a much wider range of user scenarios, and limits the time teams can dedicate to major issues.

The best way to launch digital properties that consistently work in the hands of your users and meet their expectations – digital properties that are functional, reliable, secure and intuitive from the very first download – is to move a portion of testing into the wild. This means professional testers, with real devices, operating under true real-world conditions.

WHY TEST IN-THE-WILD

The technology matrix – from desktop to web to mobile to wearables and beyond – has grown to such epic dimensions that it is nearly impossible and extremely cost-prohibitive to cover entirely in-house. **There are thousands of device, carrier, and platform combinations for mobile alone.** Expand beyond mobile, and you'll encounter numerous web browsers, plug-ins, PC specs, and entirely new form factors. To cover all these scenarios, your test lab would need to be the size of an aircraft hangar. But somewhere in the world there are potential users for every matrix combination. By moving a portion of your testing into the wild you can cover more ground, identify bugs specific to devices, OS versions, or browsers, and prevent more show-stopping bugs from reaching your end users. Here's what in-the-wild testing will help you accomplish:

MIRROR REAL-WORLD CONDITIONS

Whether your test lab is neat and tidy or a jumbled mess of cables, it simply doesn't have the space and variety to emulate the real world. Your devices are under your control, often cleaned up after use, and always connected to the same network in the same part of the world. Unfortunately, the real world is messy, and users install and uninstall apps changing how a device responds. Carriers handle data transmission differently causing unexpected behavior. And with new devices, operating system variants, and protocols changing all the time, what worked once in your lab may not work tomorrow outside of it.

By testing in the wild, you have the opportunity to have professional testers put your digital properties through their paces on devices in the real world. It means shopping apps can be tested in stores, transit apps on subways, and social media apps everywhere. All the chaos and confusion of the real world can be brought into your testing process so you understand how your digital properties perform on a three-year-old Android device or the latest iPhone, without the hassle or cost of building out your lab and team.

MATCHING YOUR END USERS

As a digital property publisher, you'd always love to know exactly what your target audience is thinking. But you may not always have the resources to hire or outsource the team. Suppose your target users are mothers, ages 35-45, and living in Europe. If your test lab and team is located in Des Moines, Iowa and you're outsourcing to South East Asia, you may not exactly be getting the testing insights you need. Why? Because users behave irrationally. What you expect may be completely different from how your user-base expects to interact with your digital properties.

By moving your testing into the wild, you can access professional testers that match your demographics. This gives you the benefit of experience and rigor in software quality assurance while also providing a much clearer picture of how your target users will respond to and interact with your digital property. It also inherently helps with localization, as native testers are able to catch location- or culture-specific bugs that may have slipped past nonnative developers, translators, and testers. Plus, testing within your target demographic gives you a better idea of what devices your end users are likely to use and what bugs they might find in the real world that you missed in the lab. In short, testers that mimic your user base will provide you with the results that will matter most to your actual users.

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> [In the test lab] You always see it from the same perspective. Having someone to look at these apps who has never used them before, that was really something new. The testers from Applause are approaching these apps differently than our internal testers."
>
> **CHRISTIAN SCHMID,** SR. ADVANCED TECHNOLOGY, ENGINEER, BMW

IDENTIFY FRINGE USE-CASES

Fringe use-cases may not be as "fringe" as you think. When testing a web application, for instance, it's fairly common to have a QA team verify its functionality across all the major browsers. But what about the various third-party applications (i.e. anti-virus, plug-ins, etc.) that mostly exist on the hardware of your users, but not your QA team? Not to mention that many users tend to cling to outdated browser versions that your QA team might think are extinct. With in-the-wild testing, you get insight into the unusual, but very real, use-cases that can lead to big problems after launch.

Another incentive to use in-the-wild testing to find fringe use-cases is the example of the power user. If you have a popular digital property (say a hot new game), you will likely encounter some very enthusiastic users. These users may intentionally try to break your digital property, or simply be so involved that they come up with use-cases that your QA team never dreamed of. Something similar happened to a popular video game during a recent release; users had the ability to create a custom character earlier in the series, but were unable to port their characters into the newest title. Bugs like this are more likely to be discovered by real users rather than lab testers who may not be aware of the feature, have forgotten about it, not realized how important it is to users, or simply assumed it works as designed.

WHAT TO TEST IN-THE-WILD

Remember, digital properties are used under various conditions, including:

- Adverse, unpredictable and widely varied environments
- Outdated or unexpected browsers, plug-ins and anti-virus
- An ever-growing list of hardware and devices
- Imperfect connectivity (both Wi-Fi, cellular, and hardline)

To meet these usage needs, testing outside of a lab is a necessity.

CONNECTIVITY

Testing on different carriers or service providers can be done in a lab, but how does that carrier perform in different locations? Connectivity and coverage can vary within the same city and definitely differs as your users spread across countries and continents. In today's global market, you should assume that users will access your digital properties from locations spread across the world – and you should prepare for this event by targeting a few key locations and performing in-the-wild testing to check for things like load time, performance, and localization if necessary.

LOCATION

Location comes into play for more than just connectivity. If your digital property is intended to be used globally, or simply in an area that differs culturally from your own, localization testing is vital. Localization testing is more than just translation, it should test for formatting, characters, clarity, cultural fit and a range of other factors that will make or break a localized digital experience.

DEVICES AND PLATFORMS

There are countless mobile devices in the hands of your users. Not to mention the plethora of PC options available with different specs, operating systems, a variety of browser options, and a new wave of wearables being released.

Each operating system and browser has several versions currently running. Even officially abandoned versions that are no longer being updated can be found on devices in the wild. The truth is, many everyday users are not concerned with updating their systems when new versions are released. If your lab only has the most recent - or even the two most recent - versions, you could miss issues that will affect a large number of users. Consequently, if you ignore testing on a brand new release, current users who do update their devices could be left in a disappointing lurch when your digital property no longer functions correctly.

Ultimately, whether you are creating a mobile app, a website, or other software, your product will be used by a wide range of people with different hardware and software setups — and you need to be prepared for as many as possible. At the very least, identify the most common combinations and target those.

BENEFITS OF TESTING IN-THE-WILD

We've already discussed how in-the-wild testing can help identify fringe use cases, test within your target market, and help you cover the testing matrix. But in-the-wild testing also benefits internal QA departments, keeping the bottom-line in check, and freeing-up vital in-house staff to focus on particularly difficult bugs. It also helps keep testers fresh and on-point — which means fewer bugs will slip through the cracks.

TESTER DIVERSITY

Testing in-the-wild gives you the opportunity to offset the group-think that often plagues many internal QA teams. This is particularly helpful in terms of usability testing, where you can involve testers who are unfamiliar with your digital property for a fresh pair of eyes and a "new user" perspective. When internal teams become overly familiar with a digital property, it becomes easy to overlook confusing elements or misinterpret ease-of-use. If you already know how it is supposed to work, it is difficult to objectively assess the digital property.

> "
> In-the-Wild testing truly can be an extension of your QA and not a replacement for. We talk about it in terms of a 'force multiplier.' It allows our QA team to project a much broader coverage path. It becomes an extension of what they're doing."
>
> **BRAD SCHNEIDER,** IS APPLICATIONS DIRECTOR, THE CONTAINER STORE

FLEXIBILITY

Unlike most QA projects, in-the-wild testing is designed to be utilized where and when you need it most. This benefits companies whose QA requirements change frequently (usually those adhering to an agile framework). By nature, testing in the wild allows companies to use as many testers as needed — a large group to test usability from an end-user's perspective or just a handful to test on a hardware/software combination not available in-house. The in-the-wild tester goes on their merry way once the test is done — making this method extremely cost effective and easily scalable.

Employing several in-the-wild teams allows QA managers to run multiple tests at once — speeding up the time-to release without burning out internal testers. Pairing flexible outside help with in-house QA teams allows the internal team members to focus on missioncritical or difficult aspects of a digital property while mundane testing — like basic functional tests and regression testing — can be pushed into the wild.

INCREASE DIGITAL QUALITY

Producing high-quality digital properties is not an option, it is a necessity. In today's market, users will quickly leave your digital property if it's too slow, buggy, confusing, ugly or if there is simply a better option available. **For a user, the cost of switching to a new digital property is nominal, but to a company, the cost of losing users is tremendous.**

To keep up with the increasing demands of the changing world, organizations have to adjust their approach to software development, testing, and launch. Beta testing, with its focus on engaging actual users, can provide crucial feedback in regards to user acceptance. But with professional in-the-wild testing, you get bug reports and feedback from professional testers who are accustomed to including in-depth details, device information, and recreation steps and videos. You receive pertinent, focused, actionable feedback from people who reflect your users without having to wade through nonsensical or vague "bug reports."

By testing in the wild, a development team can receive a list of undiscovered bugs before users discover them. This lead time gives teams the chance to launch higher quality digital properties and diminishes the chances of real end-users (or paying customers) encountering frustrating bugs.

Using a new set of eyes also ensures that your in-house testers don't become comfortable with often repeated, routine tests. If a tester has performed a regression test every step of the way, it becomes easy to assume everything is fine and inadvertently pay less attention to later test cycles. Comfort and familiarity can lead to missed defects and lower digital quality.

HOW TO TEST IN-THE-WILD

In-the-wild testing is best as a complement to lab-based testing. Sending a completely untested digital property to outside testers can be a waste of time and money. Begin by performing basic tests in-lab, then add in-the-wild testing to cover more specific test cases, such as device, platform, and location compatibility. Crowdsourcing, the simplest way to test in the wild, gives internal QA teams the ability to extend their reach, scale team sizes as necessary, supplement their work with experts and reach testers who fit their needs and user profiles — all without crazy airline bills or satellite offices.

Though the term "wild" may conjure up images of users around the world running amok with your new, unreleased digital property, in actuality, testing in the wild can be an extremely controlled situation. Choosing the right crowdsourcing company is key to ensuring you have access to professional, trusted, responsible testers. A responsible crowdsourcing company will have practices in place to ensure the confidentiality of your digital property and the work of their testers.

Also remember that moving your testing to an off-shore company is not in-the-wild testing. With off-shoring, you encounter many of the same obstacles as in-house testing — testing is done in a well-connected building, likely misses matrix combinations, ignores your target demographic, etc.

ABOUT APPLAUSE

Applause empowers leading brands to deliver flawless digital experiences for their customers on any device, in every location. Applause **market insights, user feedback and digital testing** solutions enable businesses to delight customers, drive topline revenue and innovate faster.

Applause ensures digital quality for websites, mobile apps, IoT products and in-store interactions in a way no other approach can - via our technology platform and managed **global community of over 300,000 professional and on-demand testers**. Only real people on real devices in real locations can provide the real issues and feedback that brands need to deliver great digital customer experiences. You can't hire, outsource or automate the increasingly converged digital-physical experience that defines real customer interaction, but you can replicate it with the crowdsourced approach provided by Applause.

Thousands of companies of every size – including Google, FOX, Nike, BMW, PayPal and Slack – rely on Applause to dramatically decrease the time and cost of delivering great digital experiences for their customers.

Learn more at www.applause.com

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