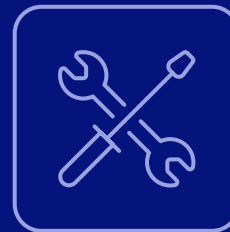
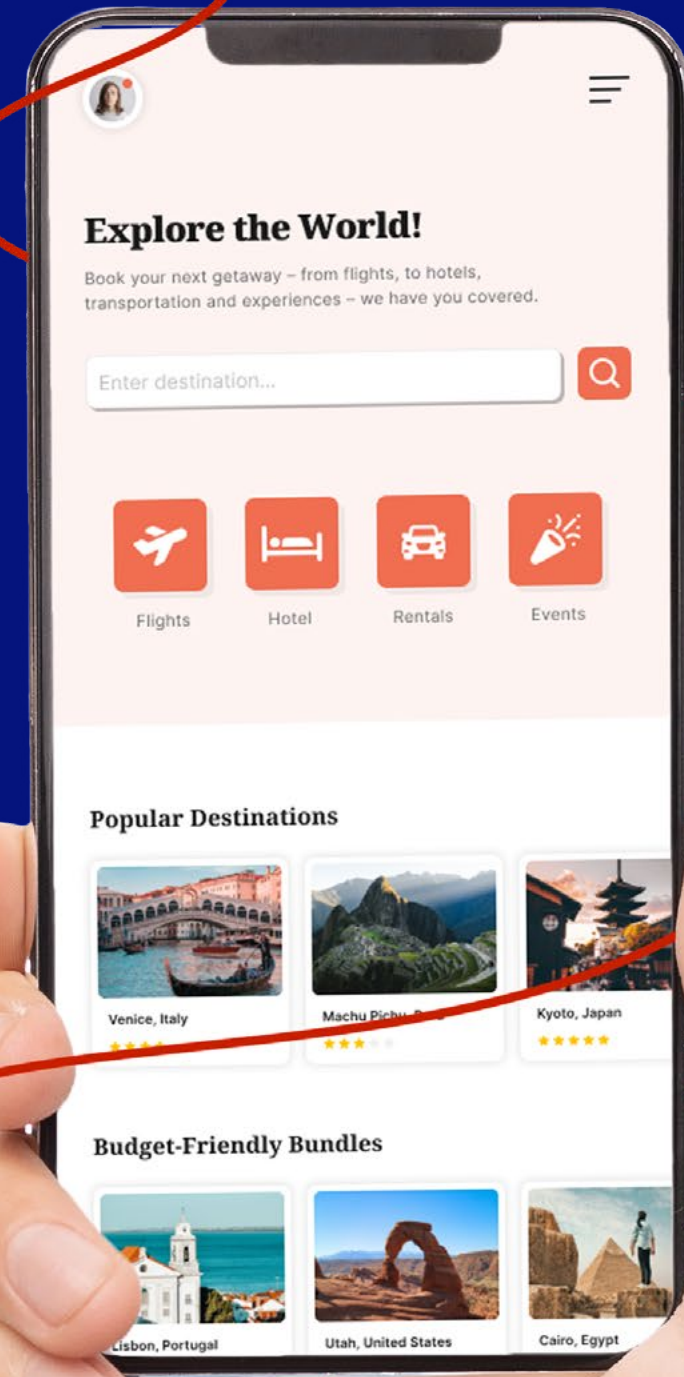


APPLAUSE<sup>o</sup>

# State of Digital Quality

In Travel & Hospitality

2022



# Contents

- 03 **Executive Summary**
- 07 **Methodology**
- 09 **Functional Testing**
- 17 **Accessibility Testing**
- 23 **Localization Testing**
- 27 **Customer Journey Testing**
- 29 **Payment Testing**
- 32 **Conclusion**





# Good enough isn't good enough if you want to win in the digital travel and hospitality world.

Travel and hospitality brands that consistently lead the market, earn rave reviews, and capture customers' hearts — and wallets — relentlessly pursue excellence. But what does that mean? The best digital experiences deliver:

- an intuitive interface
- seamless experiences across devices and channels
- features and functionality that users value

Who decides whether your product really delivers? It's not your brand — it's the end users. Users spent over \$133

billion USD with mobile apps in 2021 — a 20% increase over 2020.<sup>1</sup> It's no secret that better app ratings drive more downloads and more revenue. But merely getting someone to download your app or use your product or services isn't enough. We live in a world where 35.5% of users abandon an app after a single use, 30-day app retention rates across all verticals average less than 10%, and 63% of consumers leave a brand due to poor customer experience.<sup>2,3,4</sup>

No industry is immune to the demands for outstanding customer experiences, and digital is the battlefield for the hearts and minds of travelers. The mobile device is elevated to a new level during travel, as desktop applications are often left behind. Of the 7.8 billion global population, there are 5.2 billion (66%) unique mobile phone users.<sup>5</sup> In 2020, 83% of US adults alone indicated that they wanted to book trips online. Seventy percent of these customers do their research on a smartphone, and an estimated 700 million people will make a booking online by 2023.<sup>6</sup>

Maintaining strong customer relationships and engagement requires an unwavering commitment to quality... which may seem like an insurmountable task as new platforms, devices, payment methods and technologies explode onto the market. Travel and hospitality companies, by the very nature of their industry, need to not only test experiences across geographies, languages/dialects, partner networks and national currencies, but also in complex new dimensions, including the metaverse, as cryptocurrency, AI, virtual and augmented reality become more entrenched in the digital realm.

Travel and hospitality organizations that see quality as an opportunity for constant evolution, rather than a box to check with each release, win consistently. Those that invest in innovation, intuitive user experiences and seamless customer journeys capture serious returns in a matter of months. These companies report increased market share, faster time to market, better customer retention and

<sup>1</sup>"Users spend \$133 billion with apps in 2021; App Store has higher revenue than Google Play." Filipe Esposito, 9to5Mac, December 7, 2021.

<sup>2</sup>"3 App Retention Strategies: The Ultimate Guide to App User Retention." Criteo. 2020.

<sup>3</sup>"Mobile App Trends 2021: A global benchmark of app performance." Adjust. 2021.

<sup>4</sup>"86 Percent of Consumers Will Leave a Brand They Trusted After Only Two Poor Customer Experiences." Business Wire, February 2, 2022.

<sup>5</sup>"Mobile Marketing Statistics Compilation 2021." Dave Chaffey. Smart Insights, March 30, 2021.

<sup>6</sup>"Over 60 Online Travel Booking Statistics (2021)." Steve Deane. Stratos Jet Charters, Inc., May 8, 2020.

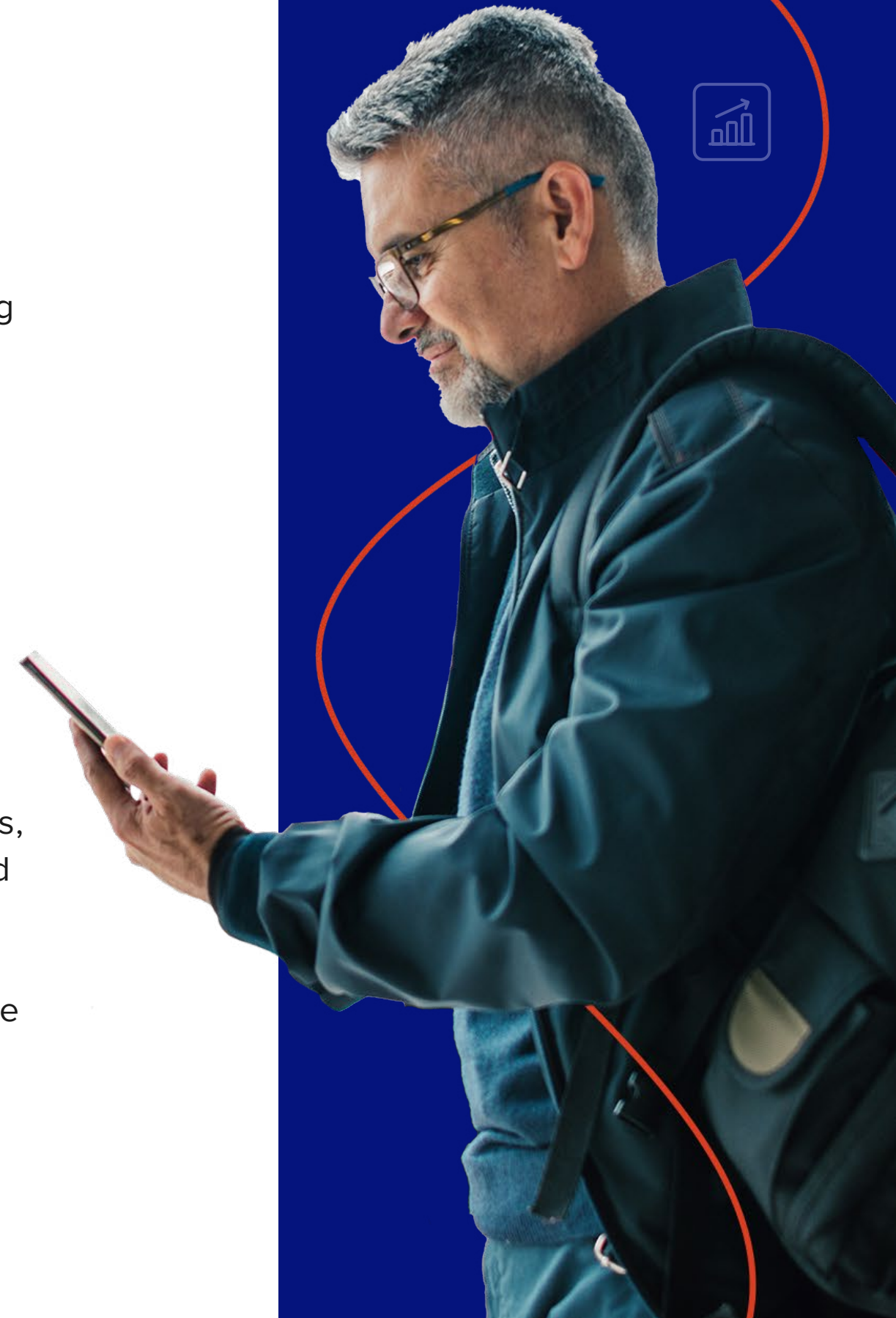
satisfaction, and increased traveler loyalty, along with a host of other benefits that tie back to revenue.

Lofty customer expectations and fierce competition across all industries mean that travel and hospitality companies can't afford even the smallest mistakes — customers simply won't tolerate anything less than ideal. After all, travelers put substantial planning effort, money, even their safety in the balance, upping the responsibility of travel and hospitality brands to make these risks worthwhile. To succeed, brands must examine user experiences holistically. Digital strategies need to encompass the big picture AND recognize that even the smallest details matter. Bugs eat away at the foundation of product excellence, and for travelers, are magnified due to the significant inconvenience and impact they can have on a trip. Every error, crash and flawed user experience diminishes customer satisfaction — and given the considerable savings and planning that go into trips — can lead to permanent abandonment, eroding your business' bottom line. So

where do you start the journey to better digital quality?

Applause, the worldwide leader in enabling digital quality, analyzed a representative sample of our testing data to identify the most common flaws in digital experiences and map out how companies can prevent them from making their way into production. We looked at travel and hospitality experiences across more than 4,500 individual mobile devices, 350 unique desktops and nearly 300 OS versions to evaluate endless combinations of networks, browsers, payment instruments and integrations worldwide. Over the last 15 years, Applause has had a front-row seat to the seismic shifts in digital quality. Working with companies across industries, regions, languages, application types and technological maturity levels, along with the depth and breadth of our platform data, uniquely positions us to evaluate the state of digital quality.

Here's what we learned.



# Highlights

Faster releases. More intuitive user experiences. Greater innovation. Higher revenue. As travel and hospitality organizations focus on shifting left and embracing quality throughout the software development lifecycle — rather than framing it as a final gate to pass through before release — these goals become more attainable. Improving quality consistently pays off in cost savings, faster releases, and increased customer satisfaction and retention.

## **Every subscriber experience requires comprehensive functional testing.**

Maintaining quality without sacrificing speed and coverage continues to challenge many travel and hospitality organizations. Creating consistently great digital experiences calls for relentless attention to detail and a thorough testing plan centered around your customers' wants, needs and preferences. All too often, there's a

gap between what companies develop and what travelers really desire, require and enjoy. Test automation, manual functional testing, structured test cases and exploratory testing all play crucial roles in elevating the digital experience. Teams that rely on limited modes of testing cannot ensure quality experiences.

## **Accessibility is more than a legal checkbox.**

Inclusivity is becoming a critical differentiator for leading companies. Instead of just auditing for accessibility prior to release, the world's technology leaders shift left to focus on inclusive design. Savvy travel and hospitality organizations recognize that accessible experiences add value by better serving all customers, and are working to level up. The travel and hospitality sector depends heavily on peoples' ability to evaluate options, plan, compare itineraries and more. If users are restricted in their abilities to evaluate travel services and options, they'll quickly find alternatives.

## **Localization goes beyond translation.**

High-quality localization offers personalized, culturally relevant experiences. This is particularly salient for the travel and hospitality sector where all apps must work flawlessly wherever people travel, not just in one geography. Organizations that focus on creating localized digital experiences that resonate with their target communities pave the way for successful — and profitable — market growth.

## **Customer journeys must track seamlessly across devices and locations.**

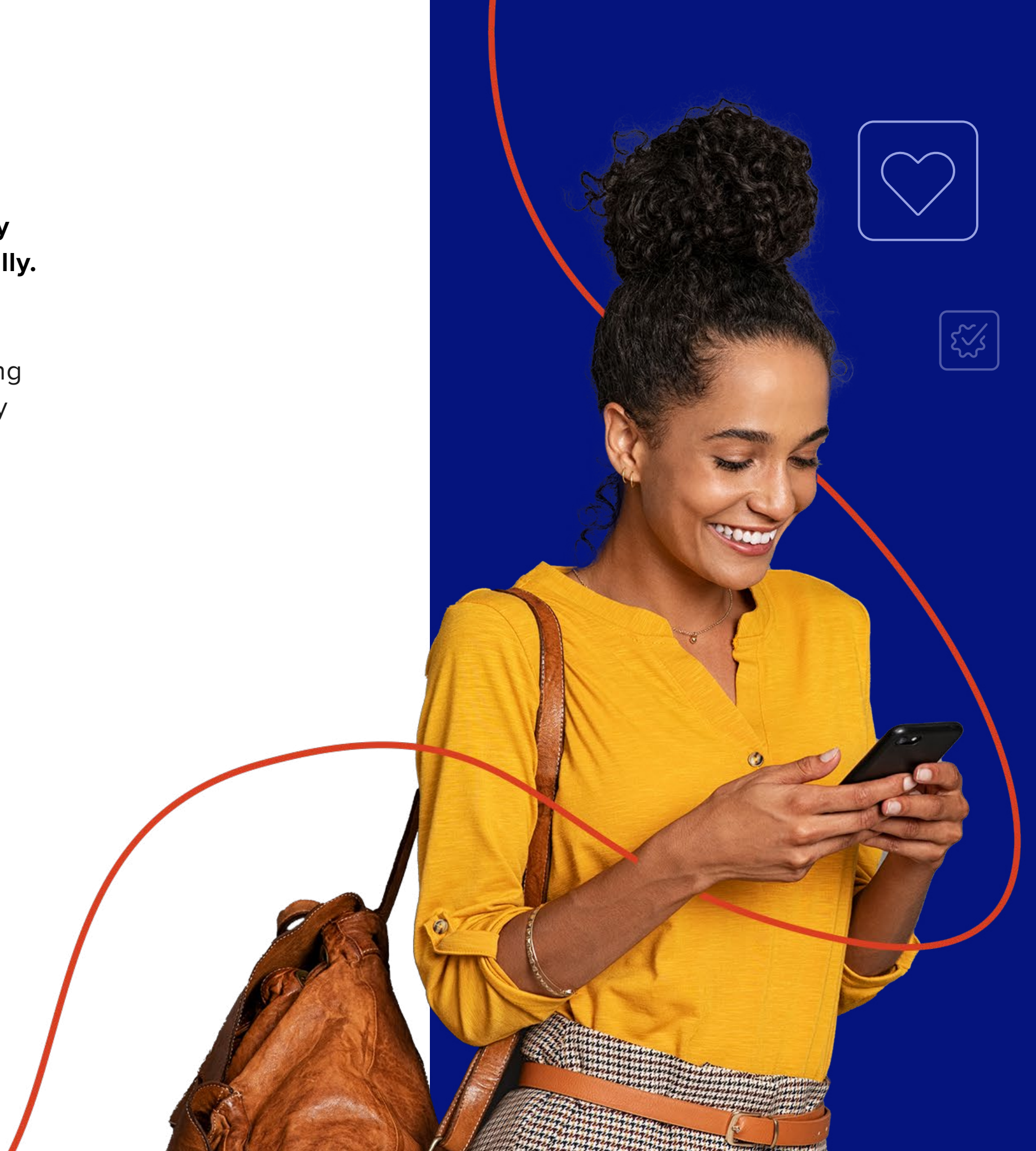
Understanding the end-to-end user experience matters more than ever. Seeking out and eliminating sources of friction in the customer journey — whether making and modifying hotel reservations on a desktop browser, doing touchless check-in using a mobile app or making digital payments for local tours while traveling — requires skills many software development and QA teams simply don't have in-house.



Adding to this complexity, the literal customer journeys in travel often blend digital and physical components.

**Testing with real, live payment instruments is the only way to ensure every customer can transact successfully.**

New alternative payment methods, digital wallets, cryptocurrency and customer loyalty programs add complexity to the payment landscape. Real-world testing with real payment instruments is the only definitive way to validate your payment experiences work smoothly for your customers and your business, every time.



## Methodology

We analyzed results from a representative sample of closed test cycles created between January 1, 2021 and December 31, 2021. A test cycle is how Applause defines each unique set of tests: a client sends us details around what to test — including builds, scope, coverage, etc. — and we create a test cycle that includes the specific test cases and scenarios to be tested. Once tests have concluded and a triaged list of issues has gone back to the client, the cycle is complete.

We analyzed data across travel and hospitality organizations, testing categories and regions spanning more than 26,923 bugs, over 4,900 unique devices and thousands of device/OS/browser combinations. Testing includes websites, apps, IoT devices, mobile web and mobile apps in real-world scenarios.

## Device Coverage

Despite developers' best efforts, apps and websites don't always behave consistently across devices, networks and operating systems. Small variations in the way different devices, OSes and browsers work can add up to big differences in performance and functionality, so it's critical to test across your customers' most common devices and configurations. As different types of experiences and transactions draw on an increasing number of digital touchpoints, the right coverage becomes a critical variable in your testing strategy.

Device Configuration	Number	Device Configuration	Number
Mobile makes	67	Mobile carriers	356
Mobile models	989	Desktop web browsers	28
Mobile OSes	9	Desktop OSes	7
Mobile OS versions	195	Desktop OS versions	101
Mobile web browsers	28		





# Functional Testing



# Functional testing is the backbone of digital quality – a crucial and ongoing effort in creating exceptional experiences.

It's no wonder companies that produce the most popular and highest-ranking apps invest in thorough functional testing. To spark loyalty and prevent customer churn, travel and hospitality companies must hunt down defects before they reach end users. Testing is crucial for every conceivable digital experience, from extensive trip planning and booking to various payment options, navigating while out and about, and posting reviews of different establishments and experiences.

As the state of the art in digital quality evolves, successful hospitality brands focus on functional testing to help them stay ahead of the curve and make sure digital experiences work smoothly and consistently in the real-world settings where users live, work and relax. It's clear that functional bugs are still a major concern, and stopping them before they reach production is crucial.

## The Data Set

A representative sample of functional tests.



**2,918**  
test cycles



**93**  
countries



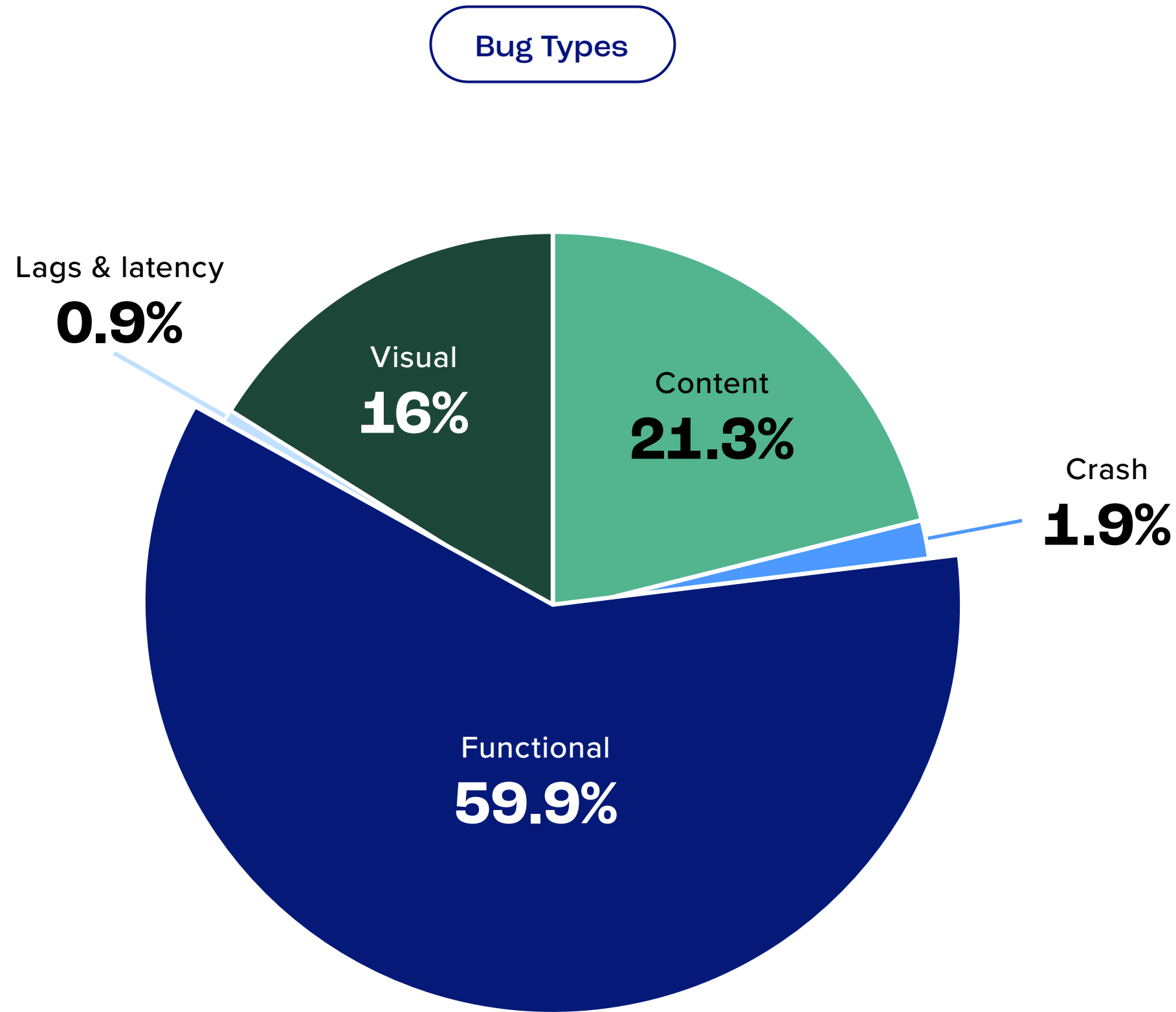
**26,923**  
bugs

## Functional Testing Bug Type Definitions

Bug Type	User Experience	Example
<b>Content</b>	“This doesn’t read right” Typos, grammatical issues	The menu item description is missing words
<b>Crash</b>	“The app shut down” App closes or quits unexpectedly	The app crashed when I tried to update my email address
<b>Functional (workflow errors)</b>	“This doesn’t work right” Buttons don’t respond when clicked, searches return incorrect results	Unable to make reservation
<b>Lags &amp; latency</b>	“This is taking too long” Sluggish performance, freezes	It took over five minutes to check my loyalty point balance
<b>Visual</b>	“This doesn’t look right” Misaligned content or page elements, content doesn’t fit area	Part of the flight schedule isn’t visible on the page







## The Big Problem for Travel and Hospitality

Workflow errors were consistently the most common flaw our testers discovered. These bugs prevent users from completing their desired tasks. Whether your customer is trying to use a hotel app for contact-free check-in to a room, request concierge service, or searching for a local restaurant, they expect to be able to accomplish their mission. If they can't? Response to an app that doesn't work, particularly during travel, can run the gamut from a moment's annoyance to permanently abandoning your brand, as issues with itinerary adjustments and rebooking, for example, can add significant stress to the traveler. Reviews from unhappy customers can drag down app store ratings and persuade other potential users to choose a competitor's solution. In addition, poor user experience can increase churn and raise customer acquisition costs.

## Industry Insight

Travel and hospitality providers must address the complexity of the many components to a customer's trip plans, and eliminate stress for users. Does online search yield the right size rental SUV with all-wheel drive and a ski rack? Can a customer easily apply loyalty points to the rental? Does the transaction receipt accurately reflect the promotional discount for the hotel rental? Are reservations confirmed immediately after booking? Can they easily be changed on the fly as plans evolve?

Once customers find what they want, inability to simply complete a transaction is a major setback... both for travelers and providers in this space. Flexibility and functionality in real-world scenarios and on roaming networks is critical. For example, many travelers expect to use the hotel app for touch-free key access. This extends beyond just entry to their room; the key should work to gain access to elevators, the fitness/pool area, parking lot and any other

areas restricted to current guests. After the guest checks out, the key should immediately deactivate across all of these areas. Not only does a malfunctioning key have safety implications for guests, it can also inconvenience new arrivals whose access doesn't work due to overlapping access issues. Real-world local testers can validate the limits of systems and scenarios to find weak spots in customer-facing software.





## Recommendations

### Let data guide your coverage strategy.

Determine which devices, networks and operating systems your customers use most and prioritize those. Recognize that these may vary across regions and markets — for example, travel and hospitality companies doing business across Europe and Asia must deal with greater device fragmentation than those operating in a single country or smaller region. An airline, for example, will require far more rigorous payment testing in order to process payments from a wide variety of international travelers. Higher-end travel services serving tech-savvy clientele may need to ensure their tests cover the latest devices and operating systems as soon as they're available, as their traveler demographic might be more likely to quickly upgrade. Do your research and develop test plans accordingly.

### Understand the limitations of device labs.

While device labs are useful for certain things, they don't offer insight into real-

world travel experiences. For example, a device lab won't show you how easy it is for a user to pay for a meal using a mobile wallet, or whether someone can smoothly reserve a private tour while on a train in a foreign country. As many people travel for specific events, such as the Olympics or the World Cup, without actual roaming testing, bandwidth and true coverage is anyone's guess. It's impossible for businesses that operate globally to maintain a lab that mirrors the full breadth of devices, networks and operating systems their customers use daily.

### Go beyond internal teams and dogfooding.

While your employees can play a valuable role in testing, they are familiar with your products — they're more likely than an independent user to follow the happy path. Approaching experiences with a vastly different perspective, internal staff members may be hesitant to call out what they see as minor glitches, willing to overlook things that a customer would

not. As many travelers venture off the beaten path and leave the predictability and comfort of standard tours, impartial feedback from real users is the best way to ensure the best user experience.

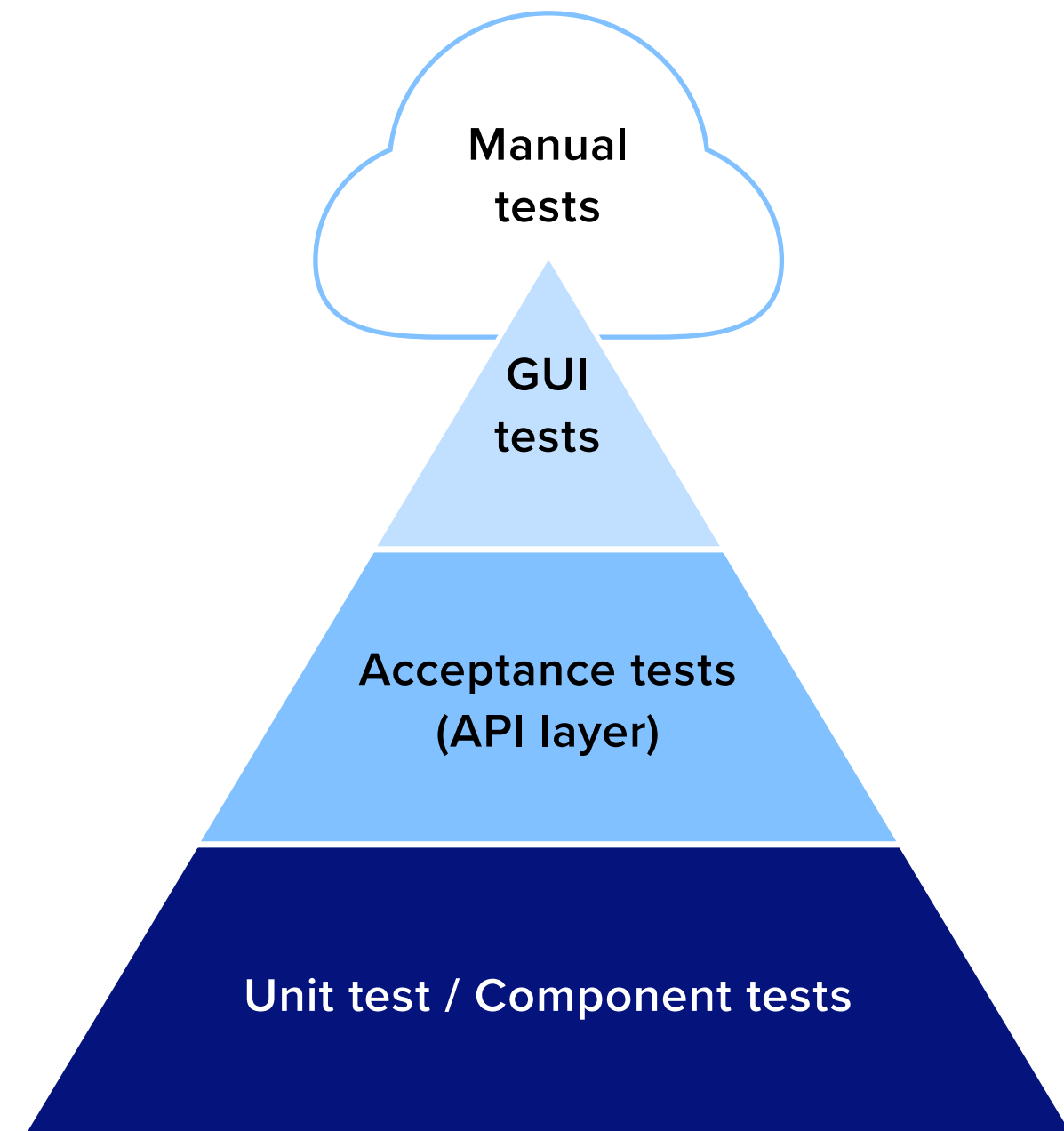


### Use test automation to stay on top of the basics.

Test automation can help increase code coverage and reduce testing times, freeing QA resources up for more strategic tasks or testing that can't be automated. Mike McKethan, Applause's Director of Quality Engineering and Automation, recommends starting automation strategies from the bottom. He recommends the Agile test automation pyramid, introduced by Mike Cohn in his book *Succeeding with Agile*, as a model. "At Applause, we believe that a proper automation strategy is built from foundational functional building blocks that start small and build up. You must have and maintain a focus on the desired end game; without this, most clients end up in an automation anti-pattern focused on end-to-end automated test cases that are constantly under maintenance and lead to little ROI," McKethan said.

**"A proper automation strategy is built from foundational functional building blocks that start small and build up."**

### The Agile Test Automation Pyramid





## Success Story: Multinational Hotel Chain

A multinational hotel chain depends on Applause to quickly source local resources to do real-world testing of various e-commerce web products within multiple countries around the world. This ensures that its customer base — 150 million and growing — has the best digital experiences across the wide variety of hotel brands owned by the parent company.

Applause helped this hotel chain gain a holistic view of its end-to-end customer experience. A team of 185 testers in 5 different countries matching the hotel chain's target demographics traveled through online booking flows and high-traffic areas of the website. Testers checked to make sure that basic functional elements in the booking flow worked as designed, but in addition, that the user experience was intuitive and frictionless.

Applause's localization capabilities allowed the hotel to address the subtleties

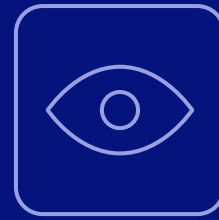
of local languages and culture. This is particularly salient for the travel and hospitality sector, where international customers are more prevalent than other sectors, and so language and culture sensitivity is a must.

From a quality assurance perspective, Applause helps this international hotel chain ensure its e-commerce products meet accessibility standards through comprehensive accessibility assessments and consultation on accessibility best practices. The hotel chain applies this guidance to its current app design and development process to improve the user experience for guests using its primary app. Through extensive global accessibility and inclusive design experience — including using testers with disabilities — Applause provides the hotel chain confidence that it is addressing the needs of its full customer base, improving experiences for all users.





# Accessibility Testing





# Digital accessibility is a major consideration for all businesses today.

The World Health Organization estimates that over 1 billion people, or about 15% of the world's population, live with some form of disability — and that number is increasing. Building accessible digital experiences has farther-reaching benefits than simply making sure you're not losing potential revenue from people with disabilities (PwD).

While many travel and hospitality organizations recognize that neglecting accessibility (A11y) can put the business at risk, full digital accessibility has many benefits beyond risk mitigation. While the back-end coding that supports accessible design can boost SEO and make it easier for businesses to automate testing, digital experiences developed with accessibility in mind can improve the UX for all customers.

Companies that overlook digital accessibility miss an opportunity in product design and development, given that many features that benefit PwD hold appeal for a wide range of other customers. For example, voice functionality that serves people with limited mobility may also prove valuable for a user with their hands full, while closed captions on a video may be helpful for viewers learning to read a foreign language as well as for the hearing-impaired.

At a minimum, travel and hospitality organizations should conform to Web Content Accessibility Guidelines (WCAG), in addition to complying with all local and regional accessibility laws. More and more lawsuits are targeting digital services that have a nexus to a physical place of public accommodation, as well as digital services without any connection to a physical location. As a best practice, companies should go beyond the minimum and prioritize inclusive design, gathering input from PwD early on to create seamless experiences for all users.

<sup>7</sup>"Disability and health." World Health Organization, November 24, 2021.

## The Data Set

A representative sample of accessibility tests.



**95**  
test cycles



**11**  
countries



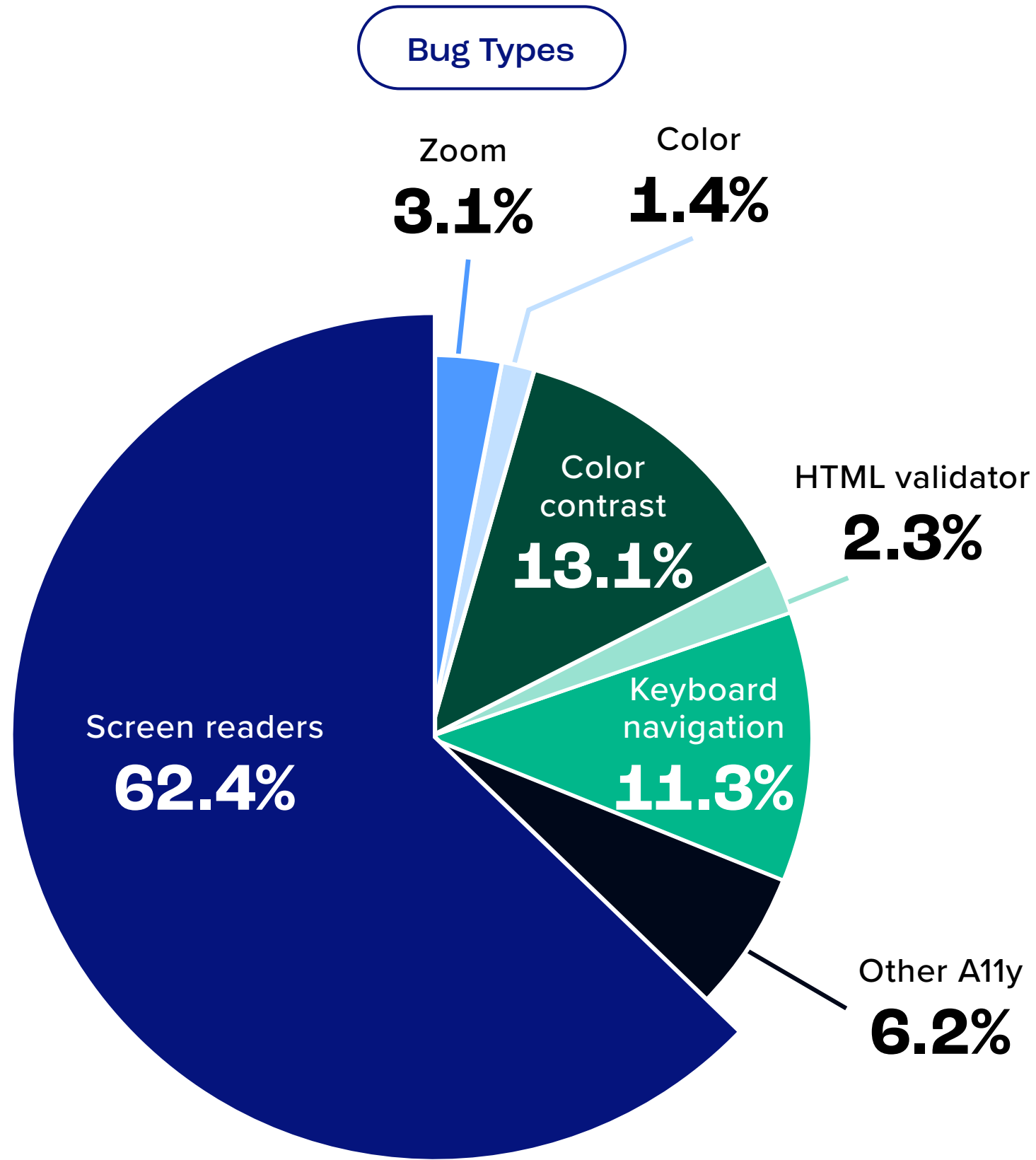
**5,255**  
bugs

# Accessibility Testing Bug Type Definitions

Bug Type	User Experience	Example
<b>Animation</b>	“I don’t know what’s happening on the screen”	A user can’t see content that moves, such as animation telling users to perform an action
<b>Color</b>	“This doesn’t make sense”	Users can’t identify information communicated only through color, such as required form fields that appear in red
<b>Color contrast</b>	“This all looks the same”	Insufficient color contrast ratio: Different shades of the same color are used in a chart detailing different levels of service or pricing packages
<b>HTML validator</b>	“This page seems like something is missing”	Issues in HTML code that do not impact the keyboard navigation and screen reader behavior from an accessibility perspective; syntax errors that prevent web pages from rendering as the creator intended, such as missing tags

Bug Type	User Experience	Example
<b>Keyboard navigation</b>	“I can’t use my keyboard to navigate”	People using alternative keyboards or speech input devices as keyboard emulators cannot navigate a page
<b>Screen readers</b>	“My screen reader isn’t working”	Without readable text for screen readers, users can’t navigate or discern what’s on the page
<b>Other A11y</b>	“This isn’t working for me”	Poor user experience for PwD
<b>Video</b>	“I can’t tell what’s going on in this video”	Missing closed captions or audio descriptions
<b>Zoom</b>	“I can’t see what I need to”	Text gets cut off when a user zooms in beyond a certain point; problems with resizing and reflow





Animation and video make up less than .5% of defects

## The Big Problem for Travel and Hospitality

Screen readers comprise 62% of all A11y bugs. The next most common bug types, keyboard color contrast and navigation issues, together make up less than 24% of all accessibility bugs.

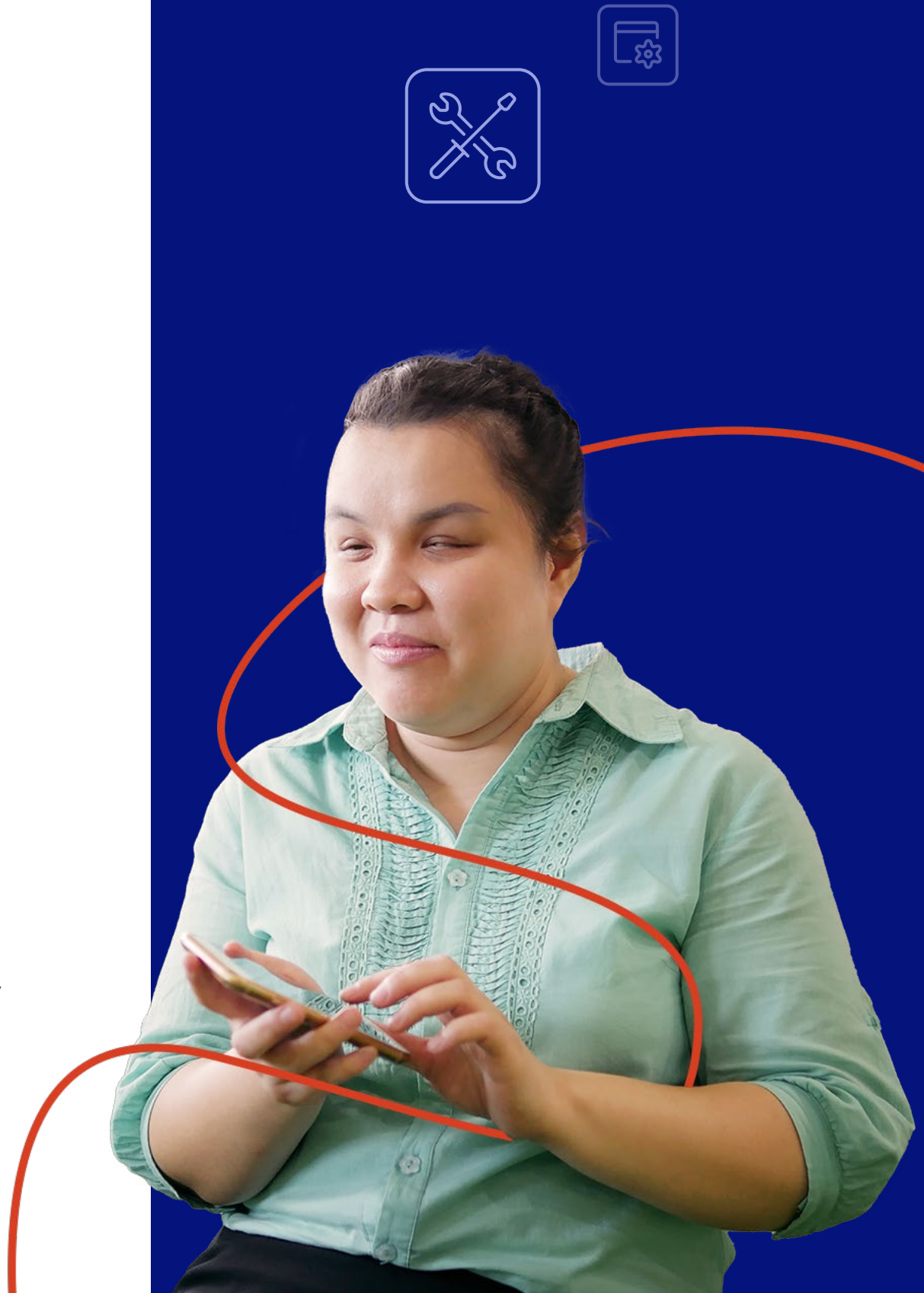
While missing labels for screen readers are easily rectified, they are crucial for many people with disabilities. If a developer hasn't assigned a name, role or value to an interactive element, the screen reader will simply say "button," leaving the user no idea what to do. Filling out forms and changing passwords can also be very difficult for visually impaired users. For example, when a blind user enters a wrong value on a form, it may create an error message that a sighted user can see, but a screen reader will not describe the error, leaving the blind user no way to proceed.

## Industry Insight

Imagine not being able to use a website to research and book a trip. It's almost inconceivable for many of us, but even small issues with screen readers can stop PwD, where others would proceed without issues. Empathy-based inclusive design must be a major focus for travel and hospitality providers who want to gain market share, build brand reputation and do the right thing. Those that understand this are shifting left and involving PwD early in their design strategy, development and testing, enabling the best customer experience possible, and avoiding major retrofitting efforts in the future. Inclusive design begins with targeted PwD consumers in mind — not as an afterthought — from which firms create personas that incorporate these individuals' needs and challenges. It's all about adherence to personal experience and feedback from PwD. Only through this direct contact can designers and engineers gain the empathy needed to create truly exceptional experiences for everyone.

As mentioned above, when a developer doesn't assign a name or value to a web or app element, then the element may be read by a screen reader as "button." To sighted users, in actuality, that button may say "review reservations," "click for terms and conditions," or "book now." Even if the design of the experience is counterintuitive or elements seem out of place, a sighted user can likely navigate the app, but that would not be the case for persons with blindness or other vision-related impairments. When a user magnifies the screen, are all the needed functional elements present, or do they fall outside the visible screen space?

Without considerations like these and input from travelers with disabilities who experience such issues daily, travel and hospitality providers can miss many basic functional issues. Introducing development organizations to PwD and training teams on how to think inclusively is the only way to address all potential hurdles.





## Recommendations

### Don't wait for a lawsuit to focus on accessibility.

Companies are becoming increasingly proactive. While some travel and hospitality organizations view accessibility compliance as a tedious chore, in reality, organizations that focus on creating fully inclusive experiences open up a new world of opportunity — millions of potential missed customers with billions in potential spending power. Increasingly, industry leaders are beginning to treat digital accessibility like privacy or security, building it into the software rather than trying to tack it on at the end.

### Consider a variety of testing approaches: by URL, app screen or scenario.

For example, test a URL on a browser using Chrome and the JAWS screen reader, then test the same page using a different browser/android combination, then on iOS with compatible screen readers etc. Testing the same HTML may reveal horizontal/vertical scrolling issues,

for example. Testing a scenario assesses each stage in a process, such as “Search for a local restaurant, select a lunch item to order, add special instructions, specify a delivery address, then check out.” While this includes multiple URLs or app screens, it's the best way to make sure that someone can complete a specific task.

### Test using people with disabilities.

Some sites and apps may be WCAG compliant but still block a user from completing a task or make it very difficult for them. One organization wanted to use inclusivity as a product differentiator, and set up an inclusivity/accessibility training bringing in a blind tester. She reviewed an app the company was developing and found five issues that made it impossible or difficult for her to perform certain tasks. When the engineers and designers witnessed firsthand how a person experienced difficulties with their apps, it made the issue real for them. Now, designers do accessibility annotations to aid in design hand-off to engineers. The company

has shifted left, involving PwD persona representatives early in the inclusive design process, not as an afterthought.







# Localization Testing





# As travel and hospitality brands expand to new markets, reflecting the local language and social norms is key to building credibility.

Localization errors undermine your brand's reputation and can deter prospective customers from engaging with your company.



## The Data Set

A representative sample of localization tests.



**6**  
test cycles



**17**  
countries



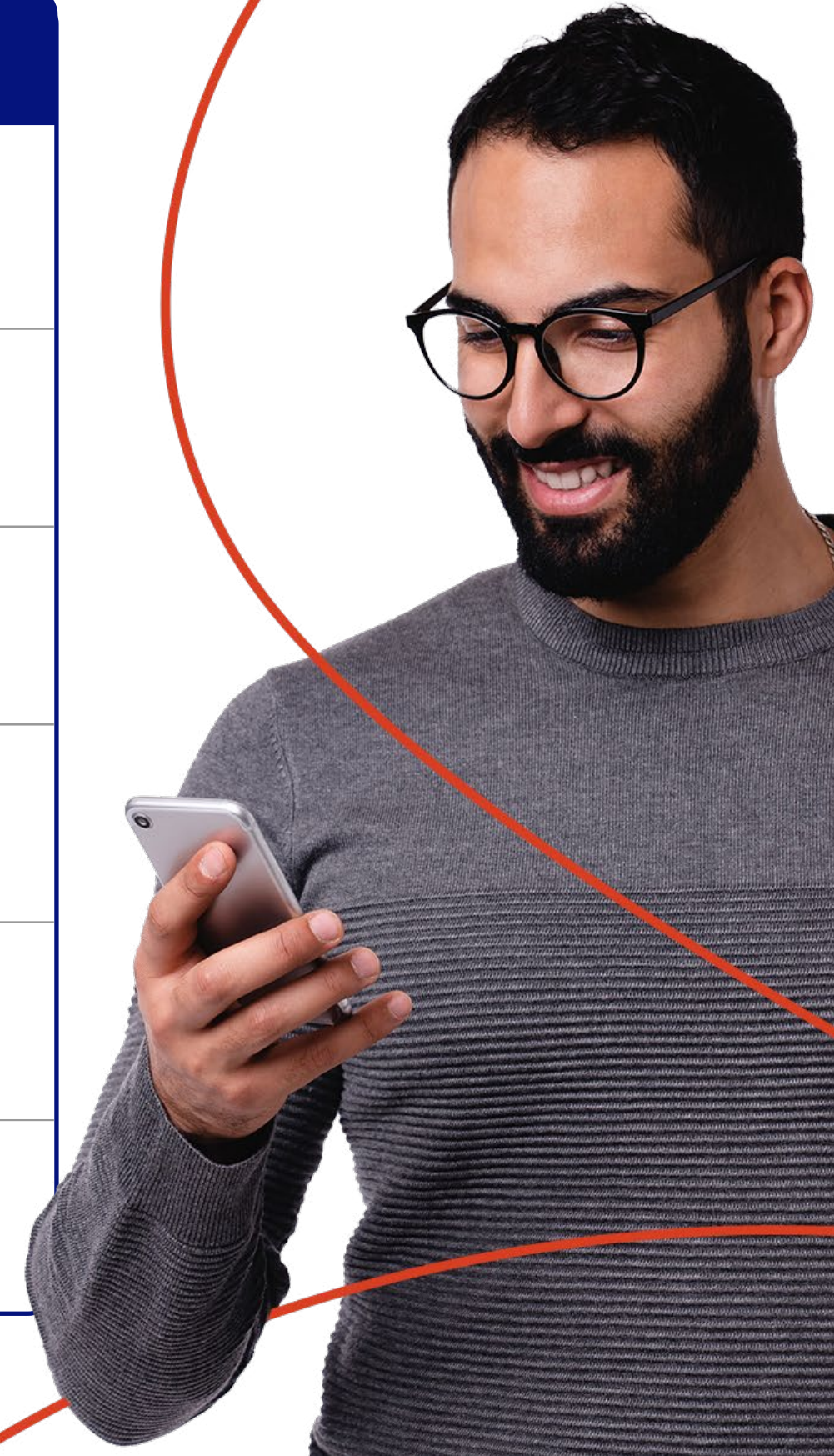
**703**  
bugs

<sup>8</sup>"Survey of 8,709 Consumers in 29 Countries Finds that 76% Prefer Purchasing Products with Information in their Own Language." CSA Research, Jul 7, 2020.

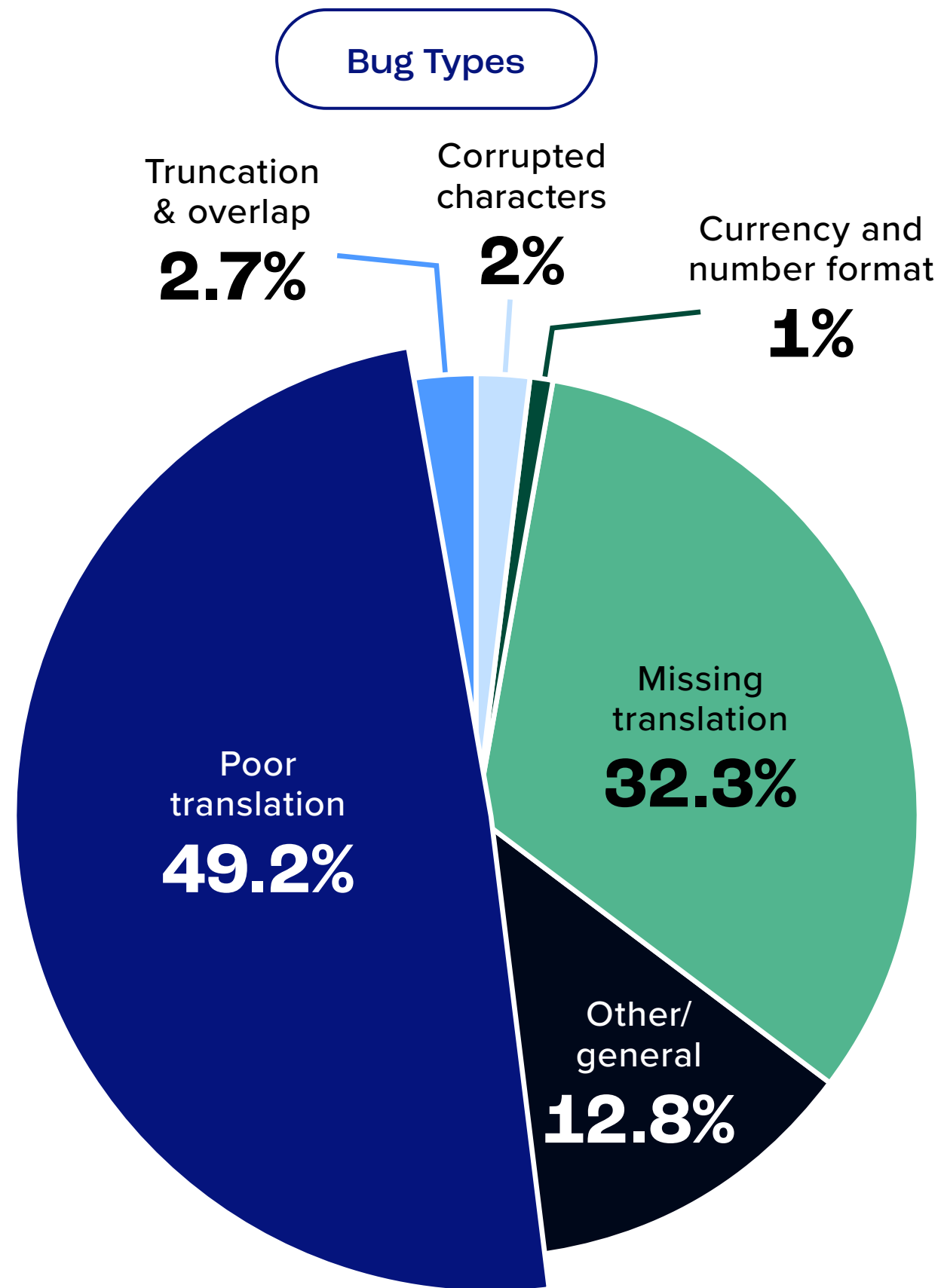


## Localization Testing Bug Type Definitions

Bug Type	User Experience	Example
Corrupted characters	“This doesn’t look right”	Missing accent marks
Currency and number format	“That price seems wrong”	Commas versus periods in prices, incorrect date formats: 4/9/2021 would be read as September 4 in EU markets but April 9 in North America
Missing translation	“I’m not sure what this says”	Text appears untranslated, in original language
Other/general	“This brand doesn’t understand me”	Culturally insensitive photos
Poor translation	“I don’t think that’s what this should say”	Awkward word choice or poor grammar
Truncation & overlap	“The text on this button is cut off”	Character counts for the translation do not fit in allotted space







## The Big Problem for Travel & Hospitality

Poor and missing translations are the most common issues – these errors can leave patrons uncertain how to navigate, prompting them to abandon their journeys.

### Industry Insight

Dialect and translation are a high priority for travel and hospitality, since the sector is predicated on global translation. Poor localization may prevent users from navigating, searching, filling out forms or checking in/out. As popular destinations cater to travelers speaking different languages, proper translation and localization not only help these guests feel welcome, it translates to better business transactions, boosting the local tourism ecosystem.

Travel and hospitality providers must not only address the subtleties of dialects and local idioms, they must let users know what currency is being used and indicate clearly what is included in charges. For example, can a traveler using an app in Europe be sure that the VAT is totaled correctly? It's critical to use local testers for their understanding of the nuances of common user expectations in their respective areas of the world. This cannot be overstated.



# Customer Journey Testing



## Blending Multiple Digital Experiences

Across industries, the lines between online and offline experiences are blurring — and every interaction shapes a customer’s perception of your brand. Digital quality is part of the equation; to deliver exceptional experiences, great digital must couple with high-quality physical interactions. In addition to testing websites and apps, Applause’s community can help companies assess the customer journey across various channels and identify opportunities to remove friction.

### Industry Insight

As travel and hospitality experiences almost always blend digital and physical elements, it’s imperative for operators to test the entire customer journey thoroughly. Ensure an easy-to-use digital customer engagement that sets clear expectations. Beyond the ability to make travel arrangements or place orders online, customers want to know if they can check in for flights and hotels or pick up rental cars via an app. Once travelers

arrive at their destinations, they want to immerse themselves in local attractions: historic landmarks, museums, parks, beaches, wildlife preserves, restaurants, stores, cafes — the list goes on. Can customers easily find where they need to go? Do amenities match the reservation and online description? Does touchless/contact-free room access work as expected? Testers must look carefully at the finer points within this entire process.

As third-party booking services have increased in popularity and use over time, with their aggregating convenience comes the question of the single point of contact for issues arising during the trip. What happens if a flight is canceled, a hotel booking is not recorded at the receiving hotel, or some other unforeseen issue occurs? Even when travelers have a central point of contact, do you know if the app or the website they require will work with their mobile phone where they are? Has the app been tested at popular tourist attractions around the world for mobile coverage? Was it tested by local

users in native language and various dialects? Is it culturally sensitive?

Addressing one aspect of the insecurity on the minds of travel customers, Applause currently works with a major global airline provider to ensure that short message service (SMS) works around the world with its travelers. This takes the worry out of emergency correspondence while traveling and also serves as a feedback mechanism for issues travelers experience related to their trip. However, if the airline wants to gain feedback on customer touchpoints with its brand when tickets are purchased through a third-party travel service, it must consider using a crowdsourced testing model, where real-world testers evaluate the customer journey provided through the third-party travel service. This, in addition to soliciting feedback from existing customers enrolled in a frequent-flier program and employees, will provide a 360-degree view of the customer journey and illuminate areas that need attention.

# Payment Testing





# The simple days of cash, traveler's checks or credit cards are over.

Cryptocurrency, digital wallets and other alternative payment methods have exploded over the last few years. Already accelerated by the pandemic, the global digital payment market is expected to reach \$12.55 trillion USD by 2027. While loyalty programs have long been popular in the industry, many companies are rethinking their offerings and rolling out new benefits that better align with customer preferences. These adjustments complicate the payment landscape, whether in person or online.



## The Data Set

A representative sample of payment testing data for digital payment methods



**83**  
test cycles

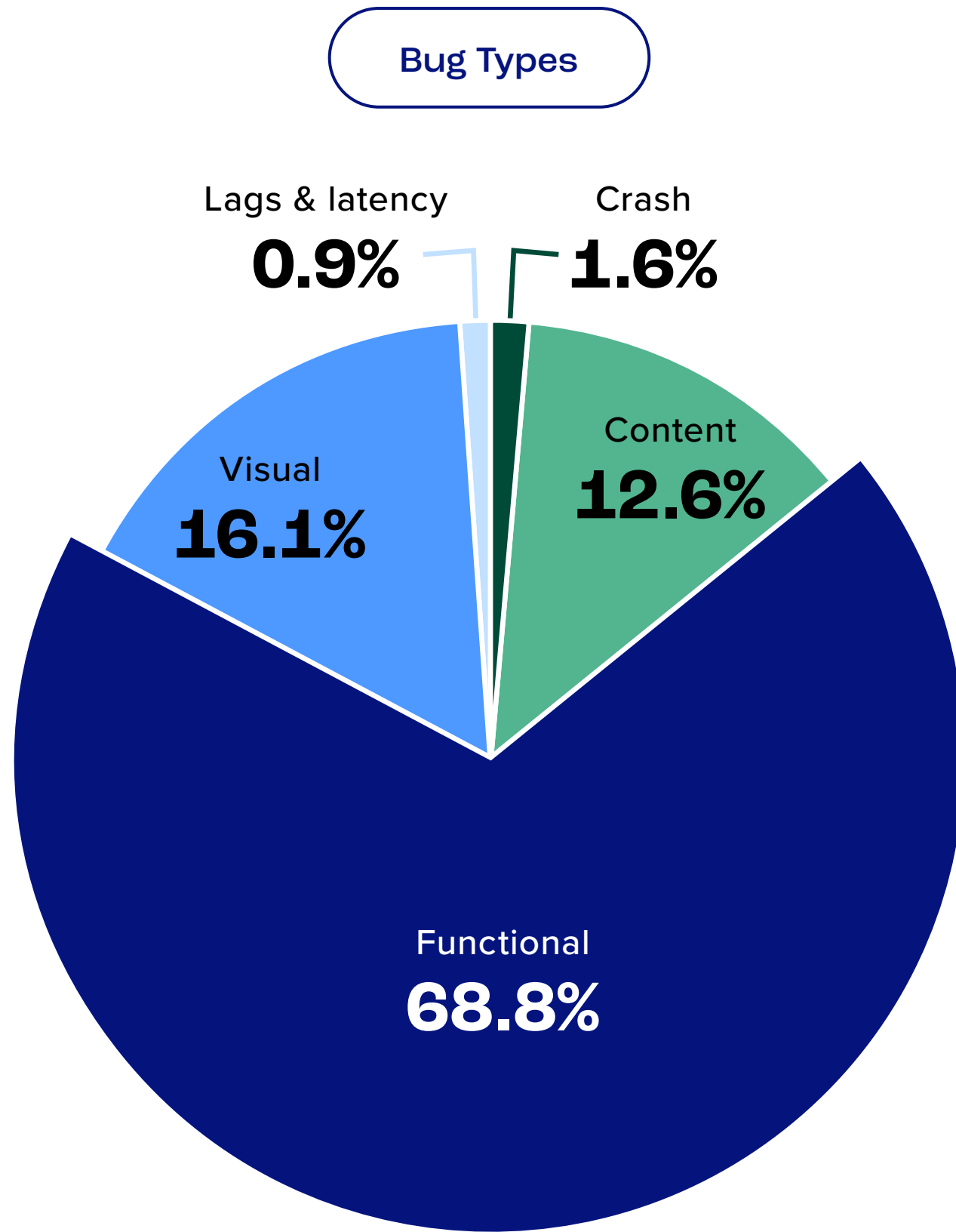


**5**  
countries



**446**  
approved bugs

<sup>9</sup>"The Global Digital Payment Market is expected to reach US\$ 12.55 Trillion by 2027, growing with a CAGR of 10.9% during 2021-2027." Globe Newswire, February 22, 2022.



See page 10 for bug type definitions

## The Big Problem for Travel and Hospitality

Functional/workflow errors were the most common payment bugs... meaning reservations and travel purchases/payments didn't go through. Often, this is tied to problems with a particular payment instrument, merchant or capture device.

### Industry Insights

One of the biggest worries most travelers have is payment, since being away from home heightens the importance of payment scenarios. For this reason, testing is particularly critical for applications within this sector, and there is a hierarchy of importance when it comes to payment. Most travelers would agree that not being able to pay for lodging is more significant than the inability to buy a souvenir. Today, the need for cash in hand while traveling is diminishing. Apps are taking over. They can serve as legal tender, allowing travelers to book a room, pay for a ride, purchase a ticket for a local tour and more.

Many apps such as hotel apps or rideshare apps directly charge customers' credit cards, so they don't have to worry about having cash in the local currency. Apps must be able to seamlessly interact



with various credit and debit cards, which in turn, calculate all charges based on current exchange rates. In addition, when physically used alone, cards must work with a spectrum of payment devices. So payment operators must consider all digital friction points within a transaction — be they related to behind-the-scenes financial networks or point-of-purchase hardware — and how they may impact long-term customer loyalty. It's important that operators in this space understand the value of getting these transactions right.

More and more, consumers around the world are using digital payment, and certain countries lead the charge toward cashless societies, though none have gone fully cashless to date. Still, for example, a traveler in Sweden, the world's leader in cashless, may find that trying to use the local currency is less convenient in certain situations than digital payment. The need to test the complexities of payment don't stop there, as travel services and hotels now enable buy now,

pay later (BNPL) options. For example, a global fintech company and a well-known online travel company partner to enable BNPL options for travel. In addition, using the fintech's app, travelers (and non-travelers) may make retail purchases and choose various pay-later options. Digital payment is gaining traction in new and innovative ways, and testing must meet these innovations with thorough vetting.

Points and rewards offer another major consideration for travel and hospitality providers, and the Covid-19 pandemic allowed many travelers trapped at home to stockpile this pent-up currency. More stores and travel and hospitality providers are partnering to enable customers to use their points and rewards around the globe. This means that rewards programs must seamlessly integrate via online programs or apps, and must be able to be used while away from home. Are reward-status travelers getting the respective perks of their status levels? Is your app facilitating these travelers' ability to check that their benefits are being applied to

their account, and when they want to use them, can they easily be applied?

During this particularly turbulent and on-going Covid-19 pandemic, travel changes are at an all-time high. How are credits and refunds handled? Whether it's your top-tier travelers or a price-sensitive newcomer to your brand, each must easily get what they've come to your brand for. All roads lead to testing all payment interactions, be they a purchase at home from a foreign country, an in-country purchase while traveling, purchasing a hotel stay and paying upon arrival or using a credit card to pay for a taxi while abroad. Every interaction moves the customer loyalty needle one way or another.

## What's next in digital quality?

As travel and hospitality — one of the hardest hit sectors during the pandemic — makes its gradual recovery, how organizations handle guest expectations, pent-up demand and the resulting customer journeys will be more key than ever. Staffing shortages, rising fuel costs and other critical factors put more pressure on service providers and require a heightened focus on frictionless digital and in-person experiences. With the rising need for efficient technologies comes the ever-increasing customer expectation that accompanies higher charges for the services requested. Astute travel and hospitality organizations understand that when prices rise, there is also a concurrent opportunity for added value, whether in the digital or physical world.

Winning travel and hospitality providers will leverage new, innovative customer-facing technologies to address challenges and differentiate themselves. Key


technologies like AI, voice and digital payments will continue to expand along with this sector's recuperation. The metaverse and VR are already changing the way travelers research and ultimately experience attractions around the globe — before, during and after travel. In this new world, customers expect different technologies to blend seamlessly across all channels and touchpoints to create more personal and integrated exchanges. As such, customer experiences with one brand will perpetually influence expectations with others across all industries, and the standards for minimum viable products must shift to keep pace.

Use this report as a benchmark to see how your brand compares and identify ways to improve your digital quality, regardless of your company's maturity level. Some questions to consider:

- How does your travel and hospitality organization conduct the comprehensive testing necessary to deliver satisfying digital experiences, to every customer, every time?

- Have you landed on the blend of test automation, manual functional testing, structured test cases and exploratory testing that delivers the most value for your business — and your customers?
- Where can you create more inclusive experiences that appeal to the broadest possible audience, as new legislation prioritizes accessibility and inclusive experience for all?
- How do you foster a culture of quality that delivers far-reaching benefits?

You will never regret improving the quality of your organization's digital experiences.





# How do your company's digital experiences compare?



What role does quality play throughout the SDLC at your organization? Please share your own stories of creating digital quality for your customers, and tell us what you'd like to see covered in next year's report. We look forward to hearing from you.

View our companion reports at [StateOfDigitalQuality.com](https://StateOfDigitalQuality.com).

Contact us at [hospitality@stateofdigitalquality.com](mailto:hospitality@stateofdigitalquality.com).



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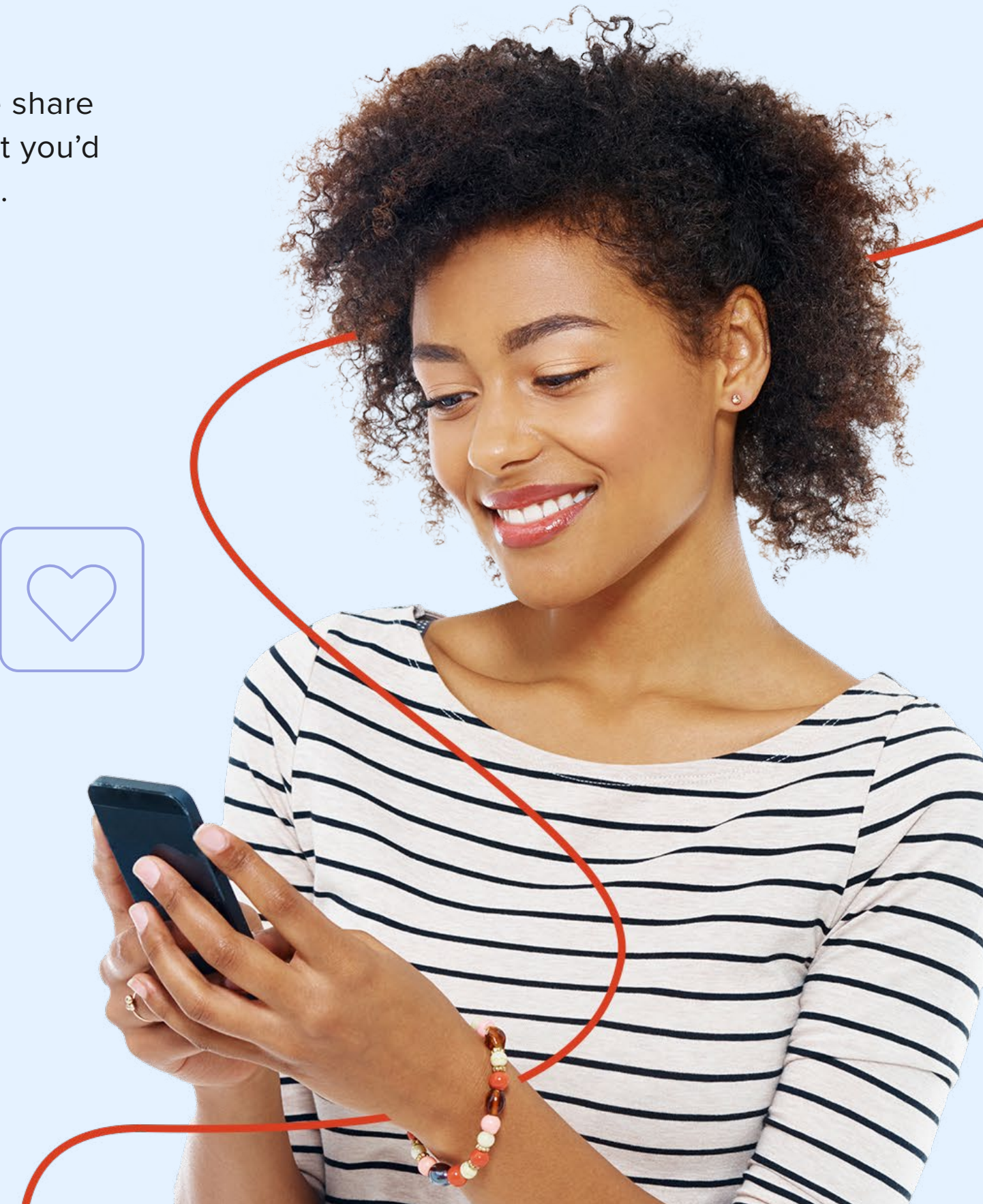
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