EBOOK

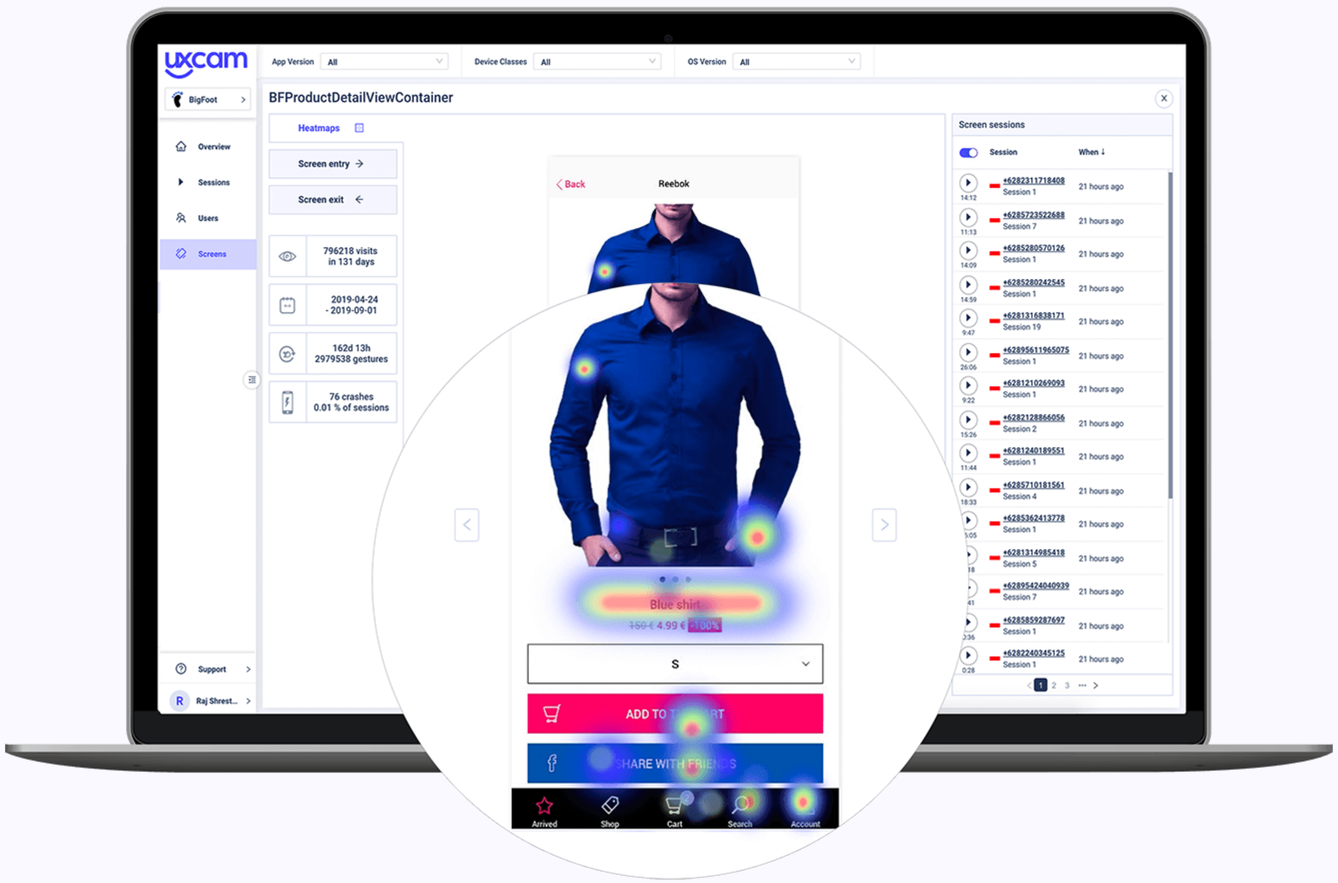
COMPLETE GUIDE TO

MOBILE APP HEATMAPS

uxcam

Index

What is a Heatmap?



Heatmaps are an excellent solution for the quick evaluation of individual screens.

In short, heatmaps are a visual overlay of an array of colors to represent the movements of users.

Heatmaps represent the average user activity, allowing you to see exactly where users are focusing and where you should be looking.

The human eye can comprehend an array of colors more easily and much quicker than we can analyze a set of numbers.

Heatmaps aggregate large numbers of data from users and compile it in a way that allows us to quickly and accurately draw conclusions from the results.

For this reason, heatmaps are best used in large groups of data and show us extremes (either where the most activity is or the least).

Heatmap Benefits

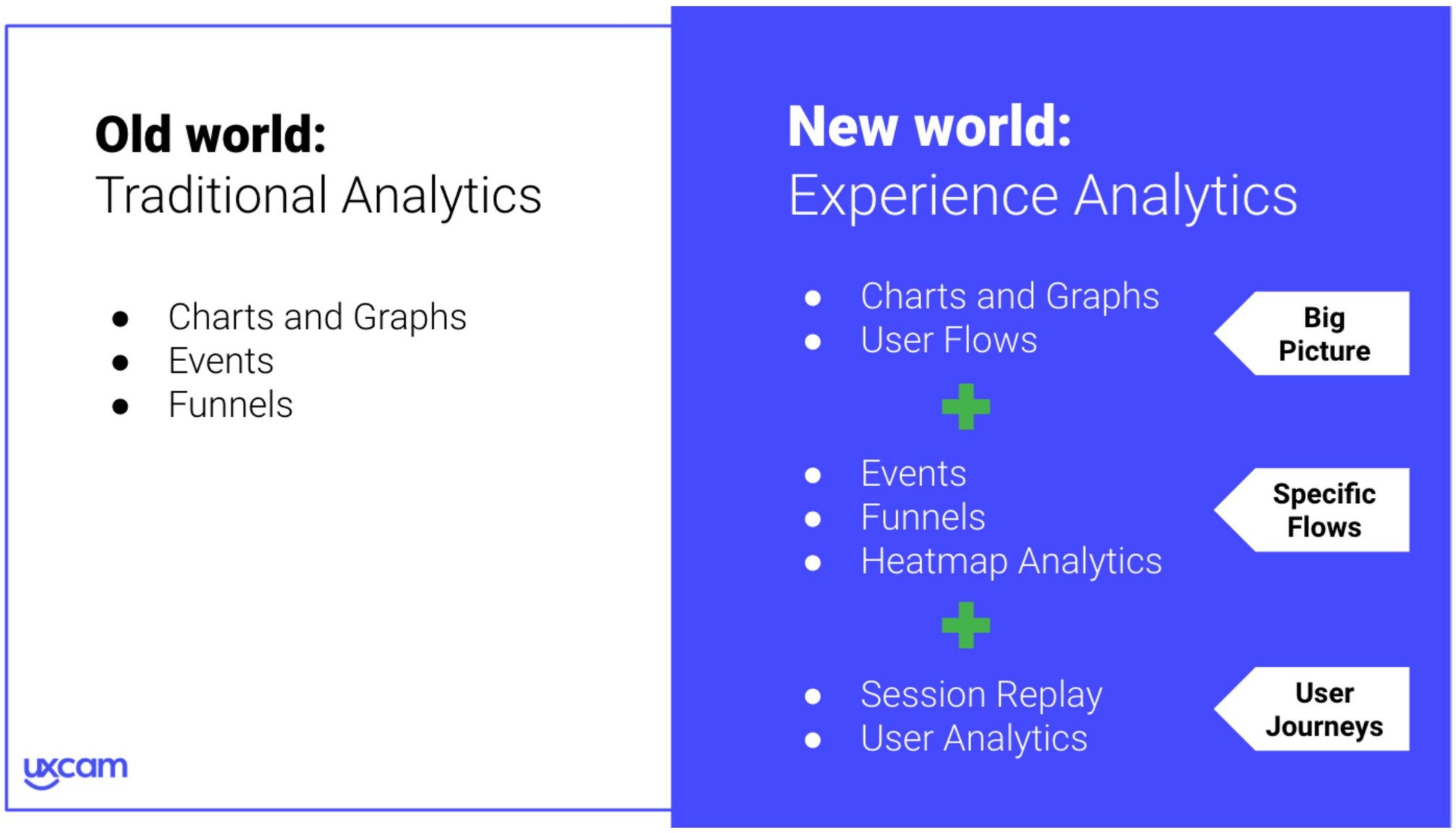
Heatmaps are incredibly valuable to understand if users are getting the right experience from your mobile app.

They are easy-to-understand thanks to their visual nature.

Using Heatmaps, you can:

- Find out which elements get the most attention
- Increase conversions
- Find out if users touch on elements that are unresponsive
- Identify device specific user behavior
- Make decisions for A/B testing

One should not forget about the human element in a modern enterprise as well: Analyzing heatmaps is intuitive, which makes them ideal to show to stakeholders that are unaware of UX Design.



What is a Mobile Heatmap?

Here’s a fact: Compared to web, there are not many solutions for mobile app heatmaps on the market.

And there are good reasons for that - most companies think that mobile heatmaps are too complex.

Heatmaps for mobile apps are touch heatmaps.

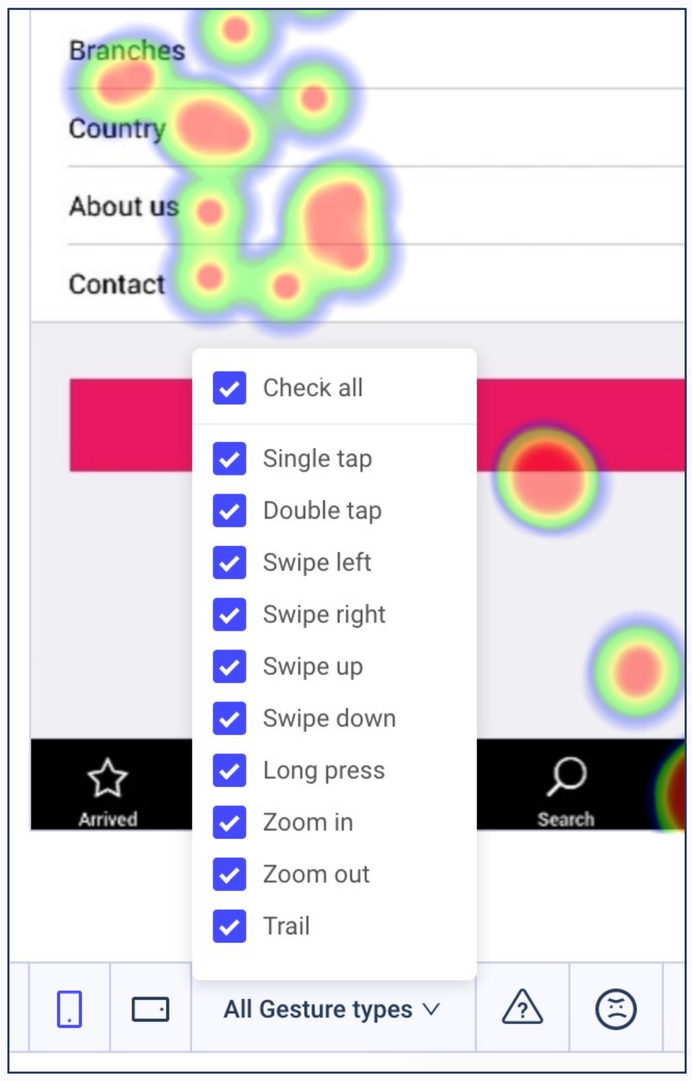
Touch heatmaps are, as the name implies, based on gestures of users.

Here’s how it works:

The SDK of analytics solutions like UXCam capture every micro-interaction on your app. This means that it saves all gestures on their respective screens.

Examples of mobile app gestures

This includes simple gestures such as taps and double taps, but also sophisticated ones, for example, long press, zoom or trail gestures.



Gesture selection in UXCam's heatmap view

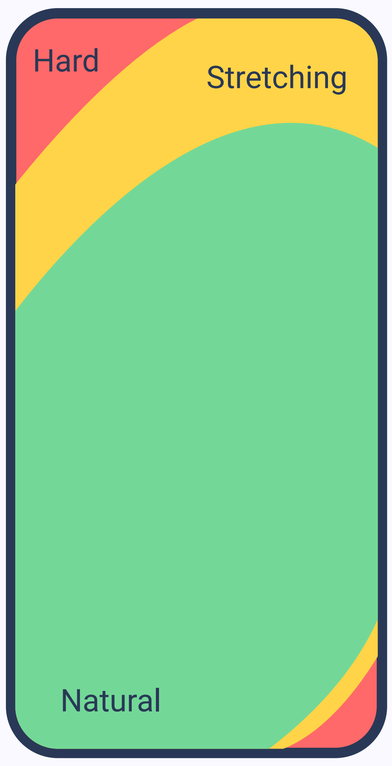
This data then gets aggregated to generate the heatmaps. Screenshots of each screen serve to give visual context to the heatmaps.

Some selected companies that are preventing bad mobile experiences with mobile heatmaps

The Difference between Mobile and Web Heatmaps

First, anyone who worked on both a web and mobile product knows about the general differences between mobile and website navigation.

Websites are placed on bigger screens and have a different input method than mobile apps (clicks vs. gestures). This makes developing an UX system for mobile apps a unique challenge.



Natural thumb position for smartphone users (right-handed)

Aside from that, the technology is different. On websites, the HTML code of your website serves as a base line, then the captured usage data generates the heatmaps.

On mobile apps, the process is more complex since UXCam needs to account for different types of development platforms (Native, React Native, IONIC etc.).

In addition, while a website is always the same, the “same” app could be different for iOS or Android. Infinite scrolling on mobile apps presents another technical challenge for mobile app heatmaps.

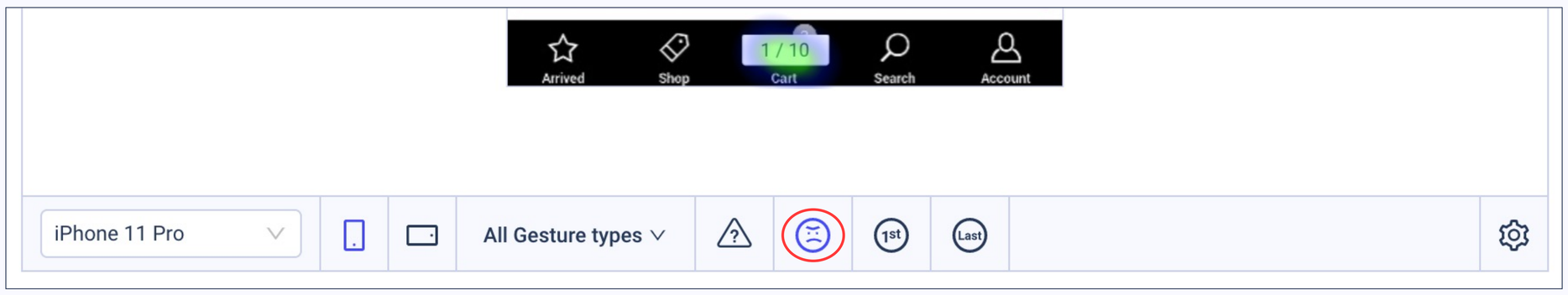
An additional difference is navigation. You can clearly separate websites by URLs, while mobile apps work on a screen-by-screen basis.

Types of Mobile Heatmaps

Mobile Product Management is hard.

But when you understand how to use different types of mobile app heatmaps, life gets much easier.

1. Rage Tap Heatmaps



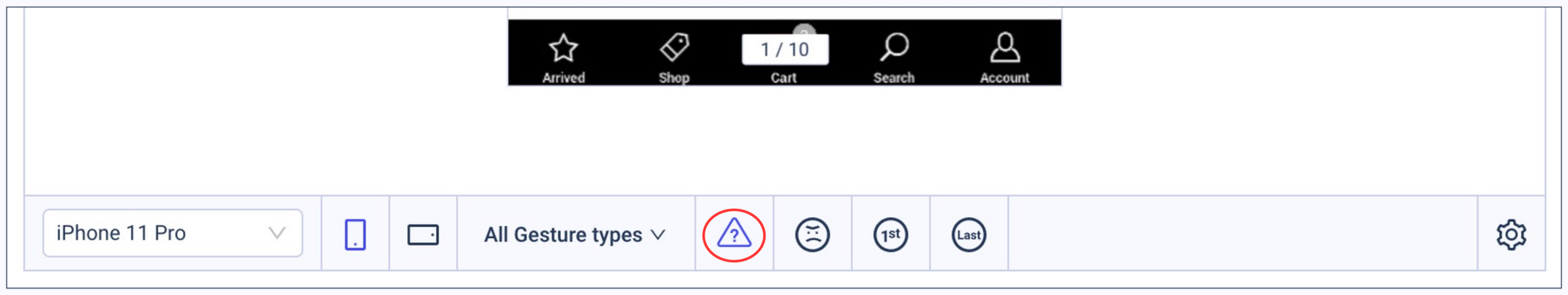
Imagine this: You use an app, try to tap on an element, but nothing happens.

You try to tap on it a few times, you get frustrated and leave the app. UXCam calls this tapping behavior “Rage Tap”.

A rage tap is defined by over 2 taps within a certain radius of the screen, and at most 500ms between consecutive taps.

With UXCam, you can generate heatmaps that show you rage tap elements to help you decrease user frustration.

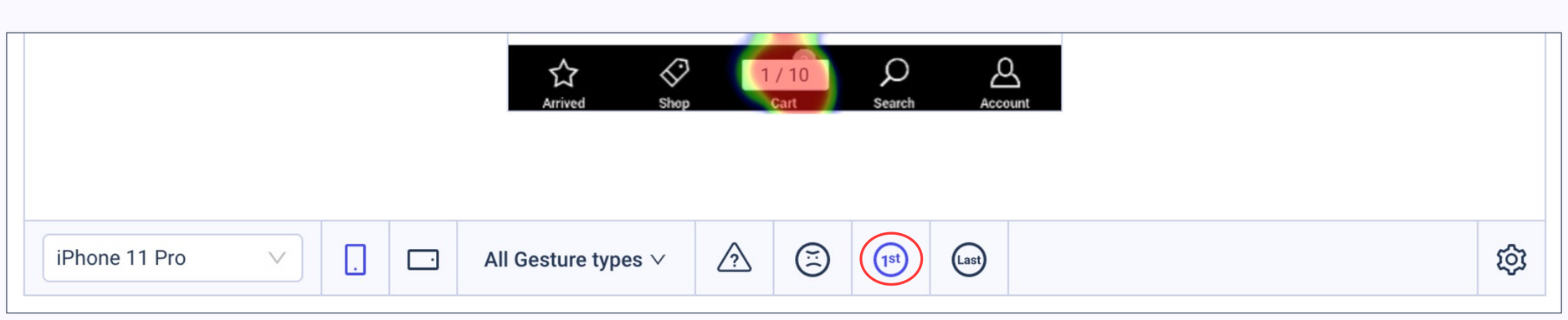
2. Unresponsive Gesture Heatmaps



Unresponsive gestures are defined by the following: An element is touched, but it’s not an interactive element. Therefore, the gesture doesn’t result in any responses.

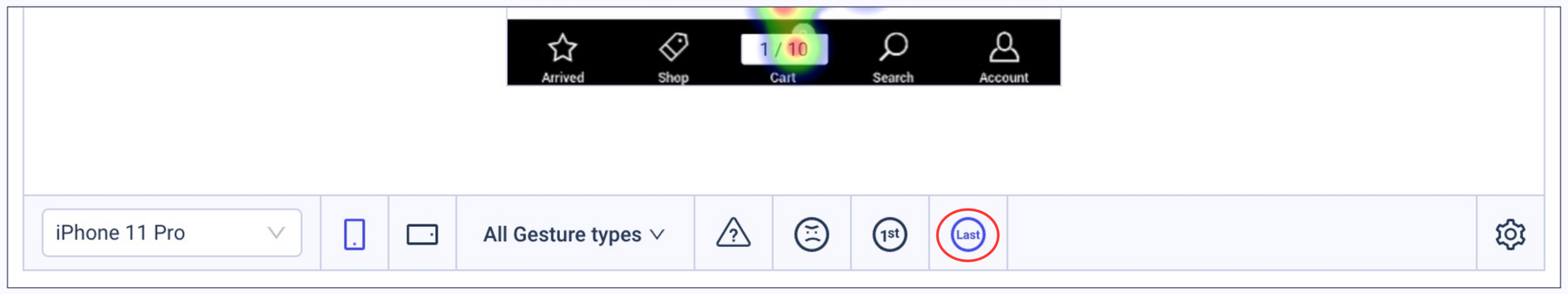
Heatmaps of unresponsive gestures can be generated to show you elements that get attention when they shouldn’t.

3. First Touch Heatmaps



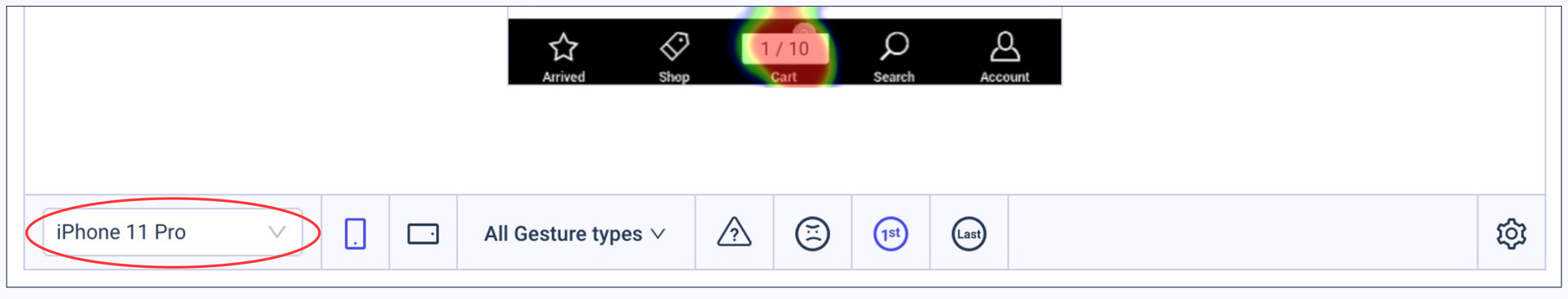
Human beings form a fast first impression. With first touch heatmaps, you see where users intuitively tap on when they first see a screen.

4. Last Touch Heatmaps



It’s insightful to know how users leave your app. Last touch heatmaps allow you to see the leaving touch of each screen.

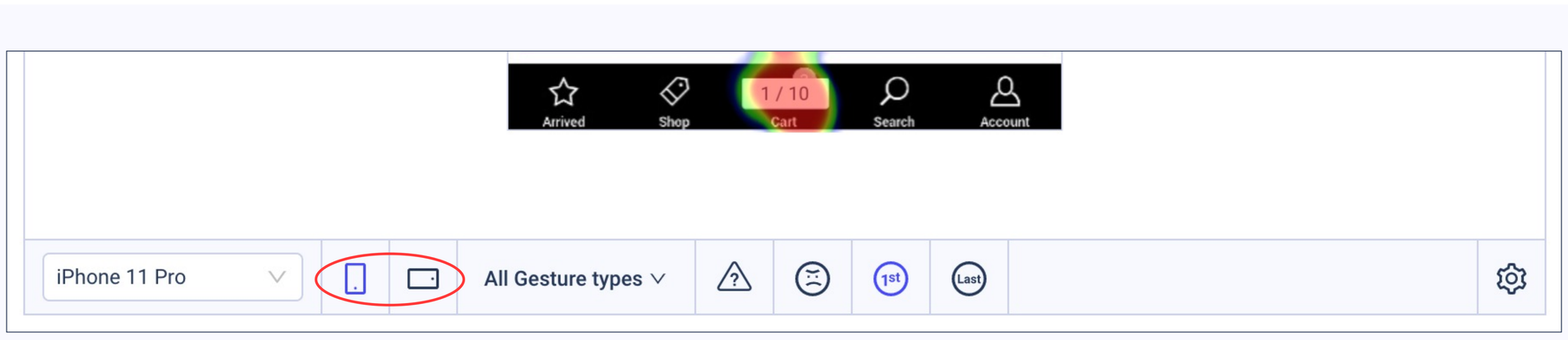
5. Device Heatmaps



When you develop a mobile app, the large number of devices and device sizes that you need to test for is a challenge.

If you look at heatmaps for specific devices only, you can identify issues that are caused by specific smartphones.

6. Landscape and Horizontal Heatmaps

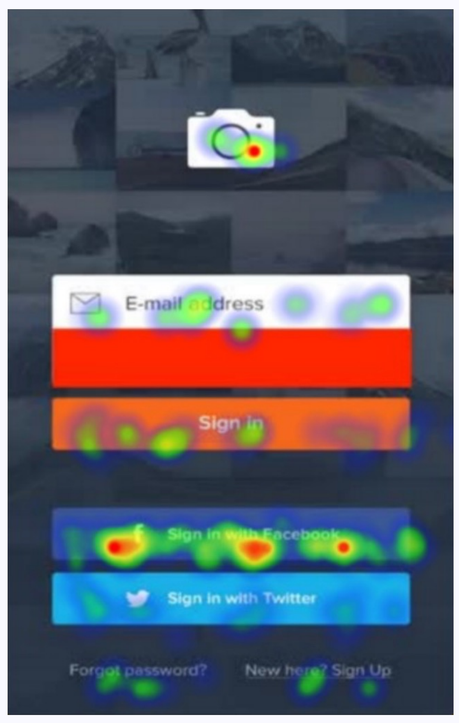


Users might not only use your app in landscape mode, they also might do it in horizontal mode. You can adjust the heatmap accordingly and find differences in usage if users flip the phone.

Heatmap Example

A company using UXCam, let’s call them Photos Inc., uses heatmaps to understand user behavior.

This is the result:



Based on the results, we can see that Photo Inc.’s login page was adequate but perhaps not ideal for their users.

With heatmaps, we see that most users logged in with a Facebook account instead of an email address.

To increase user login and improve the user experience, Photo Inc. just had to move their Facebook login button to the top of the other options.

This made the Facebook sign-in more prominent and moved the email sign-in to second on the list.

The first impression is 94% design related. Just that little change could spiral into big improvements for Photo Inc.

How to read a Heatmap

There are traps that can falsify the heatmap analysis. Here are four things to consider when reading a heatmap.

1. Prepare the Heatmap Analysis

Experienced analysts think about a goal they want to achieve with their touch heatmap analysis. This helps to approach the analysis more objectively and systematically.

You waste time with an unnecessary and aimless analysis that can even lead to misinterpretations.

This is, in spite of the brevity, one of the most important points to keep in mind before you can start reading a heatmap.

2. Don’t Rush

More data is always better to get a holistic overview of users. How many visitors you should wait for before you start your analysis depends on the traffic of your app.

However, experts say, as a rule of thumb, that at least 2000 users should have visited the respective screen to make a reliable statement about their usage behavior.

Otherwise, the analysis cold be based on a few individual users that are not representative of all users. If features are adapted to these few users, the change might even be a disadvantage.

3. Segment Data

The ambiguity of interpreting a heatmap leads to the fact that the simplest explanation might be the right one, but it can also be the opposite.

Since you weren’t sitting next to your users while they were using your app, you can never be sure what exactly caused their activity.

But this problem can also be mitigated a bit: Segment data and consider the circumstances of their use.

Common distinctions are listed here:

- Gesture Type
- App Version
- Device Size
- OS Version
- First Tap
- Last Tap

This will give an intimate insight into the usage habits of your users, from which you can take the next steps to improve your mobile app.
Here, too, the effort of differentiation will pay off for everyone involved.

4. Compare Results

To find out if the changes you’ve made in your mobile app are achieving what you had in mind, you can compare the heatmaps before and after your change.

This can be very informative and will help you assess the value of your change.

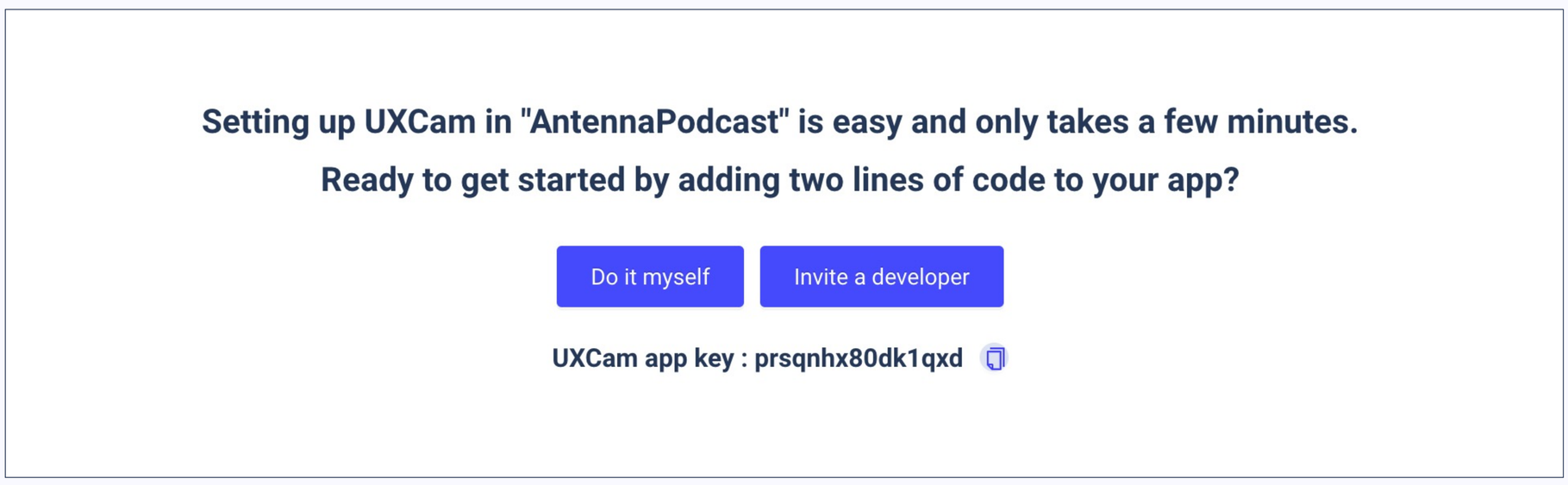
Change does not end after implementation. It has to be analyzed constantly and improved further to achieve the most satisfactory result possible.

Creating a mobile Heatmap

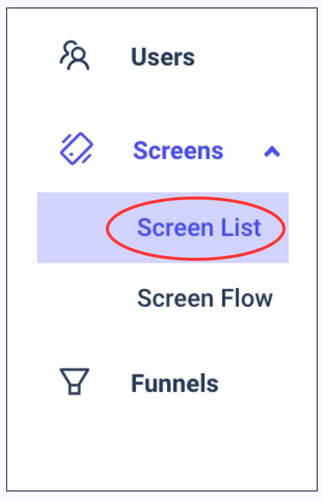
Setting up Heatmap Analytics for your mobile app is a piece of cake.

3 Steps to set up mobile Heatmaps

1. Create an account on app.uxcam.com/signup
2. Integrate your app by following the instructions on the dashboard

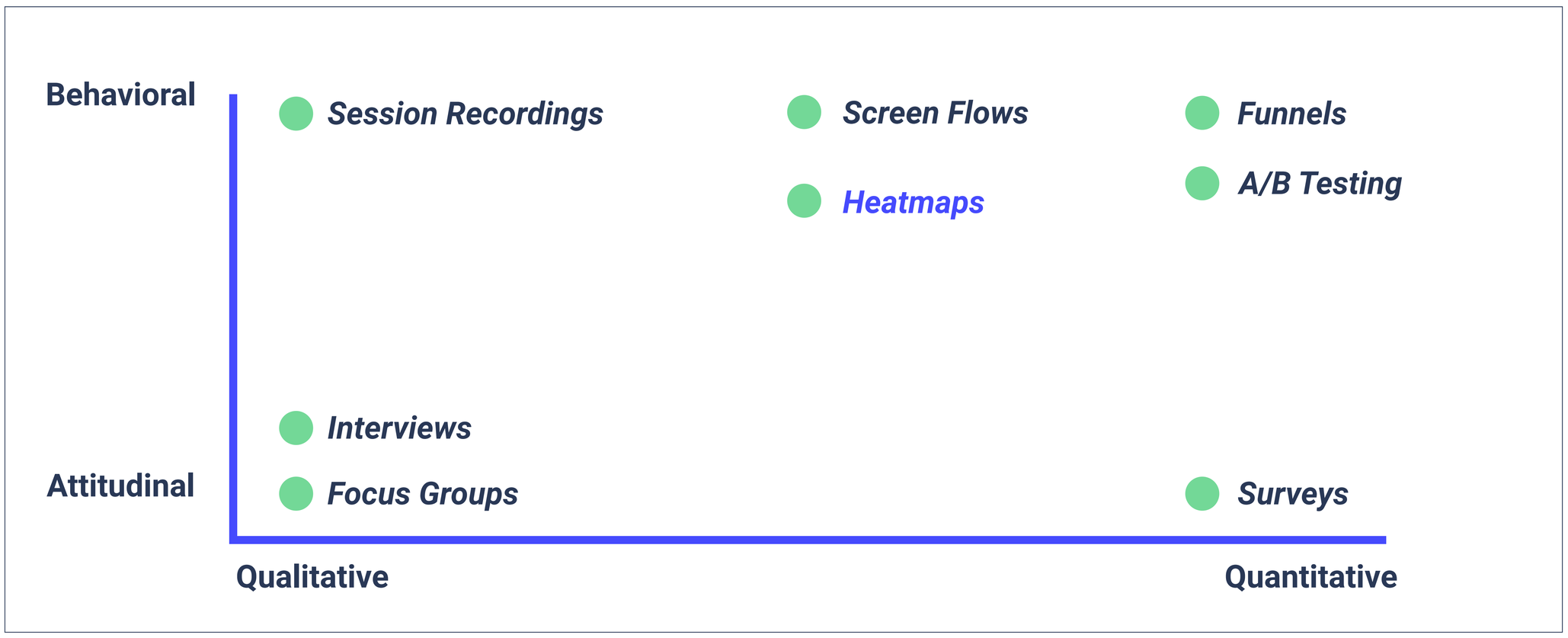


3. Go to the screens menu, choose a screen from the list and start analyzing your app’s heatmaps



Heatmaps in the Analytics Context

The Experience Analytics Landscape



How Heatmaps fit in with other Analytics Methods (Inspired by the NN Group)

Heatmaps have a special position in the analytics landscape.

They are not a fully qualitative method, because they are based on an aggregation of data.

They aren’t a quantitative analytics method either though, since Heatmaps don’t measure numbers - heatmaps are based on math, but you can’t measure them on it.

Heatmaps are a method in between qualitative and quantitative. In a nutshell, heatmaps give the answer to the question: What are users doing?

You won’t get the whole context like you do with Session Replays and you won’t get detailed numbers for sophisticated analysis.

What you’ll get is a way to find and fix problems quickly for each screen. You’ll get a fast way to find new ideas to validate. And you’ll get a powerful complement to existing analytics methods.

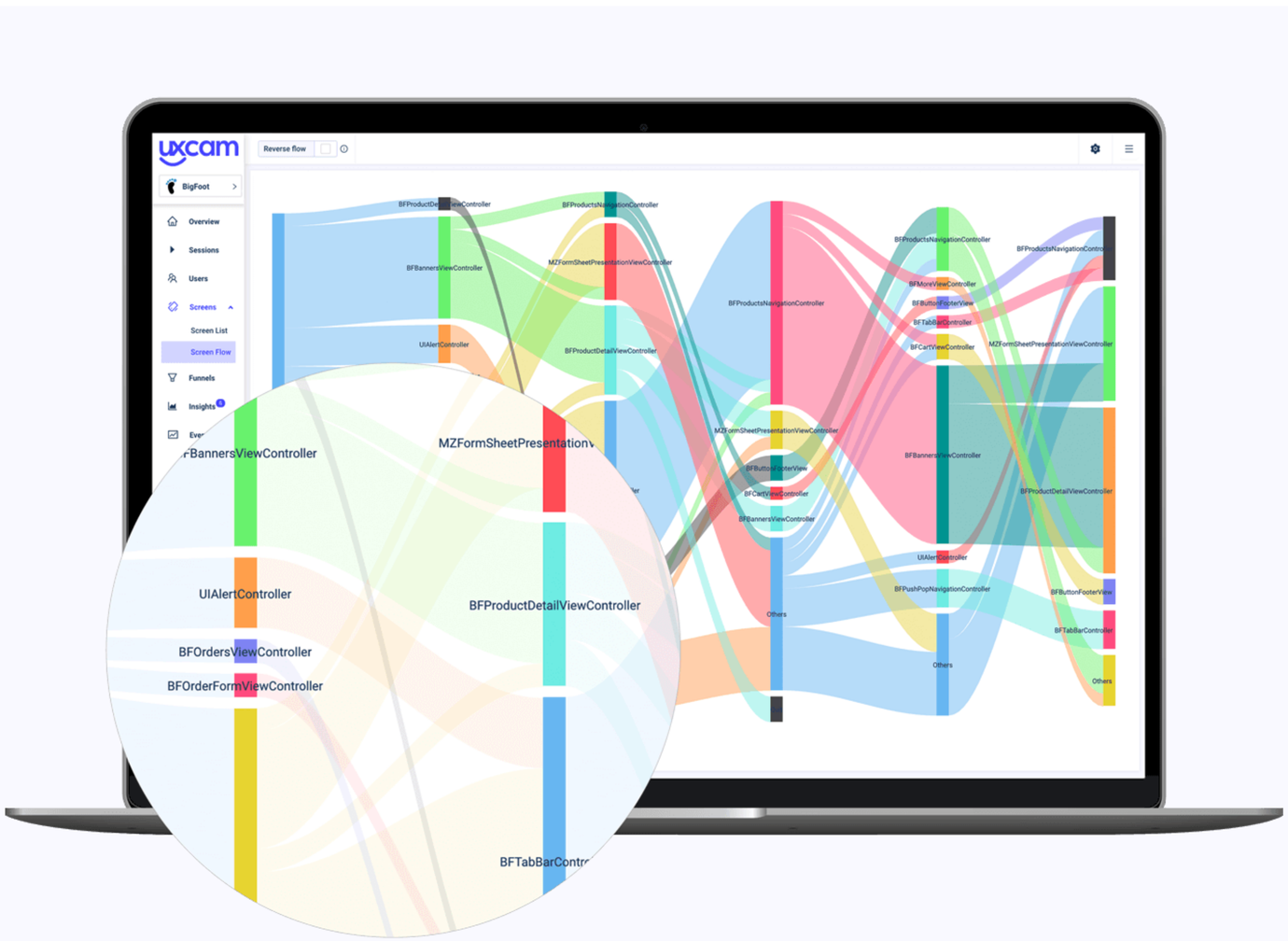
Heatmaps + A/B Testing

Heatmaps are a natural complement for A/B testing.

1. Roll out a test, e.g. of a new screen design or check-out process.
2. Compare the heatmaps of A and B.
3. Find out if there’s a difference in user behavior.

Tip: You can roll out A/B tests with new app versions to compare heatmaps more easily.

Heatmaps + Screen Flow

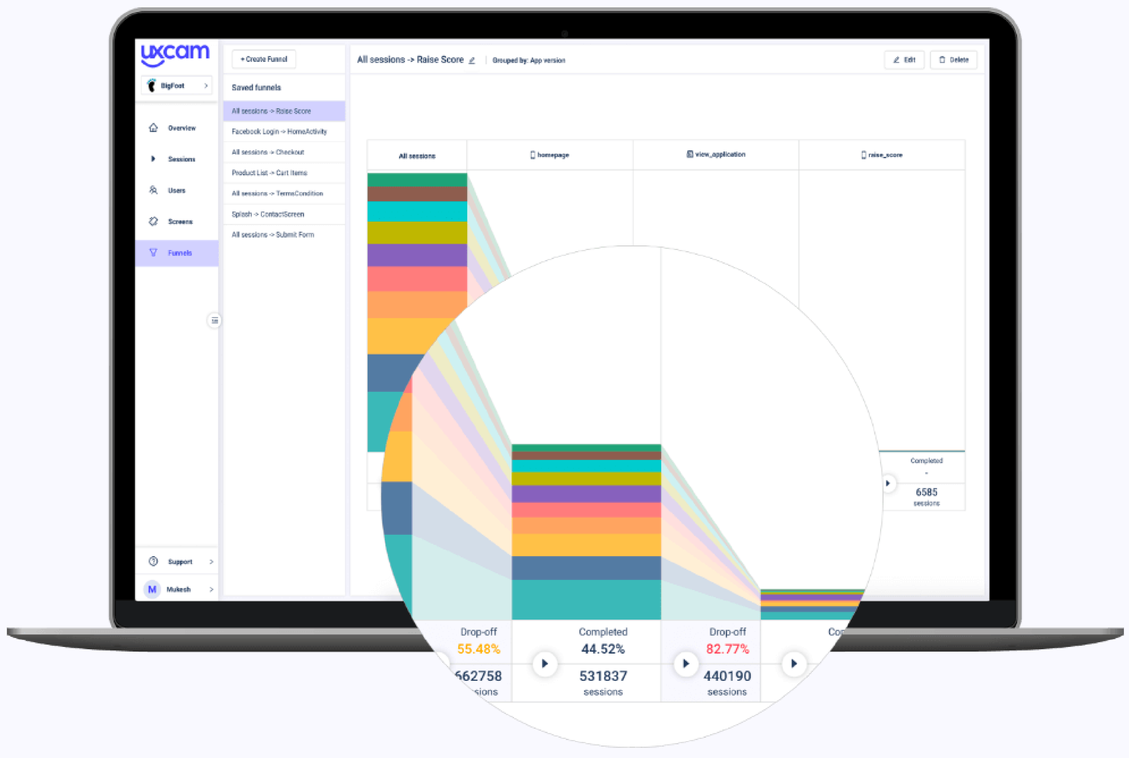


UXCam’s Screen Flow Feature

Screen Flow lets you understand the big picture of your app in one single view. You’ll quickly find bottlenecks by analyzing the branches.

1. Open Screen Flow.
2. See if you can find disruptions of the intended Screen Flow.
3. Analyze Heatmaps for the relevant screens.

Heatmaps + Funnel Analytics



Funnel Analytics

Funnels allow you to see Screen Flows in more detail. They enable a detailed analysis of Funnel steps and are directly connected to Session Replay.

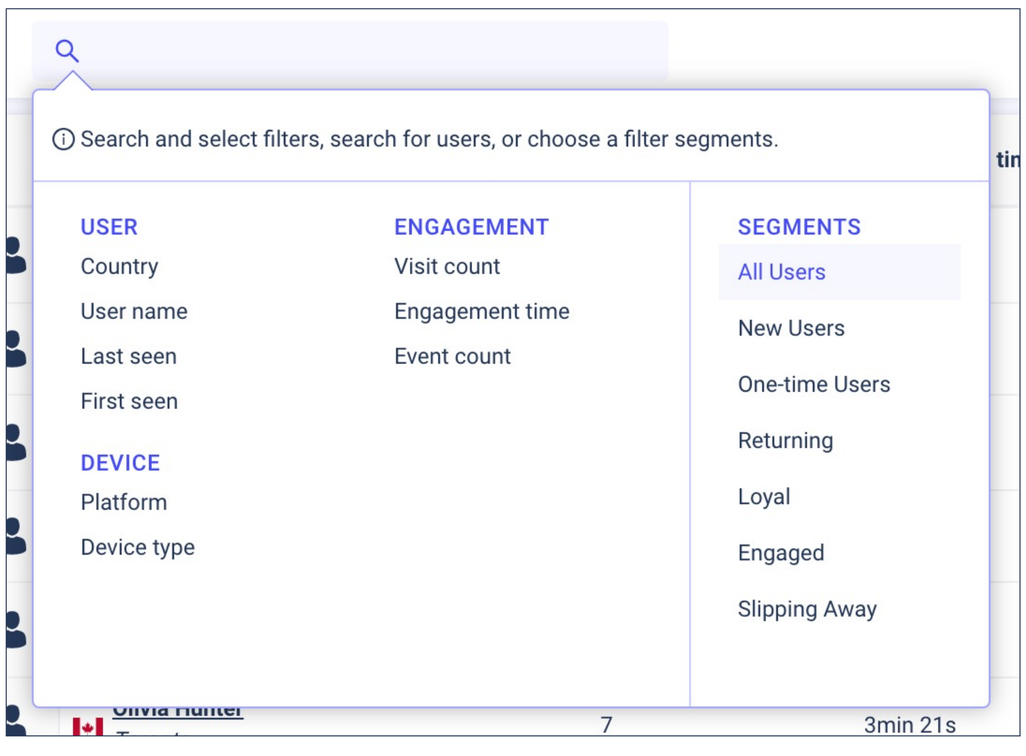
1. Create a Funnel (e.g. a sign up funnel or check-out funnel).
2. Identify high drop-out rates on a specific screen.
3. Analyze heatmaps to find the drop out cause.

Heatmaps + Session Recording

A powerful feature of UXCam is the segmentation of users.

For example, you can analyze session replays of users that used the app only one time to understand frictions in their journey.

1. Segment Session Recordings using the User Filter (e.g. one-time users).
2. Understand unusual user behavior.
3. Analyze heatmaps to drill down further on your findings.



What Matters

Here’s The Truth:

In the competitive digital market, data driven decision making decides over a company’s success or failure.

The tools that traditionally track “vanity metrics” such as page visits, DAU or MAU are unable to capture large micro-interaction data sets.

These legacy tools completely miss what matters: **the user.**

UXCam’s solution gathers and processes complete user interactions and journeys from multiple sources. Without the need for code adaptation.

We use our team’s vast experience in data analysis to automatically provide actionable insights.

GET STARTED

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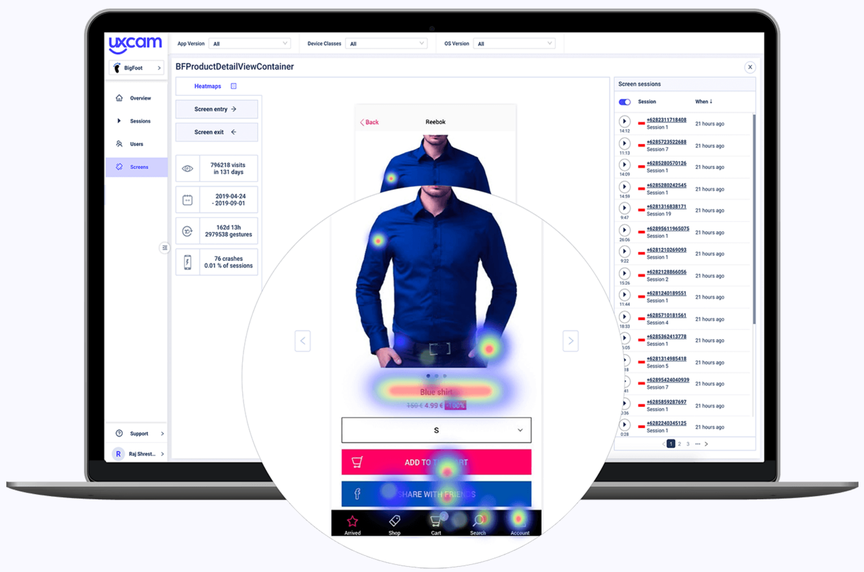
UXCam's Heatmap Solution

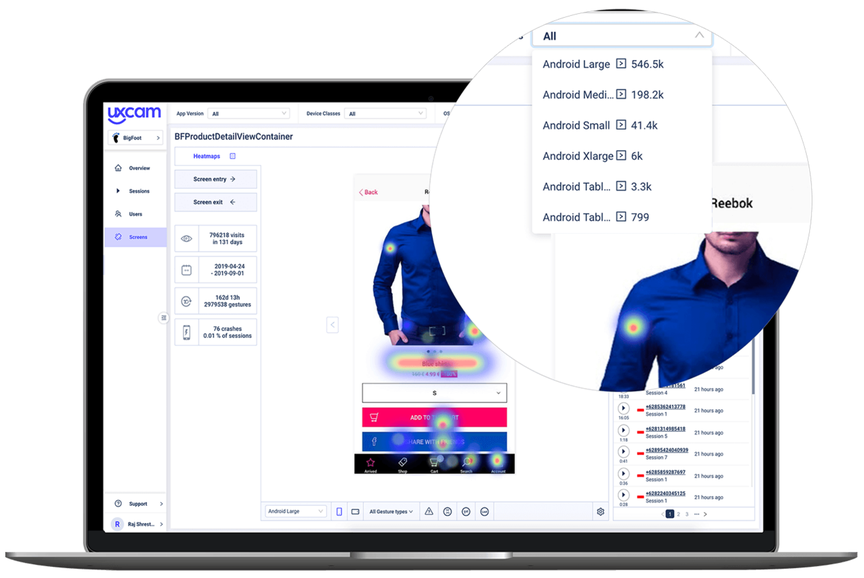


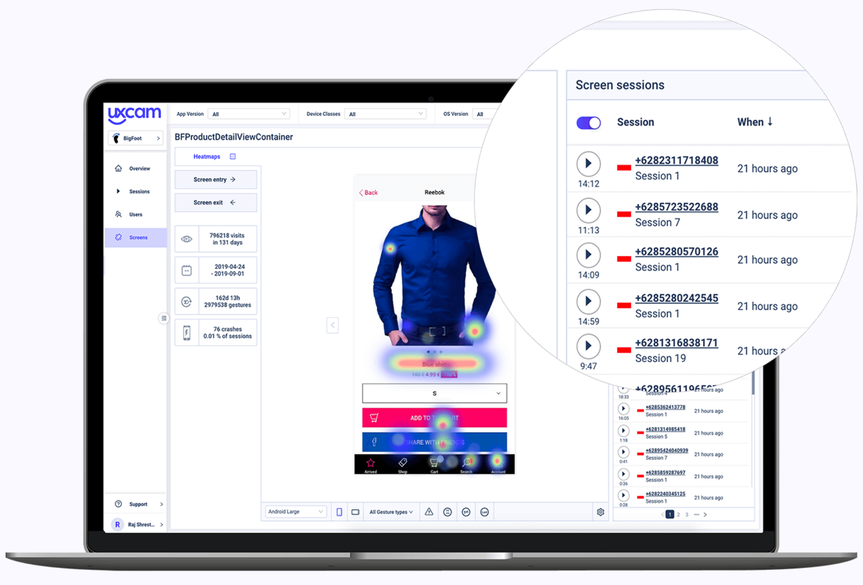
Analyze Heatmaps

See where users tap, what they ignore or where they get frustrated with Rage Heatmaps. Understand which Calls to Action are performing well to improve conversion.

Ensure Device Compatility

Understand how your screens look on various devices. Find usability issues that correlate with different screen sizes and platforms.





Uncover Issues on each Screen

Watch sequences of replays for select screens only, which will help you to efficiently identify typical usage patterns.

GET STARTED