

Session Recordings

How to improve conversions on your website in less than 25 hours a day

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Hotjar. PageSense. FullStory. Crazy Egg. Lucky Orange. Mouseflow.

You've got one of these two-words-crammed-together, lets-you-see-website-visitor-interactions tools, right?

You've also got a website, and visitors, and some conversions.

Now all you have to do is use the tool to improve the website, delight the visitors, and increase the conversions.



J/K it's not easy at all. But hang in there.

If you've watched a single session recording, you know there's nothing like the magic of seeing a *real human* interact with your website, click by click.

Way more visceral than staring at a table of event data in Google Analytics. You can almost *feel* the frustration of their [rage clicks](#), feel the relief when they press the "Sign Up" or "Buy Now" button and give you money 😊

And you know that with this kind of window into visitor behavior, you can identify friction points, confusing interactions, dead end pages, and stuff that's just plain broken. You can find it, and fix it, and over time this will lead to fewer rage clicks, and more "give you money" clicks (aka "conversions").

You also know *watching session recordings doesn't scale*. If you've got 1,000 sessions per day, with an average session duration of 1:30, that's *25 hours of session recordings every 24 hours*.



It gets worse. Since you can't possibly watch *all* those recordings, you'll have to choose a handful to focus on. But by watching and taking action on a tiny, random sample of visitor sessions, you could be doing more harm than good.

Not all sessions are created alike. Some visitors bounce within seconds. Others just don't need your product, but spend several clicks figuring that out.

Some visitors are *already customers*, searching for documentation or just looking to log in. Although the data varies by industry type and the structure of the homepage, I've worked on a site where > 50% of homepage visitors were existing customers coming to log in.

You definitely don't want to spend hours looking at THOSE videos!

Watch a sample of session recordings consisting of the above groups, and you'll learn nothing of value. You just come away thinking your website is bad, and you should feel bad.

It gets *even worse*.

Suppose that you watch some recordings that aren't bounces, and aren't existing customers. You're interested in how visitors interact with the "See It In Action" section you added to your homepage. Does it increase conversions?

100 recordings later, you've only seen 5 visitors stop to notice this element. The other 95 never saw it, or scrolled right past.

"If 95% of visitors ignore the element, it must not matter very much," you say to yourself as you sink into dejection. "Might as well remove it from the site."



What if those 5 measly "See It In Action" interacters ... *all ended up converting*? And only 1 of the other 95 did?

You shouldn't remove the section; you should move it higher up on the page. No big deal, you just ... almost did ... exactly the wrong thing. *After watching 100 session recordings*.

Suffice it to say, there are infinitely many ways to go wrong with this type of analysis.

There are two secrets to using session recordings effectively:

- Choose your sample wisely
- Use your time effectively

This guide will make sure you do both.

It starts with deciding which group of visitors (aka “segment”) you should pay attention to. This will reduce the sheer volume of recordings to make it manageable, and ensure that you’re focused on visitors who deserve your attention.

After that, you’ll set up and launch recordings, making sure you can access your segment of interest.

Then we’ll walk through how to *watch* these recordings without making your eyeballs bleed. You’ll use your time wisely, delegate safely, and turn the raw data into a high definition advertisement for your research and optimization skills.

Once the recordings are processed and the insights gleaned, we’ll step through how to follow up on what you noticed.

So let’s start by figuring out *exactly which visitors you’re going to watch*.

1. Segment and conquer

Clearly, you can’t watch every interaction from every visitor on your site. And if you watch randomly, you’ll end up confused and misled by the noise in your data. You need to start with a visitor segment that’s worth your attention. But which one?

If this is your first pass at using session recordings to increase conversions on your website, start your analysis by focusing on Converters - the visitors who actually signed up, made a purchase, or submitted their contact info.

There are a few reasons to focus on this group.

The signal to noise ratio is higher than with any other segment.

None of these recordings will end up being bouncers, tire kickers, or other irrelevants. Every action taken by an eventually-gonna-give-you-money visitor is interesting.

The total number of recordings will be manageable.

If you have a thousand conversions a day, congratulations and please stop reading. You'll get more mileage out of an aggressive A/B testing program.

For the rest of us, faced with 1, 10, maybe 30 or 40 daily conversions, a batch of Converters session recordings will fall safely within the "less than 24hrs a day" range of playback time.

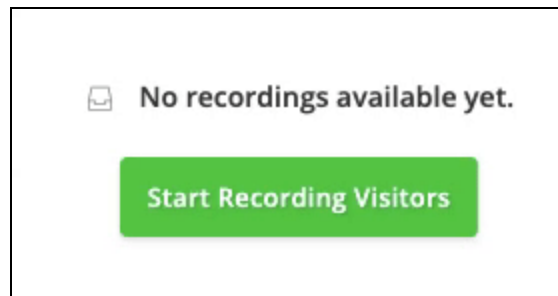
Watching visitors convert is encouraging

This is hard work. It's technical and creative. It requires organization and persistence. It's worthwhile, but only if you see it through to completion. So, let's make it as enjoyable as possible.

If you've already watched session recordings of Converters, you can [skip ahead](#) and read suggestions for your next segment. Once you've decided *whom* to target, it's time to figure out *how*.

2. Setup and launch 🚀

Pressing a green button that says "Start Recording Visitors" is easy.



Collecting hour after hour of session recordings, ready to view, is easy.

Finding your segment of interest among the unwashed masses is hard. Success depends on your ability to filter recordings down to the ones you want.

There are two useful ways to filter recordings: by page visited, and by custom event.

Filter by page visited

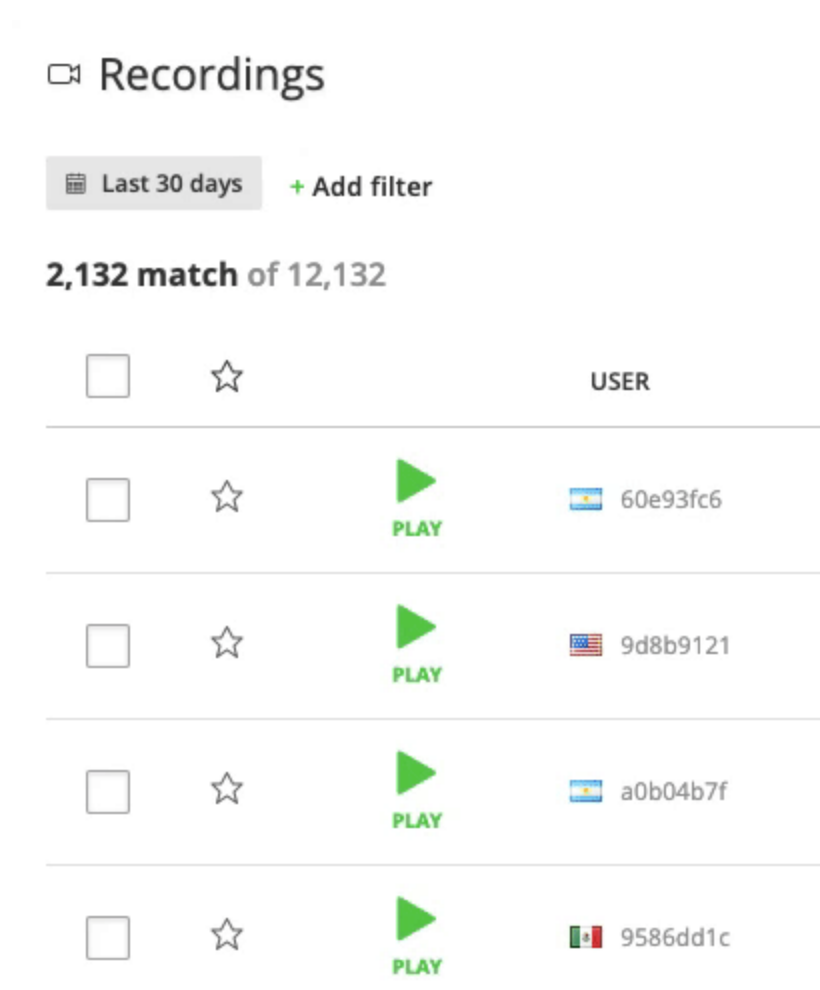
This is the easiest approach, so by all means use it if you can. If you can define your segment of interest as "anyone who, at some point, landed on _____ page" then you're good to go.

Your process will look like this:









- Collect a batch of recordings
- Filter by page/URL
- Move on to the next section

Suppose you're targeting Converters. And suppose that immediately after signing up, or making a purchase, visitors are taken to a page like www.yourapp.com/thank-you. This is ideal!

All you have to do is filter recordings by Visited URL that contains `"/thank-you"`. Here's what that looks like in Hotjar:



The screenshot shows the Hotjar Recordings interface. At the top, there is a header "Recordings" with a camera icon. Below it, there is a filter bar with "Last 30 days" and "+ Add filter". The main content area shows "2,132 match of 12,132". Below this, there is a table of recordings. Each row has a checkbox, a star icon, a play button with the word "PLAY" below it, and a user ID with a flag icon. The user IDs are 60e93fc6, 9d8b9121, a0b04b7f, and 9586dd1c.

<input type="checkbox"/>	☆		USER
<input type="checkbox"/>	☆	 PLAY	 60e93fc6
<input type="checkbox"/>	☆	 PLAY	 9d8b9121
<input type="checkbox"/>	☆	 PLAY	 a0b04b7f
<input type="checkbox"/>	☆	 PLAY	 9586dd1c

Filter by custom event

Filtering by page view only works if your visitor interaction involves navigation to a specific page. In some cases, defining your chosen segment isn't so simple. You might have a full-on ReactJS

single page app, or the conversion of interest might take place without directing the visitor to a new URL.

You might be targeting an interaction like a video view, or button click, or tooltip hover, which doesn't involve navigation.

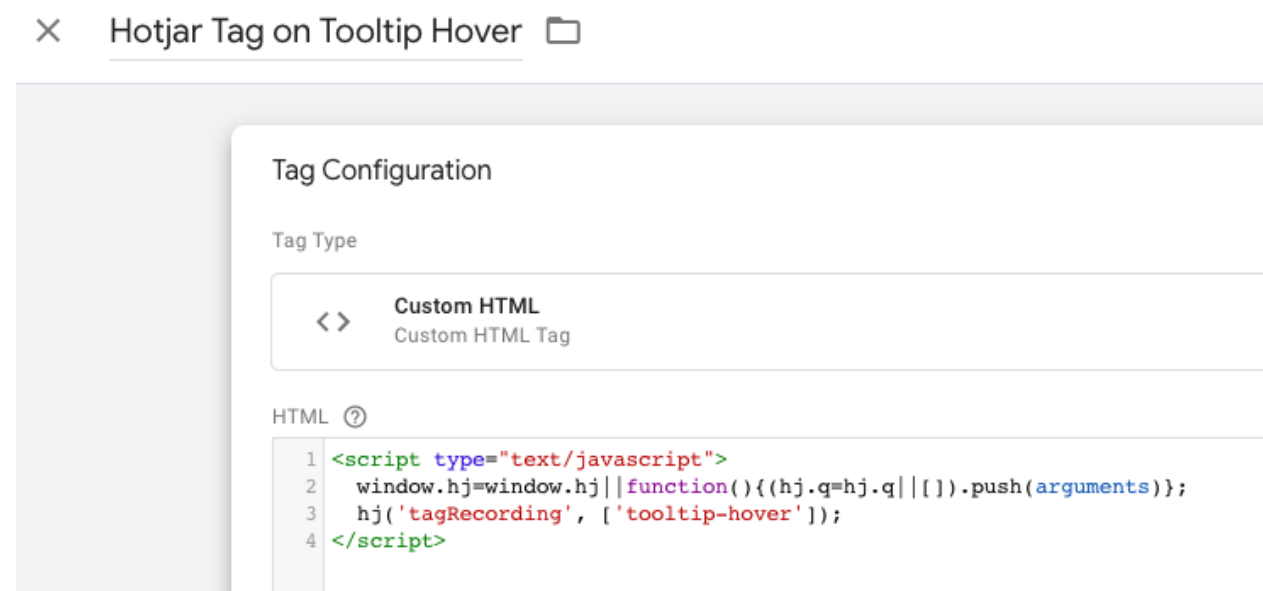
In that case, you'll need some light dev help. Google Tag Manager (GTM) and 3-5 lines of JavaScript are all that's required.

Your first move is to create a [Trigger](#) that fires when visitors do "the thing that means they're in the segment you're interested in."

GTM's got you covered, whatever it is. You can set up Triggers based on an element becoming visible (like a "thanks for your purchase!" dialog). Or a form submission. Or watching 73% of a video.

Once you've set up your Trigger, you can have it fire a [Tag](#) ... that executes a code snippet ... that sends data back to your session recordings platform ... that tags the recording.

Here's what *that* looks like in Hotjar:



Once you've preemptively figured out how you'll filter your recordings down to the ones you want to watch, kick off a batch. (If necessary. Some tools just record continuously.)

Then set a reminder to check back after a while. I recommend waiting however long it takes to generate about 50 recordings within your segment.

Once you have that, continue below ...

3. Watch and learn

Welcome back! Hope you had a nice break.

You should now have 50 or more session recordings available. That's better than 1,000 ... but it's still a lot. How do you get through all of them? Don't worry, help is on the way.

Watch the first 10

Dim the lights and settle in to watch at least 10 recordings on your own. Be prepared to take some notes, but don't worry about capturing everything. At this point, you're looking for unknown unknowns, surprising behaviors, and recurring themes that merit further investigation.

Still, it can be helpful to have *some* point of reference as you get started. So here are a few questions you might ask as you watch:

- What sections of the site do they linger over?
- What sections, or pages, do they return to more than once?
- Where do they hesitate?
- Where do they make mistakes, or seem confused?
- What do they look at *right before* they convert?

Playback options

Your session recordings tool will offer a number of settings to control the viewing experience. Here's a quick guide on the settings you should be aware of, and how to use them.

Skip pauses

This feature causes the recording to jump from interaction to interaction. With "Skip pauses" enabled, you won't see any playback when visitors aren't clicking, scrolling, typing, or moving their mouse.

Use "Skip pauses" for longer recordings - say, any video longer than 2 minutes. (There's no point watching 15 minutes of inactivity when a visitor has likely switched to another tab, or taken a coffee break.)

Once you've found a section of the recording that you want to study more closely, disable "Skip pauses" to view the interaction as it originally occurred.

Playback speed

This feature lets you watch the recording slower, or faster, or *way faster* than its actual speed.

Increase the speed to 2x, or even 4x, when watching a longer recording (> 4 minutes) with lots of interactions.

As with "Skip pauses," once you find a part of the recording you want to focus on, turn off this feature and return to 1x speed.

After watching a small batch of recordings, you should have some notes and some questions.

Maybe you saw a couple visitors fumble with a form field. Is that really a thing, or was it a fluke?

You might have noticed a few of them visited the Pricing page twice before converting. Maybe it *seemed* like they were stuck on the difference between the Pro and Premium plans ... *maybe*.

Here are a few examples of interesting behaviors you might notice:

- Difficulty completing a form
 - Struggling with a dropdown menu
 - Getting repeated validation errors
 - Long, lingering mouse movements over form labels
- Navigation struggles
 - Clicking the navigation link for the page they're *already on*
 - Long, lingering mouse movements over dropdown navigation, then deciding not to click anything
 - Visiting the same page multiple times, seemingly by mistake
- Content confusion, or interest
 - Actually taking the time to stop skimming, slow down, and read some content
 - Trying to click text that isn't clickable
 - Returning to the same page multiple times, on purpose

In the next phase, you'll enlist help to validate, and even quantify these possibilities.

Delegate the rest

Turn your notes and questions into a spec for session recording analysis. It's not as scary as it sounds.

A good spec should have the following features:

A vision

The cheapest VA on the market or the most cynical intern in your office will do better work if you tell them why you're asking for their help.



Explain to this assistant that the purpose of this exercise is to better understand visitor behavior, motivations, and pain points in order to improve the website experience, so we can improve conversions.

As simple as possible, but no simpler

You'll need to provide some guidance on what to look for, and how to use the session recording tool, but avoid being too prescriptive.

Be sure they know that when a recording is 55 minutes long, with a 52 minute pause in the middle ... it's okay to skip the pause.

Be sure to give them a list of the questions you're most interested in, and the behaviors you're curious about, but keep it short. And encourage them to share anything they find interesting. They'll surprise you!

Sample session recording analysis template

- The website, product, and visitors
 - {{COMPANY}} provides {{PRODUCT}} to {{MARKET}} to solve {{PROBLEM}}. Visitors can sign up for {{PRODUCT}} on their website, at {{company.com}}
- Purpose of this research
 - In order to help {{COMPANY}} get more signups from their website traffic, we want to understand where visitors go, what content they pay attention to, and where they might be getting stuck or confused
 - Once we have data on these behaviors, we can use it to craft a strategy to improve visitors' experiences on the site
- What to do
 - In order to analyze how visitors use the site, we've collected session recordings. Each one is a video of a real user on the site
 - We'd like you to watch the recordings we've linked to, and note what you see, focusing on {{ELEMENT OR PAGE OF INTEREST}}
 - Please address the specific questions we've listed, but don't hesitate to include your own observations and impressions. They can be really helpful!
 - Playback tips (to save you time):
 - The session recording tool will let you speed up the recording (1x, 2x, and 4x) and choose to "Skip Pauses"
 - This is a great feature, so take advantage of it with long recordings - but please watch interactions on the {{ELEMENT OR PAGE OF INTEREST}} at 1x speed!
- Deliverables
 - For each of the Session Recording Links we've shared, write your comments in plain English
 - At the end, write 3-5 sentences summarizing what you saw. What stood out to you? Do you have any suggestions for improving the site?
- Sample deliverables
 - Session recording comment:
 - *The visitor hesitated over the menu for a while, then clicked "Solutions"*
 - *They immediately went back from that page, seems like they didn't find what they wanted*
 - *At 05:32 they struggled to complete the form. They clicked the checkbox several times, like they couldn't tell whether it was checked or not*
 - Summary:

- *Overall visitors seem confused about what the different menu links mean*
- *Several users got confused by the checkbox on the form*
- *Most visitors ignored the video, or only watched a few seconds and moved on*
- *Several visitors clicked on the “Demo” text on the home page, even though it isn’t a link. Maybe adding a demo to the top menu would be helpful*
- Session Recording Links
 - [Link1](#)
 - [Link2](#)
 - [Link3](#)
 - [Link4](#)
 - ...
- Questions
 - What pages or content do visitors focus on right before they reach {{ELEMENT OR PAGE OF INTEREST}}?
 - Where do they go immediately afterward?
 - Where do they seem to get stuck, or confused?

Bring it together

After you get back notes on the remaining recordings, first look for anything surprising. You should have links and timestamps to confirm whatever you read.

Add these new observations to what you noted when you watched the first batch. Some of what you’ve seen will beg for an easy fix. (Example: visitor after visitor struggles with your form validation.)

Other behaviors will leave you perplexed. (Example: you see visitors clicking back and forth from Pricing to Features, over and over again. Not one, or two, but dozens of visitors 🤔)

Movie night

Before you move to the next phase and begin taking action on all this data, socialize this project within your organization. Can you put together 2-5 minutes’ worth of a highlight reel worth sharing with the rest of your team? Your boss? The VP of Product and/or Marketing?

A 15-minute “movie night” meeting is a great chance to show your work while giving everyone a diversion from their day-to-day. People who have never watched session recordings will find them *enormously entertaining* ... at least for 2-5 minutes.

Make popcorn, set the stage, provide light narration, and bring out your inner entertainer.

Remember, at this point you have two possible stories to tell:

1. We noticed that something is obviously broken, and we're going to fix it
2. We observed something surprising, and we're digging deeper

Your audience will be relieved and impressed by anything in category #1, and may have useful insights on category #2. Take the time to share what you're learning. You're a seasoned pro by now, but for the rest of your company, well ... there's nothing like the magic of seeing a real human interact with your website, click by click :)

4. Fix and follow up 🍊

Okay, movie time's over. Back to work.

It should be pretty straightforward to write up tickets for developers to fix anything you've noticed that's obviously broken. Form interactions, buttons-that-don't-look-like-buttons, unreadable copy, disappearing dropdown menus, unclickable-things-that-should-be-clickable, etc. As a bonus, you can share a link to the session recording and a timestamp for their reference.

What you might notice	What to do about it
<i>Visitors hesitate over menu items, or click them but immediately hit the back button</i>	Compare your navigation to competitors - are you missing any key pages, or using jargon? For each page visitors tend to back away from, ask "What is this page's job?" For more insight, you can design a user test that gives test subjects a task they can only accomplish by using that page
<i>Visitors trigger lots of form errors</i>	Go try the form yourself! It's <i>super common</i> to find out via session recordings that your form, or form validation, is broken
<i>Visitors try to click something that isn't a link</i>	Can you make it a link? Or if it's important enough, can you make it a button, or its own section on the page?
<i>Visitors return to a page multiple times, via multiple links</i>	Clarify where links take visitors. Don't have "Get Started", "Talk to Sales", "Learn More", and "Pricing" all point to the same page
<i>Visitors return to a page multiple</i>	What are they looking for? Brainstorm with your team.

<i>times, via the back button or by clicking the same link</i>	Compare similar pages on competitor sites. Add a poll to the page with a simple, direct question: "What's missing from this page?" (Your visitors will tell you :) Add the missing content.
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As for the observations that make you wonder, but don't have an obvious answer, you'll need to investigate further. Here's what that might look like.

A/B test

If you have the numbers and the resources, you can run an experiment based on what you see in session recordings.

This is the approach to take when

- You observed a problem without an obvious solution
- You have *ideas* for how to fix it
- You know how you'll measure whether the problem is solved
- The risk of "just picking a fix and implementing it" is too scary

For example, you might have noticed your Converters never click or engage with the topmost "Hero" section of your homepage. Instead, they scroll down to the "Products" section, or use the navigation to reach the "Products" page directly.

Seems like the current Hero content might be a waste of space. So you come up with a "product-centric" Hero image, rewrite the headline to highlight your most popular offering, and change the button copy to "Explore All Products."

Then you show your CMO and she's ... highly skeptical. You've killed the value proposition. The image looks clunky. Are you sure this will improve conversions?

This is a good candidate for an experiment.

User test

If you *don't* have the numbers or resources for A/B testing, user testing might do just as well.

Does it *seem* like visitors click back to the Pricing page 2 or 3 times because the difference between your Pro and Premium plans is unclear? Recruit 10 qualified testers, give them a scenario that *clearly* calls for a Premium plan, and let them figure it out.

Either their monologue will reveal what your session recordings hinted at, or not. And you can adjust the page accordingly, or not.

Custom poll

Remember the hard work you did to figure out targeting for your chosen segment? Here's where it pays further dividends.

You can trigger a poll for *just those visitors* and ... literally ask them what you're wondering. Here are some ideas:

- "Quick question - what made you decide on the plan you chose?"
- "What info would've made it easier to sign up today?"
- "Just curious, if you hesitated before signing up, why?"

Custom event

Sometimes the question raised by your session recordings can be answered by throwing data at the problem. Do visitors who read the Premium Plan tooltip text convert more often than those who don't? Or are they more likely to exit the site from the Pricing page?

You can find out by firing a custom event on Premium Plan tooltip hover, and just waiting a month or so.

If you've already added a Trigger in GTM, attaching an event is quick and painless. Set a reminder to check back in 30 days and you're good to go.

5. Rinse and repeat

If you've worked your way through this process, you've accomplished a ton. You have:

- Discovered at least a couple glaringly obvious issues with your site, and fixed them
- Formulated a few hypotheses about points of confusion
- Introduced your team, and leadership, to the wonder of session recordings

From here, the best thing you can do is start all over again with a new segment.

If you looked at Converters the first time through, a good candidate for your next batch of analysis is Almost-Converters.

These are visitors that *start* filling out a form, but don't submit. Or *begin* a purchase, but leave before they pay.

Beyond that, there are plenty of other segments worth your attention. Here are some ideas:

Segment	Definition	How to target them	What to look for
Converters	Visitors who take an action that makes you money (purchase, sign up, fill out a lead form)	Visited a /thank-you page or similar, or a custom event on signup	What sections, or pages, do they return to more than once? Where do they hesitate? What do they look at <i>right before</i> they convert?
Almost-converters	Visitors who stop <i>just shy</i> of converting	Visited signup / checkout page, but <i>didn't</i> visit /thank-you page	What content did they view before almost converting? Where did they go after changing their minds?
Form abandoners	Visitors who start filling out a form, but don't complete it	Custom event on form input click + <i>didn't</i> visit /thank-you page	What content did they view before starting the form? Where did they go after abandoning it?
Free trial users	Visitors currently enrolled in a free trial of your app	Custom event on signup, or visited e.g. /free-trial-get-started	What content do they seek out? What opportunities do you see to offer them a paid plan?
Video viewers	Visitors who watch a video on your site	Custom event on video views	What brings them to the video? How much do they watch? What do they do next?
Content downloaders	Visitors who download a white paper, guide, ebook, etc.	Visited e.g. /download-resource page	How did they arrive at the download offer page? Did they visit any pages after accessing the download?
Nav users	Visitors who interact with your site navigation	Custom event on navigation click	What links are commonly used, despite being buried in a submenu? What pages do people visit, then immediately backtrack from? (What were they looking for?)

That's it! Hopefully by now you've found and corrected a couple of embarrassingly obvious issues on your site, and gained a bit of empathy for your visitors ... all without spending 100 hours staring at a screen.

Maybe you've even impressed and entertained your team with your user-savviness.

I sure hope so. If you've found this guide helpful, or if you've still got questions, I'd love to hear from you. You can get ahold of me by [any number of means](#) - please do!



(Me trying to figure out why someone keeps clicking an unclickable icon)