

How to Use Heatmaps to Increase Your Conversion Rate

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Introduction

How well do you know the people who come to your site?

Analytics software like Google Analytics, Adobe (Omniture) and Clicky give you insight into where people come from to get to your site, and what pages they visit when they get there. That shows you where on the site the weak pages are, but it doesn't give you any clues as to why they're leaving that page or not completing the conversions you want them to.

Heatmaps fill in some of those gaps and help you pinpoint exactly what's working on a particular page and what's turning your visitors off. They turn data from mouse movements, clicks and eye tracking into detailed graphics that show where your users are clicking, scrolling and more.

They're quick and easy, and give you useful insights that allow you to focus your detailed research on the areas that really matter. That's why we find heatmaps are invaluable in the 'deep dive' analysis stage of all our web optimisation projects.

In this guide, we'll look at the different types of heatmaps, and how you can use them to learn about how users behave while they're browsing your website.

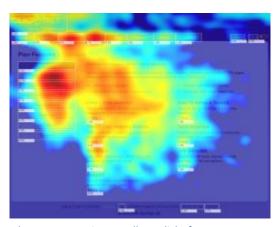
Never heard of heatmaps before? Don't worry – we'll start from the beginning and show you how you can use two of the Conversion Rate Optimisation (CRO) industry's most popular and accessible tools to gain insight into user behaviour and increase your conversion rate.



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What are heatmaps?

Heatmaps are graphical representations of what users do on your website. Think of them as a collection of hundreds of users' behaviour – from clicks to scrolling – that are stacked on top of each other on a single image.



The more attention, scrolls or clicks from your users, the stronger or brighter that part of the page appears

There are several different types of heatmap, each offering a different type of insight into how your website's audience behaves. Some show you where they click, while a different type of heatmap might show the amount of focus each part of your webpage receives from users.

We'll get into the different types of heatmap a little later. For now, think of heatmaps as visual representations of behavioural data that other analytics tools like Google Analytics aren't capable of showing you.

Types of heatmap software

There are two main types of heatmap software. The first is data-driven clickmap software, which creates visual heatmaps based on real user behaviour tracked on your website.

This type of heatmapping software runs actively on your website and monitors the mouse movement and click patterns of visitors. Its conclusions are based on proven data that you collect yourself which guarantees a high degree of accuracy.

Related to this is attention mapping software which tracks visitors' eye movement and focus of attention. These scan your website and use algorithms and artificial intelligence (based on eye tracking studies) to compare it to the browsing habits of thousands of individual users.

An effective CRO campaign typically involves using both heatmap and attention map tools to locate the strongest and weakest points of a website's design.

Understanding each heatmap software's purpose

Will you go algorithmic or data-driven? Each type of heatmap software has advantages and disadvantages and both can be used effectively in tandem to learn more about how users behave (or will behave) on your website.

Algorithmic heatmap software - quick but not 100% accurate

The advantage of algorithmic attention map software is that you get instant insight. However the results are only an indication as it's based on likely behaviour, not actual behaviour.

Tools like EyeQuant and Feng-GUI show you where a visitor is likely to look within the first few seconds on a page, and which elements are likely to get more attention – but they're not designed to predict where a visitor will click.

Although the data isn't perfect, it is 90% accurate compared to physical eye tracking as it is built on detailed neuroscience research.

The drawback, despite this impressively high rate of accuracy, is that the artificial intelligence it relies on isn't *entirely* human. We've seen examples where results have been skewed by variables such as bright colours or words like 'free' or 'sale. The important thing to remember is that every website is different, and yours might not match up with EyeQuant or Feng-GUI's estimation of how visitors will interact with it.

Data-driven heatmap software – 100% accurate, but can be slow

Data-driven click map software like Crazy Egg and ClickTale are the most reliable choice if you need to know the actions your visitors are actually taking on your website. Their heatmaps are accurate as they're based on real user behaviour. You get detailed data on referrers and other variables, which makes them massively valuable for effective CRO.

However, they require a lot of data in order to produce accurate heatmaps. Small websites that receive little traffic (or B2B websites that receive small levels of high value traffic) may need to wait for weeks before their heatmaps are reliable. As a rule of thumb, we recommend gathering at least 1,000 clicks before being confident that the data is a true reflection of visitor activity.

What types of heatmaps are available

In this section, we've listed eight of the most popular types of heatmaps. Each of these heatmaps – from a scrollmap to a confetti clickmap – plays an important role in the Conversion Rate Optimisation process.

1. Clickmaps



An example clickmap

Clickmaps are simple but powerful visualisations of user behaviour. With the right amount of data behind it, a clickmap shows you where your visitors are clicking on your website and which page elements are being clicked on the most often.

The 'warmer' an area is – as expressed on a colour coded scale – the more frequently it's clicked on. As you see on the above screengrab, frequently clicked regions of the clickmap tend to be important features like navigational bars and buttons. These really stand out as warmer areas

Clickmaps let you identify your website's most effective and least effective elements, as well as hotspots of user activity. A good clickmap can show you the best location for a form, call to action button or any other important page element.

2. Scrollmaps



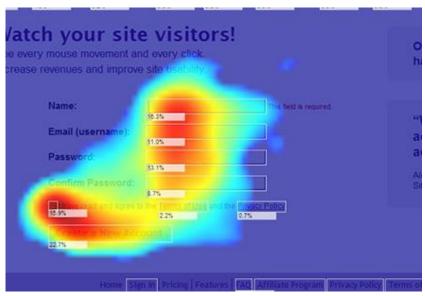
An example scrollmap

While a clickmap shows you which areas of your website get clicked on the most, a scrollmap shows you which areas of your website get viewed the most. Like clickmaps, scrollmaps use a colour coded scale to show you where users scroll to.

Most of the time, the path of a scrollmap is predictable: the top section of your page is red and the lower sections are blue. Sometimes, however, an interesting element or piece of content can encourage visitors to scroll further down your page.

Scrollmaps let you identify where your users start to lose interest in your page and identify opportunities to improve their experience. A good scrollmap can help you discover uninteresting content, poor page design and other flaws.

3. Mouse movement maps



An example mouse movement map

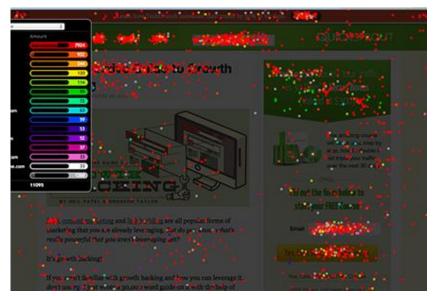
It's nice to know where users click when they visit your website, but just as insightful to know where their mouse hovers before they click. Do they keep their mouse in the same place or hover over page elements before deciding what to do?

A mouse movement map is a visual representation of where users travel with their mouse on your website. There's an 86% correlation between mouse movement and eye movement, making the path of a user's mouse a great indicator of where they're looking on your website.

But don't fall into the trap of using this data in isolation. A heatmap for one of our clients revealed lots of mouse movement in a navigation area, but this information was only useful when we looked at clicks as well. Despite the high levels of mouse movement, there was very little click activity.

This discovery led us to believe that users were looking to the navigation for assistance in narrowing down the products, but found the filters unhelpful. We restructured filters; split tested and found that the new structure led to a big improvement in sales. However, this needed a holistic approach to analysis, not simply looking at mouse movements.

4. Confetti maps



An example confetti map

Confetti heatmaps show you where users are clicking as well as providing valuable data about the type of visitor that's clicking on your page. With confetti maps, you can track click location by referrer, browser, search keyword and a number of other variables.

A confetti heatmap gives you an extra level of insight into how users are behaving on your website. For example, you can track the click patterns of new vs returning users to see if there's a difference in behaviour amongst users familiar with your website.

You also have the ability to set up custom variables. We sometimes use this functionality to compare the difference in click patterns between visitors who converted vs non-converters or those who are logged in vs those who are logged out. This provides very powerful insights, which are often overlooked.

Another interesting bit of analysis to do on confetti maps is to look at Time to Click. How long does it take visitors to click on important areas? Is that in line with expectations? Where do visitors click within the first few seconds and how does that compare to those who spend more time on the page? This data can tell you a lot about eye path and behaviour.

5. Overlay maps



An example overlay map

Overlay heatmaps let you see how each page element of your website is performing as a percentage of its total traffic. Instead of seeing the number of clicks on a certain *part* of your page, you can see the number of clicks on a certain link or image.

An overlay heatmap lets you find the most effective page elements of your website and compare their performance. For example, if you have three links that all lead to the same page, you can see which one gets the highest share of clicks from users.

6. List view



An example list view map

The great thing about heatmaps is that you can understand them at a glance. However, to really get to the heart of why your visitors are not converting, you may need to know in more detail exactly how many clicks are taking place at any given point.

You may also want to compare different parts of the page, or find out about pop ups, sliders, image carousels and drop downs. Heatmaps don't show you how your users interact with these types of elements.

That's where a List View of a heatmap comes in. It shows you the detail behind the pretty pictures, and lets you compare exact numbers at a glance. You can look at the data on screen or import it into an Excel spreadsheet, which lets you work on the data at a more granular level, and can be useful to track behaviour over time.

7. Attention maps



An example attention map

Attention maps let you see which specific areas on your web page get most attention from your visitors as they scroll down a page. 'Hot' and 'cold' spots display the most attractive elements of the image – and the least popular. Together with a Heatmap report and a predicted eye tracking report, it's a strong guide to the content your visitors read and care about the most as they scroll. It also identifies the boring areas in webpages that most visitors skip over,

This type of heatmap is especially useful on long marketing pages. Long pages are great provided they're interesting, but if the reader hits a dull patch; it not only causes frustration but can lead to high levels of abandonment. The attention map identifies the areas that need to be revised and monitored, to keep people scrolling on and reading the whole page.

8. Gaze plot maps



An example gaze plot map

A gaze plot is slightly different from the heatmaps we've discussed above. Instead of tracking mouse movement, a gaze plot tracks the eye movement of users to see how they view your website.

Gaze plots are generated through eye tracking studies and can be quite complicated to analyse. Most gaze plots use circles to denote areas of fixation, with larger circles indicating points on a website that attracted an extended gaze.

Comparisons Table

Heatmap methods:

Type of heatmap	What it shows	Use the data to	Available using
Scrollmap	How far down your page your visitors are scrolling	Identify whether the content you want your visitors to see is being seen or whether you need to re-organise the page to put the most important content in a more prominent location on the page	Crazy Egg ClickTale
Mouse movement map	Where your visitors are moving their mouse to and what items they're hovering over	Infer where your website visitors are looking based on their mouse movements and identify links with a low mouse movement to click ratio	ClickTake
Clickmap	Where your website visitors are clicking on your web page Item	Discover which areas of the page get the most clicks – your navigation? Your images? Your product filters? Are visitors clicking on elements that are not linked expecting to find out more?	Crazy Egg ClickTale
Overlay map		Get exact numbers of clicks on each link, rather than comparing shades of colours	Crazy Egg
Confetti map	Where your website visitors are clicking on your web page broken down by a number of different visitor segments	Analyse clicks by visitor type – are new visitors more likely to click on the returns link than returning visitors? How does the online behaviour of PPC, email and Organic traffic differ? Do visitors that convert behave any differently than those who don't convert?	Crazy Egg
List view	Which visible and non-visible areas of your web page are your visitors clicking on?	Understand exactly how your website visitors are interacting with every element of your web page. Which items on the drop down navigation are most popular? Which are the most popular products in your carousel?	Crazy Egg

Attention map	Where your visitors' attention will be drawn to when they arrive on your web page and as they scroll	Discover whether content you want your visitors to see and read is being looked at, especially on long pages. Are visitors noticing your value proposition? Are they being distracted by unimportant details? What is making them abandon the site?	ClickTale EyeQuant Feng-GUI
Gaze plot	Where your visitors are looking, in what order they look at on-page items and how long they look at them for	Understand how your visitors are viewing your web page – what is drawing their attention? How long are they looking at or reading your copy? Where do people look after they've looked at the product?	Feng-GUI

Where (and when) to use heatmaps

1. Use heatmaps to learn more about problematic pages

Are there any pages on your website that feel like a dead end for users? Heatmaps can help you locate what's holding users back from clicking through on a product page, category page or checkout form.

If Google Analytics shows that certain pages lead users off your website, a heatmap could give you additional insight into what's driving them away and possible changes you could make to keep them on your website for longer.

Heatmap analysis for one of our clients showed that a significant percentage of clicks on the product page were on a button which opened a pop up calculator. Google Analytics data, however, showed very few users who opened the pop up used the calculator functionality. This discovery led to a hypothesis that the calculator wasn't meeting visitors' expectations, opening new opportunities for split testing and gaining a double-digit growth in conversion for our client.

2. Use heatmaps to fill in gaps that Google Analytics leaves open

Google Analytics gives you access to a wealth of data about how users interact with your website, but it doesn't tell you everything. Heatmaps can be used to fill in gaps in your user behaviour tracking that Google Analytics leaves open.

Do you have multiple links to the same destination on your website? While Google Analytics aggregates the flow between pages, heatmaps let you see

exactly which link users are actually clicking on, so you can make design changes based on real user data instead of just intuition.

3. Use heatmaps to identify good opportunities to split test

Since heatmaps let you identify which page elements attract the most attention from users, they're great tools for locating split testing opportunities. If a certain element of your page is lit up red – a button, for example – it's a great split testing target.

4. Use heatmaps to answer users' questions without asking them

Heatmaps are great for getting the answers to users' questions; instead of asking if they like a new page element, you're viewing their reaction to it based on how they behave on your website.

Understanding heatmap data

Heatmap data can be extremely detailed, and just like with Google Analytics, it can be difficult to know where to start when analysing the data that a heatmap provides for you.

While there are many different ways to use heatmap data, we've found that several insights can be gained from heatmaps relatively quickly. The three changes below should be your first priorities when you start analysing your heatmap data:

Find split testing opportunities that will produce the greatest ROI

Is a certain page element attracting a lot of attention? From buttons to "Read More" links, the page elements that attract the most clicks will produce the best return on your investment when split tested.

Using your heatmaps, locate the page elements on your website that are "magnets" for users. Split testing different variations of these page elements lets you increase engagement and get users more involved with your website.

Discover design mistakes that can be corrected and optimised

As well as showing you which elements of your page are working, heatmaps also show you which elements aren't working. By learning what visitors aren't clicking on, you can brainstorm new ways to better use your on-screen real estate.

For our client, Northern Parrots, we discovered that most users weren't using their website to find products, but to browse product category pages listed in the side navigational bar.

Using heatmap data from Crazy Egg, we tested a redesigned version of the Northern Parrots homepage that focused on global navigation and interactive search. In our Northern Parrots case study, you'll see the end result of the testing was a 34.7% increase in sales in just six months of testing.

Validate new designs and compare them against the original

Have you recently redesigned your website? Heatmaps let you compare your latest design against the original to learn which is the most effective at directing traffic to your product pages and lead capture forms.

Heatmaps played a huge role in our Northern Parrots case study, helping us validate our new design that was less cluttered and more focused on guiding users towards the website's top products.

Using heatmaps in a split test

Heatmaps offer additional insight into your website that Google Analytics and other software often can't provide. Because of this, they can be a powerful tool when split testing different variations of a page against one another.

Set up heatmaps on each variation of your split test

While a split test shows you which variation performed the best, a heatmap shows you why a specific variation outperformed the other. Using heatmaps on each of the variations you use in a split test gives you an additional level of analysis.

Gain another level of analysis that isn't purely statistical

Sometimes a visual representation of data shows you more than a chart or table. By adding a heatmap to each of your split test variations, you put yourself in the shoes of your users and see, from their perspective, how your website performs.

Gain insight into why a variation didn't performed as expected

Making sense of an unusual split test result can often be difficult. When a variation doesn't perform as you expected, it can often be difficult to diagnose the source of the problem and work out how to fix it.

Heatmaps give you instant access to insight on why your variation didn't perform as expected. From page elements that attract attention but not interest to poor design that lets your variation down, they'll often reveal flaws in your split test variations.

How to install heatmap software

Most heatmap software is built using JavaScript, making installation a breeze even if you have relatively little coding or web design experience.

Installing Crazy Egg's JavaScript tracking code

In order to collect accurate tracking information, Crazy Egg (and other software that offers similar functionality to Crazy Egg) runs in the background on your website via a small snippet of JavaScript.

Installing it is simple. Click the "Add a Snapshot" button in Crazy Egg's user interface and copy and paste the JavaScript from your Crazy Egg user panel onto the page you want to track. Alternatively, you can email the code snippet to your web developer.

WordPress plugin available for tools like Crazy Egg

Do you use WordPress to power your website? Installing the Crazy Egg WordPress plugin lets you bypass your text editor completely and paste your tracking code to the WordPress dashboard for simple heatmapping.

Are you using heatmaps?

Heatmaps are a vital part of our CRO projects and have helped us discover insightful data about the way users behave on our clients' websites

From learning which page elements work and which don't to spotting flaws in your website's design, heatmaps offer a huge range of benefits for your business. With a single heatmap of just one page on your website, you can:

- Learn which page elements attract the most attention from visitors
- Find out how far down the page the majority of users scroll
- Identify navigational elements and buttons that don't perform as expected
- Find out which links and buttons are outperforming their counterparts

Discovering all this gives you the ideal opportunity to optimise you conversion rate and increase revenue per visitor

Get the help and advice you need to turbo-charge your web sales

About the author



World leading CRO expert and boardroom advisor,
Johann delivers mind-blowing talks on how to increase
conversion rates, with success stories from blue chip
companies from around the globe, including Canon, Avis
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Drawing on his experience as Chief Operating Officer at the global website optimization agency AWA digital, Johann's sparkling performances combine up-to-date knowledge and wisdom with profound insights and actionable takeaways that will have your delegates smiling and scribbling intensely.

Johann is also co-author of the Amazon best seller E-Commerce Website Optimization: Why 95% of your website visitors don't buy – and what you can do about it.

If you need any further help or advice, please don't hesitate to get in touch.

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Next steps

Are you serious about implementing website improvements that deliver massive sales increases to the bottom line?

At AWA we're here to help companies like yours master all aspects of web optimisation. That's why we're offering a free consultation with one of our Lead Optimisers – to show you how to get up to speed with CRO.

Your free, no-obligation consultation is tailored to your business, to give you some of the most useful and practical advice you'll find anywhere. Delivered at a time to suit you, there's no limit on the number of people who can attend, so your whole team can benefit.

Lasting 30 minutes, you'll learn

- Exactly how to get an effective CRO programme running in your business (OR how to optimise your efforts, if you already have an inhouse CRO programme)
- The top conversion mistakes most multichannel businesses make, and how to avoid them
- 5 personalised recommendations to implement now for fast results

Book your free no-obligation 30 minute CRO consultation now. Just follow the link on the next page and fill out the form so we can get it all set up for you.

Free no-obligation 30 minute CRO consultation

Note: this is not a sales presentation. We aim to give you the best advice we can in 30 minutes to help you do CRO yourself.

Get a free consultation



AWA digital is one of the UK's leading conversion rate optimisation consultancies, helping multi-channel and online retailers increase sales, repeat business and visitor satisfaction.

Our experienced team of web analysts and ecommerce specialists use a range of tools – from in-depth website data analysis to usability testing – to show you how you can quickly boost conversion rates, repeat business and visitor satisfaction. Our pinpoint analysis of your online campaigns will show exactly what's working, what's not and what you need to change to get results that you are bound to make you smile.

We offer our services to both multi-channel and ecommerce retailers, as well as agencies who wish to extend their range of services to include conversion rate optimisation.

Our direct clients include Dunelm, Richer Sounds, Barbour, Interflora, Cotton Traders, Ironmongery Direct, Dune, Bettys and Taylors of Harrogate as well as a number of large and small B2B businesses.

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