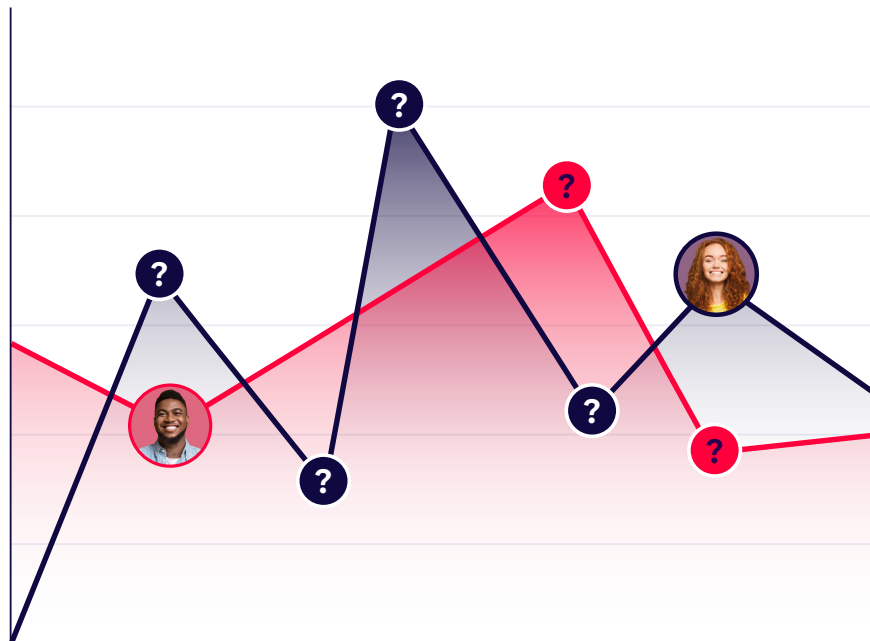


DIGITAL EXPERIENCE INSIGHTS REPORT

How To Miss Everything Your Customers Do

(And How Not To)



Key Findings

Methodology: Our data science team analyzed anonymized Heap data from over 1,000 customers. This data covered three years of usage from 2019-2022. It included millions of behavioral events and millions of queries. Here's what we found:

Gaps in the Data

How are teams missing key insights about their users?

Missing new opportunities

49% of all automatically captured events are defined in year two. 20% are defined in months 19-24.

What this means: After one year, teams who use manual capture are able to see and analyze only *half* the user actions their competitors who use autocapture are.

Data going stale

Nearly 30% of automatically captured events have their definition changed in the first 6 months after being defined.

What this means: Without the ability to quickly update their data, teams are making decisions based on user behavior from the past, not the present.

Excessive Engineering

Half of our customers actively follow and analyze more than **127 user actions**. 25% actively follow and analyze more than **253 user actions**.

93.5% of autocaptured defined events are analyzed multiple times in the first year after being created.

What this means: Manually keeping up with important user behavior requires enormous engineering investment.

INTRODUCTION

How to Miss Everything Your Customers Do (and How Not To)

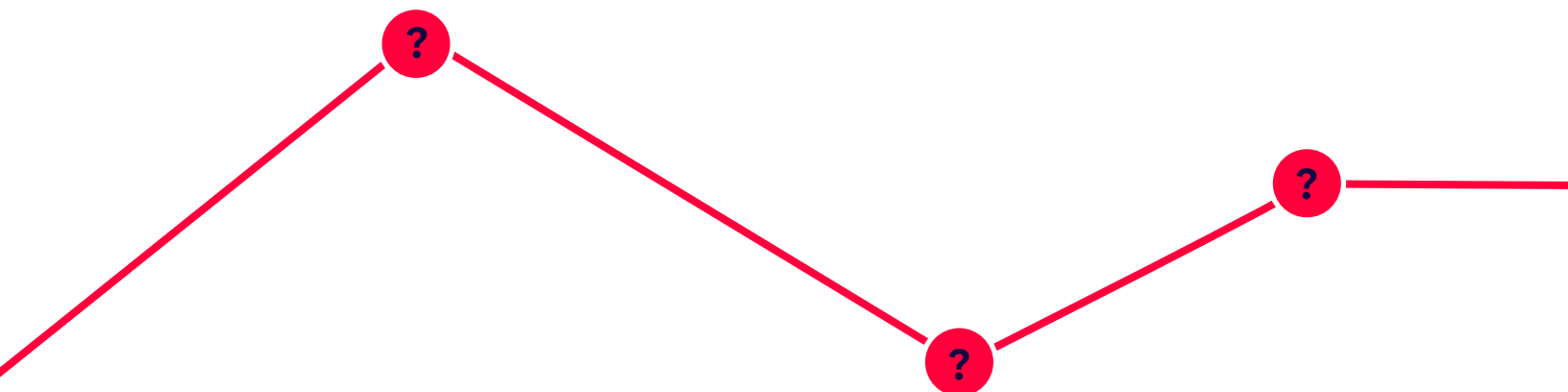
At Heap, we've long believed the most powerful insights show up when digital experience teams have access to a complete set of behavioral data. Only by assembling a full view of what your customers do, we've long held, can teams successfully stay ahead of changes in user behavior, evolving business needs, and iterations of their digital experience.

Without a complete dataset, what insights are teams missing?

- How are teams using data to track changes in customer behavior?
- What are the most common data gaps that hold teams back?
- What are the impacts of all of this on the business?

Validation for this idea has come from the success we've seen from the thousands of customers who have leveraged behavioral data to produce compelling, high-converting, revenue-generating digital experiences.

At the same time, we've often wondered: how do customers use the complete dataset we provide? What advantages (if any) does hybrid capture technology confer over manual capture alone? How do users use their data to keep up with their customers, and how does that help them win?



Automatic data capture, manual data capture, and the best of both worlds.

When teams want to follow what their users do, they usually have access to two different approaches to capturing behavior data: “manual tracking” and “automatic capture.”

Manual tracking, the older approach, is used by vendors like Google Analytics, Amplitude, and Mixpanel. It requires engineers to insert tracking code into each event. Data is collected from the time of instrumentation onward, and any event that is not explicitly tracked does not collect data for analysis.

Automatic capture, the more modern approach, requires only that a single Javascript snippet be inserted into the header of a site or application. After that, all event activity on your digital product or site is tracked automatically: every click, swipe, form fill, pageview, and more.

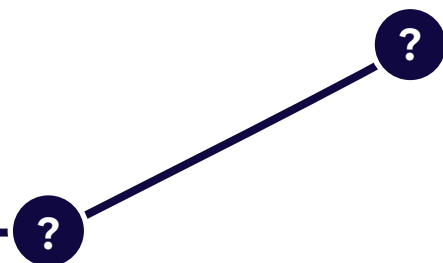
At Heap, we’ve long believed that the best strategy for assembling a complete dataset is to combine both approaches. To learn more, feel free to [read our guide](#).

Welcome to the Digital Experience Insights Report, v3.

It’s where we bring the data.

While our previous reports focused on widespread problems with funnel analysis tools, in this one we focus on something more basic: the insights available - or unavailable - to teams who use hybrid capture (automatic data capture + manual capture + APIs) vs teams who use manual capture alone.

To write it, we examined data from **over 1,000 anonymized Heap customers**, collected from 2019-2022. It includes examination of literally millions of behavioral events, millions of queries, and millions of small and large decisions. What did we find? Read on to see!



THE DATA

1. Missing new opportunities

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What this means

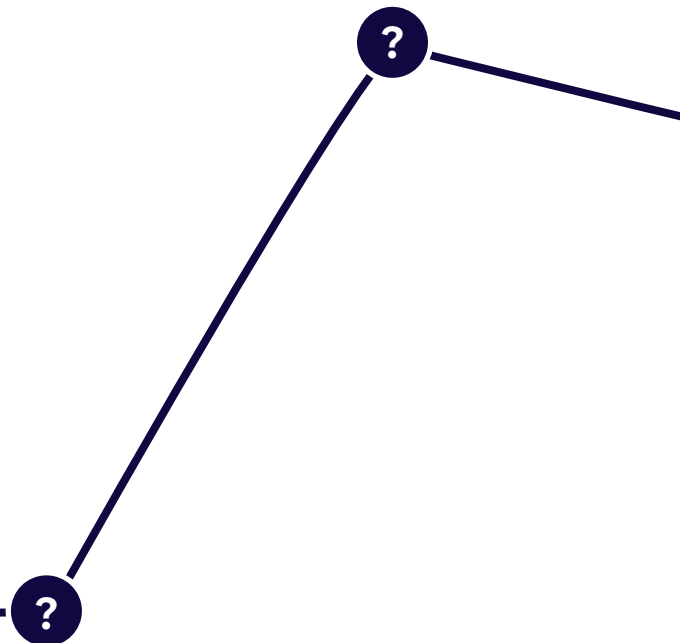
After one year, teams who use manual capture are able to see and analyze only *half* the user actions their competitors who use autocapture are.

What happens when user behavior changes? What happens when your site changes?

As digital experience builders, we all know that keeping up with changes in user behavior is critical for providing a delightful experience that moves the business forward. Knowing what your users do - what routes they take through our site, what features they like, where they get stuck and what they avoid - is hands-down the best way to build an experience that meets their needs.

At the same time, we all know that user behavior changes quickly. Incredibly so! **What users cared about a year ago isn't what they care about now.** In some businesses it's even quicker than that.

This is why we asked how often teams are defining new events. Here's what we learned: **Teams are always looking at new things. They're asking new questions. They're analyzing behaviors they wouldn't have even thought to analyze the years previous.** This extends even into year four and beyond!

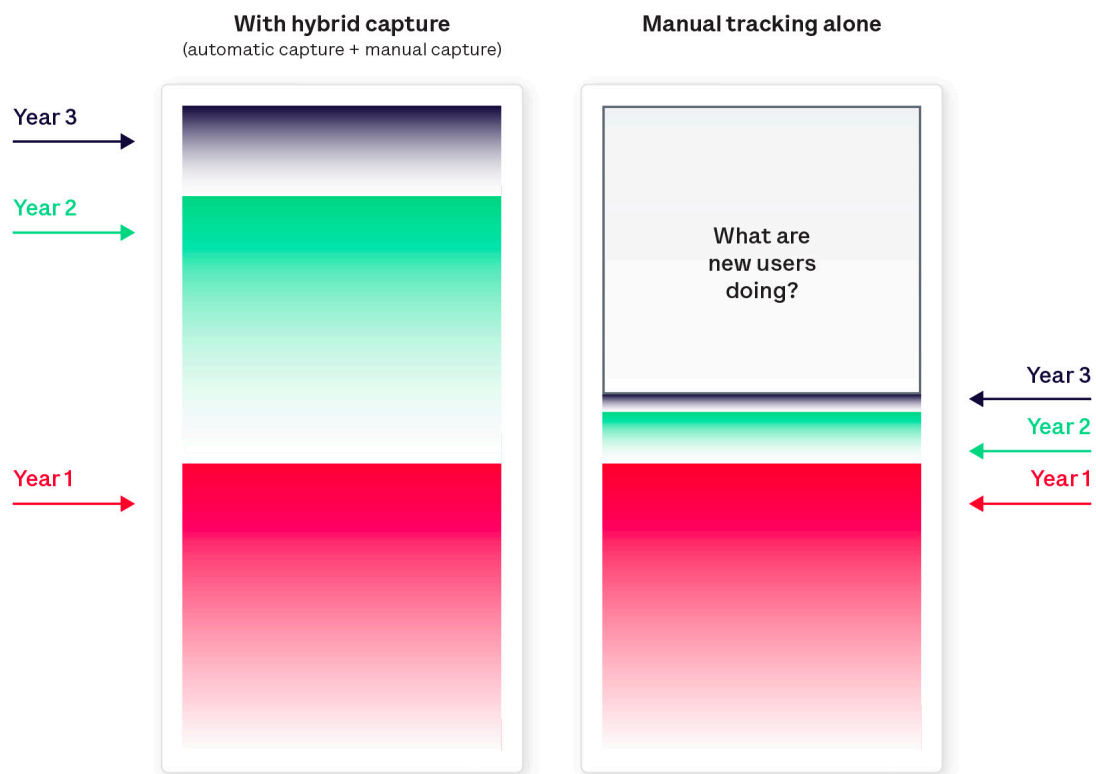


Why does this matter? Because when teams *don't* have access to data about everything their users do, they *can't* ask new questions! They can't see what new things users are doing. They can't compare current user behavior to user behavior in the past.

This is where autocapture technology comes in. Because it automatically collects data on all user behavior across your digital experience, it gives teams the opportunity to look at any user behavior they're interested in - including things that weren't important a year ago.

This is big: it means that **teams who don't collect behavioral data automatically are put at a massive disadvantage**. While their competitors are able to ask new questions and keep up with user behavior as it changes, teams who rely only on manual capture can miss up to 50% of key user behavior on their site!

Data captured



THE DATA

2. Data going stale

Nearly
30% of automatically captured events have their definition changed in the first 6 months after being defined.

What this means

Without the ability to quickly update their data, teams are making decisions based on user behavior from the past, not the present.

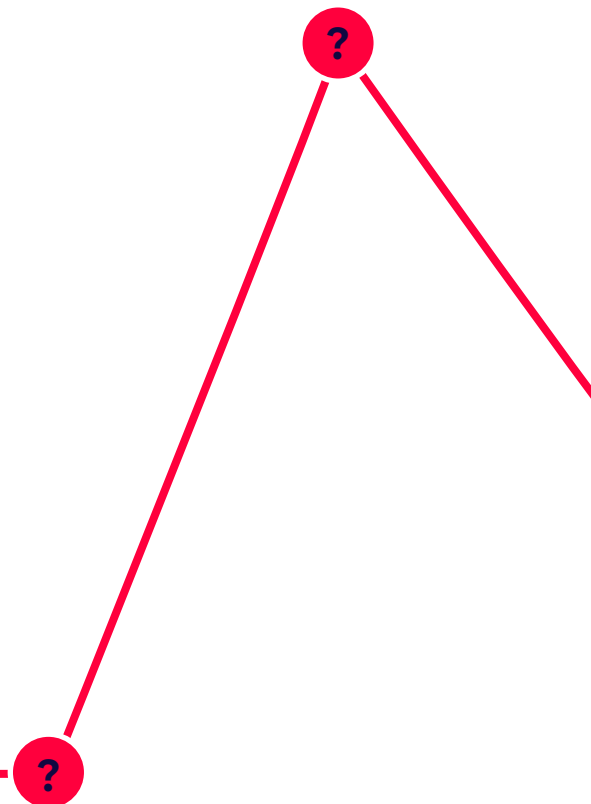
What happens when “changing definitions” is more difficult than it should be?

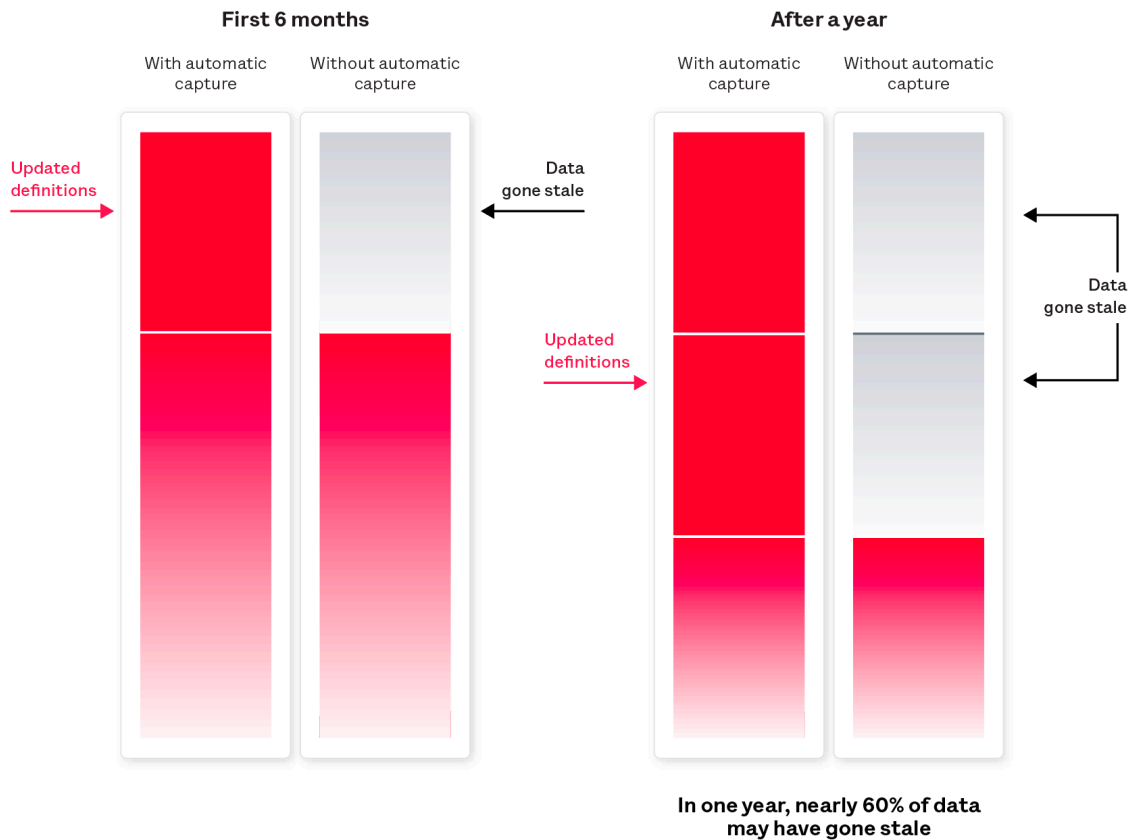
An example: let’s say your site presents users with a “buy now” button. From your end, clicking on that button counts as conversion. So your team tracks that button and all the clicks that lead up to it, then uses that information to smooth out the path for your users.

6 months later, the URL for that site changes, and the button gets relocated. Now the same user interaction - conversion! - is defined by a different event in your analytics platform.

From your perspective, you don’t care what the event is called - you just want to see how many users convert, and how that number changes over time. So what do you do?

Well, in Heap, you simply create a combo event that links the earlier “buy it now” button to the new one. Any time you run an analysis you can see the data from both buttons, seamlessly combined.





If you don't have Heap? Well, first you have to get an engineer to go in and insert tracking code on the new button. And, if you're lucky, you get that engineer to stitch together the data from those two events. If you can't get tracking code? You lose sight of how many users are converting. If you can't stitch together the events? You're running multiple analyses every time, and missing data from the period before you inserted the new tracking code.

Now ... imagine you have to do that for a full 30% of events you're tracking! **You'll only be able to see data from the past - not data that shows how users are currently behaving.**

In Heap, keeping definitions current is easy. When behaviors change, or when your site experience changes, it's simple to tie new and old data together. In other tools? Less so. Is missing 30% of your data every six months important to you?

THE DATA

3. Excessive Engineering

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What this means

Manually keeping up with important
user behavior **requires enormous
engineering investment.**

What does it take to see what matters?

Advocates of manual tracking often say two things:

“With manual tracking, you can focus in on the small number of
events that matter”

And

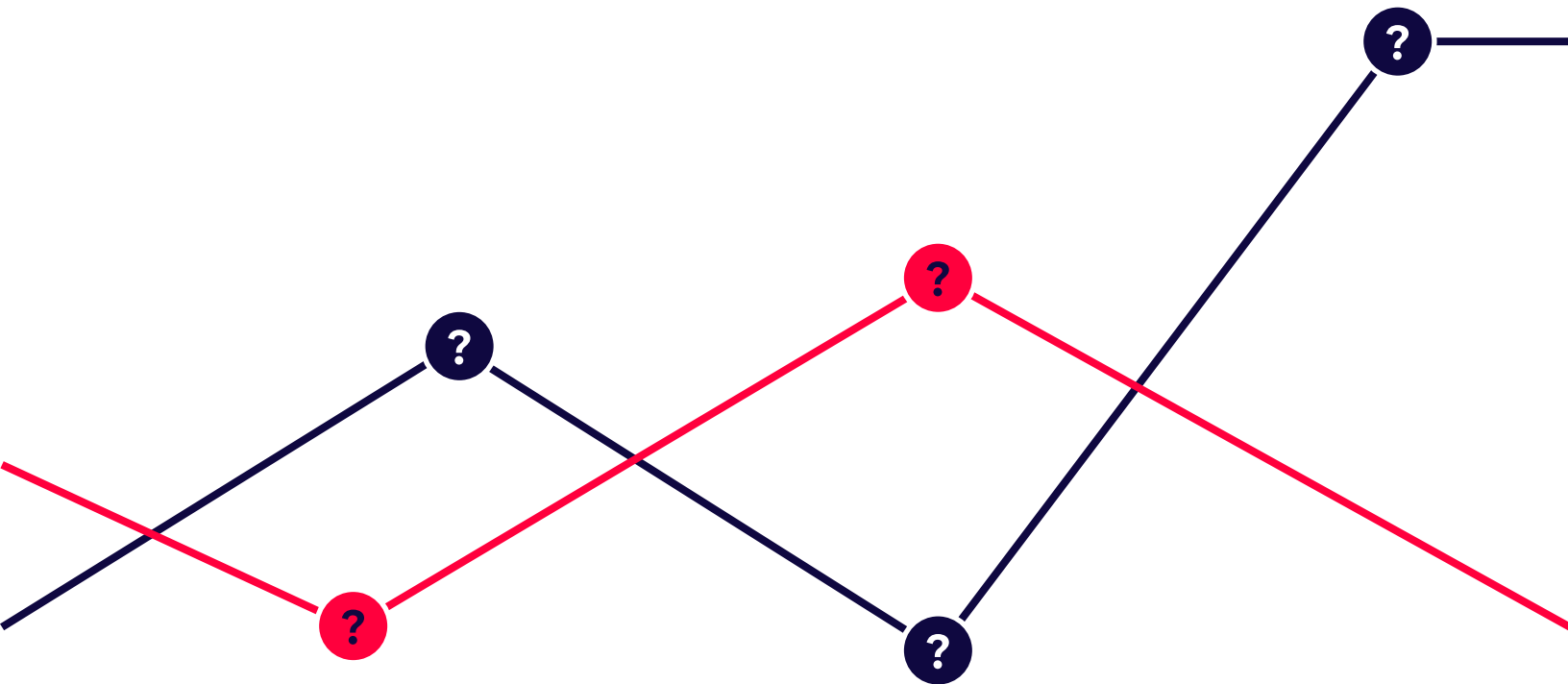
“With an automatically-captured dataset, you’ll create a bunch of
events you’ll never use.”

Is either claim true? Our data says: NOT AT ALL

To the first: examining the practices of thousands of customers
shows that the number of events they actively follow is in the
hundreds. That’s a large amount of events for any engineering team
to track, update, and govern. Once those numbers get into the
multihundreds, **most businesses face a choice: pay engineers** to do
the ongoing grunt work of maintaining tracking code - something no
efficient business wants to do - or **settle for an incomplete view**
of your users’ behavior. Which of those do you want?

To the second: sure, with automatically captured data you can define all manner of events. But does this lead to a pile of un-usable data, which teams have to sift through to even find the information they care about? As the numbers above show, not at all. That nearly 94% of events are analyzed multiple times in the first year after being created shows that **the events teams define are almost always useful**, and nearly always utilized.

For startups and mid-market companies especially, operational efficiency is crucial. So dedicating engineering resources to maintaining tracking code - instead of giving engineers the space to build features or improve the product - is not a viable path. What does this mean? More often than not, a partial view of your customers.



Conclusion

At Heap, we've long believed that when you give teams the opportunity to see everything about their users, they'll take advantage. This report bears this out. Again and again, we see teams who use their data to actively stay ahead of change - creating new events, redefining existing data, and actively querying the many events at their disposal.

As you read the numbers in this report, we ask you to consider:

- **Can you afford to miss nearly half of what users are doing on your site?**
- **What's the dollar impact of making decisions based on stale data?**
- **How much more confident would you be if you didn't have to choose between wasting money on engineers or understanding how users navigate your product?**

To learn more,
visit us at heap.io

Join us as we build the future of digital insights.

About Heap

Heap is the premier system of insight for digital experience builders. Our mission is to illuminate hidden opportunities for fast-moving digital teams to delight their customers and move the needle on key metrics. Over 8,000 businesses use Heap to increase revenue, improve conversion, accelerate decision-making, and drive business impact at scale.

Visit heap.io to learn more.