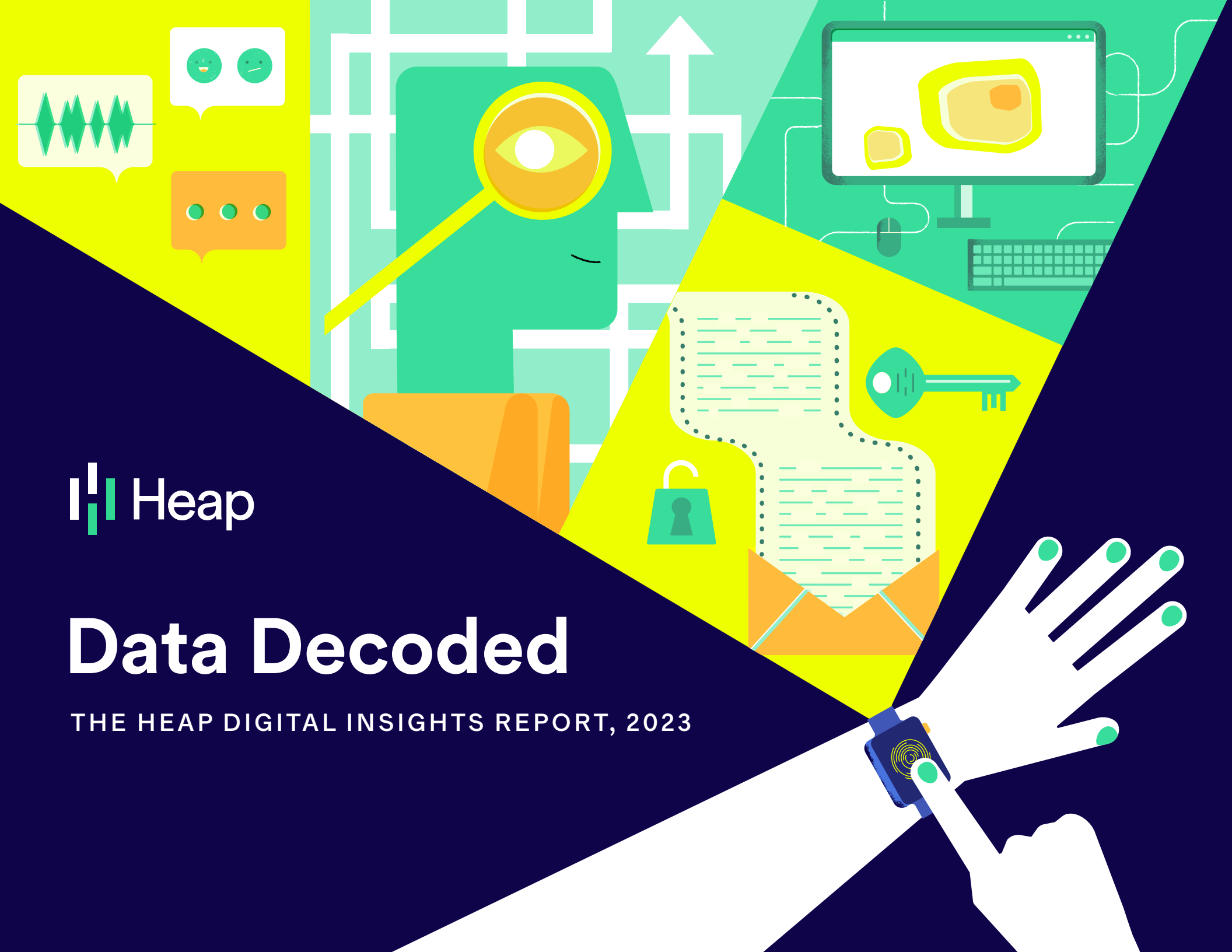


Heap

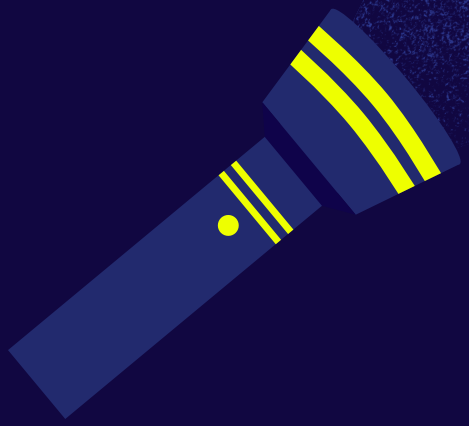
Data Decoded

THE HEAP DIGITAL INSIGHTS REPORT, 2023

Table of Contents

You'll notice this tag. It indicates usage data (anonymized) that we've taken directly from the Heap platform.

Want to know how teams *actually* use analytics? These are the sections to check out!



Intro

There's a mystery afoot!

And you're a key witness.

In our work with teams who build and maintain digital products and other digital experiences - people like you! - we've noticed they usually have the same questions. Perhaps you do too?

Mostly, they're interested in knowing:

- What are other teams doing with their data?
- What's the typical product development cycle like?
- What data practices do other teams use? What tools? How are those things changing?
- Which metrics are teams tracking?
- What problems do other teams have? Are they the same problems we're dealing with?

Clearly some sleuthing was in order. So hundreds of product people and digital experience teams contributed by responding to a comprehensive market survey. Heap customers replied as well. Lastly, anonymized data from the Heap platform was added to the mix.

Welcome to Data Decoded: The Heap Digital Insights Report, 2023. Your mission, should you choose to accept it, is to use this information to benchmark your own standards, learn more about how teams work, and improve your own processes and practices.

This will be the first of a yearly report from Heap. If you have any questions about this data or want to talk about it, feel free to reach out any time.

Micha Hershman
CMO (Chief Mystery Officer), Heap

PART 1

Tool use

Not that long ago measuring pageviews and bounce rates was the height of sophistication. But for today's digital experience detectives, tracking the modern customer journey poses a more difficult case.

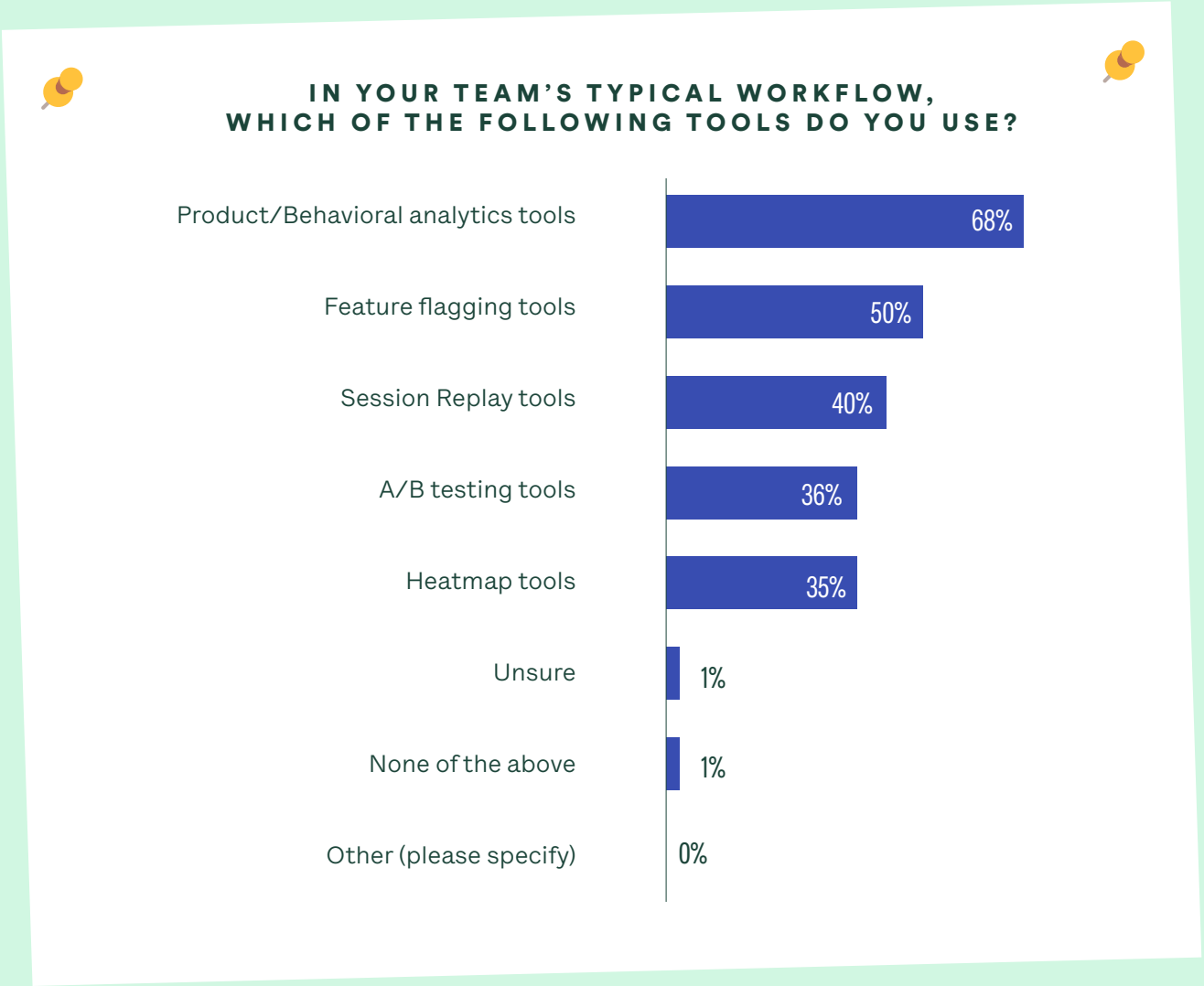
To solve it, agents are mixing old tools and new. We looked into which tools teams are using, how that usage is changing, which tools are most popular, and what problems teams still have.

What tools are teams using, and how do they use them?

Our market survey told us that the tools product teams use most often are tools that track user behavior - product and behavioral analytics. In addition, almost half of respondents use feature-flagging tools, which act like switches that turn specific app features or functions on or off.

This combination suggests that experimentation and testing remain a high priority for a majority of teams. Similarly, teams are interested in making sure users engage with features before rolling them out fully.

About a third of teams use Session Replays and/or Heatmaps, both of which are great for getting qualitative feedback on user behavior.



How tech stacks are changing

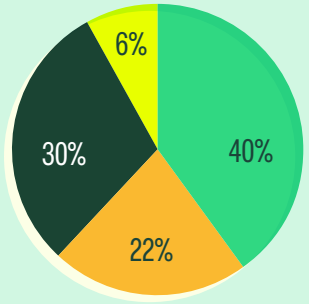
A tech stack is the set of tools teams use to build, run, and measure their products, applications, or websites. As you likely know, there are as many ways to assemble a tech stack as there are stories in the naked city.

Given the economic trends of the past year, we expected to see budgets decrease and tool use go down. But that wasn't the case!

As it turns out, the number of teams who have lost tools over the past year is quite small. Instead, a large majority have maintained the size of their stack, and many budgets have increased.

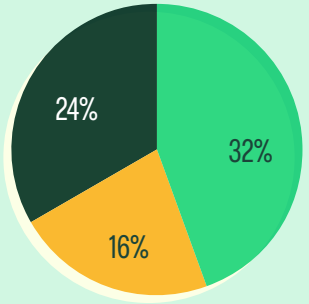
OVER THE PAST YEAR, HOW HAS YOUR TECH STACK CHANGED?

THE MARKET SAYS:



We are using:

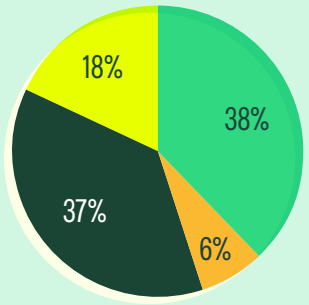
- More tools
- Fewer tools
- Same amount
- No change



Our tech stack budget has:

- Increased
- Decreased
- Stayed the same

HEAP CUSTOMERS SAY:



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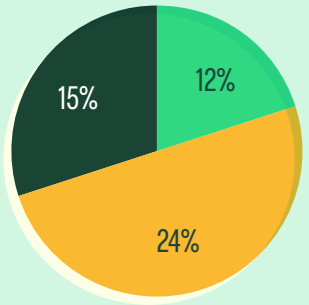


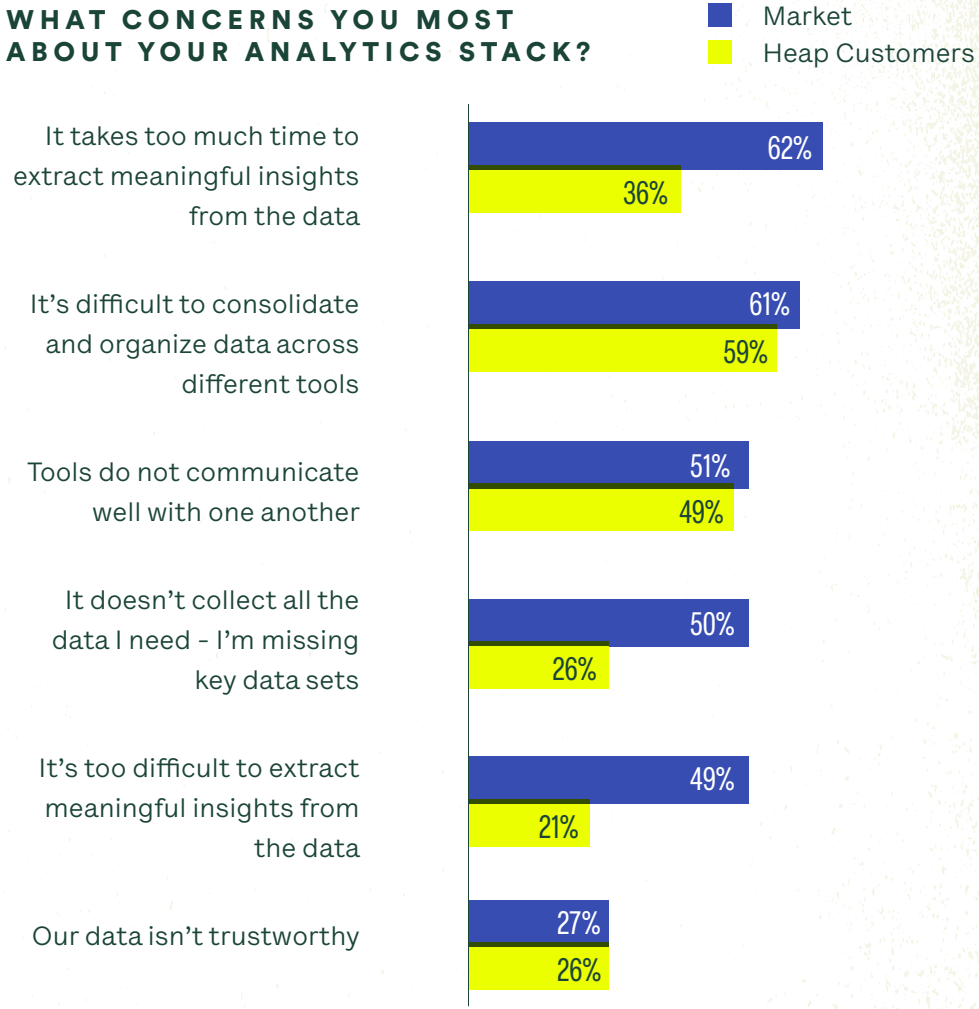
Our tech stack budget has:

- Increased
- Decreased
- Stayed the same

INSIGHT

We anticipated a decrease in tool adoption and replacement due to the recent economic slow down—but as the data shows, it's been much less common than we expected!

What problems do you have with your stack?



There are endless ways to configure your stack. Each will make some jobs easy, and some more difficult. Every business is different, and there's no one perfect stack that will fit like a glove.

We asked product leaders to spill the beans.

One takeaway is that while no two tech stacks are identical, most teams are still hunting for a better solution. The biggest issues teams have are with incomplete data sets, extracting meaningful insights, and getting tools to communicate with one another. As the market develops, all-in-one platforms may be a good solution.

INSIGHT

Some key differences between Heap customers and the general market! As you can see, Heap customers are far less likely to worry about not having the right data. They're also less worried about the time or difficulty it takes to extract insights. **Heap: helping teams crack the case.**

Top integrations by company size

Integrations let software systems exchange data and functionality. They're essential for streamlining workflows and making teams more efficient.

Our investigation into integration usage among our customers unveiled some intriguing trends.

In general, the integrations the majority of Heap customers use are tools for A/B testing. Another clue that Heap customers are leaning into data, and testing to optimize their user experience.

However, the choice of tools reveals a fascinating plot twist, with smaller companies favoring Hubspot and Intercom, and larger enterprises leaning toward Optimizely and VWO.

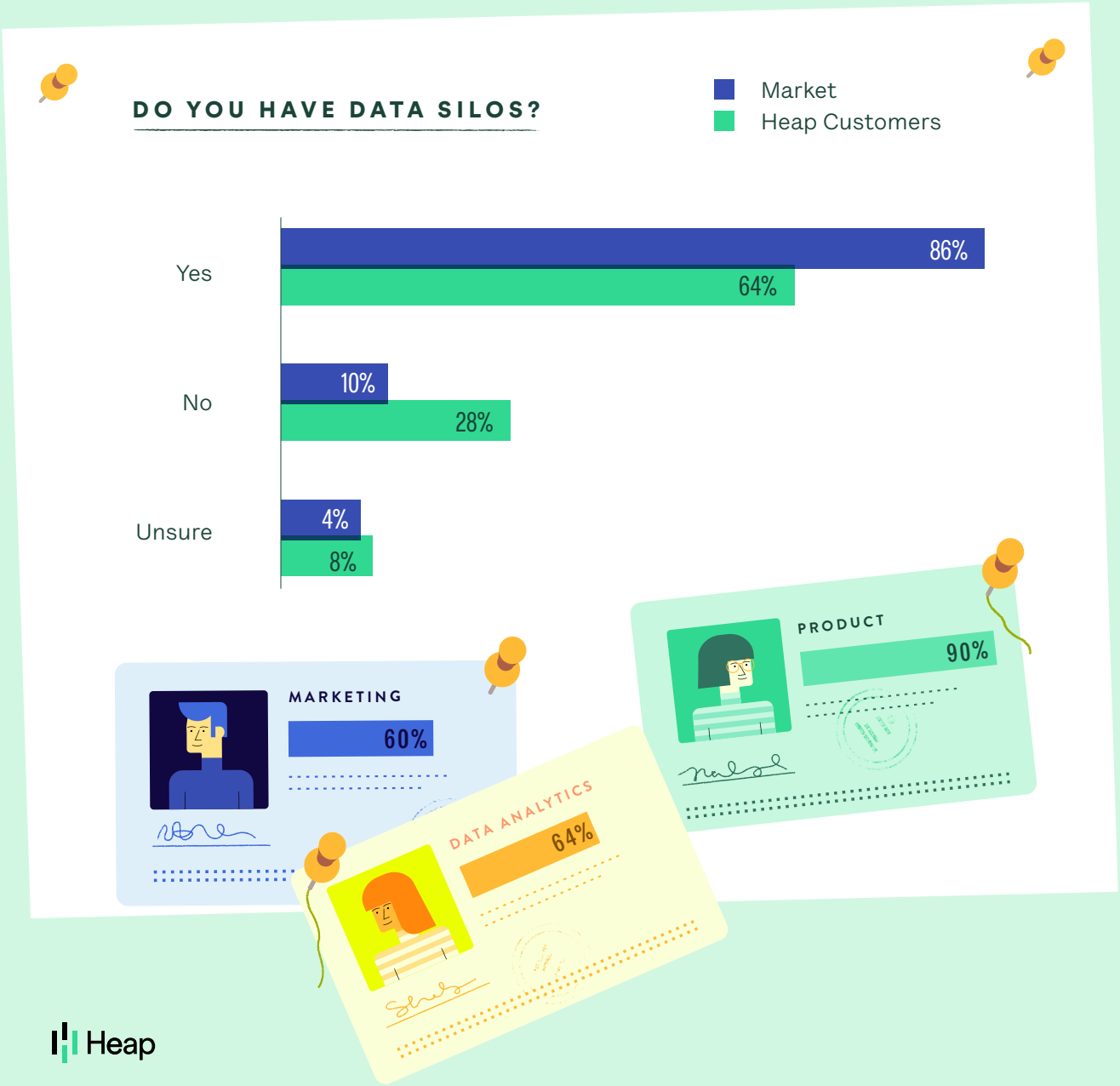
INTEGRATIONS BY COMPANY SIZE (HEAP USERS):

All Heap users	
Google Optimize	18%
Salesforce	10%
Hubspot	9%
Appcues	8%
Optimizely	8%

Small companies (1-750 people)	
Google Optimize	30%
Hubspot	20%
Salesforce	17%
Intercom	17%

Mid-size and Enterprise companies (750+ people)	
Google Optimize	21%
Optimizely	17%
Salesforce	10%
VWO	9%

Data Silos



Data is most useful when it's usable by everyone. It's like clues at a crime scene. Imagine detectives from various jurisdictions investigating a crime but refusing to share vital information. How easily these clues are shared can determine whether the case gets solved or remains a mystery.

HOW COMMON ARE DATA SILOS?

Silos: great for storing grain. Not so great for sharing data.

Today most companies are buried in data. What is hard for them is getting all that data to work together.

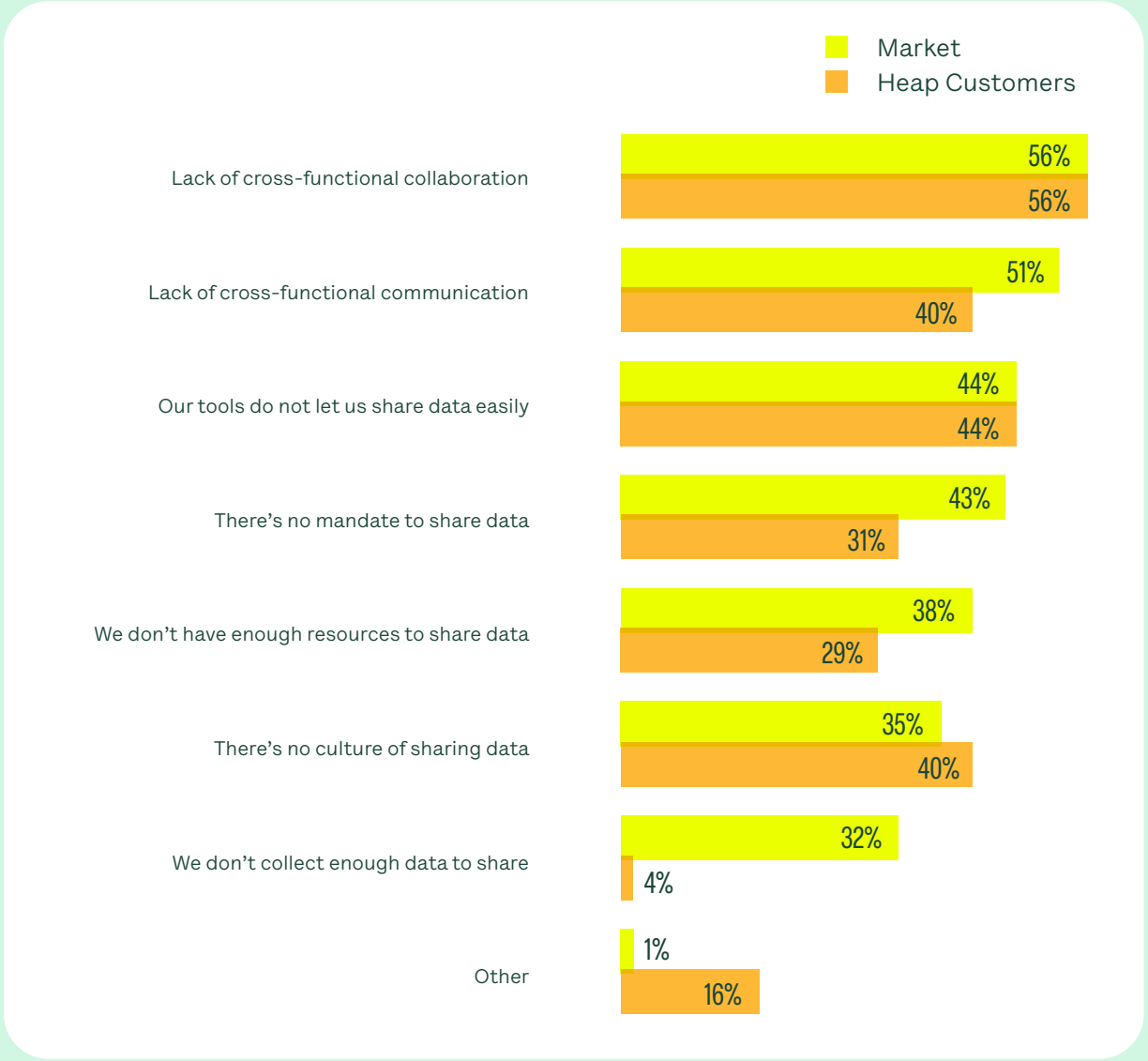
Our respondents told us loud and clear that they're experiencing data silos. 86% of them! Nearly everywhere. And for all sorts of reasons.

If you're feeling like you need to be a safecracker to access data outside of your immediate team, you're not alone!

What are the main causes of data silos?

As we can see, lots of companies confess to having data silos. But why do they have them? Their answers vary widely.

The main culprits, it seems, are poor communication, and lack of collaboration across teams. But teams are almost as equally frustrated by their tools' inability to share data.



INSIGHT

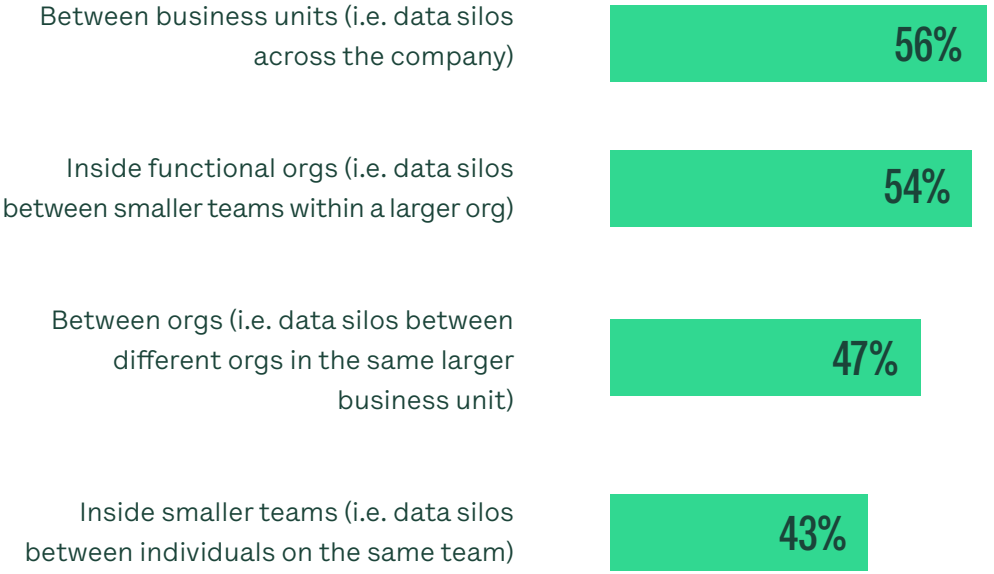
Heap customers in particular have few problems with getting the data they need. Only 4%!

But like other teams, they're hamstrung by a lack of mandates and resources, as well as cultures that don't promote sharing data.

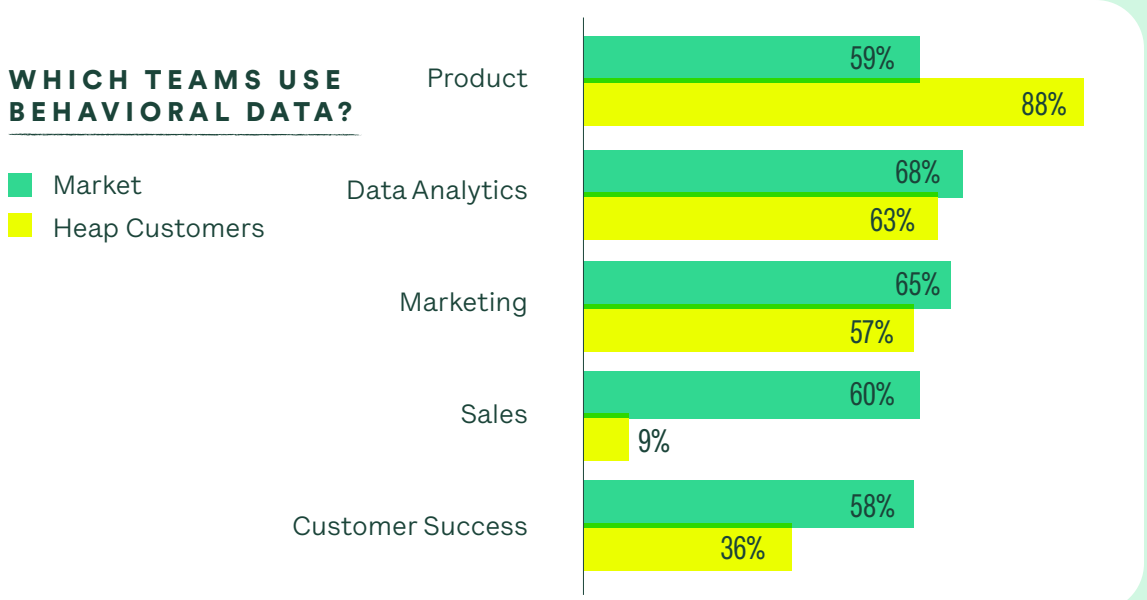
Where are silos located?

Turns out ... silos lurk everywhere! It makes sense that small teams do the best job of sharing data between their own members. But even so, more than 40% have issues. Those issues only get bigger as you pull out to look at business units.

Overall the results show it doesn't really matter whether you're in a large or small org, or how tight your team is. No one is safe.



Who uses behavioral data?



Heap data

WHO USES HEAP?

Overall		Small companies		Mid-size companies		Enterprise companies	
Product/Design	50%	Product/Design	51%	Product/Design	51%	Product/Design	38%
Data/Analytics	19%	Data/Analytics	18%	Data/Analytics	29%	Data/Analytics	34%
Marketing	15%	Marketing	13%	Marketing	13%	Marketing	12%
Engineering	9%	Engineering	10%	Engineering	6%	Engineering	11%
CS/Support	6%	CS/Support	8%	CS/Support	0%	CS/Support	3%

While most teams confess to dealing with data silos, product data is clearly getting shared around companies.

Intriguingly, the market survey and our customer data tell very different stories. Among Heap users, product teams are the dominant players by a wide margin. In the general market, it's marketing and data teams that take the lead.

We also investigated our internal platform data to see how usage breaks down by company size. While it's not surprising to see product teams be the primary users at all sizes, it's interesting that at large companies, data and analytics teams take a much bigger role.

Our theory is that data teams tend to be more developed at larger organizations, whether those data teams are centrally-located or distributed throughout the company.

At smaller orgs, in contrast, data analysis tends to be more DIY.

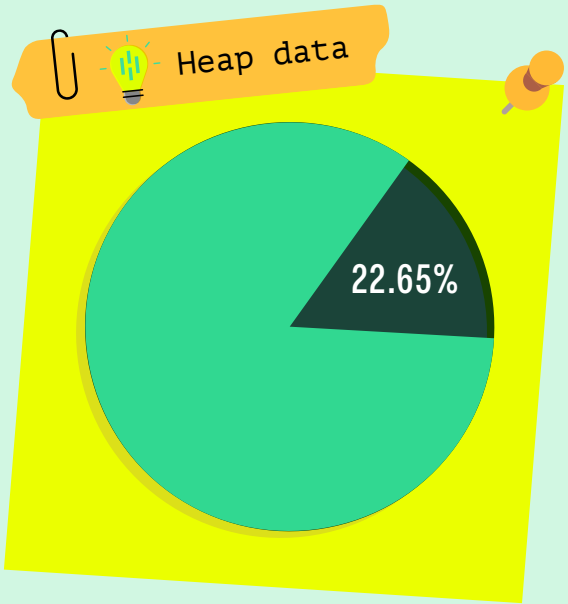
How often are reports shared?

One way to track the effectiveness of data - or its ability to overcome silos - is to see how often reports are shared.

Our inquiry into platform data looked at how teams use Heap data. We investigated the overall rate of shared reports, breaking it down by company size.

There are a few ways to understand this number. On one hand it should reflect how effectively data spreads across teams and companies. On the other, individuals often have immediate questions that need answering, or whose answers aren't interesting enough to share. Given that, we'd expect a fair amount of reports to not be shared.

We also looked at the number of people who view each report. At this large companies do better than smaller ones. (Perhaps because large companies have more people?) No matter how you slice it, there's clearly an opportunity to knock down those silo walls.



the percentage of reports made in Heap that are shared with other people

Heap data

AVERAGE NUMBER OF PEOPLE WHO VIEW EACH REPORT, BROKEN DOWN BY COMPANY SIZE:

Company size	Average number of people who view each report
Small (1-750 employees)	1.13
Mid-Sized (750-7500 employees)	1.27
Large (7500+ employees)	1.25

Moving data downstream

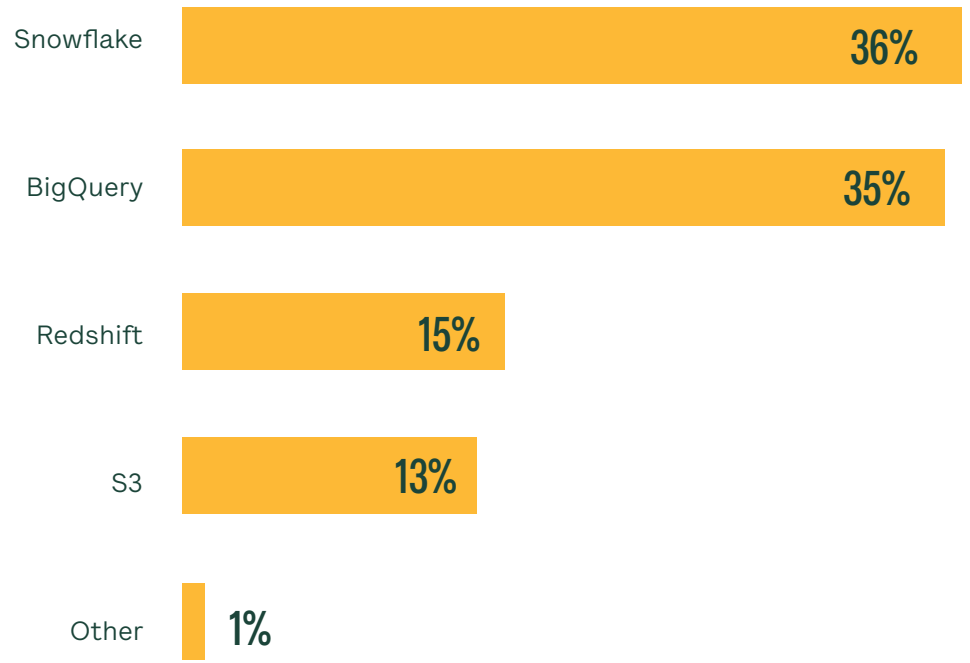
Data isn't always meant to live alone! Often - especially at larger companies - it's dispatched to a data warehouse. There it's combined with other data and analyzed to solve larger questions about the direction of the business.

The data warehouse space is changing rapidly. We wanted to see how. So we asked the market, and examined our platform data. Here's what we found.

In the market, Snowflake and BigQuery are used nearly equally. However, among Heap users, Snowflake is clearly the warehouse of choice. And it's gained market share since last year, in companies of every size.

THE MARKET SAYS:

What warehouse tool are you using when processing data downstream?



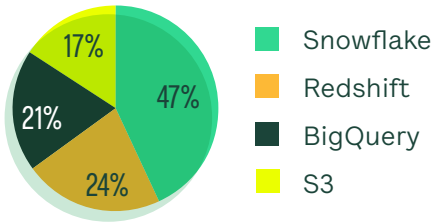
Moving data downstream, cont'd

Another noteworthy finding is that in large companies, S3 and Redshift play a much bigger role than they do in smaller companies.

Heap data

HEAP CUSTOMERS SAY:

Of the accounts that do connect to a data warehouse, what are the warehouses they connect to? (By %)



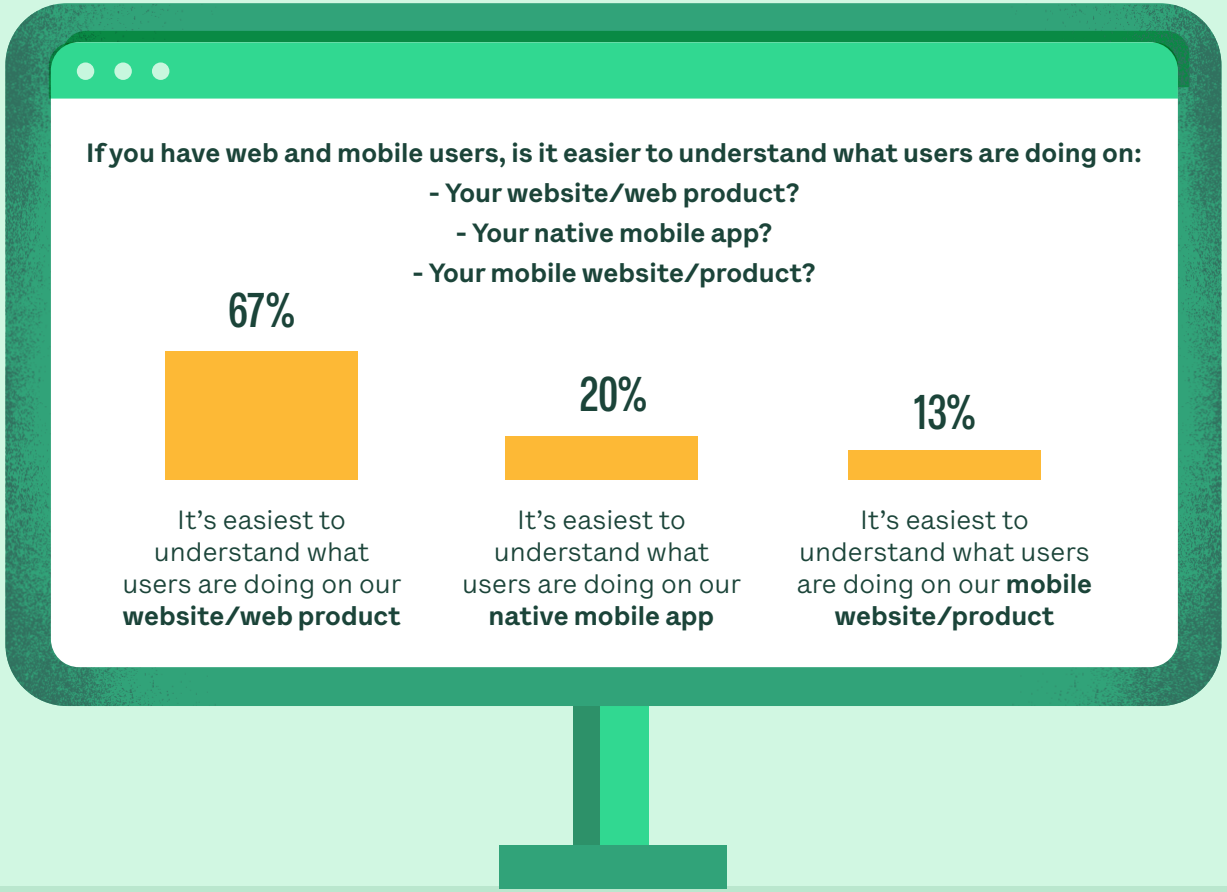
Have these percentages changed over the past year?

Snowflake	39%->47%
BigQuery	20%->21%
Redshift	33%->24%
S3	20%->17%

How does this vary by segment?

	Small companies (1-750 employees)	Mid-size companies (750-7,500 employees)	Large companies (7,500+ companies)
Snowflake	46%	58%	50%
BigQuery	22%	11%	18%
Redshift	23%	27%	33%
S3	15%	16%	28%

Mobile vs Web: the mysteries of cross-platform users



Users are everywhere now. They're crossing platforms. They're moving from phones to laptops to tablets to watches to other devices, all day long. This kind of consistency is great for consumers. But it makes it tricky for teams to piece together the full customer journey.

The market reports that it's significantly easier to decipher web activity than it is to understand what happens on mobile. This likely reflects the relative immaturity of mobile analytics tools. (A few years ago, mobile analytics tools didn't even exist.) Nonetheless, given the prevalence of mobile these days, it's difficult to see so many teams struggling.

Our expectation is that this gap will close some by next year.

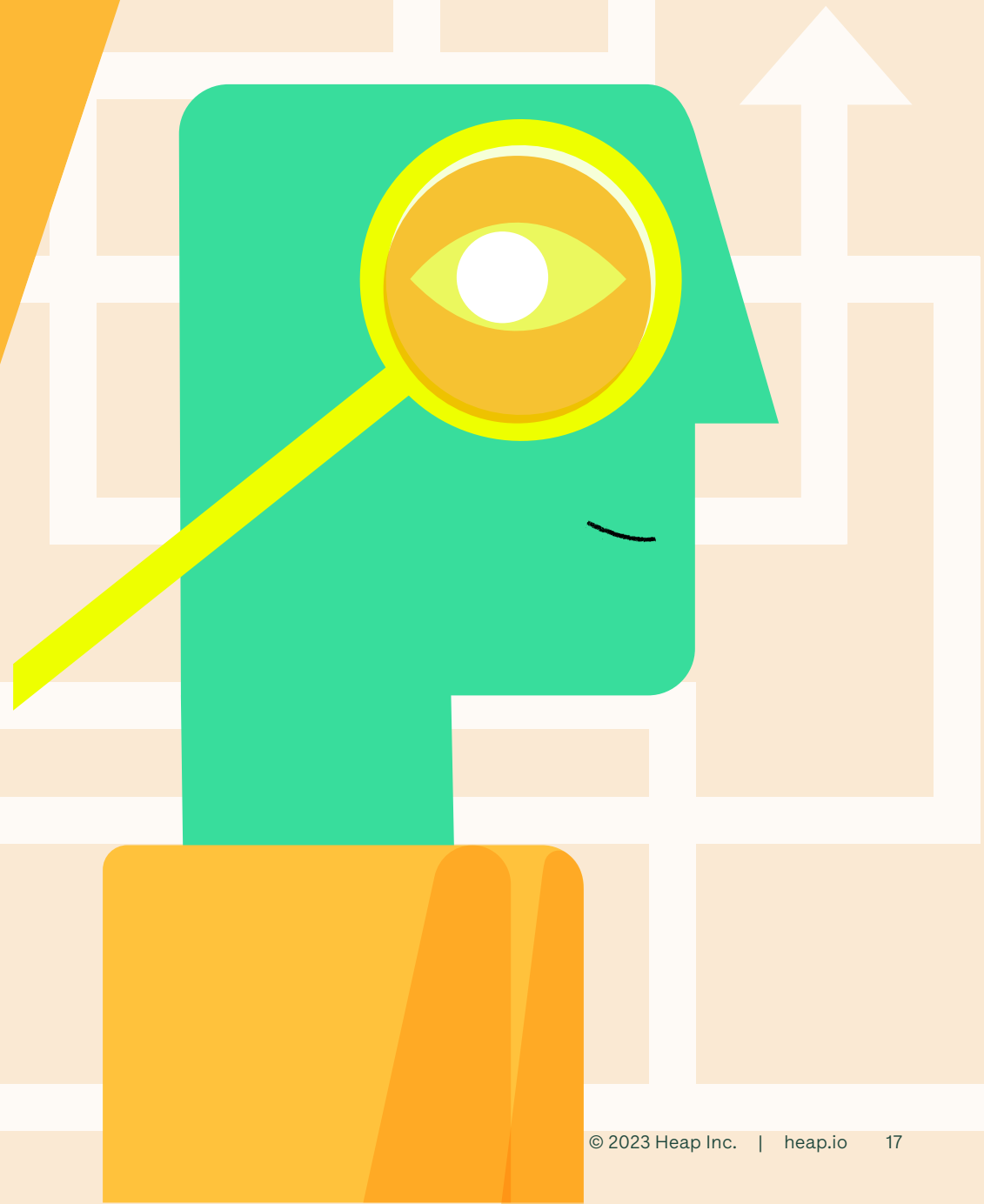
PART 2

Data Practices

Even when teams have the same gadgets in their toolbelt, it's how they use them that makes all the difference.

There are many ways to put data to use. What our research makes clear is that using data properly requires a multi-pronged effort. It requires having the right tools. It requires having the right practices. And it usually takes a company-wide commitment to data as a key component of the decision-making process.

If you're interested in uncovering how other teams use data, or in seeing how your practices compare, this is the section for you.

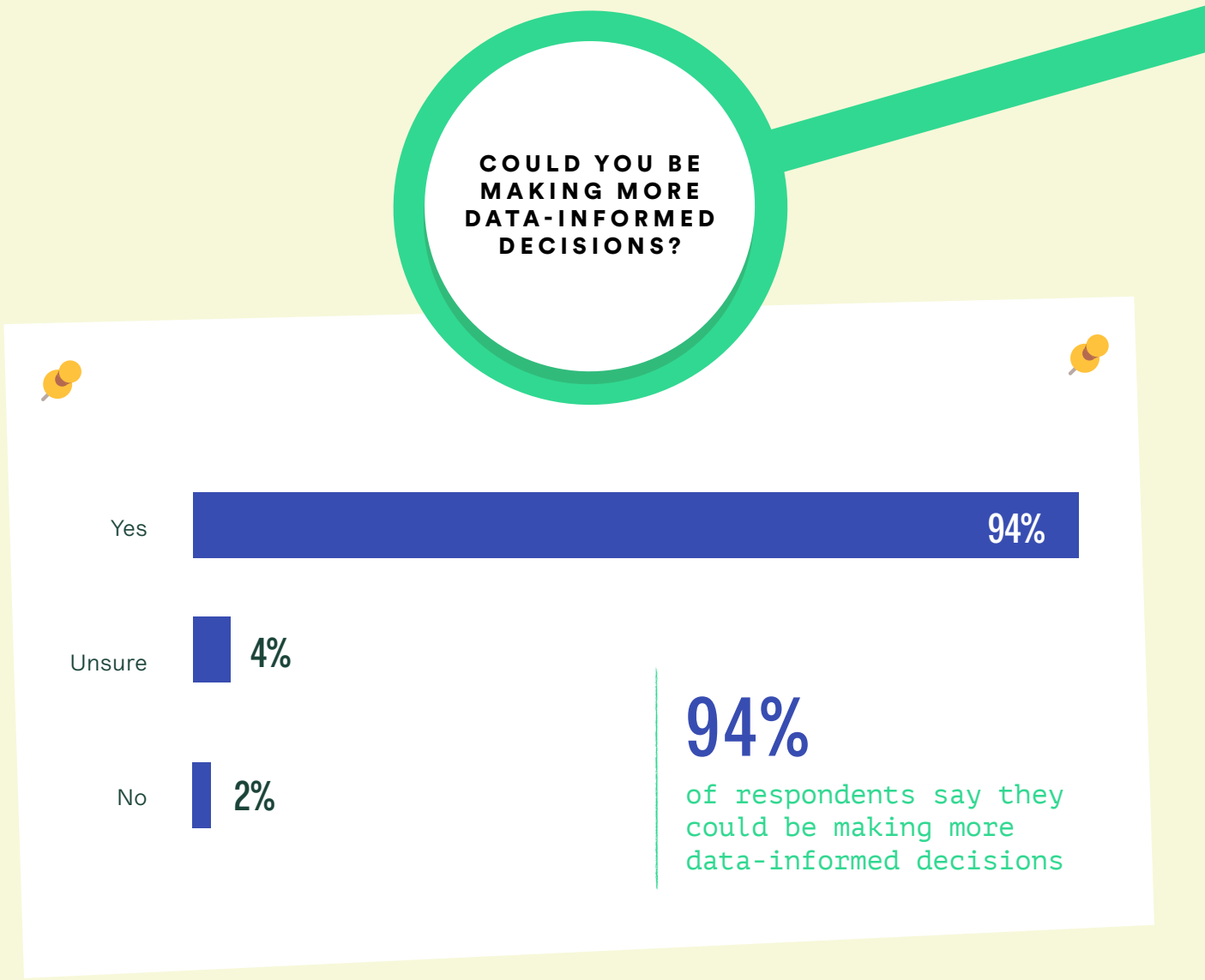


Being more data-informed

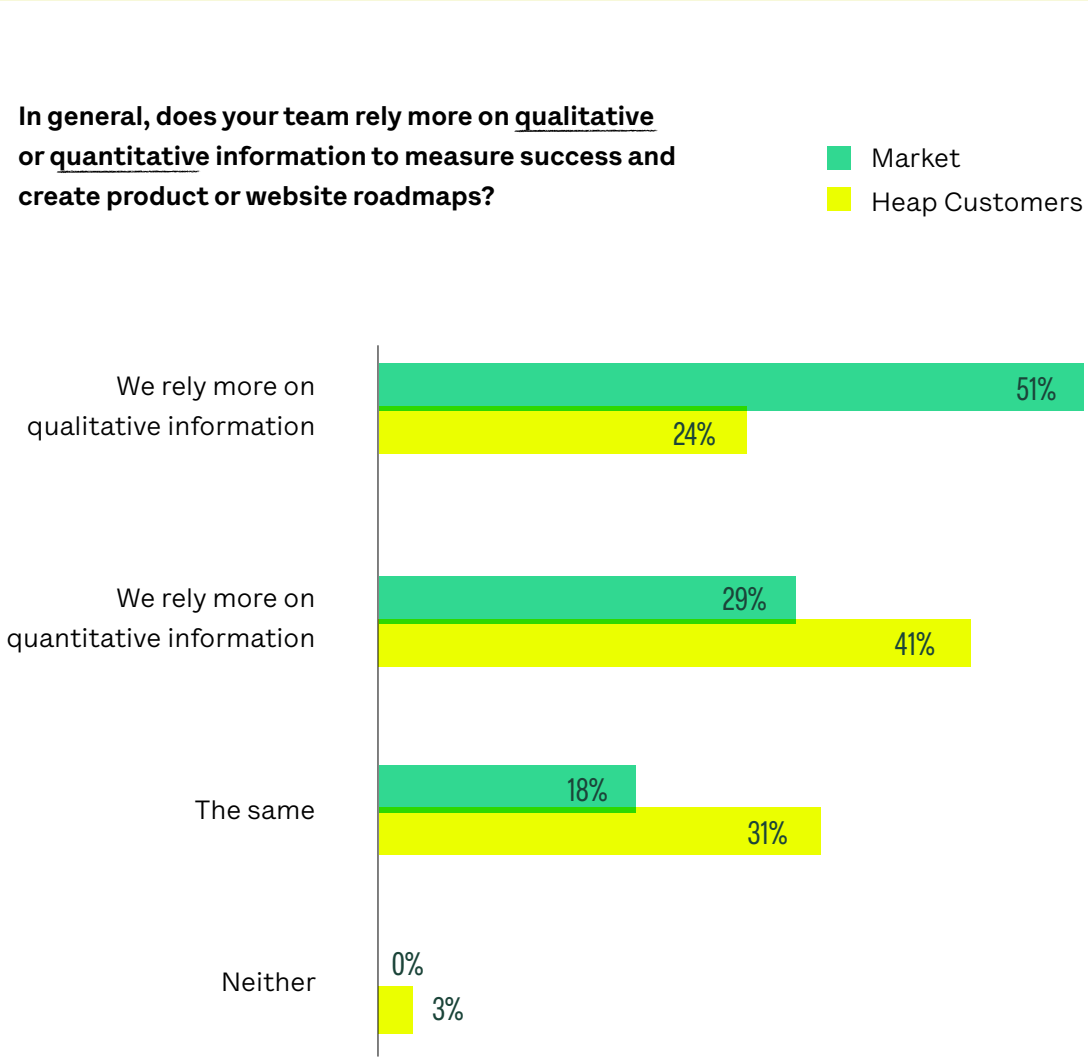
Here's something reassuring: if you suspect that your team could be making more data-informed decisions, you're certainly not alone.

When figuring out how, though ... our respondents tell us there's no magic bullet. Teams need resources. They need the right tools. And they need a culture that prioritizes data.

The good news is that with so many areas to improve, there's opportunity to gain ground quickly.



Quantitative vs qualitative tools



In general, when teams are on the hunt for data to inform their decisions, it tends to fall into two types: quantitative and qualitative.

Quantitative tools are tools that return numerical data. The cold hard facts. They can tell you how many users take an action, or what the conversion rate is in a funnel. They can identify key trends and patterns, and are usually used to measure the health of the business.

Qualitative tools give you more experiential information, letting you spy on your users' actual experience. They include things like customer interviews, or watching session replays. While they can't give you large-scale information, they can give you insight into *why* users are doing what they do.

INSIGHT

What we learned: in the market, teams tend to rely more on qualitative information. Significantly so.

Heap customers, however, overwhelmingly rely on quantitative data, or combine quantitative and qualitative data. In our minds, blending cold hard facts with qualitative intelligence is the best route to the truth.

How do teams use Session Replay?

BINGE-WATCHING: IT'S NOT JUST FOR NETFLIX!

Before Heap began offering integrated session replays, our own teams would regularly gather on Fridays to review sessions in batches. (Session Replay Fridays!) We did this in part because it took a fair amount of work to find the right sessions and cue them up to the interesting moments.

Heap Session Replay now cues up all sessions automatically, so that teams don't have to search for the right moments in them. But that got us wondering how other people watch their replays—all at once, or as part of their regular analytics workflow?

So we looked at two things:

1. How teams enter the session replay part of our product, and
2. How often Heap customers view sessions in bursts. We defined this as having more than 50% of their replays be watched on a single day in the month

Our findings revealed that "session watching parties" are still a thing!

Heap data

15.3%

of teams watch more than 50% of their monthly replays on a single day (implying they watch replays in bursts)

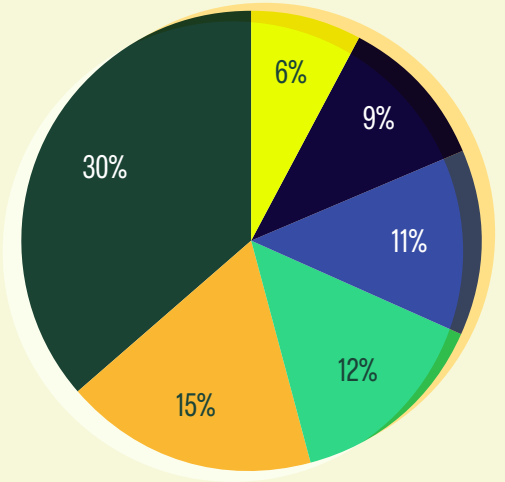
WHERE DO SESSION REPLAY VIEWS COME FROM?

As integrated session replay becomes more prominent (session replays that are instantly accessible from other analytics environments), we wanted to see how Heap users engage with session replays. Do they still enter the session replay view from the "sessions view" page, or do they come from other parts of the platform?

Although it's the largest of the chart, only 30% of replay-viewing sessions start from the sessions view. The rest mostly start from other parts of the product.

This suggests that more teams are getting used to working with analytics and replays together, and are increasingly going back and forth between the two.

We also expect this to develop significantly over time as Heap's platform changes.



What kinds of analyses do teams run?

When trying to figure out how teams use data, one signal is the different kinds of reports they make. So we investigated our platform usage to see what we could find.

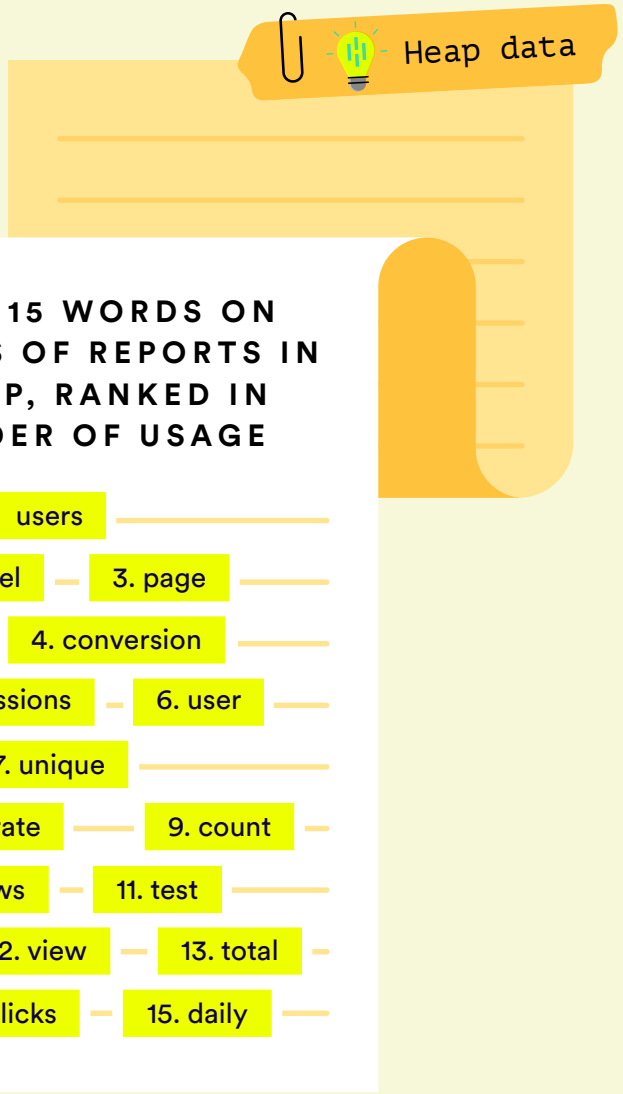
First, we looked at the key words people put on titles of reports. The hope was that this would show us what kinds of information teams value. **Second, we looked at the time frames teams asked about.** Do teams look at data from years ago? Or do they mostly examine data from the past month?

UNUSUAL OBSERVATIONS

It's not a surprise that "users" is #1. Teams are interested in what their users are doing! But it's very interesting that "funnel" is right behind it. This may imply that what's most important for digital experience teams is understanding where and when dropoff is happening. It may also reflect the fact that teams still see user behavior as a funnel.

The fact that "unique" shows up in the top third of the list suggests that teams may segmenting users by specific characteristics to better understand behavior, or to personalize content or recommendations.

The words "Daily" and "Weekly" are used with nearly the same frequency. But "Monthly" is used much less often. This could indicate that the more granular the data, the more it's expected to change, and is therefore more closely watched.



What time periods do teams pay attention to?

Heap data

Time period of data asked about	% of queries that ask about this data
1-7 days previous	44.95%
7-30 days previous	6.63%
30-90 days previous	19.46%
90 days - 1 year previous	17.79%
1 year - 2 year previous	8.81%
2 years - 3 years previous	0.50%
3+ years previous	0.24%

INSIGHT

Fascinating! Nearly half of Heap queries are dedicated to data from the previous week. Apparently teams are interested in tracking changes in near-real time, or at least seeing how things change week-over-week.

At the same time, more than 25% of queries examine data from longer than 90 days ago. Another sweet spot seems to be data from more than a month but less than a quarter previous. One takeaway: teams aren't necessarily prone to recency bias, at least on in the data they're looking at.

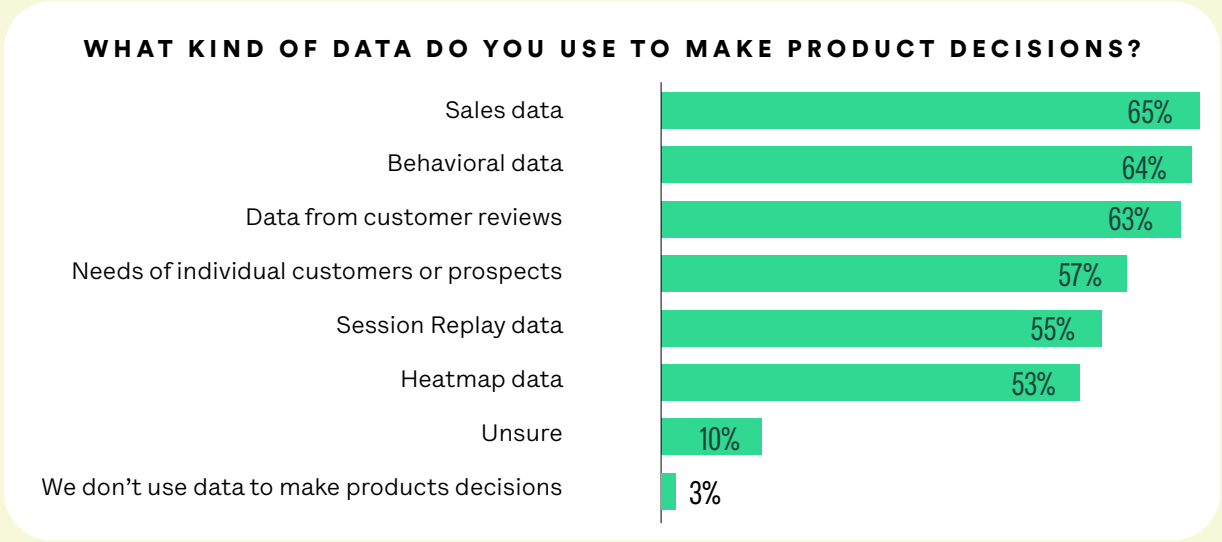
What metrics are people using, and how?

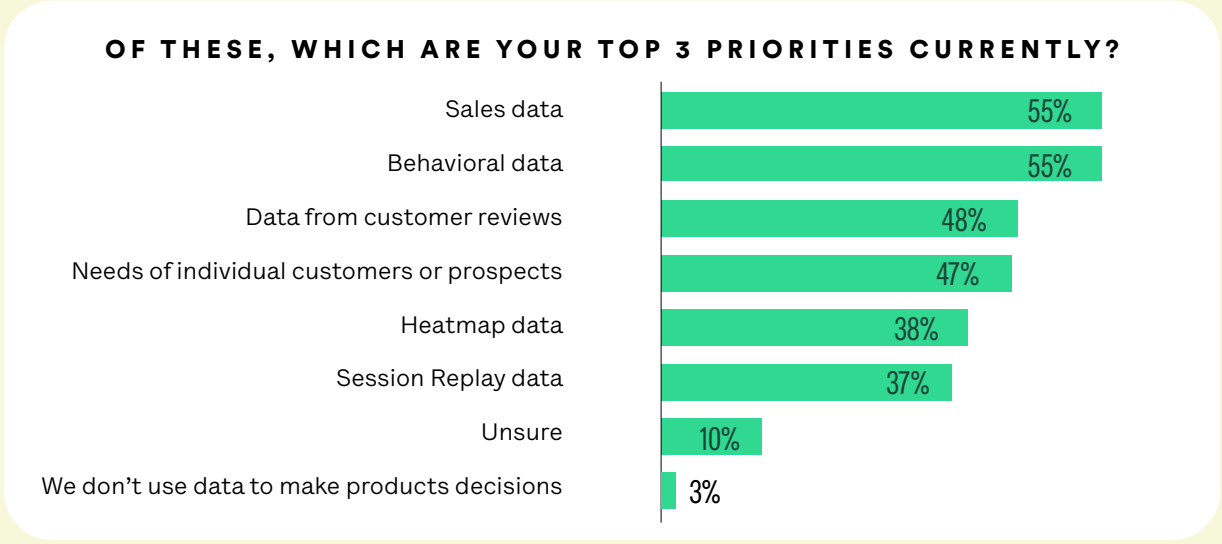
Metrics are versatile markers. So we wanted to benchmark how people use theirs. We asked about having a North Star. We asked about key metrics. We asked how often metrics are reviewed. What did our investigation reveal? Read on!

WHAT KINDS OF DATA INFORMS PRODUCT DECISIONS?

Our first question led us to ask what kinds of data steer product roadmap or resourcing decisions. What we didn't expect: the near equal weighting of so many kinds of data.

Most intriguing was the fact that more teams prioritize behavioral and sales data over the needs of individual customers or prospects. This generally reflects a higher level of data maturity, and a commitment to longer-term product strategy.



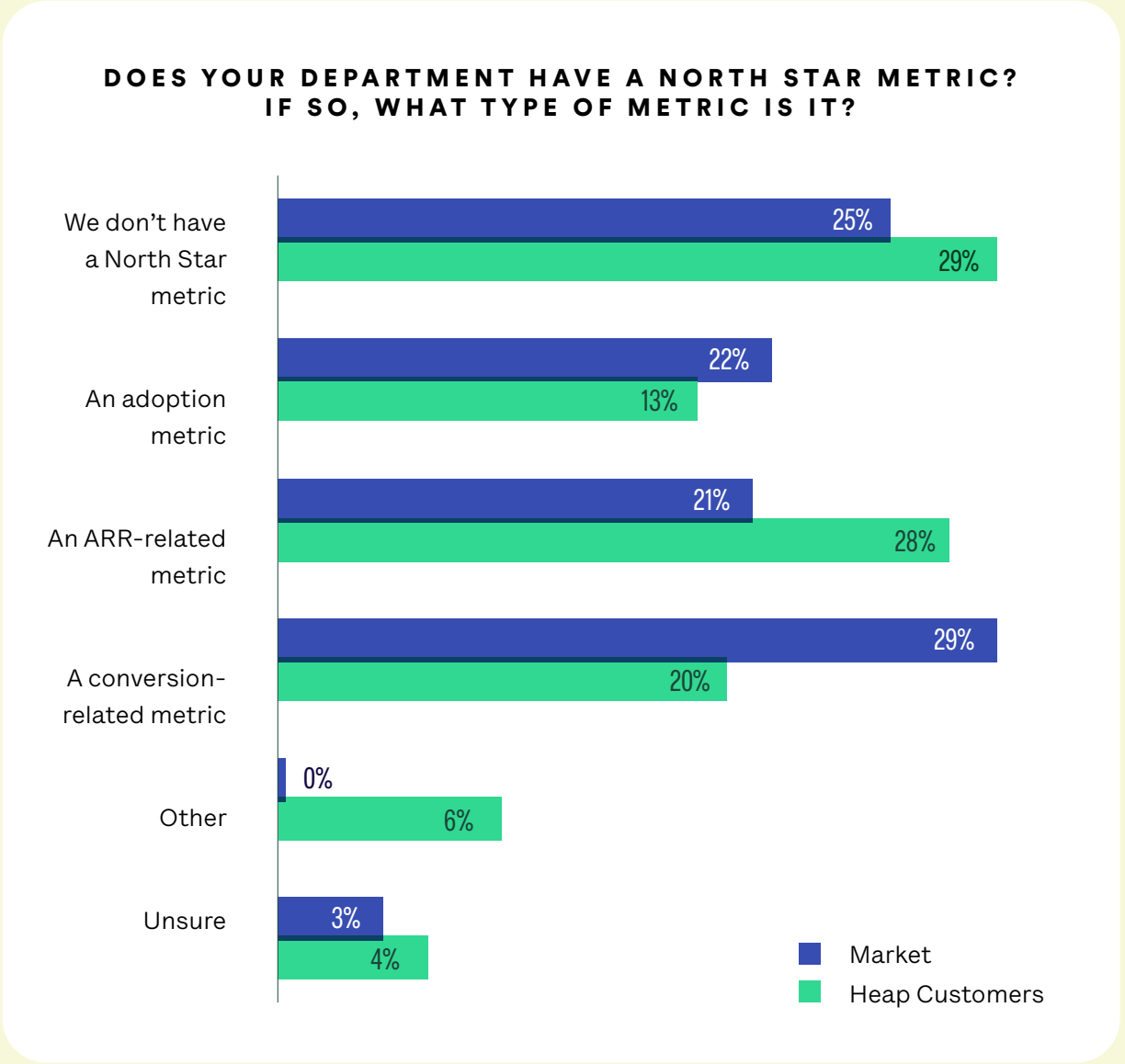


Does your department have a North Star Metric?

A North Star is a singular core metric that works as a primary indicator of a business' or team's success. Opinions vary as to the effectiveness of the North Star Metric. So we set out to see who used them, and how.

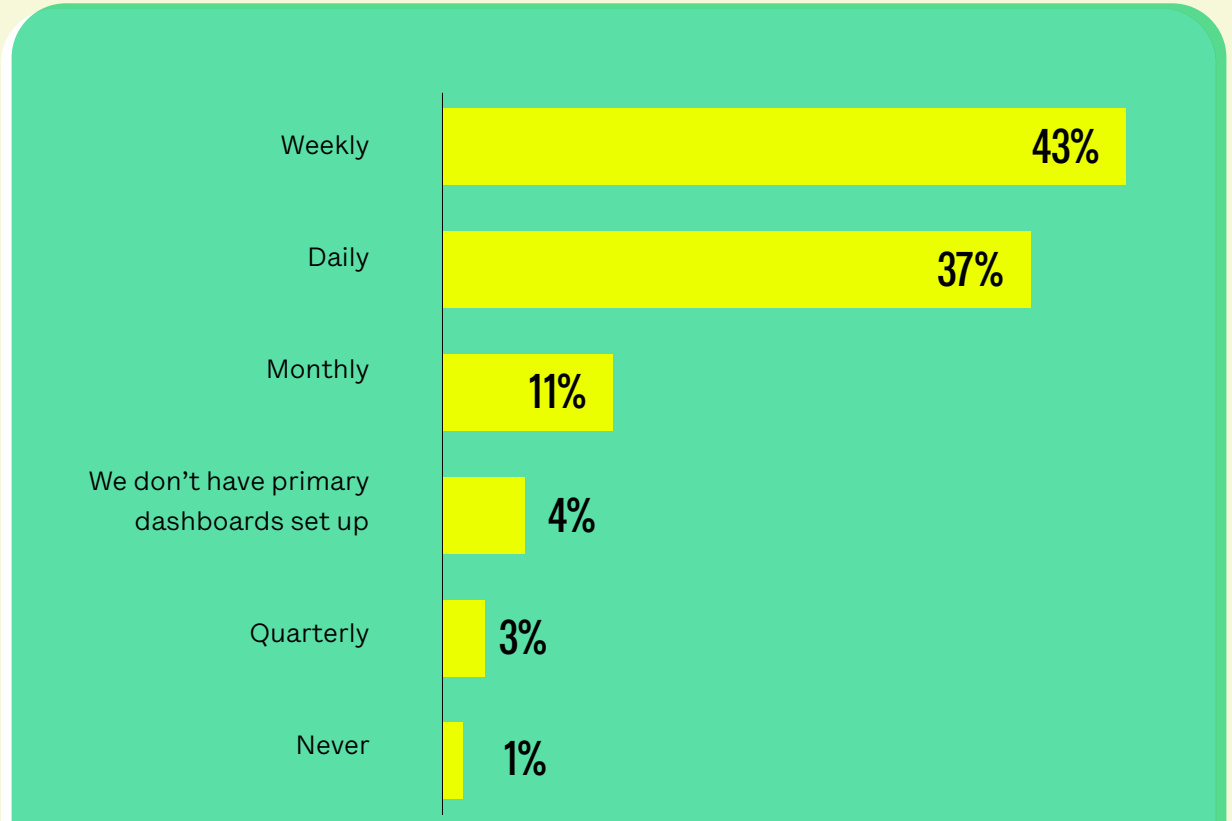
What's interesting is that the most prominent metrics measure conversion and revenue, as opposed to user behaviors. This does suggest that the product world is spending a fair amount of time thinking about business impact.

We also found that Heap customers prioritize revenue metrics while the market prefers to track conversion. This could suggest that Heap customers are further downstream in their optimization efforts and busy measuring their effectiveness, while the general market is still figuring out workflows.



Does your department have a North Star Metric? cont'd.

HOW OFTEN DO YOU REVIEW YOUR PRIMARY DASHBOARDS?



INSIGHT

We also asked teams how often they review their primary dashboards. Nice to see that the large majority of teams review either weekly or daily! Even so, 20% of teams review monthly or less.

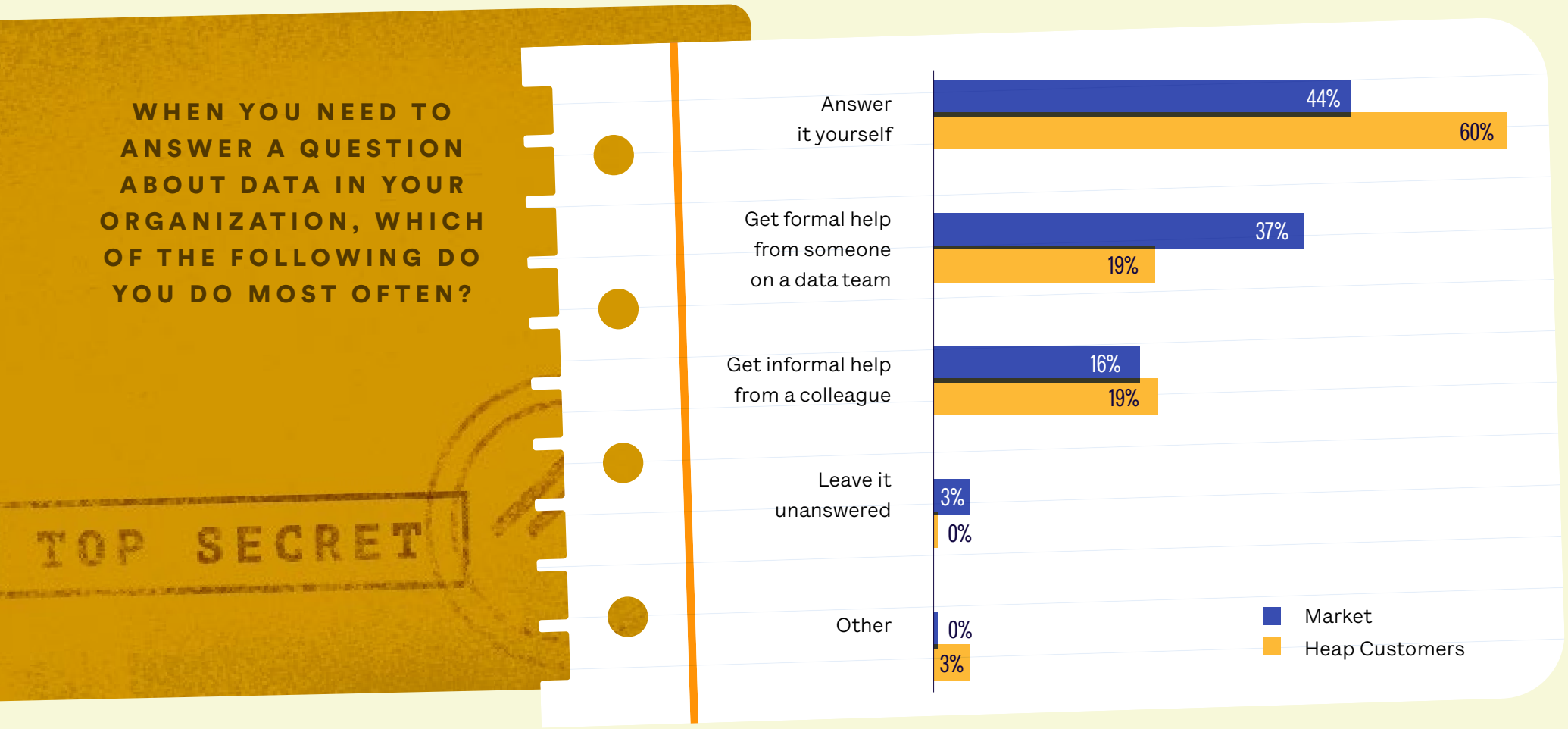
How do you answer questions?

Ideally data should be shared around the company. Part of doing this is making it easy for people to answer data-related questions on their own.

We found that Heap customers tend to answer questions by themselves more often than the market does. But the market is no slouch. The majority still answer their own questions before asking a pro.

One suggestion is that data tools are becoming easier to use, with no-code and low-code tools having ascended in the past few years.

WHEN YOU NEED TO ANSWER A QUESTION ABOUT DATA IN YOUR ORGANIZATION, WHICH OF THE FOLLOWING DO YOU DO MOST OFTEN?



Tracking feature launches

A large part of being data-driven is being focused on outcomes, instead of outputs.

The distinction is powerful. For many teams, the important metric is “Did this feature ship or not?” The problem: just getting a feature out doesn’t tell you anything about the business.

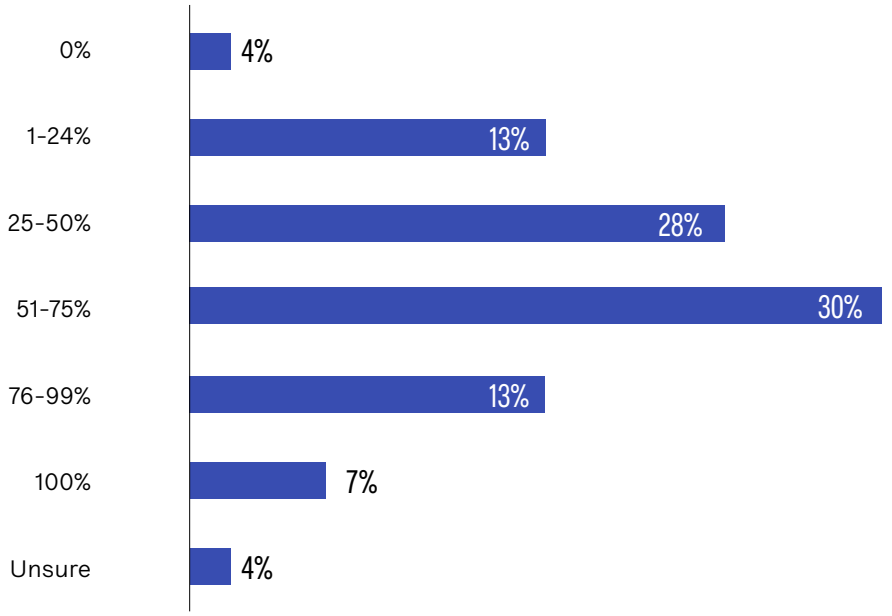
Good metrics, in contrast, focus on the effects of the feature. Did it perform like we wanted it to? If not, why not? What should we change about it? Is the issue discoverability, feature quality, ease of use, or something else?”

We recommend that teams never launch anything without specifying which metrics they hope to change, and how. What do you hope the feature will do, and how will you know? A good way to track this is to see how many teams set metrics-based targets for their launches.

Most teams are somewhere around 50% in their efforts. This isn’t terrible. But there’s room for improvement!

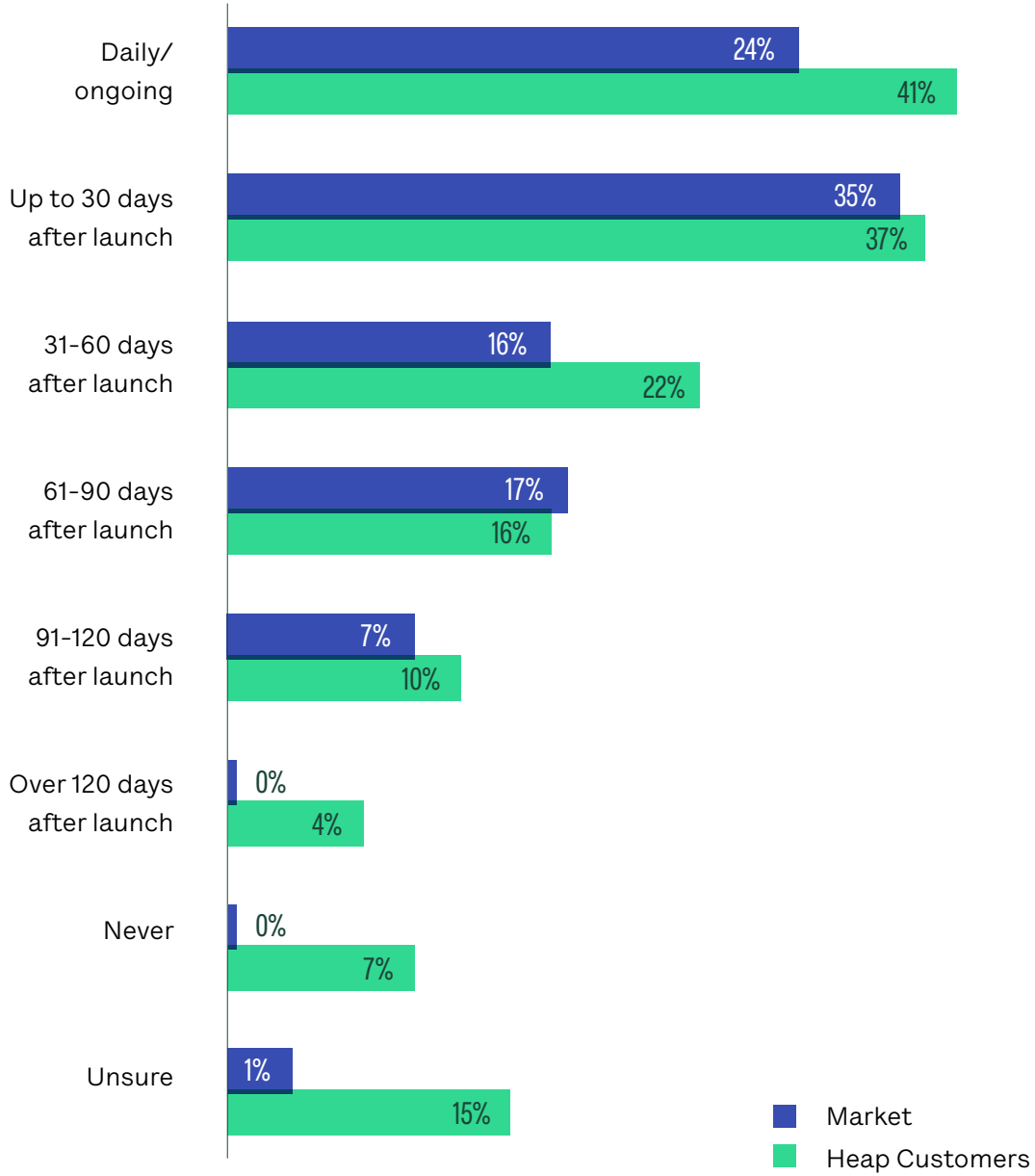
FOR WHAT PERCENTAGE OF FEATURE LAUNCHES DO YOU SET METRIC-BASED TARGETS?

Combined market data & Heap customers:



HOW OFTEN AFTER LAUNCH DO YOU EVALUATE YOUR FEATURES' PERFORMANCES?

Similarly, we were interested in learning how many teams track metrics after launch. Do they just ship a feature and move on to the next thing? Or are they measuring and learning, so they can improve?



INSIGHT

Here we saw a distinction between Heap customers and the larger market. Heap customers, it seems, track launches more consistently and for longer periods of time than most teams do. Three cheers for data!

Understanding business impact

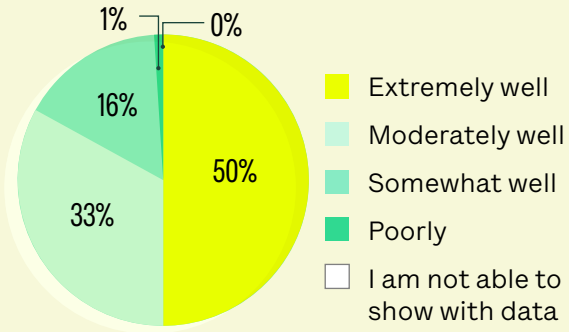
A big part of working on digital experiences is understanding the impact of the work you do. But doing so can be a tricky culprit to get a hold of. If you can't prove something, that doesn't mean it didn't work. But it might mean you don't know why it worked. And it definitely means no one can get credit for their efforts.

Demonstrable results are always a powerful convincer that bring you more credibility, more funding, and more resources.

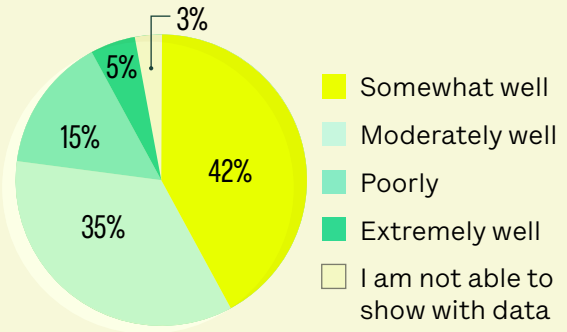
We were surprised to see that so many people in the market say they can do it extremely well, while our own customers, who have proven to be very conversant with data, were a little less enthusiastic.

How well can you track and demonstrate the quantitative impact of your (or your team's, if you lead a team) day-to-day work on the business?

THE MARKET SAYS:

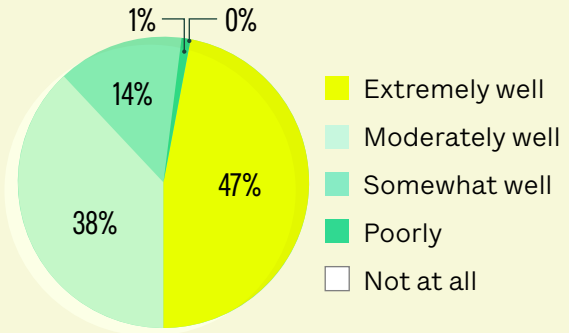


HEAP CUSTOMERS SAY:

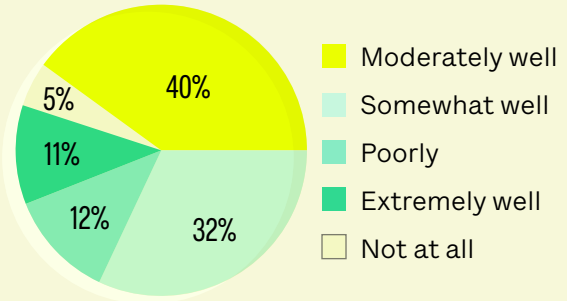


If you have individual metric goals, how well do those metric goals ladder up to larger business goals?

THE MARKET SAYS:



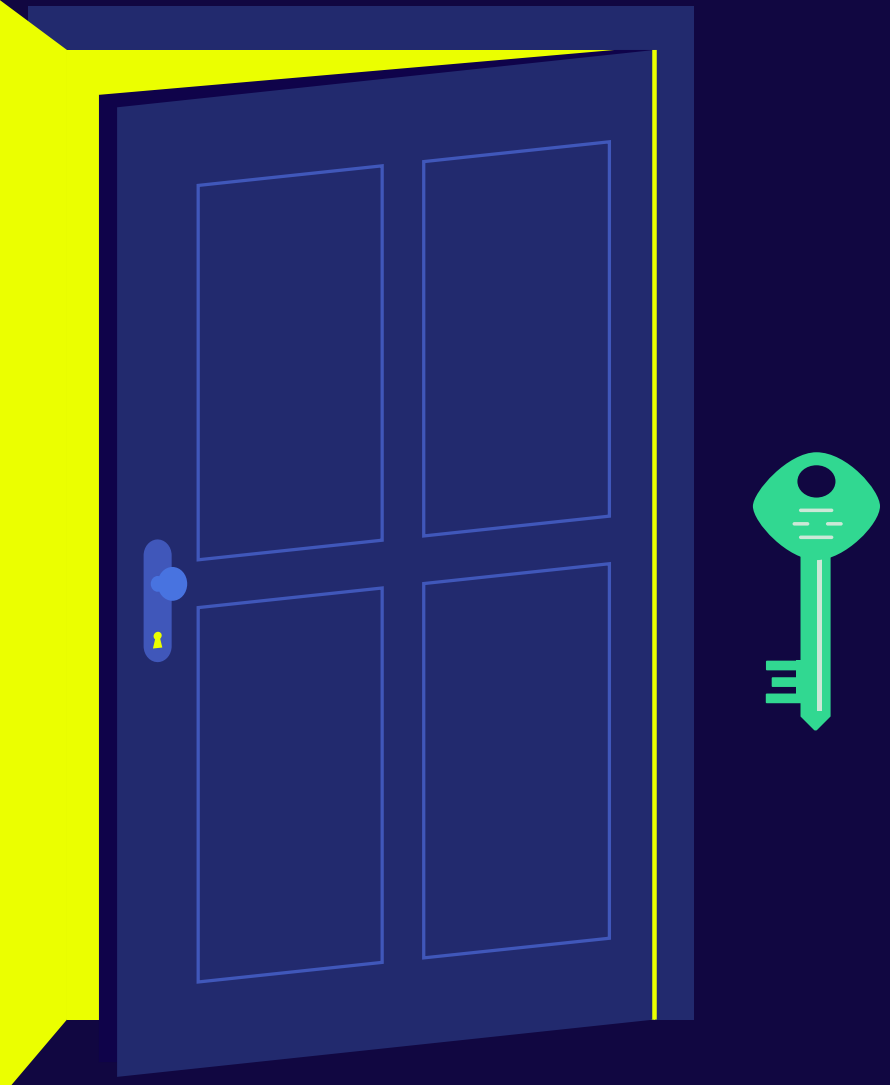
HEAP CUSTOMERS SAY:



PART 3

Looking forward

The world of digital experiences is all about rapid change. The pandemic accelerated digital transformation. But now we're already past that. It's a dynamic landscape filled with innovation and possibilities. And possibly a few pitfalls.

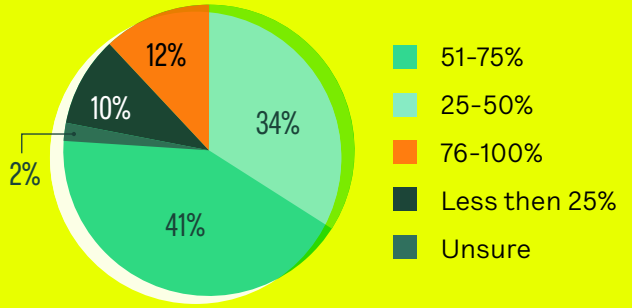


AI

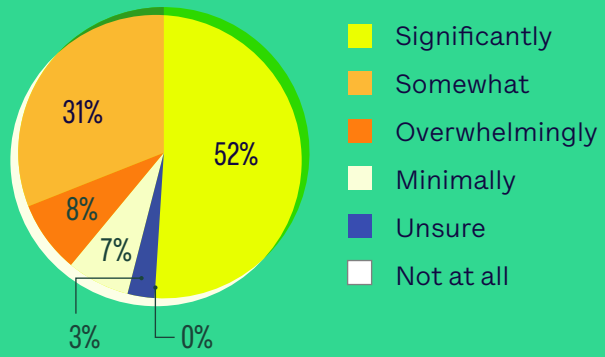
While it's been around for decades, AI is finally having its moment. Everyone's talking about, worrying about, and experimenting with it. Will this ultimately be a bubble of enthusiasm, like cryptocurrency? Or will AI truly revolutionize industry and society?

It's exciting to think about, and at this point nobody—not even AI itself—can fully predict where it will land. Next year there may be whole new categories of metrics to track. We'll have to wait for a tech minute and see.

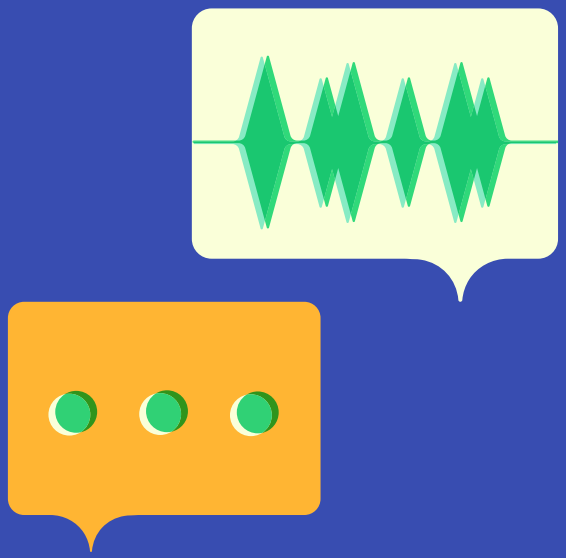
WITHIN THE NEXT YEAR, WHAT PERCENTAGE OF YOUR DAILY WORK DO YOU THINK WILL BE IMPACTED BY AI?

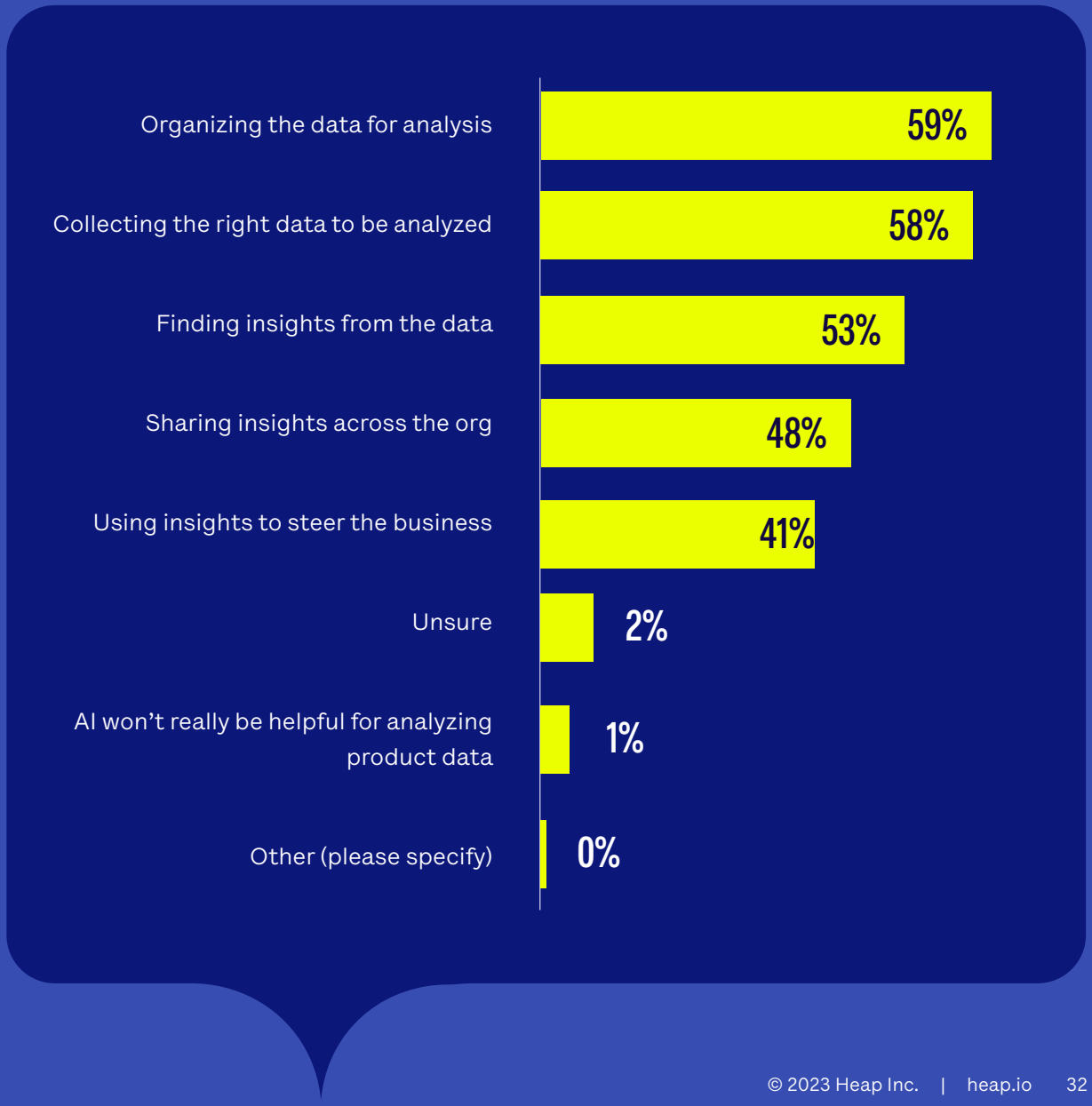


TO WHAT DEGREE DO YOU THINK AI WILL CHANGE THE WAY YOU ANALYZE THE CUSTOMER JOURNEY ON YOUR SITE OR PRODUCT?



WHEN IT COMES TO ANALYZING PRODUCT DATA, WHICH DO YOU THINK AI WILL HELP WITH?





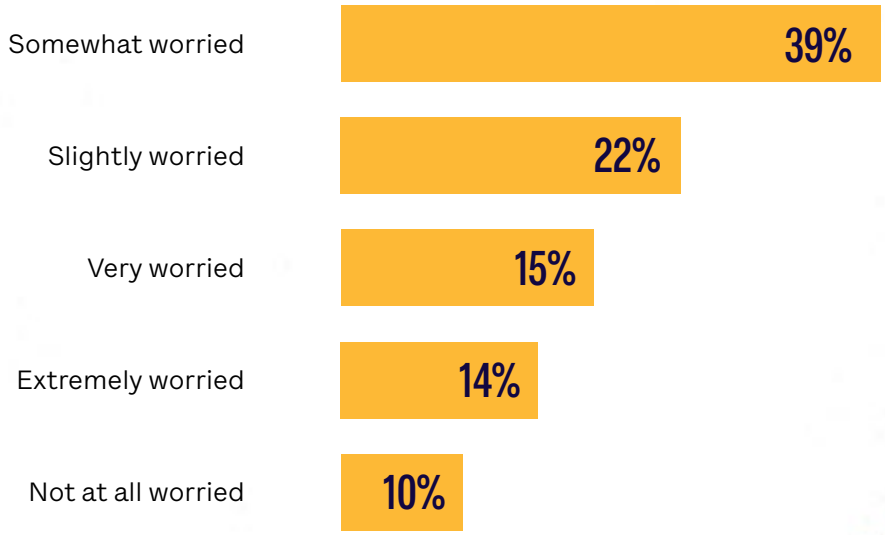
Privacy laws

Privacy is a major concern in the digital realm. The rules seem to change monthly, with issues like cookie data, personal identifiable information (PII), and global privacy coming to the fore.

With data breaches a constant and ever-present threat, regulations like the European General Data Protection Regulation (GDPR) and the California Consumer Privacy Act (CCPA) have placed restrictions on cookie usage and emphasized user consent.

Are teams worried? Yes, it turns out. A full 68% of respondents are at least somewhat worried that these regulations will get in the way of getting the data they need. Solutions will likely be as variable as global rules are.

HOW WORRIED ARE YOU THAT THE GLOBAL DATA REGULATIONS (PRIVACY, SECURITY, RULES ABOUT WHAT DATA COMPANIES CAN COLLECT, DIFFERENT LAWS IN DIFFERENT COUNTRIES) WILL MAKE IT DIFFICULT TO GATHER AND UTILIZE THE DATA YOU NEED?



Conclusion

We hope you enjoyed our first annual data survey! You've earned your data detective's badge.

In some ways it confirmed some long-held intuitions. Nearly everyone feels that they could be making more data-informed decisions. Nearly everyone has a set of core metrics they evaluate regularly. And the largest obstacles for most were not having enough resources and tools, or lacking a culture that prioritized using data.

But there were some surprises. Many respondents believe AI will be pivotal in changing the way they analyze the customer journey. We can't wait to see how that develops. We were also interested to see those several areas where Heap customers' responses deviated noticeably from the market.

As you review these digital data dossiers, remember that the journey has only just begun. The path ahead may be shrouded in the fog of uncertainty. But as data detectives, you now hold the power to decode the data enigmas. Stay vigilant! Here's to your future missions, your discoveries, and the endless possibilities that await.

Learn more about how Heap can give your team the insights that drive business results.

Contact Us

Market data was gathered by an independent research agency, CITE Research, in August 2023. We surveyed 229 respondents with product titles, all self-identified as coming from the following verticals: SaaS/B2B, Fintech/Financial Services, Retail/Ecommerce, Healthtech/Healthcare, or Consumer technology. Customer data was gathered by Heap via a survey sent to customers in August 2023. There were 80 respondents. Internal data was gathered in August 2023, and reflects aggregated, anonymized data from the whole of Heap's user base.

Heap