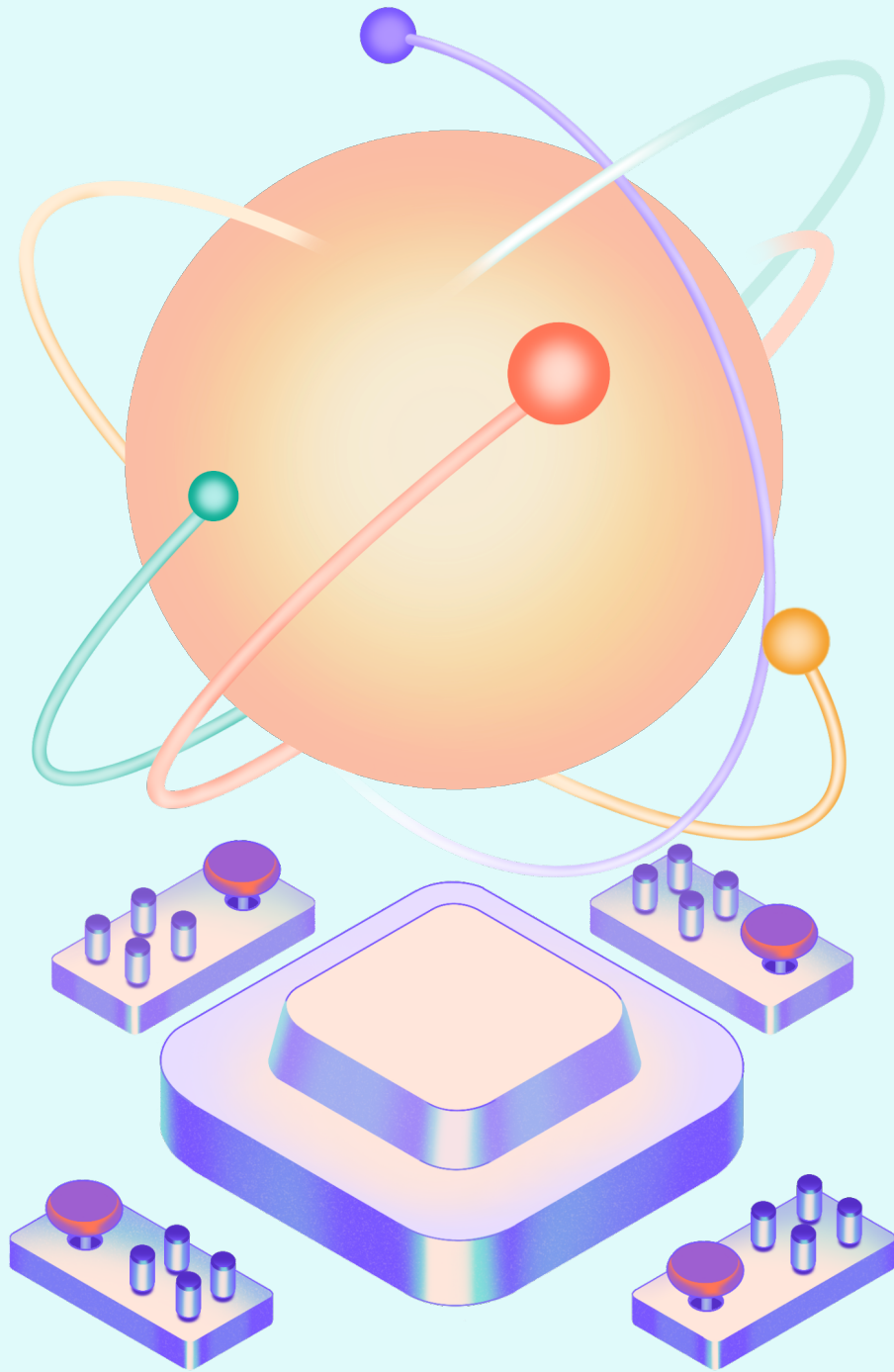


A BOOK OF QUESTIONS AND ANSWERS

The Guide to Product Analytics



mixpanel



This book lays out a very clear playbook to understand how to measure and then improve the success of your product. This is exactly the material I wish I had earlier in my career when we had to stumble through on our own. Mixpanel has clear insights and tools to help you understand the value your customers are getting out of your product and how to make sure that keeps happening.”

Josh Elman, [VC & Advisor](#); [Former Product Leader at Robinhood, LinkedIn, Twitter](#)



What makes a great PM is a mix of knowledge, skill and courage in addition to perseverance. No one can really teach you how to be a great product manager. It’s the result of your experience and your ability to stay curious and to push through to practice and reiteration. As PMs, we are all working through the same challenges; this book is a collection of best practices and knowledge sharing from great PMs.”

Idan Dadon, [Product Manager, Viber](#)



When your company is just getting off the ground, you’ll likely find value in looking at qualitative data alone. But once you start building insights over time, layering on quantitative data becomes vital for a more objective understanding of your product. Product analytics can help product practitioners find answers to essential questions like: What is the value you’re providing to your customers? What do you want your customers to do within your product? And, what is the short-term indicator of your long-term success? Evolving a business to become data-informed isn’t easy, but it’s key to building products that last. This book provides the foundation to help you do just that.”

Andrew Chen, [General Partner, Andreessen Horowitz](#)

Table of Contents

| | |
|---|--------------|
| Introduction | 03 |
| Part 1. Measure value: The foundations of product analytics | 04 |
| · How does my product bring value? | 05-07 |
| · How can I monetize my product? | 08 |
| · Can product value always be measured and analyzed? | 10 |
| · What is a value moment? | 11-13 |
| · Which metrics should I pick to measure product success? | 14-16 |
| · Where do product leaders typically go wrong when defining their focus metric? | 17-18 |
| · When it comes to choosing product metrics, what's the difference between a good PM and a great PM? | 19-20 |
| Part 2. Get to know your users | 21 |
| · What's user segmentation in product analytics? | 22-23 |
| · What's DAU/ WAU/ MAU? | 24-25 |
| · When should you measure DAU/WAU/MAU? | 26-27 |
| · How can I measure my DAU/WAU/MAU count? | 28-30 |
| · When it comes to measuring active usage, what's the difference between a good PM and a great PM? | 31 |
| Part 3. Analyze user engagement | 32-33 |
| · What is my product usage interval? | 34-35 |
| · Who are my power/core/casual users? | 36-39 |
| · What is the right definition of power/core/casual users for my product? | 40-41 |
| · How can I tie active usage to my value exchange (monetization) model? | 42 |
| · Besides segmenting by level of engagement, how else can you analyze different groups of users with product analytics? | 43-46 |
| · How can I track new users, resurrected users, retained users, and dormant users? | 47-48 |
| Part 4. Retain your users | 49-50 |
| · Where are my users dropping off? | 51-52 |
| · Should B2B and B2C companies measure drop-off on their user's path to value differently? | 53 |
| · How can I measure user drop-off? | 54-57 |
| · Why should I measure retention? | 58-59 |
| · How do I measure retention? | 60 |
| · When it comes to retention, what's the difference between a good PM and a great PM? | 61-62 |
| · Who are my most retained users? | 63-64 |
| Part 5. Grow and scale | 65-67 |
| · How should your growth strategy change as your company matures? | 68-70 |
| · How can a product manager drive growth? | 71-72 |
| · Where are my most valuable users coming from? | 73-74 |
| Conclusion | 74 |

Introduction

Product management is riddled with buzzwords—growth loops, power user curves, big data, AI—and the sheer number of metrics, retention types, charts, and frameworks can overwhelm attempts to understand users and make better products for them.

But strip away the jargon, and the problem that product managers are solving today suddenly becomes very clear. The specifics will vary by product and market context, but essentially, every product manager wants the same thing: to build products that customers find valuable.

That, of course, depends on how well you understand your users—which depends, in turn, on your ability to ask the right questions and use data to get the answers you need. From defining product value, to measuring it and prioritizing what's next, this book is about using product analytics to build a sustainable path for growth.

We wrote this book in collaboration with dozens of product leaders, people who earned their stripes at companies like Google, Twitter, LinkedIn, and ZipRecruiter. We wrote it for product managers, but it's really for anyone who wants to deeply understand how people use products—without coding or asking a data analytics team. Because when more people can ask product questions and get answers quickly, companies move faster, build better products, and create more value for everyone.

The questions in this book are grouped into broad but practical categories that will help you learn such important things as:

- What exactly do you need to measure in your product?
- How do you account for different types of users in your analysis?
- How do you narrow your focus around a single conversion flow to iterate faster?
- Where are your best users coming from?

Lastly, because we are a product analytics company, throughout the book we'll show you some hands-on examples of how you can answer these questions with Mixpanel. And just as with any digital product today, this book will be continuously updated. You can find the most up-to-date version online at mixpanel.com/guide-to-product-analytics.

CHAPTER 01

Measure value: The foundations of product analytics

QUESTIONS ANSWERED

- How does my product bring value?
- How can I monetize my product?
- Can product value always be measured and analyzed?
- What is a value moment?
- Which metrics should I pick to measure product success?
- Where do product leaders typically go wrong when defining their focus metric?
- When it comes to choosing product metrics, what's the difference between a good PM and a great PM?

QUESTION ANSWERED

How does my product bring value?

The idea of value (as opposed to physical or digital features) is at the core of every product. If customers find value in your product, they use it. If they don't, they stop using it. This simple truth explains why defining your product's value comes first. Later in the book, we'll cover many questions that you can answer with product analytics. But this question—Why are people using my product?—is not one of them because no product analytics tools can define that for you.

But you probably already know why. Depending on your product, your customers usually have very clear and obvious reasons for using it. Fitbit users, for example, buy the watch and download the Fitbit app because they are looking for motivation. Netflix users keep coming back for entertainment. For over four and a half million user of WW (formely Weight Watchers), the app fills the need for community and support.

To understand your product's value, you need to step back and ask, "What are my users hoping to do with my product? And what is my product really about?"

| Product | Value | Value Exchange |
|--|--|--|
| Talkspace (therapy app) | Improved mental health | Subscription |
| Hinge (dating app) | Finding a date | In-app purchases (e.g., preferred membership, unlimited number of likes) |
| Classpass (fitness and health app) | Motivation to work out and eat healthy | In-app purchase and subscription |
| Twitch (live streaming) | Being entertained | User attention; in-app purchases (“Bits”); subscription |
| DocuSign (electronic signature solution) | Convenience | Subscription |

If you look at the most successful digital products today, they have one thing in common: They make it easier, cheaper, or more convenient for people to live their lives and get what they want. Identifying the specific behaviors that indicate that people are getting value is key to building a lasting product. Further, knowing when your users get value from your product can help you clear the path to that critical value moment for more users, which means more people get value and are willing to keep coming back—and perhaps even pay.

To understand your product's value, you need to step back and ask, "What are my users hoping to do with my product? And what is my product really about?"

How can I monetize my product?

A classic value exchange (or monetization) is money in return for a product or service. Depending on your profit model, the most common types of value exchange are:

- **Transactional**
 - Users pay a fixed price per unit of the product, such as \$3.99 for a mobile app.
- **Subscription**
 - Users pay a fixed price per unit of time, and then receive a fixed number of units (such as three audio books monthly) or unlimited use over the subscription period (such as unlimited number of movies and shows monthly on a video streaming app).
- **Licensing**
 - Users pay a license fee to use, sell, or copy a product. For example, a ride sharing app pays a fixed fee to the provider of mapping software.
- **Freemium**
 - Some users get a version of the product for free, while others pay for a premium version (with more/better features). For example, an audio streaming service sells a subscription that allows uninterrupted listening.

The moment of value exchange between a user and a business isn't always tied (directly) to money. User attention (monetized, for example, through advertising) and data (used for training machine learning models) can be just as valuable. For product managers, these new types of value exchanges require new ways of thinking about user experience and clear communication around data-sharing practices to earn people's trust.

These profit models, or different ways of getting money in exchange for value in the digital world, are now so sophisticated and complex that understanding how your users derive value from your product becomes even more important. If you're not using product analytics, you're going to have a hard time grappling with this complexity. Without easy access to the data you need to make decisions quickly, it's challenging to grow and successfully monetize your business.



At the heart of monetization strategy is always a deep understanding of customer willingness to pay and how it differs for different customer segments and use cases.”

Dan Hockenmaier

Founder, Basis One; Growth Mentor and Contributor at Reforge

QUESTION ANSWERED

Can product value always be measured and analyzed?

Yes. No matter how “fuzzy” or intangible the value may appear, you can apply quantitative measurements to any product. For example, while it’s tough to gauge precisely how much fun and entertainment users are getting from a video streaming service, you can measure how many videos they watch weekly or how much time is spent on each.

Similarly, while finding a 100% precise way of measuring anxiety reduction in users of a meditation app might seem difficult without a qualitative study, you can measure completion rates for meditation sessions and the percentage of people coming back each week to use the app again and again. In addition, you can observe in what ways people who do come back behave differently from those who don’t.

In short, fuzzy measurement is still a useful measurement if it tells you more than you knew before.

A helpful tool in measuring value for your product is defining the so-called “value moments”—user events or actions that indicate that a person is getting value out of your product.

¹ Hubbard, Douglas W. *How to Measure Anything: Finding the Value of ‘Intangibles’ in Business*, 3rd ed. Wiley: 2014.

QUESTION ANSWERED

What is a value moment?

Your product's value moment is an event, an action, or a series of events and actions that represent the moment that a user found value in your product. Here are a few examples of value moments:

| Product | Value Moment |
|--|---------------------------------|
| Talkspace (therapy app) | Complete a therapy session |
| Hinge (dating app) | Like a photo or message |
| Classpass (fitness and health app) | Complete a workout |
| Twitch (live streaming) | Watch 5+ minutes of live stream |
| DocuSign (electronic signature solution) | Sign a contract |

Depending on your product, a user journey might look very different. To get to the value moment for the first time, some user flows require registration, verification, adding friends, or entering credit card information before a user can “activate” and experience the product’s value for the first time. (Reforge alumni will recognize this as the setup moment.) This initial journey to value is critical: The more quickly you can get your users to value, and the more you can signal during that journey what value is to come, the better the chances they’ll stick around for more value moments.



From the traveler side, booking is our number one objective—any test we run from the homepage all the way to the end of checkouts is going to have that as a primary goal. That said, we’re a two-sided marketplace—we also want partners to accept those booking requests.”

Jamie Kapilivsky, [Data Insights, Vrbo, part of Expedia Group](#)



We want users to complete a Smart Scan flow because it’s important in activating them and then getting them engaged. Smart Scan checks your system for all kinds of problems: privacy issues, performance issues, network and wifi security, out-of-date software. In this flow, we show what we have to offer. For the new users, this is the moment where they get impressed.”

Stephan Brenner, [Vice President - Product, Avira](#)



To grow in new markets, or maintain our current market presence in countries where we have strong presence, it's super critical for new users to start a conversation. But if they don't have anyone to communicate with, then eventually they'll probably just drop. For existing users, a referral is what we're hoping for.”

Idan Dadon, [Product Manager, Viber](#)

It's important to remember that in designing a user journey toward the value moment, the steps you ask a user to take should reflect your unique brand values. For example, the CTO of Primephonic, the Amsterdam-based music streaming service sometimes called “the Spotify of classical music,” has this to say about requiring a lot of user information at the outset of the relationship:



We've made a very clear decision to keep credit cards out of the signup process. And yes, that has a negative impact on our conversion numbers: The people that you let through the funnel are not as qualified as somebody who enters their credit card.

If we were to add a credit card, like a paywall, or a credit card wall on top of our funnel, our conversion numbers would immediately just jump because we'd be blocking those uninterested people right up front. On the flip side, that's also just a very crappy user experience. We're still a startup. We need to prove that we're worthy of your credit card before we ask for it.”

Henrique Boregio, [CTO, Primephonic](#)

QUESTION ANSWERED

Which metrics should I pick to measure product success?

Think of your value moment as a building block for successful product adoption. More value moments means a user has more opportunities to build a habit around your product and remain a customer in the long term. Turning value into a single key metric (known as the “North Star metric” or “focus metric”) can help your teams set tangible goals and measure what really matters.

| Product | Value Moment | Example Metric |
|--|---------------------------------|--|
| Talkspace (therapy app) | Complete a therapy session | # of users who complete a therapy session weekly |
| Hinge (dating app) | Swipe right and get a match | # of users who swipe right and get a match weekly |
| Classpass (fitness app) | Complete a workout | # of users who complete a workout weekly |
| Twitch (live streaming) | Watch 5+ minutes of live stream | # of users who watch a 5+ minutes of live stream daily |
| Open Table (reservation app) | Make a reservation | # of users who make a reservation monthly |
| DocuSign (electronic signature solution) | Sign a contract | # of users who signed contracts monthly |



Our key focus metric is the number of bookings per customer. This is how we track how well we're doing as well as our year-on-year growth rate.”

Karim Mouahbi, [Head of Marketing, Mad Paws](#)



One of our most important metrics is the conversion rate, which helps us determine what percentage of job seekers come into our platform, find a job that's relevant to them, and then complete the Apply flow.”

Akio Bandle, [Senior Product Manager, ZipRecruiter](#)



My team uses AI technology and conversational units to create engaging and effective ads. We track active user sessions (when a user clicks on the front screen and activates the ad) as well as conversation rate (when users click a button and/or type something in). The final metric we look at is engagement: if a user performs any action at all. We watch how users engage with our various ad units according to those three metrics and optimize toward the better performing ad units, whether they be for desktop or mobile.”

Shannon Ferguson, [Director of Measurement, The Weather Company](#)



Our primary metric is media minutes consumed. How much audio is being consumed by our users daily, monthly, on average, etc.? With every new feature we push out to users, we make sure the ‘media minutes consumed’ number stays flat or goes up.”

Henrique Boregio, [CTO, Primephonic](#)



Given the DocuSign Agreement Cloud simplifies and accelerates the way people prepare, sign, act on and manage agreements, one of our key metrics relates to speed. We’ve seen that 82% of DocuSign agreements are completed in less than 24 hours, and 50% in less than 15 minutes—that means the average turnaround time for a signature is reduced by more than 80% compared to paper ... and that in turn means significant ROI.”

Drew Ashlock, [Lead Product Manager, DocuSign](#)

Often, a rookie PM will attempt to track every single user event, come up with an array of metrics, and consider them all equally. This is risky because it can give you a false sense of how many active users you have and how often they get value from your product. Is everyone who logs into a messaging app, clicks into a profile, changes status, and goes to settings truly active and getting value? Maybe it’s only those who send messages? Prioritizing a single value moment is hard, but it’s a more straightforward way of gauging the value that your product brings to market.

Though initially your retention numbers might dribble down if you are no longer considering every single user action as a valuable moment, in the long term, retention and value are intrinsically the same. So, for a PM, focusing on value at all times is a surefire way to set up for long-term retention.

QUESTION ANSWERED

Where do product leaders typically go wrong when defining their focus metric?



The most common pitfall is relying either too much on intuition or too much on data. You have to start with a qualitative hypothesis of what the value moment is, based on first principles of your product's problem, target audience, differentiation, and other elements. You then need to validate that hypothesis with certain analyses. Teams that let the data drive the definition are letting the data dictate the strategy, when the data should be used to measure whether or not you are achieving the strategy. Those two things are fundamentally different.

The best leaders understand that a single metric can't capture the entire picture of their business, but that one metric at any given time can be the most important. It is a balance.

Most products should have four high-level metrics: an acquisition metric, retention metric, engagement metric, and monetization metric. The four of these act as a system where one can influence the other. They each capture a different dimension of what is happening with a product. But trying to improve all metrics at once typically isn't possible until you get to a much later stage and are able to dedicate teams to each area. Instead, leaders need to understand which one is most important at any given moment and make sure the teams understand that and are properly resourced to make meaningful progress.”

Brian Balfour, [CEO, Reforge](#)



Great PMs understand that their specific product’s context is a more important factor for defining metrics than any industry best practices. Creating a North Star metric has its benefits, chiefly simplicity in measuring progress and communicating it within and outside the team responsible for the product. When picking a North Star metric, great PMs look for a metric that is responsive to product changes, is an aggregate measure of the product’s value for its users, can be readily tied to value for the business or to broader company goals, and is expected to remain relevant for a reasonable duration of time (e.g., at least two to three years). Great PMs typically also complement a North Star metric with balancing metrics that can help measure any major negative user impact or business impact from moving a north star metric in the desired direction.”

Shreyas Doshi, [Lead PM at Stripe; Former Lead PM at Twitter, Google, Yahoo](#)



An effective North Star metric is a product manager's best friend. It provides cross-functional alignment on goals and tasks and an objective barometer for success when a product ships. Even products that generate direct revenue require an alternative product metric that tells a more holistic story of what's going on. When your North Star metric is clear, product ideation becomes a lot easier. Instead of asking yourself, ‘What should I build next?’ you should be asking, ‘What feature or product is most likely to move this metric the most?’”

Akio Bandle, [Sr. Product Manager, ZipRecruiter](#)



Don’t be data-driven—be data-informed. Data can tell you what is happening, while intuition tells you why it’s happening.”

Lenny Rachitsky, [Advisor & Former Lead PM, Airbnb](#)

QUESTION ANSWERED

When it comes to choosing product metrics, what's the difference between a good PM and a great PM?



Great PMs understand that metrics are not the mission. At the macro-level, metrics are useful markers for whether the product is achieving its mission and is doing so in a way that creates value for the company (i.e., that the execution is in alignment with the product strategy). At the micro-level, it's important to recognize that certain products lend themselves well to metrics-based product decisions whereas others don't.

For example: There is little to gain (and a lot to lose) from largely metrics-based product decisions for an early-stage product whose current usage is infinitesimal compared to its potential usage. In these situations, exercising product judgment by using inputs such as qualitative user feedback and competitive analysis will lead to better product decisions than 'reading too much' into the current usage metrics. Great PMs will still diligently define and track metrics for such a product, but they will use metrics as one of many inputs for their product decisions.”

Shreyas Doshi, [PM Lead at Stripe](#), [Former PM Lead at Twitter](#), [Google](#) and [Yahoo](#)



A good PM understands and tracks user behavior in the product that correlates with users getting value. A great PM prioritizes each new product feature based on how it can move the key value metric. A great PM is one who can think about innovation and incredibly technologically forward features. . . but never loses sight of their customer. She continually puts herself in the place of her customer, evaluating themselves at every step, behaving and thinking like the average user.”

Vinati Malik, [Senior Vice President of New Product Development, TataSky](#)

CHAPTER 02

Get to know your users

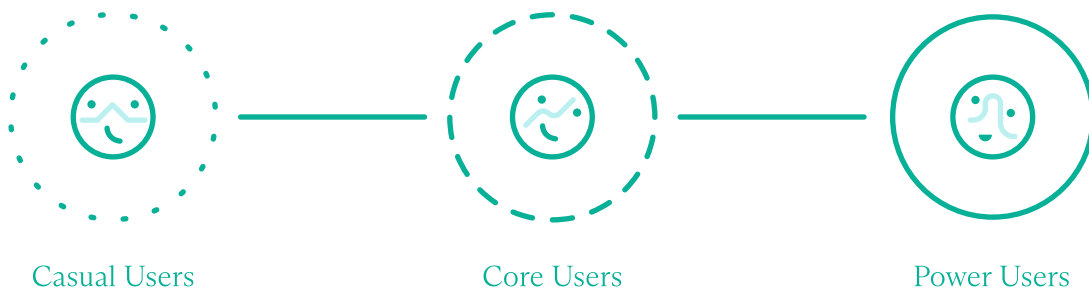
QUESTIONS ANSWERED

- What's user segmentation in product analytics?
- What's DAU/ WAU/ MAU?
- When should you measure DAU/WAU/MAU?
- How can I measure my DAU/WAU/MAU count?
- When it comes to measuring active usage, what's the difference between a good PM and a great PM?

QUESTION ANSWERED

What's user segmentation in product analytics?

If there's one thing that product managers, regardless of their industry and location, 100% agree on, it is that to build great products, you need to understand your users. One of the first things that product managers do when they get into product analytics is to look at different user actions and then segment them by country, hoping to find some magical distinction. Are users in South Korea more active than in Mongolia? Such data is curious and potentially useful for marketing. But when it comes to making product decisions, data on what users actually do in your product (behavioral data) speaks volumes more about who people actually are than their demographics. Such insights are more actionable, because in-product behavior can be “nudged”—and changed—more easily than demographics.



User segmentation in product analytics is grouping users based on their demographics or behavior in order to establish a baseline for analysis.

Mixpanel was built to help product managers understand user behavior. However, it lets you easily organize and analyze any user segment—behavioral (event-based) or demographic (profile-based).

How does it work? Event-based and profile-based segmentation

In Mixpanel, each data point is connected to a single user through a unique ID. Events are interactions between a user and your product. These are things users do, like signing up, adding items to cart, liking, and following. Profiles store information about who your users are, like where they live (geo), and what email they use to log in.



Event

- Signups
- Likes
- Following



Profile

- Geo location
- Email

Event-based and profile-based segmentation

What's DAU/ WAU/ MAU?

Not all behavioral insights are equally actionable. Take daily active users (DAUs), weekly active users (WAUs), and monthly active users (MAUs), the industry's most popular product metrics. These metrics are used to draw a simple distinction: Are my users active or not?

If you know what “active” means for your business, getting this data is easy with product analytics. Below, we explain:

- How to define and measure DAU/WAU/MAU
- The pitfalls of measuring active usage
- When to use DAU/WAU/MAU (and when not to)

Defining “active usage”

When calculating your DAU, WAU, or MAU, remember that A stands for “Active”

Some companies consider an active user to be someone who simply accesses the site or app. This approach is simple but flawed because it creates a distorted perspective of user engagement. Obviously, not every user who logs into your app ends up engaging with your product in a meaningful way. A better way to calculate active usage is to look only at users who find value in your product (daily, weekly, or monthly).

Examples of DAU/WAU/MAU

Facebook, for example, defines an active user as someone who has interacted with the site by “liking, sharing, commenting, or clicking through another link.” At Mixpanel, we consider customers to be “active” when they use our product analytics platform to analyze user behavior. The primary way to do that in Mixpanel is through user segmentation (i.e., our active customers are those who “filter” and “segment by” in their queries).

Monetizable “active usage”

Even though “active usage” should ideally be tied to “value moments” in your product, they are not the same metrics. As with any metric, the definition of “active users” is ultimately what a company internally decides “active users” should be in their business’s specific context. That means sometimes “active usage” is based on “value exchange moments” instead of “value moments.”

An example is the mDAU metric, which stands for monetizable daily active usage. The social media platform X (formerly Twitter) once said it defined monetizable active users as “users who logged in or were otherwise authenticated and accessed Twitter on any given day through Twitter.com or Twitter applications that are able to show ads.” This metric doesn’t reflect the product’s value moments for users (which could be when a user learns “what’s happening”—through retweets, @ replies, or follows) and shouldn’t be top of mind when building a value-first product. However, it’s an important KPI for tracking the value of the social media platform for advertisers.



As a builder turned investor and advisor, I’ve learned that it’s easy to get lost in numbers that can fake you out—things like clicks, downloads, DAU. But at the end of the day, your job is to focus on what these numbers tell you about users who are most likely to stick. The core of any product strategy is the answer to the question: ‘How many times did users perform a core action on the expected cycle?’

It’s nice to be able to say that you once had a 28% conversion rate and you increased it to 32%. Progress! But really, 72 out of 100 people used to not convert to the desired action, and now, 68 people still don’t. Ask yourself: ‘What’s the most impactful thing you can do to make those people feel compelled to stick around?’”

Josh Elman, VC & Advisor; Former Product Leader at Robinhood, LinkedIn, Twitter

2 Tardi, Carla. Monthly active users (MAU) (2015, April 6). Investopedia. <https://www.investopedia.com/terms/m/monthly-active-user-mau.asp>

3 Twitter Q1 2019 Earnings Report. https://s22.q4cdn.com/826641620/files/doc_financials/2019/q1/Q1-2019-Slide-Presentation.pdf

QUESTION ANSWERED

When should you measure DAU/WAU/MAU?

Because active usage is such a popular KPI, it often becomes the default metric for all types of product analyses, including industry benchmarking, product growth, marketing campaign performance, and the like. Let's look at some of the ways DAU/WAU/MAU are used so you can assess when these metrics serve you well (and when they don't).

DAU/WAU/MAU as one of the ways to assess overall business health

Alongside other metrics like lifetime value (LTV), churn, and annual recurring revenue (ARR), DAU/WAU/MAU can be useful for reporting. Venture capitalists will often see these metrics in startup pitch decks, and established companies add them to their quarterly investor earnings reports.

However, because DAU/WAU/MAU numbers are volatile and don't paint the full picture, some companies are dropping them in favor of more meaningful metrics. For example, Microsoft stopped sharing monthly active counts for Xbox Live. A year later, Electronic Arts followed suit. "We're going to stop talking about monthly or weekly or daily active users because I'm not sure what anyone can do with that information," said EA's COO and CFO, Blake Jorgensen.

If you clearly define what "active" means for your business, DAU/WAU/MAU can be helpful for assessing overall business health. But without a well-defined "Active" part of the picture, it becomes a vanity metric. Our advice: DAU/MAU/WAU might be a great opening statement, but it's never a full story.

4 "Microsoft will no longer share details about Xbox Live monthly active users in earnings reports." 2019, <https://www.onmsft.com/news/microsoft-will-no-longer-share-details-about-xbox-live-monthly-active-users-in-earnings-reports>

5 EA wants to stop including daily and monthly active user data in earnings reports." 2020, https://www.gamasutra.com/view/news/357474/EA_wants_to_stop_including_daily_and_monthly_active_user_data_in_earnings_reports

DAU/WAU/MAU to track seasonal changes for your business

When it comes to internal benchmarking, DAU/WAU/MAU can be useful. Some businesses see spikes in active usage caused by seasonality. Tracking active usage can help forecast such changes and prepare you to optimize online inventory or efficiently distribute incoming network traffic.

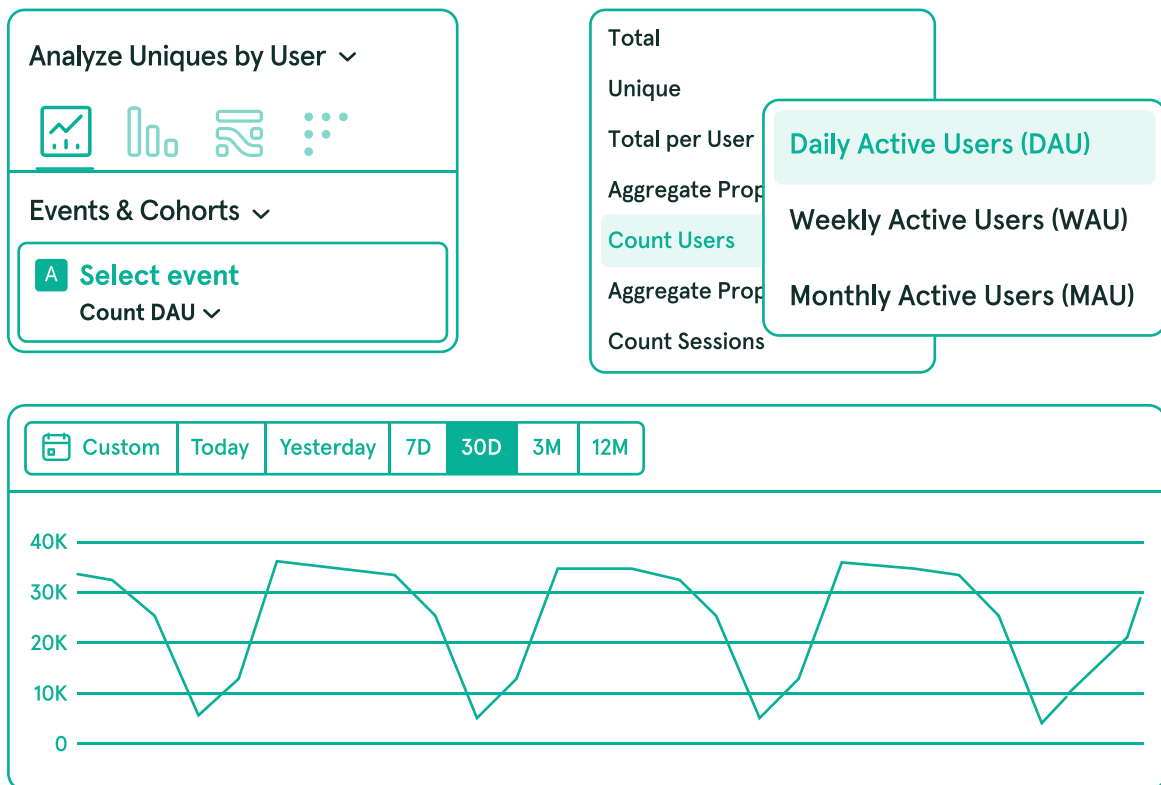
DAU/WAU/MAU to measure marketing funnel effectiveness

Measuring the number of active users coming from different user acquisition campaigns helps optimize your ad spend for deeper-funnel performance. For example, your TikTok mobile app install campaign might be generating thousands of installs at a low cost that poorly convert into active users. At the same time, your Apple Search Ads bids might yield expensive installs that convert into users who are active. Because of higher intent (or better targeting, or more effective channel for this campaign type, or other reasons), these users find more value in your product, show higher engagement, and, as a result, might become your most valuable users. Cheap doesn't necessarily equal effective, and looking at how active your new users are by each acquisition channel can help you better measure and improve marketing ROI.

QUESTION ANSWERED

How can I measure my DAU/WAU/MAU count?

Mixpanel makes it easy to get your daily, weekly, or monthly user count and monitor it over time. Select an event that your active users should be doing (your value moment: e.g., “watch video”) and group users by “WAU” for weekly active users. The date range can be customized, so you can view how this count is trending over the last 30 days, three months, six months, etc.*



Find the latest step-by-step video tutorials on mixpanel.com/content/guide-to-product-analytics/report/



It's easy to get lost in numbers that can fake you out—things like clicks, downloads, DAU. But at the end of the day, your job is to focus on what these numbers tell you about users who are most likely to stick.”

Josh Elman

VC & Advisor; Former Product Leader
at Robinhood, LinkedIn, Twitter

DAU/WAU/MAU for product benchmarking

Some companies use DAU/WAU/MAU to benchmark their performance against other companies. Here's why it seldom works:

“Active” is a loaded term because it has a different meaning for each product. Defining “active users” without tying that definition to value (the ultimate goal), such as through relying on a generic metric like logins or app opens, is meaningless. Because the average product usage interval and the user actions that companies choose to define “active” vary widely, product benchmarking by DAU/WAU/MAU alone is problematic.

This is true even for products in similar categories. For example, for a fitness app like Mindbody, the value moment could be when a person books a fitness class through the app, which on average happens, say, twice a week. For another fitness app, such as Sweat with Kayla, the value moment could be workout completed because it's an online workout app. And for Kayla's app, the optimal frequency for “active” users might be three, not two, times a week. Very simply, active users behave differently depending on the product. Even identical products can have varying active usage definitions depending on their business and monetization strategies.

DAU/WAU/MAU for building better products

If you see growth or decline in active users, there's not much you can do except wonder: Why is that? DAU/WAU/MAU might point you in the right direction to explore what's happening, but by themselves, they are not actionable.

QUESTION ANSWERED

When it comes to measuring active usage, what's the difference between a good PM and a great PM?

A good PM knows what constitutes active behavior in their DAU/WAU/MAU definition to ensure they are tracking the right thing.

A great PM finds what user actions correlate with the “A” in their DAU and makes product adjustments to encourage those actions early on and in more users.

CHAPTER 03

Analyze user engagement

QUESTIONS ANSWERED

- What is my product usage interval?
- Who are my power/core/casual users?
- What is the right definition of power/core/casual users for my product?
- How can I tie active usage to my value exchange (monetization) model?
- Besides segmenting by the level of engagement, how else can you analyze different groups of users with product analytics?
- Ask Mixpanel: How can I track new users, resurrected users, retained users, and dormant users?

Analyze user engagement

In the previous chapters on value and active usage, you learned what to measure and how to decide whether your users are active or not based on true value moments.

But knowing whether your users are getting value isn't the end game. The natural next step is to find the dimensions or the texture of the engagement. Why are some users active and others disengaged? Why are some users more active than others? And what can you do about it?

QUESTION ANSWERED

What is my product usage interval?

To group your users based on how engaged they are, we need to know how frequently they use your product. Daily? Weekly? Monthly? Every couple of months?

The answer, inevitably, is: “It depends.” Take the now-popular “concierge medicine” category and apps like One Medical, Forward, or Parsley Health. The key value proposition of these apps is the convenience of booking medical appointments. This means somebody who books an appointment once every six months on One Medical may well be “very active,” and somebody who books an appointment every year is still “quite active.”

Now let’s flip it and look at the other extreme—a video-hosting social media app like TikTok. The value moment here might be watching a video and “hearting” it. Every night, a typical “active” user can “heart” 10, 20, even 30 videos. That’s a far cry from once a year! In short, there’s no standard “good” product usage interval, and you will need a combination of your product intuition and data to figure out the right one for your product.

Reforge pioneered this way of thinking about product usage intervals with their “habit zone” framework.



| Product | Value Moment | Example Metric |
|---|---------------------|----------------|
| One Medical (digital health startup) | Book an appointment | Annually |
| TikTok (social media app) | “Heart” a video | Daily |



Fundamentally, the ‘right frequency’ of activity needs to be defined based on a candid assessment of how the product’s target user personas can get optimal value out of the product. Highly frequent usage is expected for certain product categories (e.g., messaging, music, fitness trackers) whereas less frequent usage is better for users’ success or fulfillment in other product categories (e.g., personal finance, shopping). Great PMs understand how their product should fit into their target users’ lives and accordingly decide the right activity metric. As a tactic, great PMs also separate out proactive usage (where the user made the decision to engage with the product) from reactive usage (where a notification or other prompt from your product brought the user to it).”

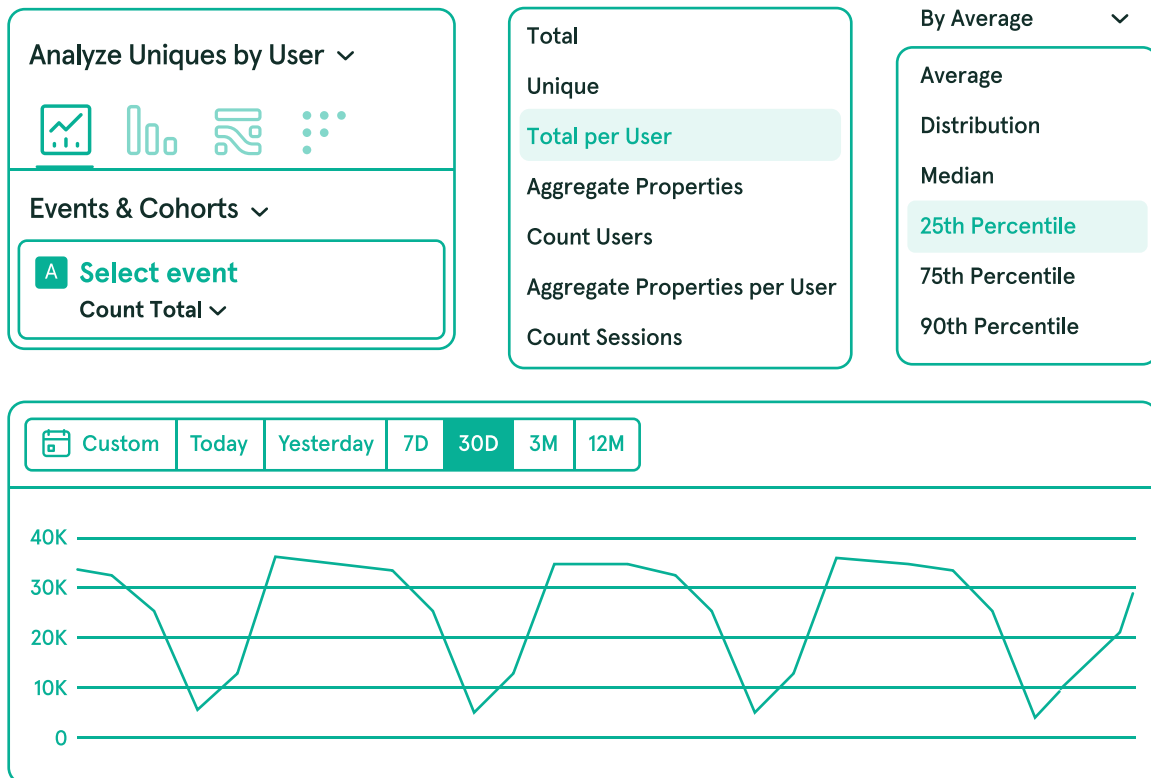
Shreyas Doshi, [Lead PM at Stripe](#); [Former Lead PM at Twitter, Google, Yahoo](#)

QUESTION ANSWERED

Who are my power/ core/casual users?

Mixpanel lets you define power, core, and casual users on your own terms. For example, if your closest proxy to “active usage” is the frequency of “value moments” per user, you can compare how many times users in the 25th, 50th, and 90th percentile typically engage with your product hourly, daily, weekly, or monthly.

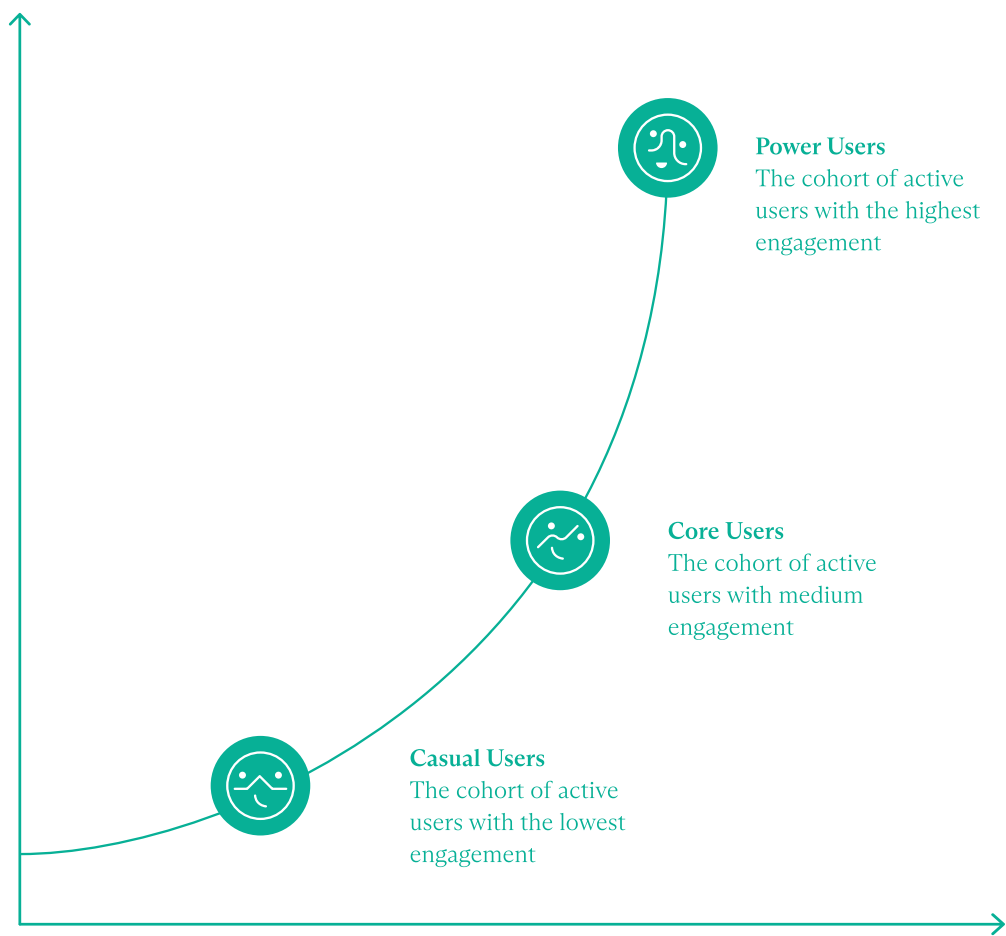
After you explore the differences between these user groups, you can set up custom cohorts for power, core, and casual users in Mixpanel. For example, your “power” cohort might be defined as “Users who watched videos 2 or more times in the last 7 days.”



All set? Let's build and save your new cohorts.

1. Click over to “Users” and “Cohorts.”
2. Define what it means to be a power/core/casual user. For example, “Users who watched videos 2 or more times in the last 7 days.”
3. Save the cohort.

The screenshot shows a user analytics dashboard with a teal header. Below the header, it says "Analyze Uniques by User" with a dropdown arrow. The main section is titled "Users" and shows "1,872 Users with Profiles". A filter bar is active, showing "ALL USERS" in teal. The filter criteria are: "Who" (did), "Watch Video" (with a magnifying glass icon), "Total" (with a dropdown arrow), "≥", "2", and "Last 7 days" (with a calendar icon). Below the filter bar is a "+ Filter" link. At the bottom of the filter bar is a "+ Group" link and a "Save as" button. Below the filter bar is a table with two rows, each starting with a teal circle and followed by five empty columns.



| | |
|--------------|---|
| Power users | The cohort of active users with the highest engagement |
| Core users | The cohort of active users with medium engagement |
| Casual users | The cohort of active users with the lowest engagement (and the highest risk of churn) |

Using the median value as a baseline for your analysis, you can create cohorts to track how different groups of users are changing over time.

To group your users based on how engaged they are, we need to know how frequently they typically use your product. Daily? Weekly? Monthly? Every couple of months?

QUESTION ANSWERED

What is the right definition of power/core/casual users for my product?

In Mixpanel, you can analyze user behavior by multiple dimensions:

- **Frequency:** How many hours in a day, days in a week, or weeks in a year, did a user find value in your product?
 - For a product where you expect your users to come back weekly, perhaps a power user uses the product six out of seven days, a core user uses the product three out of seven days, and a casual user uses the product one out of seven days.
- **Breadth:** How many different product features or offerings did people use?
 - For a ride-sharing company, a power user might have used their economy ride-sharing option, deluxe ride-sharing option, and their vanpool option, whereas a core user might have used only their economy and van pool option, and a casual user may have used just their economy ride-sharing option.
 - When a company extends its products beyond the core use case (e.g., a ride-sharing company adds food delivery), you can measure breadth of usage based on the number of unique product offerings users have tried.
- **Depth:** How deeply have users engaged with your product?
 - For a video platform company, a depth metric might be the number of videos watched, number of minutes spent watching videos, etc. For a marketplace platform company, it might be the total dollars spent on the platform.

The dimension you end up picking depends on how people get the most value out of your product and what's correlated with engagement and long-term retention of your users.



Active users are people who are using Viber seven out of seven days a week. From a product perspective, if we're doing something good, active users are supposed to grow, and if we're doing something bad, then eventually they're going to drop. We monitor this metric daily.”

Idan Dadon, [Product Manager Viber](#)



To us, an active member is someone who has an active plan—they haven't canceled or their plan hasn't expired. To make sure our members are getting value, we also look at how many of them have continued treatment in the past four months.”

Ira Patnaik, [Director of Product, Ro](#)



An active user takes a trip one or two times per year. For us, it's a bit tricky because the shopping funnel has distinct phases—dreaming, planning, deciding, and booking. We haven't necessarily cracked the code of how to recognize what part of the funnel a person is in based on the activity that they're doing on the site and what the common actions are that can help us decide that a shopper has officially moved past one phase to the next one.”

Jamie Kapilivsky, [Data Insights, Vrbo, part of Expedia Group](#)

QUESTION ANSWERED

How can I tie active usage to my value exchange (monetization) model?

Earlier, we covered various approaches to product monetization. If you're a PM early in the development process deciding how to monetize, how often people engage with your product (in addition to how broadly and deeply) can be a valuable signal. For example, on social media entertainment apps like TikTok, where users engage and get value daily, showing ads might be a natural fit. On the other hand, for a medical service where once a year engagement is expected, an annual subscription is a more reliable way to monetize.

QUESTION ANSWERED

Besides segmenting by level of engagement, how else can you analyze different groups of users with product analytics?



We create cohorts based on percentiles of activity (to identify power users), and we make region-based cohorts/breakdowns by countries (there's a lot of cultural difference in how people use the app as well as their data usage). We break it down as much as we can and try to understand users based on their behavior, not the average behavior.”

Idan Dadon, [Product Manager Viber](#)



We use a lot of cohorts, including free/paid users, new/existing users, operating systems, region, and frequency of use.

For free/paid users, we look at how free users behave versus how paid users behave. Do paid users use the Smart Scan more often than free users, for example, or less often? What features do they use? We can then find behavioural twins in the free segment and push them to become paid.

We define a ‘new’ user as someone using our product for 30 days or less. We’ve noted that people tend to go from free to paid within the first 30 days. We look at this cohort specifically to see what the free to paid rate is, and how they behave.

For operating system, we’ve learned that our system speed up cleaning product is more interesting for people who still are on Windows 7, because they are on old hardware, and perhaps don’t want to invest in new hardware.

Our marketing is based on different regions: Germany/Austria/Switzerland, U.S./English-speaking countries, and the rest of the world. We use these segments to see how regional users behave differently, and how business KPIs differ in these different countries.

Finally, we do frequency cohorts that tell us how many days out of the last 28, 48, or 91 days a user has used our product.”

Manuel Eugster, [Vice President Data Intelligence, Avira](#)



We've tested whether and how different pricing models—monthly/annual subscription, voucher codes, free trial periods, refer-a-friend—affect conversion. We're able to make cohorts out of those users and to see whether a user entering through a voucher code is a better or worse converter two months from now, three months from now, etc.”

Henrique Boregio, [CTO, Primephonic](#)



We've created cohorts based on people who open the app but then don't use it, people that open the app but don't complete registration, people who open the app and do complete registrations, and those who open the app but don't purchase cards.”

Ola Dipeolu, [Data and Insights Manager, SPC Card](#)



Active users are people who are using Viber seven out of seven days a week. From a product perspective, if we're doing something good, active users are supposed to grow, and if we're doing something bad, then eventually they're going to drop. We monitor this metric daily.”

Idan Dadon

Product Manger, Viber

QUESTION ANSWERED

How can I track new users, resurrected users, retained users, and dormant users?

Mixpanel lets you easily define and build custom cohorts so you can get better insights into the user's journey. Select your value moment (such as "Watch Video") and check if a user has performed the event within your typical product usage interval (such as seven days.)

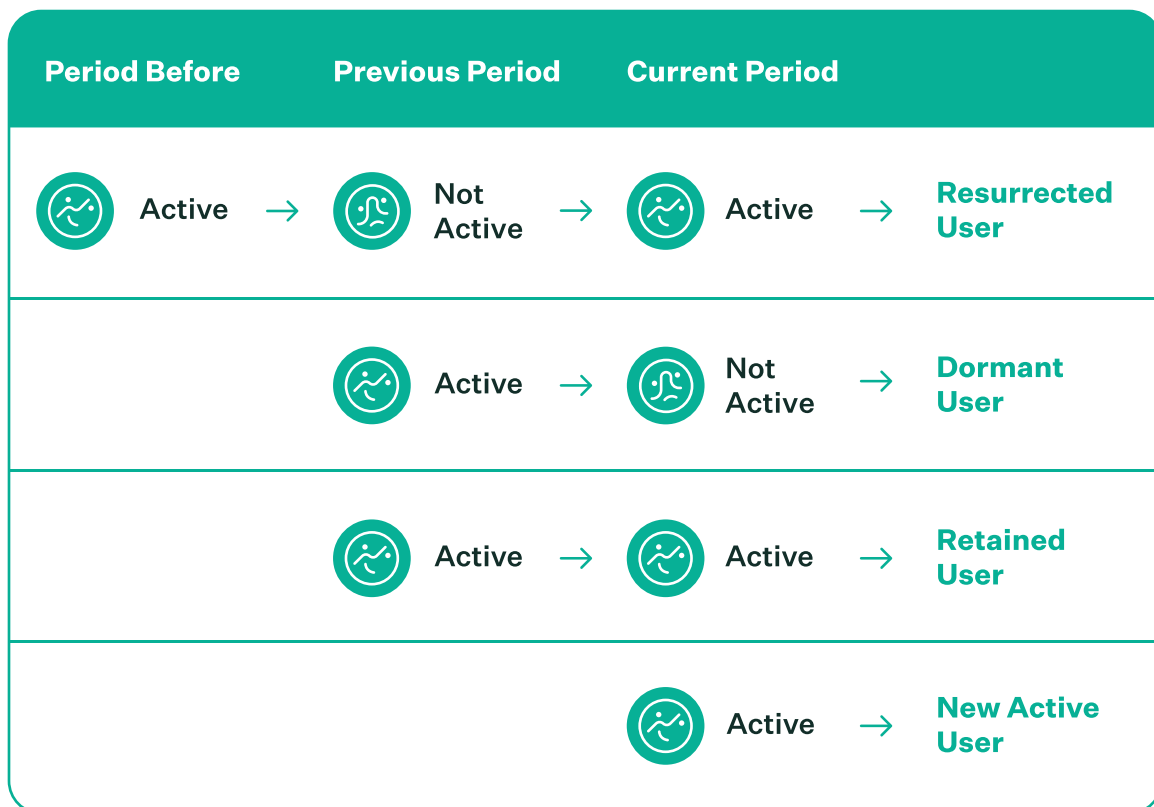
The screenshot shows the Mixpanel interface for defining a cohort. At the top, it says "Analyze Uniques by User" with a dropdown arrow. Below that is the title "Users" and a count "1,872 Users with Profiles". The main area is titled "ALL USERS" and contains a filter rule: "Who did Watch Video Total 14 and 7 Last 30 days". A dropdown menu is open under "did", showing options "did" and "did not do". There is a "+ Group" button and a "Save as" button. At the bottom, there is a table with two rows, each starting with a green circle and followed by several empty columns.

For example, to create a cohort for resurrected users, you can select users who:

- Performed “Watch Video” in the last seven days+
- Did NOT perform “Watch Video” between 14 and seven days ago+
- Performed “Watch Video” between 21 to 14 days ago

You can apply similar logic to build other cohorts:

- New active users: Performed “Watch Video” at least once in the last seven days for the first time ever. (Apply “first-time” filter).
- Retained users: Performed “Watch Video” at least once in two consecutive intervals.
- Dormant users: Performed “Watch Video” in previous usage interval, but did not in the current one.



Once you create the cohorts you'd like to track, head over to the Insights report in Mixpanel to visualize their growth over time.

CHAPTER 04

Retain your users

QUESTIONS ANSWERED

- Where are my users dropping off?
- Should B2B and B2C companies measure drop-off on their user's path to value differently?
- How can I measure drop-off?
- Why should I measure retention?
- How do I measure retention?
- When it comes to retention, what's the difference between a good PM and a great PM?
- Who are my most retained users?

Retain your users

In previous chapters, we've established that the most successful products are those that bring the most value to users. That's why measuring value is key to product analytics, whether it's defining activation, tracking the growth of DAU/WAU/MAU, or grouping users by their level of engagement.

Some products can deliver an incredible amount of value in a single value moment. For example, you download an AR measuring app, use it once when you buy a couch, and delete it for good. You open a dating app, swipe on the first person you see, fall in love at first sight, and never use the app again. But for most digital products, the only way to bring a lot of value to users is to keep them coming back regularly and engaging with your product.

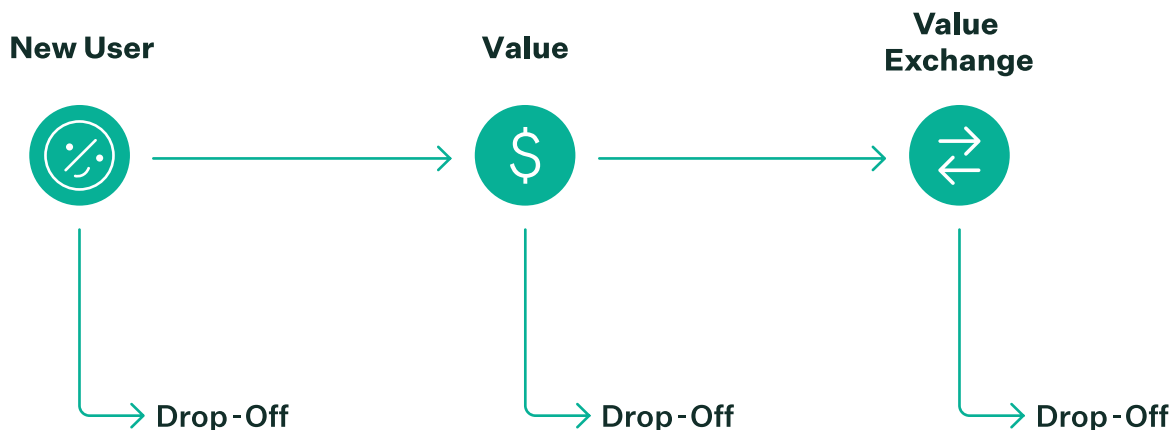
QUESTION ANSWERED

Where are my users dropping off?

Users are more likely to retain when they successfully experience value in your product early and often. But somewhere on their path to value, at least some users are going to drop off. So it's not surprising that one of the most popular questions in product analytics (and something our support team at Mixpanel gets asked frequently) is: "Where are my users dropping off?"

To realize the value of your business, a user needs to survive two key drop-offs in their product journey:

1. The value moment, which is key to activation, engagement, and retention (the moment when they get value)
2. The value exchange (or payment), which is essential to monetization and business health (the moment when you get value)



The value moments for the user and the business are sometimes the same. For example, the value moment in shopping apps (e.g., “Complete Checkout”) is naturally tied to revenue. People get value when they buy an item they like; shops get value when people buy that item.

More often, however, the journey to value and the journey to value exchange in digital products are two different journeys. For a fitness app like ClassPass, for example, people get the value when they complete workouts, while ClassPass gets value when people buy workout credits.

Which one of the two drop-offs should you focus on? Focusing on value is more helpful for building better products than focusing on revenue. If you optimize your product to get users to pay you but don’t optimize for the value they get, soon you will have a churn problem. In fact, it’s the perfect way to end up with a leaky bucket—many customers who pay once and never come back. This goes back to the point made earlier in the book: If people don’t get value from your product, they won’t use it, and of course they won’t pay for it.

- Drop-offs most often occur before the value exchange moment (e.g., before a person submits their credit card information, makes a purchase, etc.).
- The more important drop-off point to track, however, is the drop-off before the value moment. The more people reach value in your product, the more people will reach value exchange.
- The fewer steps to get to the value moment, the fewer points of drop-off you’ll encounter.

QUESTION ANSWERED

Should B2B and B2C companies measure drop-off on their user's path to value differently?

No. B2B enterprise products are also no longer immune to this type of churn. For a while, CTOs, CIOs, and CEOs of Fortune 2000 companies were purchasing software based on what the analyst firms told them (regardless of whether end users liked or hated the software). But now, especially with freemium products, employees often trial different tools, or they purchase paid plans with their credit card and then expense it (until their IT department figures out that it makes more sense to get a company license). And in many cases, SaaS contracts don't get renewed shortly after an email goes out to the team with the subject line: "Does anyone use this?"

Enterprise buyers are not that different from consumers now. So for any product, B2C or B2B, understanding and measuring value comes first.

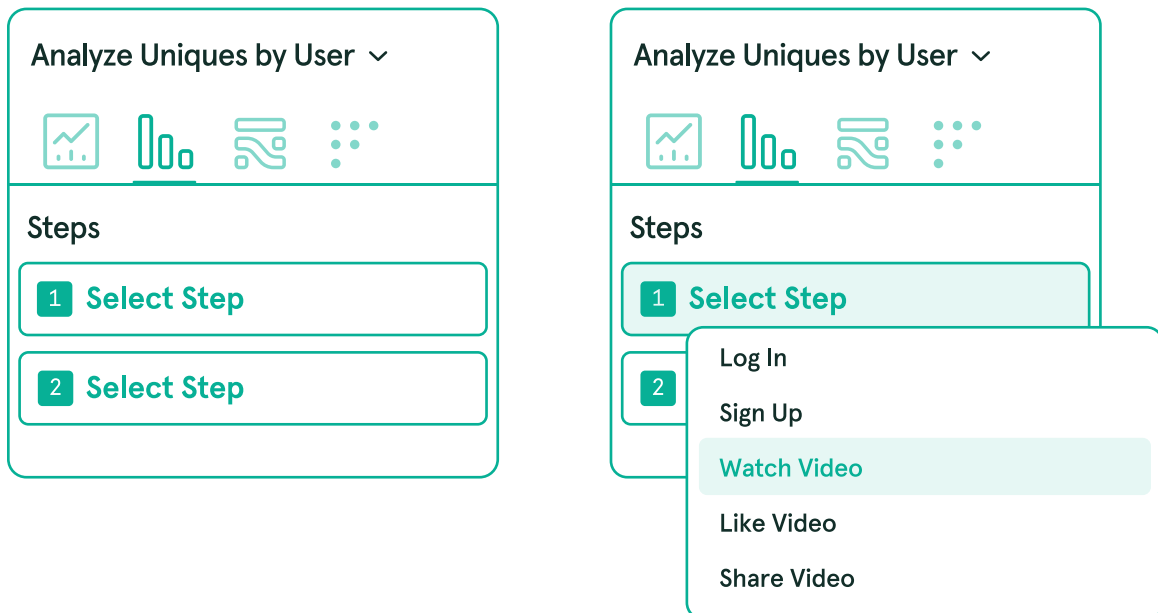
QUESTION ANSWERED

How can I measure user drop-off?

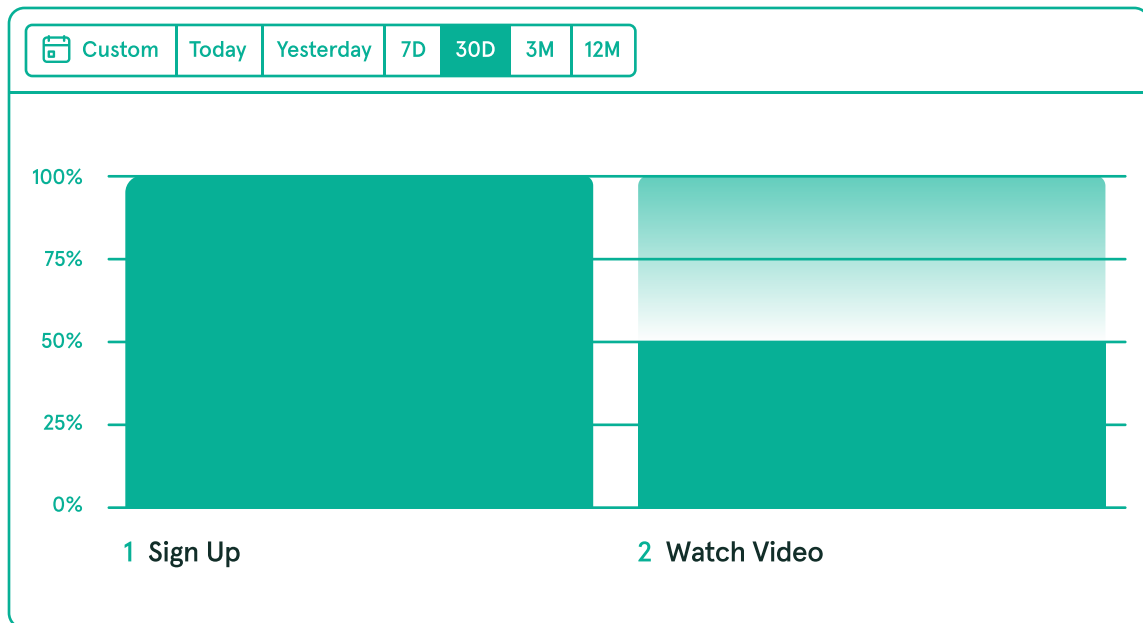
We've established that the end goal—the moment where value is realized—should be crystal clear, as should the points leading up to that moment. If users open your app or product for the first time, what is the shortest and most ideal path to the value moment? That is the funnel to work with. Each step, screen, page, or button in that journey is critical, and the conversion from one to the next will point you to the areas you need to optimize.

The Mixpanel Funnels report helps you understand and measure drop-off within a product.

To build a funnel, head over to the Funnels report in Mixpanel and add steps by selecting events from the drop-down list.



For example, when you select “Sign Up” and “Watch Video,” you’ll see how many people out of those who sign up go on to watch a video. Use filters and exclusion steps (e.g., “exclude users who did not do X”) and modify conversion criteria (e.g., rearrange the order or select “any order funnels”) to customize your question in Mixpanel.



You can also see what happens before a person drops off by selecting “View in Flows”:

If you’re thinking “My product is too complex and unique to have a single path to value,” this is a sign of an insufficiently thought-out product. If you can’t express the path to value and build a funnel, go back to the “Sign Up” page of your product. As a user, go through all the steps to define the dominant canonical journey in your product.

With this funnel in mind, as a PM, you can expand the range of questions and ways to focus:

- Where is the lowest conversion rate?
- Do converted users share certain characteristics of behavior?
- Are users performing certain steps more than once?
- Do users get hung up on certain steps longer than on others?

And finally, “Where are my users dropping off?” is a good question to ask but only if you get to the question behind it: “Where should I direct my resources and creativity to increase the number of users that reach the value moment?”



Deliveroo wants to ensure its restaurant partners are successful, that they get orders and high ROI from using the company’s services. We look closely at the conversion funnel from signup to the first order. For each market, we have targets we want partners to hit so we know they are reducing churn and increasing conversion. We track how well our restaurant partners are doing on the platform. Are they engaged? Are they taking actions that are good indicators of whether they’re going to be successful? How long has it taken them to onboard? We want our partners to be able to go from making the decision to be on Deliveroo to actually taking their first order in a matter of hours, and being able to look at these metrics is what’s going to enable us to do that.”

Jordan Ng, [Senior Product Manager, Deliveroo](#)

It's not enough to ask: "Does my product bring value to users?" Instead, you have to ask "Does my product bring value to users — over and over and over again?"

QUESTION ANSWERED

Why should I measure retention?

So, you've mastered conversion analysis, tracked your users' journey to their first value moment, and then streamlined your UX so as many users as possible reach the value exchange moment where you actually make some revenue. Congratulations! However, in a world where every user knows what is best for themselves and can delete your app or unsubscribe from your product at the click of a link, your product can survive only if it repeatedly brings value to users. As with a reality show, you might win the challenge one week, but everything resets for next week's challenge. And if you don't show up and bring value, you might just get cut.

It's not enough to ask: "Does my product bring value to users?" Instead, you have to ask "Does my product bring value to users—over and over and over again?" To put it another way: "Grey's Anatomy" remains on air after 16 years because, after all this time, it still brings an addictive emotional release. Is your product the "Grey's Anatomy" of your industry? Or will it be canceled after one season?

With this in mind, as a PM, you don't need convincing that measuring retention or churn is valuable. You're probably already tracking it with product analytics or in some other way. But the key is not to set out to "fix churn" through interdepartmental task forces and changes to your pricing model. You'll need to fix your product itself. Low churn and high retention rate are two sides of the same coin—and reliable signals of lasting product success.

Retention data can show you which customers are more likely to stay and how they compare to those who churn. Such insights are helpful by themselves, but they're even more valuable as starting points for more qualitative digging. The paths and actions that retained users take in your product can inspire product optimizations that help more new users find value faster and stick around for longer.

Since retention is simply the percent of users who stay with your product and continue using it in a given period, calculating it is pretty straightforward. You just take the number of your active users during that period divided by the number of active users at the beginning of the period. And yet, PMs often get this metric wrong. Brian Balfour from Reforge says that there are three mistakes companies make when defining their retention metric:

Focus on revenue

- SaaS companies often focus on monthly or annual revenue retention instead of measuring the frequency and depth of product usage.

Choosing the wrong frequency

- Some products should focus on daily retention vs. weekly or monthly. This depends on your product's natural usage interval.

Failure to tie retention back to value

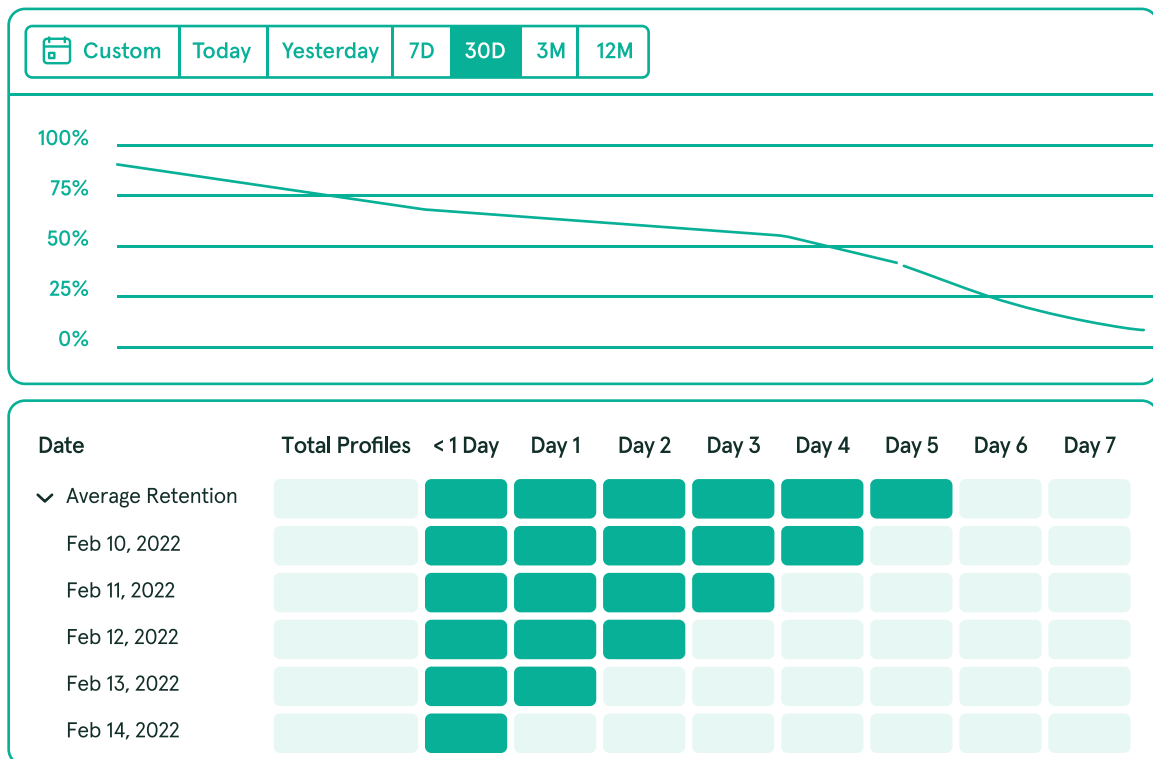
- Your retention metric should reflect the number of retained users who experience value. Again, defining what your “Active” means in DAU/WAU/MAU is a great place to start.

6 Why Retention is the Silent Killer (2017). Reforge. <https://www.reforge.com/blog/retention-engagement-growth-silent-killer>

QUESTION ANSWERED

How do I measure retention?

To analyze retention in Mixpanel, select up to two events to see how many people come back to perform the same event.



QUESTION ANSWERED

When it comes to retention, what's the difference between a good PM and a great PM?

Remember how you identified the user interaction that symbolizes the moment when your users get value back? That should be the metric that you build your retention reports around. A good PM gets this far and, once a month, they look at the report to see if things went up or down, they nod, and then go back to not looking at it.

A great PM focuses on the users who are getting the most value—they are likely the best fit for your product. A common misstep for new PMs is to focus on the users who churned and obsess about how to get them back. Instead, obsess over the users who are getting value. Look at the full breadth of behavior for those users; interview them; send them an email; offer them a gift card in exchange for 15 minutes of their time. Build the best, most valuable product for these users and you won't have a churn problem in the first place.



A good PM builds a value-moment retention report and analyses on a regular cadence. They can make conjectures about how feature releases or product updates impacted retention rate. A great PM breaks down retention data by cohorts to understand what causes churn. They obsess over the users who get the most value, connect with their use cases, and build features specifically for them.

A great product manager works with their data science team on a definition that makes sense for the business. They also account for ‘happy churn.’ Especially with transactional services, some users churn because your service works as intended, which is a good thing.”

Akio Bandle, [Senior Product Manager, ZipRecruiter](#)



A great PM understands the difference between correlation and causation; they can figure out that a higher conversion rate among more intentful visitors is not a signal that they need to drive that particular user behavior; rather it’s a function of the way they’ve built their analysis. They don’t go after opportunities based on that information and then find themselves in a position where they have to defend their sizing of that opportunity and why they prioritized that work.

A great product manager needs to see the difference between an actual trend that can be corrected or adjusted ... and a data point.”

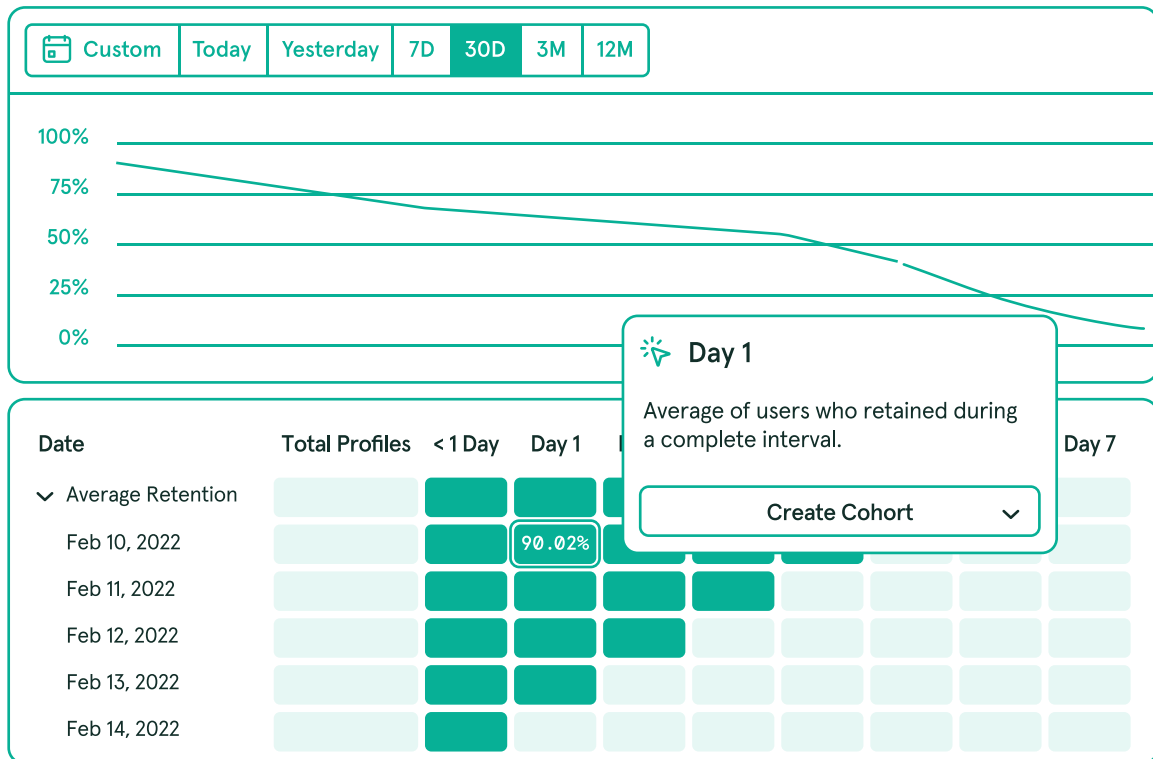
John Meakin, [Lead Statistician, Vrbo, part of Expedia Group](#)

CHAPTER 03

Who are my most retained users?

Mixpanel can help you understand which users are sticking around longer and continue to get value.

You can create cohorts for retained users directly from the Retention report. Simply click a segment of the Retention report, and click the Create cohort button.



You can then investigate what causes your users to be retained by exploring the different properties of your “Retained users” cohort in the Insights report.

Grey's Anatomy remains on air after 16 years because, after all this time, it still brings an addictive emotional release. Is your product the *Grey's Anatomy* of your industry? Or will it be canceled after one season?

CHAPTER 05

Grow and scale

QUESTIONS ANSWERED

- How should your growth strategy change as your company matures?
- How can a product manager drive growth?
- Ask Mixpanel: Where are my most valuable users coming from?

Grow and scale

No analytics guide would be complete without talking about growth. And perhaps you're on the Growth team at your company and skipped ahead to this chapter without reading the part for PMs. You want the details on how to hack growth. We've got news for you: Growth for the sake of growth doesn't work.

When you talk about Growth, you are obviously referring to the growth of your company. This concept shows you just how easy it is to pull focus from user value toward your own self interests. If the Product team is focused on bringing value, then the Growth team should align with that as closely as possible.

How do you measure growth?



More often than not, the right combination of metrics for understanding your business' growth won't be the things that are easiest to measure or even the most favorable. Take user growth month over month. A company can potentially artificially inflate these numbers by investing heavily in acquisition with things like ad buys, excessive marketing outreach, and other awareness plays that might not be sustainable in the long run or can oversaturate the market. If these are the only channels for acquisition, growth will eventually stagnate or decline—especially if churn grows.

The best metrics for understanding growth will be aligned with your company's North Star metric and, therefore, vary widely depending on the specific context. In a luxury jewelry company, for example, a key metric might be the number of items sold over \$10k where the buyer is X."

Andrew Chen, [General Partner, Andreessen Horowitz, Board Member, Reforge](#); [Former Growth at Uber](#)



User acquisition matters as a growth metric, but you also need to focus on retention. If you're churning users, you're not really growing. And while companies like Amazon can afford to stay unprofitable for years, your company probably can't. Outrageous success stories are outliers. Don't get dazzled by what works for them. Focus on what works for you. What's 'table stakes' will vary by industry and market, but these days, it's all about UX—especially at the onboarding stage. If you make the user jump through hoops to use your app/software, they will simply hop away.”

Carlos González de Villaumbrosia, [CEO, Product School](#)

QUESTION ANSWERED

How should your growth strategy change as your company matures?

And if the goal of Product is to create value, the goal of Growth is to identify all the people out there who can benefit from the value that your product brings. At an early startup stage, it will likely be a very small, niche audience. When you reframe growth in this way, demand generation becomes less about convincing an unwilling crowd to buy your product and more about showing people that your product can bring value to them or alleviate some friction in their lives.

When you find your product-market fit, measuring growth and value becomes even more important. Given the costs of ads and the fracture of channels and media, a core challenge will be to scale your reach beyond the niche market you've already captured. At this point, you've hopefully collected enough data that will guide your acquisition in terms of who those users are, where to find them, and how to educate them about your product's value. Product analytics will help you stay the course and spend your budget efficiently.



Most companies find all of their early growth from just a single channel (e.g., word of mouth, SEO, or sales). Over time, that channel normally continues to stay the primary growth engine—because it's hard to strike oil twice. But over time it makes sense to layer on additional channels to accelerate growth because every channel slows down eventually. This is often when companies add paid growth, referrals, or build a sales team.”

A great product manager needs to see the difference between an actual trend that can be corrected or adjusted ... and a data point.”

Lenny Rachitsky, [Advisor & Former Lead PM, Airbnb](#)

If the goal of Product is to create value, the goal of Growth is to identify all the people out there who can benefit from the value that your product brings. At an early startup stage, it will likely be a very small, niche audience.

QUESTION ANSWERED

How can a product manager drive growth?

Beyond acquiring users, the key to growth is retention. Similar to how in its early days Facebook found that adding “7 friends in 10 days” was their shortcut to value, you can use product data to identify your product’s unique ancillary action that increases the likelihood of retention.

This only comes with having a clear idea of the foundations laid out in this Guide (e.g., value moment, user journey, product usage interval) and then regularly asking questions in terms of what else users are doing (frequency, depth, breadth) that are the behavioral markers for long-term loyalty. If you do find that shortcut, you can nurture new users in their critical early stages to reach value quickly and maybe even spread word of your product’s value organically, thus creating a self-feeding loop.



The strategy is to try and understand, as soon as possible, what a retained user regularly does and then try to get users who are not retained to form the same habits. Eventually, we want to provide users with the content that will increase retention and encourage them to stay in for a long enough time for others to join. This is really the network effect. Because as more people join, eventually the more active or more retained they’ll be.”

Idan Dadon, [Product Manager, Viber](#)



Let's say five people take a trip but only one goes through the whole planning and booking process. There are four other adults attached to the trip that we (Vrbo) never communicated with. We don't yet have their information. We aim for organic growth, by trying to get the other people on the trip—the guests of guests—involved. It's a free/inexpensive acquisition channel instead of having to reach out to a completely unknown person.”

Jamie Kapilivsky, [Data Insights, Vrbo, part of Expedia Group](#)



We have more than 661,000 customers and hundreds of millions of users around the world—we want them all to love the DocuSign experience. The ‘wow that was easy’ reaction cements the positive impression and helps to drive viral growth. After all, once they see the value of going digital, they rarely go back to paper.

Drew Ashlock, [Lead Product Manager, DocuSign](#)

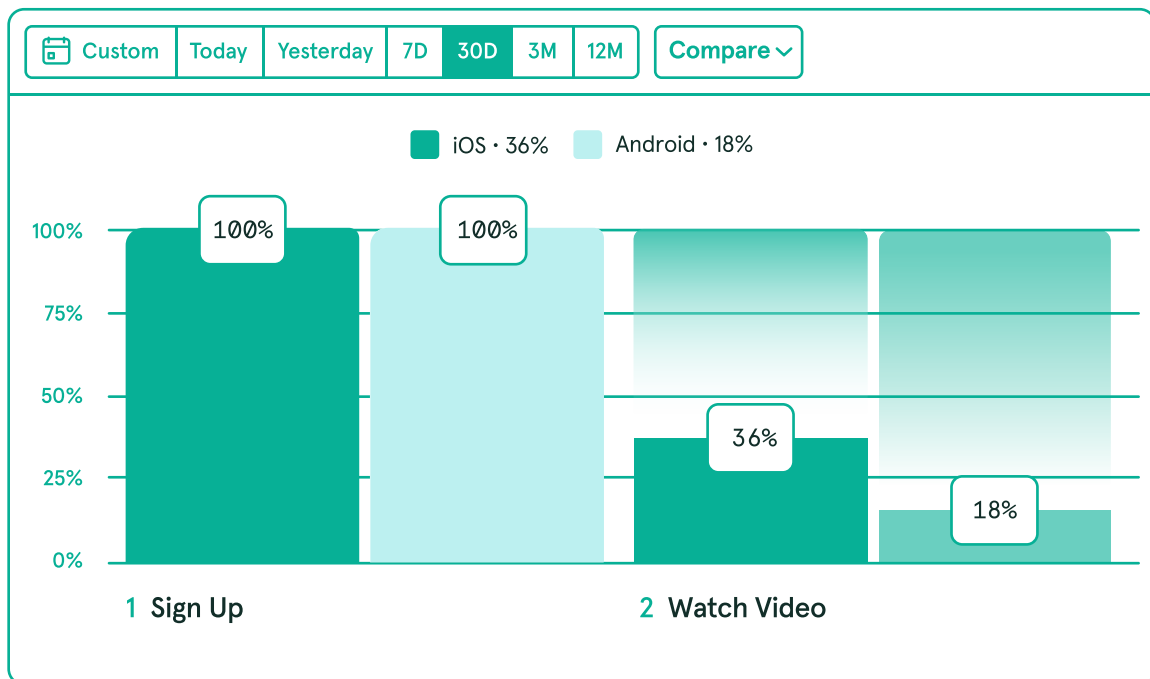
In this section on growth, we've repeated the importance of educating potential users about the value that your product can bring. The tricky part is that, out in the wild, it is hard to distinguish a potential user from a person who has no use for your product. The previous chapters focused on how to break down users based on behavior since, as a PM, you have the ability to influence user actions (and ultimately find that magic shortcut to value).

QUESTIONS ANSWERED

Where are my most valuable users coming from?

With Mixpanel, you can segment users based on their source to see if you are targeting the right group. In the Funnels report, you can compare conversion rates by source. Are your most active users coming from organic traffic? Google Ads? LinkedIn? Use this data to improve your growth strategy and double down on what's working.

Growth is about finding people who need your product and showing them that your product can bring value to them. Product analytics can help you see the impact beyond vanity metrics (like email open rates or pipeline) so you can focus on what really matters: serving the user.



Similar to how in its early days Facebook found that adding “7 friends in 10 days” was their shortcut to value, you can use product data to identify your product’s unique ancillary action that increases the likelihood of retention.

Conclusion

Imagine that every digital product has a value button. Every time a user gets value from your product, they hit that button and pay you a dollar. If they don't get value from your product, you don't get paid.

So what are you going to build?

In this book, we've covered the foundations of product analytics. You now have the knowledge and tools to understand your users, measure engagement and retention, and optimize user acquisition for your North Star metric. We've shared tips from PMs, data scientists, marketers, technology VPs, and CEOs who rely on product analytics to make decisions.

They also rely on their product intuition, which can be just as valuable as their data. The truth is, you need both. The reason product analytics is so often mystified is that, unlike other forms of analytics, what we attempt to measure at its core is something very elusive: a person's behavior and their emotional state. Are they feeling entertained, motivated, or happy? Does the product fill the need they have?

So when we see Video Views and Friends Added on Mixpanel dashboards, what each of those events represent is a moment when a person got a sense of satisfaction or happiness from a product. Unlike a set of data grounded in physical reality, like the number of items sold in a store, product analytics is an attempt to capture these behavioral signals and turn them into something tangible, a number that can guide you as you iterate and improve your product to serve the user.

Given this approach, when you analyze product usage as a PM, it is key that you bring the hard knowledge and skills and data to problem-solve but also your intuition and empathy to ask: How would I feel if I were a parent signing up my kid for this online education app or a person joining a dating app for the first time? Only when you layer intuition and empathy on top of product analytics data will you be able to build truly useful features and product improvements that bring value—over and over again.

We're often quick to send NPS surveys to users because that's what they teach in business school. What if, instead, you were able to ask your users, at scale: When was the last time you got value from this product? And if the answer isn't "right this second," there's something you can do to improve your product.

About Mixpanel

Mixpanel is event analytics for builders who need answers from their data at their fingertips. When everyone in the organization can see—and learn from—the impact of their work, they are poised to make better decisions. Companies like Netflix, Pinterest, sweetgreen, CNN, samsara, Uber, and Yelp use Mixpanel to understand their customers, measure progress, and endeavor to make better decisions.

For more information, visit: mixpanel.com

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Simple and powerful analytics that helps everyone make better decisions.

Learn more at mixpanel.com