



The  
**2023 guide**  
to collecting and  
analyzing data



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This content is co-authored by Twilio, SendGrid, and Segment teams.

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# Introduction



Analyzing your customer's data can be overwhelming and daunting for most marketers.

Sure, we get the value. We understand why we should collect it and most of us are doing so in some form or fashion and yet... many companies have a hoarder closet of their customers' data with no idea what to do with it.

In a recent survey of over [10,000 business leaders](#), 30% admit they're overwhelmed by the volume of data they have and 33% lack the ability to derive insights from it.

If you're one of them, consider this your ebook intervention to finally clean house and put your data to work building better customer experiences. After all, customer data is a goldmine of insights that can help marketers better understand their customers' preferences, interests, and needs. With [third-party cookies going away](#) and the rise of first-party data, we have an opportunity to finally do something with this stockpile of information and make sure it's secure, private, and being utilized through a variety of touchpoints.

Below, we will explore the different types of customer data as well as how to set up a data infrastructure that works for your business while also improving your marketing campaigns.

**Ready?** Let's clean house.

# What is customer data?



Using [Twilio Engage](#), your business can go one step further and build data-first, personalized experiences that reduce costs and grow lifetime value using these unified customer profiles. You can integrate your marketing tools and activate customer data anywhere you need to. Plus, campaign marketers can move faster and design personalized experiences at scale with email and SMS campaign management directly in the Twilio Engage solution.

With a single view of the customer, your business can improve marketing insights, optimize ad spend, and deliver a flawless customer experience to every one of your users.

For more tips on how to make the most of your data, check out our [free Intro to Analytics course](#).

**Definition:** Customer data is the personal, behavioral, interaction, and attitudinal information businesses collect from their users.

By combining this data, brands can build a holistic view of their customers, allowing them to better understand their audiences and build highly personalized experiences as a result. Plus, having access to reliable and accurate data can help businesses spend marketing dollars more efficiently and effectively.

But, customer data has evolved over the last few decades and businesses have had to keep up. Gone are the days of solely tracking brick-and-mortar purchases to understand customers.

Now, businesses need sophisticated systems to help:

- Collect data across all customer touchpoints,
- Consolidate this information into an easily understandable unified customer profile,
- And lastly, make that profile usable to other systems that might need it.

That's where a [customer data platform \(CDP\)](#) can help. A CDP can combine data from multiple tools to create a single centralized customer database containing data on all user touchpoints and interactions with your product or service. That way, you have a full picture of your customer based on how they interact with your business, whether that's:

- In-store
- On your website
- Over web chat
- Over the phone
- On social media
- Via email and SMS



Businesses who are using CDPs report almost 2x higher customer satisfaction levels than those without a CDP.

**Source: Segment's The Growth Report 2022**



# Four types of customer data

Regardless if your customer is signing up for a free trial or clicking through specific emails for products they care about, every step of the customer journey is an opportunity to collect key data to support better customer engagement. While it can feel like merely a mountain of miscellaneous information, there are actually four key types of customer data to collect and analyze.

- 1 Personal data
- 2 Behavioral data
- 3 Interactional data
- 4 Attitudinal data



# Personal data



## What is it?

Personal data refers to any information that can be used to identify a customer as a person both in a physical and digital sense.

This can include any of the following personal details:

- Name
- Gender
- Social security number
- Date of birth
- Contact information: Email address, phone number, or mailing address
- Financial information: Bank account numbers, credit card information, etc
- Biometric data: Unique physical characteristics, such as fingerprints, facial recognition data, or DNA samples
- Medical information: Health records, medical history, or other health-related data

While the above helps you identify a person in a physical sense, personal data can also identify your digital self which can include the following:

- **IP addresses:** Unique internet protocol (IP) addresses that can be used to identify an individual's online activities or location.
- **Third-party cookies**
- **Device identification**

**NOTE:** Personally Identifiable Information (PII), or personal data, is data that corresponds to a single person. Individuals and regulators have been applying greater scrutiny to how businesses use and safeguard this data, so be sure to follow all applicable data privacy laws when collecting and storing personal information.



### Respecting your customers' privacy shouldn't be complicated

Segment's Privacy Portal automatically detects and classifies personal information, and then lets you set rules to proactively block data to comply with your company's privacy policy and requirements.

[Learn more here](#)





# Behavioral data



## What is it?

Behavioral data refers to information collected based on an individual's actions, behaviors, or interactions with your brand, products, and services.

Examples of this kind of data include:

- **Purchase history:** Used by marketers to personalize product recommendations, promotions, and offers to enhance customer loyalty and drive repeat purchases.
- **Web browsing behaviour:** How users interact with your website (pages visited, time spent on each page, and actions taken such as adding items to a shopping cart or filling out forms).

Can be used to optimize website design, content, and navigation to improve customer conversion and overall user experience.

- **Login patterns:** When are your customers most likely to use your service or purchase your products? When are they most active on your app or website?

# Interactional data



## What is it?

Interaction data, sometimes called engagement data, measures how your customers engage with your brand across your different touchpoints. Rather than look at one individual's behavior, interaction data takes a macro view of **all of your customers' and prospects'** interactions with your brand.

For example, instead of just looking at which social media posts one specific user engaged with (which would fall under behavioral data), interaction data would be all of the likes, shares, and comments a particular post received. This can help you collect a birds eye view of how your customers are interacting with your brand and what content is resonating with them.

Examples of this kind of data include:

→ **Click-through rate (CTR):** Measures the percentage of users who click on a specific link or ad after viewing.

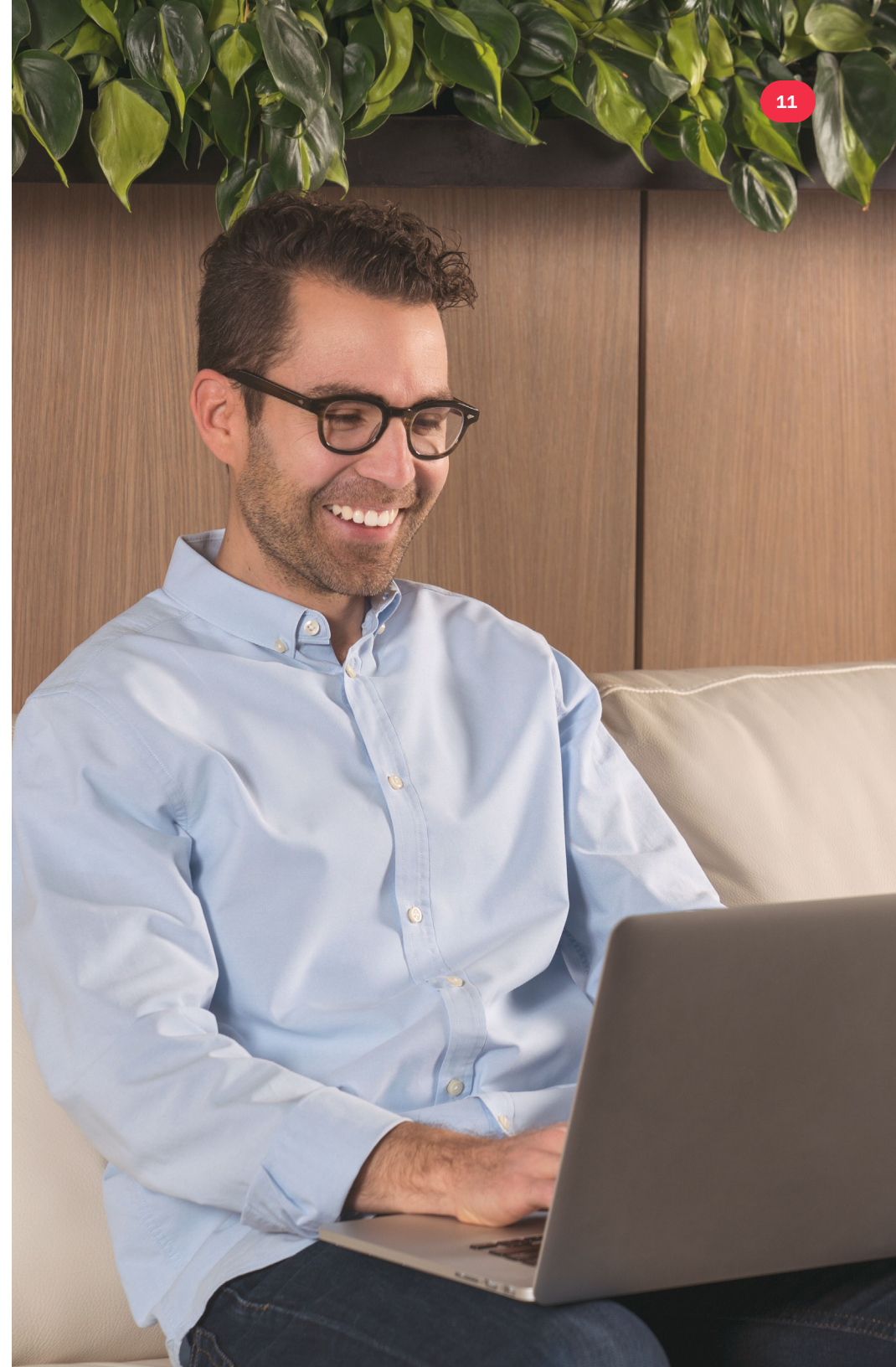
Helps marketers understand the effectiveness of their online campaigns and the level of engagement from their target audience.

→ **Email open and click behavior:** Used to see how users interact with emails, including whether they open an email, click on links within the body, and/or unsubscribe.

Can help optimize email campaigns, segment subscribers, and personalize email content to improve engagement and conversion rates

→ **Social media engagement:** When users like, comment, share, or click on social campaign posts, it gives your business an idea of what kind of content resonates with them.

Informs content creation, targeting strategies, and advertising efforts across future social campaigns.



# Attitudinal data



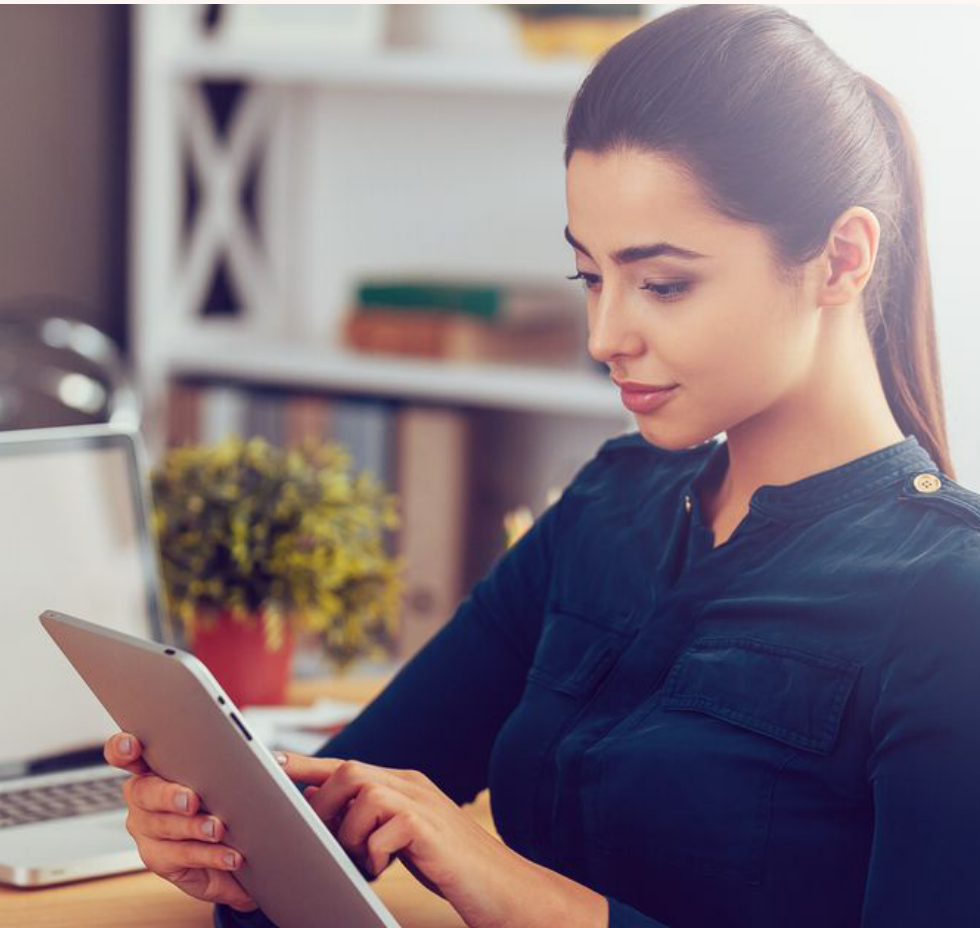
## What is it?

From online reviews to direct polling, surveying, and interviewing your customers, attitudinal data is your customer's direct opinion of your business. Looking at the sum of this sentiment can give you insight into how well a particular product or service is perceived as well as the general public opinion of your company.

Some examples of this type of data include:

- **Customer feedback:** Negative or positive comments, opinions, and suggestions provided by customers about a product, service, or overall experience through various channels such as surveys and social media comments.  
Provides insights into attitudes, preferences, and perceptions
- **Success stories:** Narratives or testimonials from satisfied customers who have achieved positive outcomes or results with a product, service, or solution.  
Highlights customer attitudes and opinions about products or services and the value they have gained to showcase positive customer experiences and build trust with prospects.
- **Net Promoter Score (NPS):** A customer loyalty metric that measures the likelihood of customers recommending a product, service, or brand to others through a single question that asks customers to rate their likelihood of recommending on a scale from 0 to 10.  
Used to gauge customer attitudes towards a brand and their likelihood of promoting it.

# How to gather customer data



Here are some of the most common methods businesses use to collect user data at every stage of the customer journey:

- **Account signups:** At sign-up, you can ask individuals to share key information, like their name, email address, job title, and more. Once they have a profile and user ID, your business can immediately start building a more complete picture of your customer.
- **On-site behavior tracking:** Your business can use a tool like Google Analytics to track user behavior on your site. Not only can you see what pages an individual visits and which on-page elements they engage with, but you can also collect information about a user's approximate location, device type, and browser – all data points that can help your business serve your users more relevant content.
- **Email and SMS opt-in:** When a new user subscribes to receive your email or text messages, send them a [preference center](#) that allows them to indicate:
  - What types of content do they want to receive (newsletters, product releases, customer stories, etc.)
  - Which channels do they prefer
  - How frequently do they want to hear from your brand

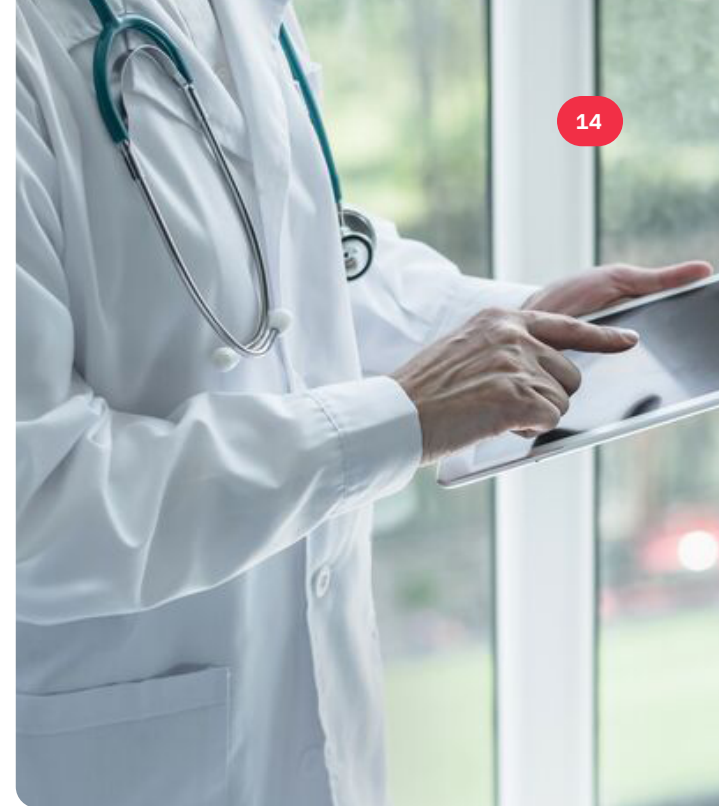
These answers can help you better cater your communications to their interests and preferences and cut down on message fatigue.

Of course, email and SMS messages offer their own rich customer data too. Message [opens](#), [clicks](#), or [forwards](#) are strong indicators that an individual likes your content. On the other hand, unsubscribes, bounce rates, and spam complaint rates suggest your message didn't land as well. Using an email service provider like [Twilio SendGrid](#) can feed this engagement directly into your CDP so that you can create smarter marketing campaigns.

- **Customer surveys:** You can also share regular surveys with your customers to learn what they want to see more of, the types of products they're interested in, what areas they think your business can improve, etc. This can help your brand gain valuable insights into customer behaviors, opinions, and knowledge.
- **Customer feedback:** A customer's product ratings and reviews send a strong signal to your business about what they like and dislike. By collecting this information, you can share better product recommendations and head off a disgruntled customer with a discount code or a call from a customer service representative.
- **Customer service interactions:** Your customers also share a wealth of information with your customer service reps. Are they happy with their purchase?

Do they need help with a product? Are there strong upsell opportunities based on their future needs? Ensuring your data can flow freely [between your customer data platform and contact center](#) can help your business better serve your customers today and in the future.

- **Loyalty programs:** With a loyalty program, your business can track customer purchases to offer better, share more relevant offers, and incentivize users to interact with your brand again and again.
- **Lead generation forms:** Your business can offer downloadable gated content like guides, quizzes, polls, templates, etc. in exchange for your customer's information. You can even use progressive form fields to collect new information from users who've previously interacted with your content.
- **Conversational messaging:** Giving customers the option to message your business directly through their favorite channels like Facebook Messenger, WhatsApp, Instagram, etc. when they have a question or need help deciding on the right product for them can help your business collect zero-party data and build both better customer profiles and relationships.



## Allergan Aesthetics

### How Allergan uses its loyalty program to drive cross-sell opportunities

A customer of pharmaceutical company Allergan receiving a BOTOX treatment can scan a QR code before their procedure that tracks their loyalty member status and past treatment history. To thank them for being repeat customers, the brand delivers a personalized discount for a different facial treatment, JUVÉDERM®.

[Learn more](#)

# Things to keep in mind when **collecting data**



## 1. First-party data, FTW

The accuracy of your data is paramount when it comes to executing effective marketing strategies. Third-party data, while easily accessible, may not always be accurate (or available for that matter – read more about the degradation of third-party cookies [here](#)).

With first-party data, or information collected directly from your customers, you know every action your customers take on your site, how they engage with your campaigns, what products they are buying, and more. This allows you to create targeted communications and personalized experiences based on this accurate information, leading to more successful interactions with your customers.

To support this data accuracy, consider powerful privacy tools like [Twilio Verify](#), which can build validation into your onboarding workflows to ensure customer information is reliable and up-to-date. This helps your business mitigate fraud and stop the creation of fake accounts while maintaining a frictionless sign-up experience for your customers.

By incorporating tools such as this into your data collection processes, you can ensure the accuracy and authenticity of your customer data, resulting in better marketing campaigns and stronger personalization for your customers over time.

*TL;DR: Inaccurate data can lead to wasted resources, misinformed decision-making, and failed customer engagement efforts.*

## 2. Build a 360-degree view of the customer

In order to create a single view of the customer, or what's sometimes called a "360-degree customer view" or "unified custom profile," you must first consolidate all of the data from your many channels. This requires good identity resolution.

### What is identity resolution?

**Identity resolution** is the process of attributing customer behavior and interactions with your business – across all touchpoints, platforms, or channels – to a single unified customer profile. Once created, these profiles allow any team in your organization to better serve your individual customers.

For example, using a unified profile, your marketing team could see that a customer gave a recent purchase a one-star review and organize for a customer success representative to reach out and rectify the situation or send the customer a discount code over email to try to win back their business.

### How does identity resolution work?

Every time a user interacts with your brand, your systems keep track of this information using an identifier. There are two types of identifiers:

- Customer IDs, or known identifiers including an email address, IP address, phone number, etc.
- Anonymous IDs, or a random identifier generated for an anonymous user

Strong identity resolution can stitch together accurate customer profiles in real time using both customer and anonymous IDs so that you can deliver the right message to the right person at the right time. For example:

1. Say an anonymous Chrome user ID67980 submits their email address as `jdoe@twilio.com` during a browsing session.
2. Later, an anonymous Safari user ID34657 enters the same email address.





3. Using identity resolution, your business can match ID67980 with ID34657 to John Doe and create a complete view of the user.
4. With a unified customer profile, your brand can now deliver more targeted, consistent experiences to John Doe.

Breathe easy. Odds are you won't be responsible for identity resolution, but your engineering team will. Still, understanding the process behind identity resolution can help you collaborate better with your engineering team and understand your data more effectively.

*TL;DR: Good identity resolution is crucial to consolidating all user touch points into a single unified customer profile that your team can use to better market to your customers.*

### A marketer's guide to identity resolution

Learn how identity resolution helps marketers build stronger campaigns

[Get the guide](#)

### Get a complete view of your customer with Segment Unify

Unify real-time customer data across every platform and channel to understand the customer journey and personalize experiences at scale.

[Learn more](#)



### 3. Data compliance

With privacy laws such as the [General Data Protection Regulation \(GDPR\)](#) and the [California Consumer Privacy Act \(CCPA\)](#), legislation around data collection continues to have an increasing emphasis on protecting consumer privacy. And as consumer privacy considerations gain momentum, businesses need to prioritize compliance in their data practices.

Three principles for staying in compliance while collecting data from your customers:

#### 1. Only store data for as long as it is necessary.

Avoid the collection and retention of unnecessary data, and regularly review and delete data that is no longer required.



**89% of brands plan to implement first-party/zero-party data in order to protect consumer privacy.**

Source: [Twilio's 2023 The State of Customer Engagement Report](#)

This helps ensure that data is only used for its intended purpose and minimizes the risk of data breaches or misuse.

#### 2. Give customers control over what data they share with you.

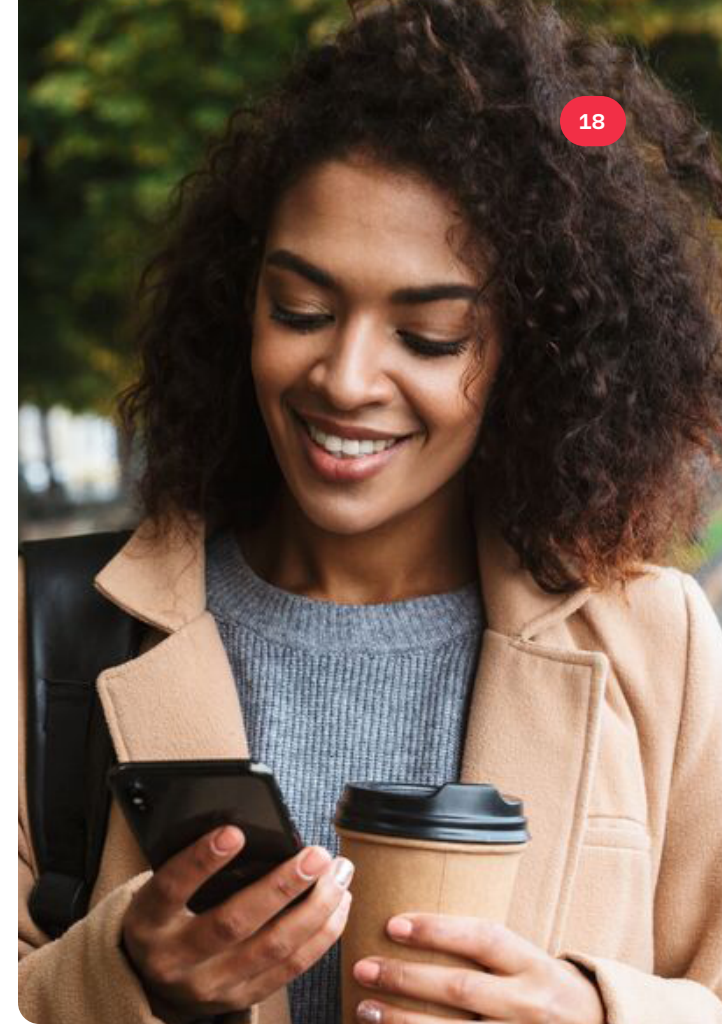
Privacy laws give consumers certain rights that businesses must respect. These include the right to:

- Access their data
- Correct any inaccuracies in their information
- Delete their data when requested
- Restrict the processing of personal information in certain circumstances, and to object to the processing of their data for purposes such as profiling or marketing

#### 3. Respect consumer rights as regulations change.

Privacy law compliance is not only a legal requirement, but also an opportunity to build trust and goodwill with customers. By continuing to honor these rights as regulations change, businesses can demonstrate their commitment to [data privacy](#) and establish a positive relationship with their customers.

*TL;DR: Prioritizing data compliance not only mitigates legal risks but also helps build trust with customers and fosters responsible data management practices.*



**98% of consumers want brands to do more to guarantee the privacy of their data, as well as be more transparent about how their data is used.**

Source: [Twilio's 2023 The State of Customer Engagement Report](#)

# Messaging glossary

We threw around a lot of information in the last few pages, so let's revisit a few key terms you will want to know when it comes to talking data:

**Attitudinal data:**

Data that shows your customer's direct opinion of your business. Looking at the sum of this sentiment can give you insight into how well a particular product or service is perceived as well as the general public opinion of your company.

**Behavioral data:**

Behavioral data refers to information collected based on an individual's actions, behaviors, or interactions with your brand, products, and services.

**California Consumer Privacy Act (CCPA):**

Effective January 2020, the CCPA requires companies to tell consumers what types of data they're collecting and how they plan to use it. The law also gives consumers the right to delete their information and ensure their information is not shared with anyone else.

**Customer data:**

Customer data is the personal, behavioral, interaction, and attitudinal information businesses collect from their users.

**Customer data platform (CDP):**

A CDP is a software that combines data from multiple tools to create a single centralized customer database.

**Data privacy:**

Data privacy refers to the proper management of sensitive data like personal information in respect to current laws and regulations.

**First-party data:**

This type of data is collected directly by your company, ensuring its accuracy and reliability.

**General Data Protection Regulation (GDPR):**

Effective May 2018, GDPR requires companies to gain consent from consumers before collecting their data and clearly state how they will be using this data.

**Identity resolution:**

Identity resolution is the process of attributing customer behavior and interactions with your business – across all touchpoints, platforms, or channels – to a single unified customer profile.

# Messaging glossary

## **Interactional data:**

Data that shows how your customer engages with your brand. This can include both on your site and within marketing campaigns across social media, email, and SEO.

## **Net promoter score (NPS):**

A customer loyalty metric that measures the likelihood of customers recommending a product, service, or brand to others through a single question that asks customers to rate their likelihood of recommending on a scale from 0 to 10.

## **Personal data:**

Personal data refers to any information that can be used to identify a customer as a person both in a physical and digital sense.

## **Personal identifying information (PII):**

PII, or personal data, is data that can be used to identify a single person. This kind of data requires the highest level of security in how it's collected, stored, shared, and analyzed because of its sensitive nature.

## **Third-party data:**

This data type is collected and sold by a third party.

## **Zero-party data:**

A type of data your customers voluntarily share with your brand, like their interests or messaging preferences.

# How to put your data to good use

Once your customer data is collected, cleaned, and compliant, your business is ready to put it to good use. With unified customer profiles, your marketing team can gain a complete view of your customers and use this data to build seamless, personalized experiences for your audiences.

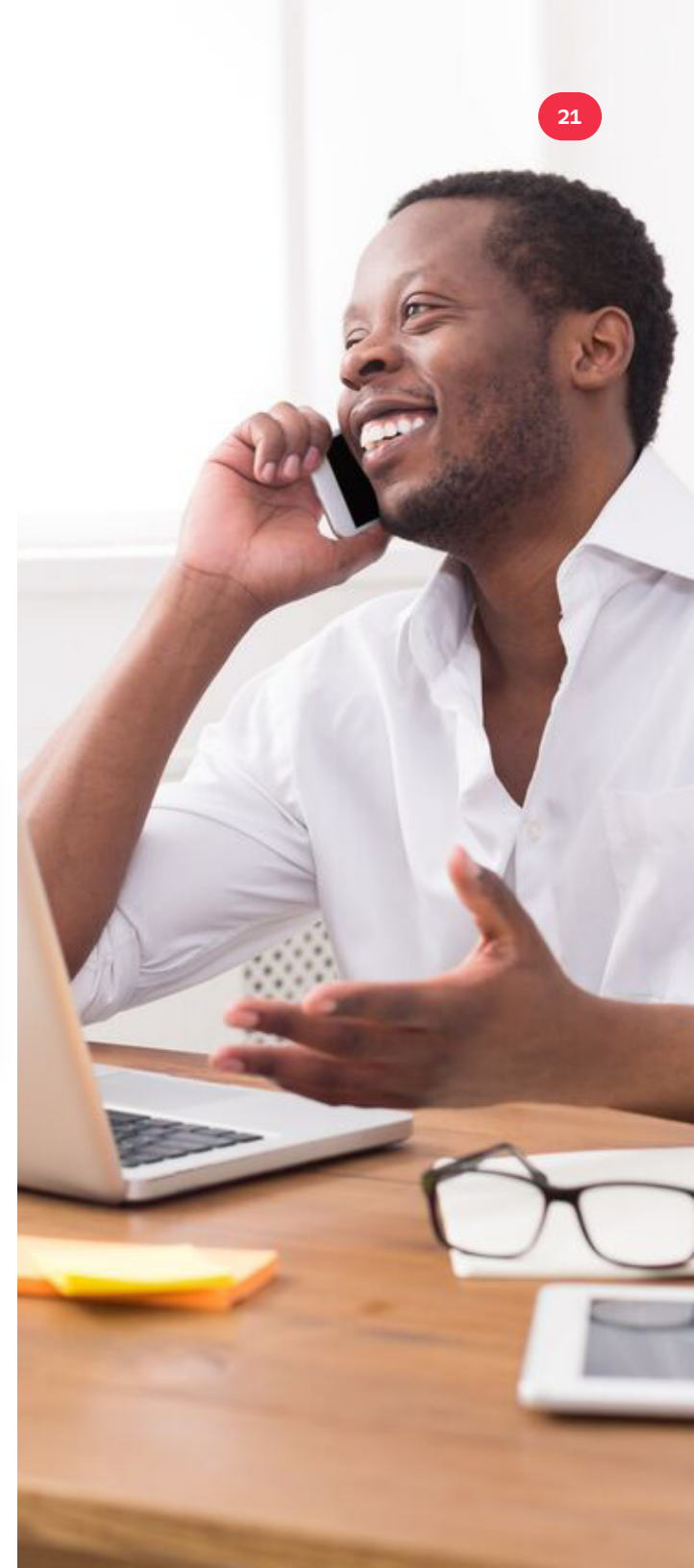
This can help your business:

- Reduce reliance on other teams and use real-time data to engage customers instantly – anywhere and anytime
- Retain customers with highly personalized experiences at crucial parts of their journey
- Use marketing dollars more efficiently by targeting the right customers with the right messaging

To get the most out of your data, using a tool like Twilio Engage not only gives you the power of a CDP but also seamlessly integrates with all of your major marketing tools, allowing you to create omnichannel customer audiences that reduce costs and grow lifetime value. With data, journeys, and activation on a single platform, marketers can centrally manage omnichannel campaigns at scale and go from idea to campaign in minutes instead of weeks.

**Learn how Twilio Engage helps marketing teams understand customers and hit goals.**

**Schedule a demo [here](#).**



# Recommended reading



## The CDP report 2023

Our new CDP Report 2023 analyzes real data from the Twilio Segment platform (nearly 12 trillion API calls, to be exact) to examine the biggest digital trends happening in customer engagement.

[Download Now](#)



## The ultimate guide to customer segmentation

In our comprehensive guide, we break down what customer segmentation is, the business value, and the six different ways you can automate segmentation using Twilio Engage.

[Download Now](#)



## A marketer's guide to identity resolution

Learn what identity resolution is and how it lets marketers achieve a single view of their customers across multiple data platforms and sources.

[Download Now](#)

# About Twilio Segment



**Twilio Engage uniquely puts the power of a native customer data platform (CDP) and native omnichannel together in one solution so marketers can build data-first, personalized experiences that reduce costs and grow lifetime value.**

Built “data up” on Twilio Segment’s CDP, Twilio Engage enables marketers to quickly activate real-time, first-party data across best-in-class engagement channels from a unified solution without needing to rely on engineering resources—so you can go from idea to campaign in minutes. By providing a complete view of the customer and the ability to easily create and scale multi-step customer journeys across any digital channel, Twilio Engage helps marketers deliver more engaging and relevant customer experiences while driving long-term, efficient growth.



Thanks for reading

If you would like to learn more about what Twilio can do for your business,  
please [contact the Segment sales team](#).