



# PERSONALIZED MARKETING AND SPOTIFY WRAPPED

*A Sample Lesson Plan from Mujo Learning Systems*

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# Lesson Overview

This package provides teachers with everything they need to teach students about marketing personalization using big data and artificial intelligence. A rough estimate of the content timing and sequencing has been provided below.

Timing Estimate	Content
30 minutes	Case Study: Spotify Wrapped
30 minutes +	Activity: Developing a Personalized Marketing Campaign
30 minutes +	Reflection Worksheet and Discussion

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## Note for Teachers

*For the reflection exercise, encourage students to speculate. They should also be encouraged to think critically about the volume of data they may generate on a daily basis and which businesses potentially have access to that data: How many Google queries do you make in a day? How frequently do you make posts or engage with others' posts on social media? What other apps and websites do you visit regularly? Do they generate any data about you? What does your activity reveal about your hobbies or interests? What does it reveal about your life?*

*After students complete their reflection worksheet, the same questions can be discussed as a class or in small groups.*

# Case Study: Spotify Wrapped<sup>1</sup>

As one of the most popular music streaming platforms, Spotify naturally accumulates a huge volume of information about their users. Every time a person plays a song, builds a playlist, or searches for a new artist on the platform, that interaction creates a datapoint about the user. Primarily, this data is used to identify trends in user behavior, and to track royalty payouts for artists and record labels.

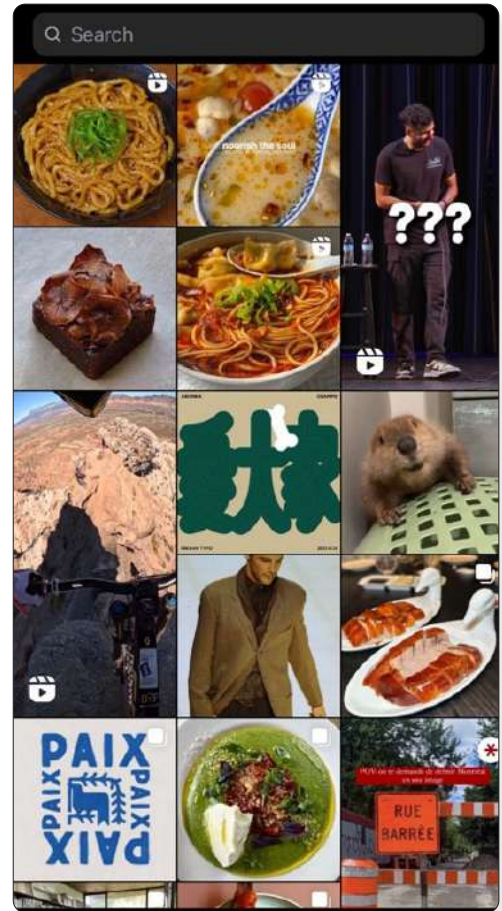
In 2013, though, Spotify's team thought of another way that this data could be used: They launched a "Year In Review" campaign, in which they would send users a personalized recap of their most played songs over the last year. The campaign leveraged machine learning and big data to generate custom emails for all of their users based on their interaction history with the platform. The campaign was a huge success, and many of Spotify's users were enthusiastic to share their personalized listening history recap with their friends and followers on social media.

Spotify's "Year in Review" continued to grow in popularity over the next several years, eventually becoming Spotify Wrapped in 2016. Like "Year in Review," Spotify Wrapped leveraged Spotify's huge volume of user data to generate personalized profiles for each of their users. This includes features like the users' favorite artists, how many minutes they spent listening to a given artist, and how their time spent listening ranks against other fans of a given artist. Perhaps most importantly, this data is presented in an eye-catching and easily sharable format. Key details from each user's Wrapped are presented on their own vertically oriented card, making them easy to share on social media, which in turn massively boosts Spotify's brand recognition in a valuable and organic manner. In this way, Spotify Wrapped highlights how big data can be leveraged in creative ways to improve user experience on a platform and earn businesses organic exposure on social media.

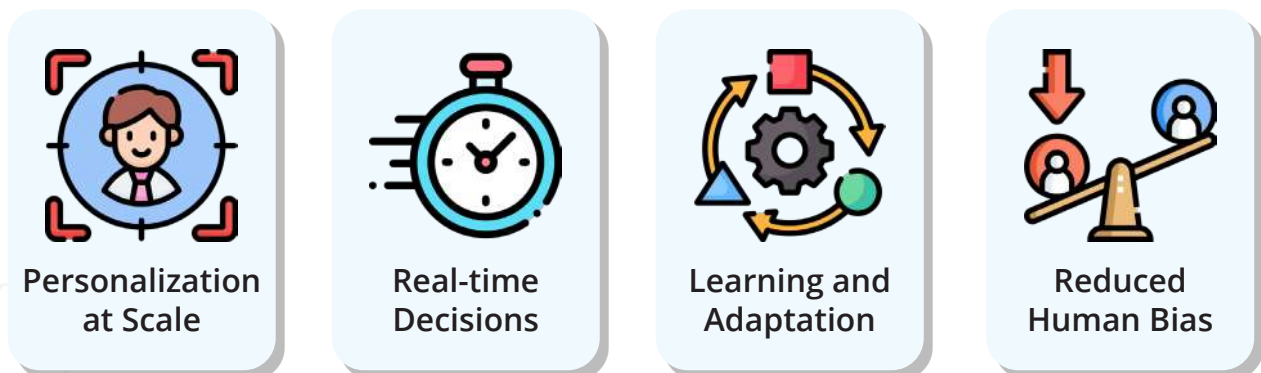


Spotify Wrapped is a great example of how big data and AI tools can be used to create marketing content that is uniquely personalized to individual consumers—a practice known as **personalized marketing**.

As artificial intelligence technologies become more sophisticated, marketers are finding more creative ways to target their customers with personalized marketing. Using big data and AI-powered tools, marketers can target much narrower segments of their customer base with content and messaging uniquely tailored to their interests. AI tools can also learn and adapt to customer behavior over time, allowing marketers to make personalized recommendations that are more likely to connect with each customer and improve their overall customer experience.

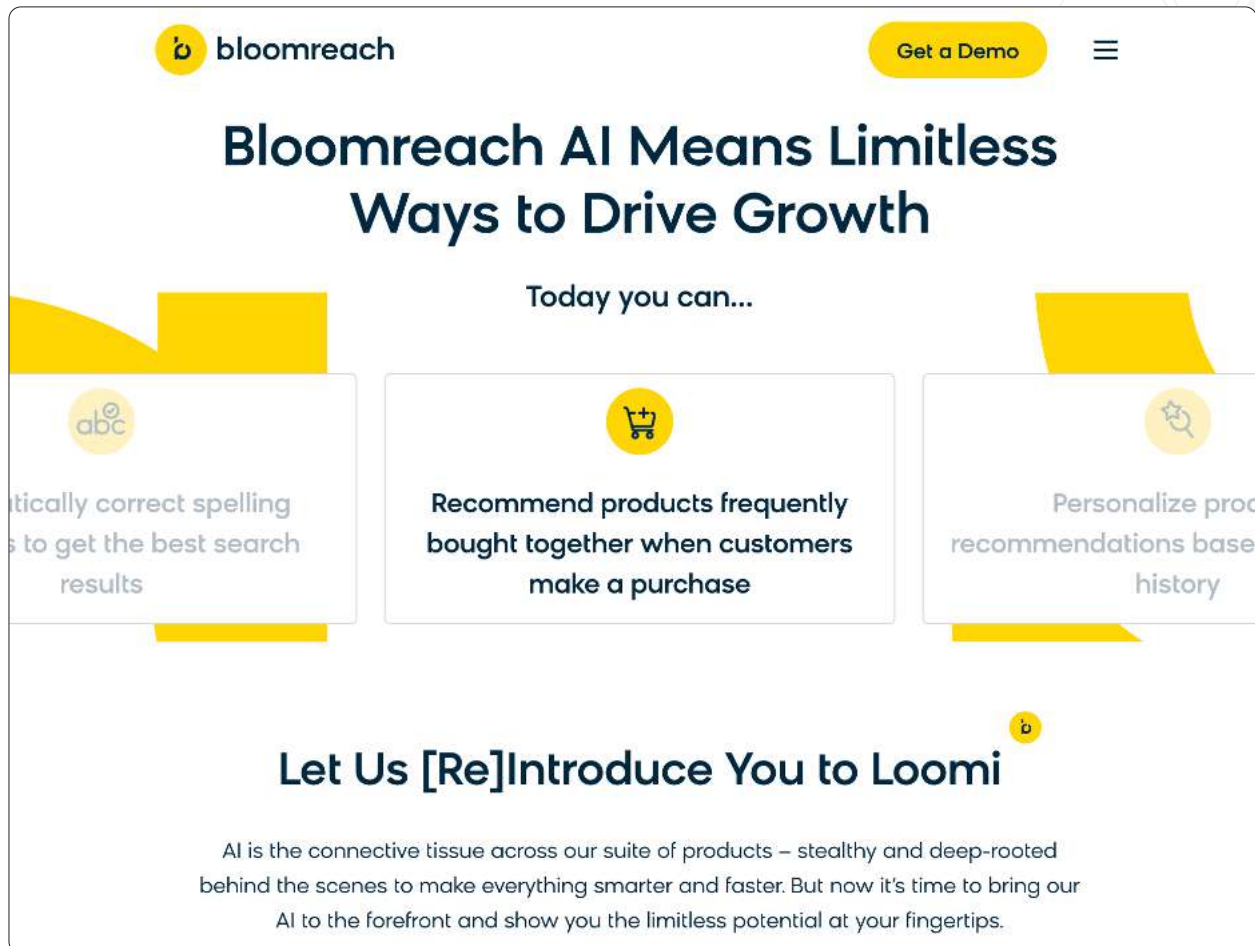


AI targeting can provide a number of key benefits for marketers. These benefits include:



## Personalization at Scale

Personalization at scale refers to the ability of AI-powered systems to create highly individualized experiences for a large number of customers based on extremely narrow segments that can account for a given customer's interests, behaviors, and past interactions with a brand. Personalization at scale is a powerful tool for marketers as it allows them to target and connect with customers on a more personal level. By tailoring content, offers, and recommendations to each customer's unique interests, marketers can significantly increase engagement, conversion rates, and customer satisfaction.

A screenshot of the Bloomreach website. The header features the Bloomreach logo on the left, a "Get a Demo" button on the right, and a hamburger menu icon. The main heading reads "Bloomreach AI Means Limitless Ways to Drive Growth". Below this, a subheading says "Today you can...". Three feature boxes are displayed: the first with an "abc" icon and text about "phonetically correct spelling"; the second with a shopping cart icon and text about recommending products frequently bought together; and the third with a magnifying glass icon and text about personalizing product recommendations. At the bottom, a section titled "Let Us [Re]Introduce You to Loomi" describes Loomi as an AI-powered assistant that automates product recommendations.

**bloomreach** Get a Demo

# Bloomreach AI Means Limitless Ways to Drive Growth

Today you can...

- abc**  
Phonetically correct spelling to get the best search results
- Shopping Cart**  
Recommend products frequently bought together when customers make a purchase
- Magnifying Glass**  
Personalize product recommendations based on customer history

## Let Us [Re]Introduce You to Loomi

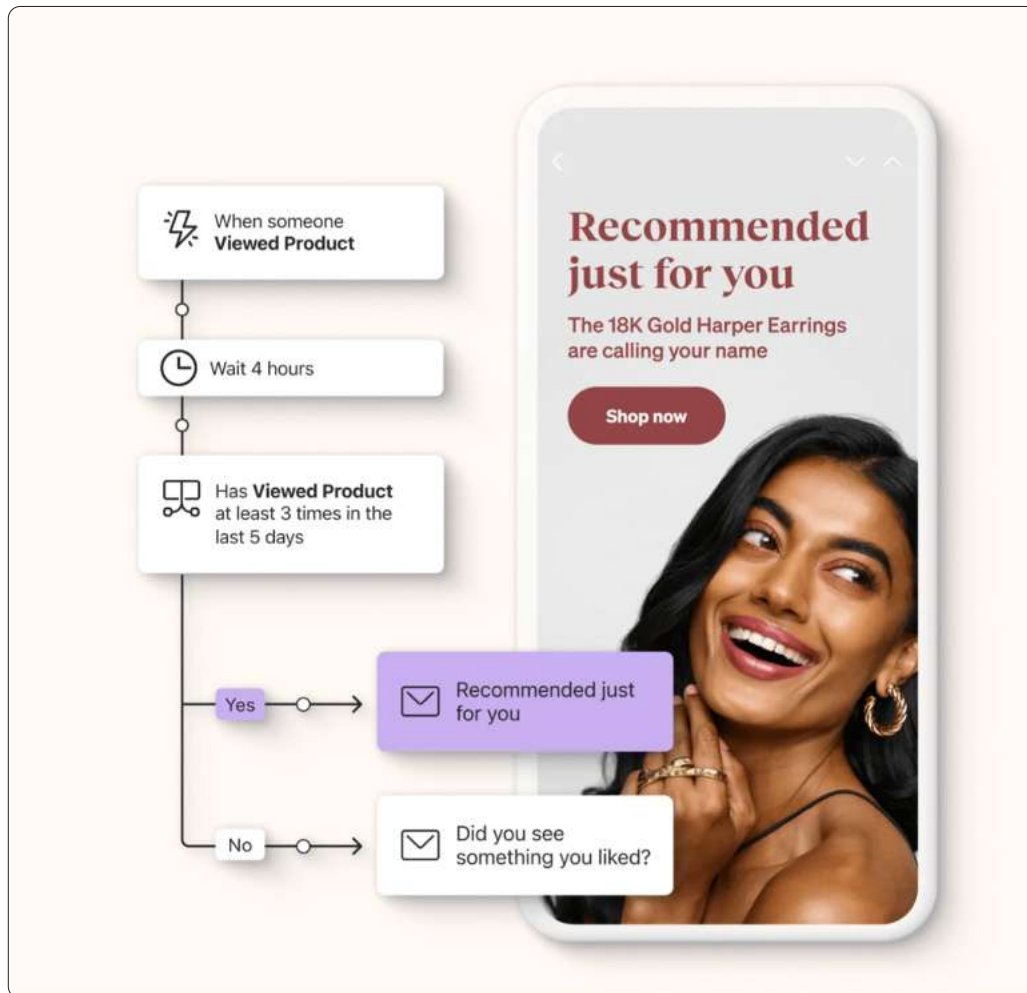
AI is the connective tissue across our suite of products – stealthy and deep-rooted behind the scenes to make everything smarter and faster. But now it's time to bring our AI to the forefront and show you the limitless potential at your fingertips.

AI-powered targeting tools can help marketers target customers with personalized recommendations that are uniquely tailored to each customer's interests. For instance, e-commerce platform Bloomreach provides an AI-powered assistant known as Loomi, that can automate product recommendations for a business's customers using a wide range of data. Because Loomi is automated, it can provide meaningful and personalized recommendations for a business's customers, regardless of the business's size.



## Real-time Decisions

Along with their ability to scale up as a business's customer base grows, AI targeting tools can also provide marketers with real-time data on their customers, enabling marketers to adjust their strategies in real-time based on customer behavior and contextual information. This kind of data can also allow marketers to automate customer targeting campaigns that can respond dynamically to customer behavior. If a customer views a given product page on a business's website multiple times without making a purchase, an AI targeting tool could be used to send them a personalized message recommending that product. This kind of targeted messaging can help encourage potential customers that are getting close to making a purchase decision.

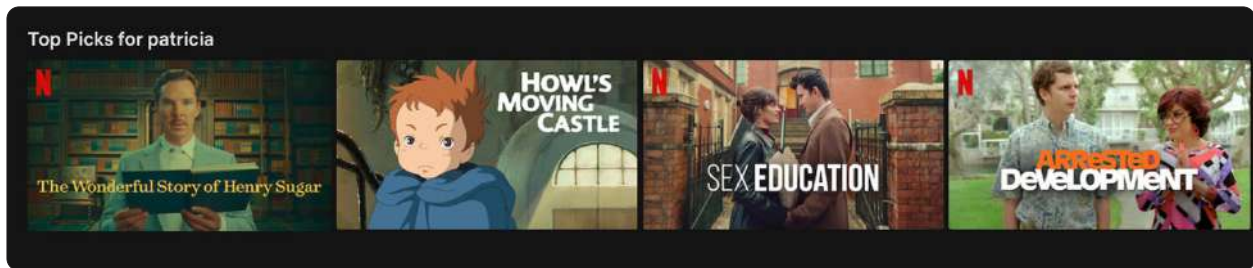


Marketing automation tools such as Klaviyo use artificial intelligence to dynamically respond to customer behavior in real time. These tools can be used to send automated messages to customers who visit certain pages, click certain links, or exhibit other behavior on a business's website. These kinds of targeted messages would be impractical for a business to send manually, but by using AI targeting, marketers can dynamically respond to potential customers at any stage of their customer journey.

## Learning and Adaptation

As discussed in earlier chapters of this textbook, one of the defining characteristics of AI is its ability to learn and adapt. This is particularly useful in the context of customer targeting, as it allows AI models to improve and refine their targeting strategies over time as they are exposed to more data and customer interactions. This leads to more accurate predictions and better customer segmentation.

AI's capacity for learning and adaptation allows marketers to optimize their targeting strategies based on actual customer responses. As the AI model continues to learn from new data, it becomes increasingly effective in identifying the most relevant audiences and refining the messaging for future campaigns.



This kind of adaptive targeting can massively improve customers' experience with a business. For example, streaming services like Netflix have developed an extremely sophisticated recommendation algorithm that learns from users' viewing history and preferences. Over time, it adapts and refines its suggestions, providing more accurate and personalized content recommendations tailored to each individual viewer's taste.

## Reduced Human Bias

Another benefit of AI targeting is its ability to reduce the potential for human bias when evaluating targeting data. AI algorithms make decisions based on data and patterns, minimizing the potential for subjective or discriminatory judgment that may occur in human decision-making.

Human decision making can often be impaired by cognitive biases—errors or distortions in thinking that occur when people are interpreting data about the world. For instance, one cognitive bias that marketers can sometimes face is known as anchoring, or a tendency to rely too heavily on the first piece of information one learns about a given topic, even when that information is no longer correct. This bias can make it difficult for marketers to adapt to changing circumstances: For instance, if a marketer initially believes that the target demographic for a business is men in their 30s, they are going to tend to focus on this demographic even if more recent data shows that other segments of a business's customer base are more valuable. AI targeting tools are less likely to be subject to these kinds of biases. Importantly, AI systems sometimes face their own challenges with biases, which will be discussed later in this lesson.

## RISKS AND LIMITATIONS OF AI TARGETING

While AI personalization offers a number of benefits, it is not without its risks and limitations. Some key risks and limitations of an overreliance on AI in personalization campaigns include:



### Dependence on Data Quality

When being developed and trained, AI systems rely heavily on accurate, reliable, and unbiased data. If the data used for training is flawed, incomplete, or biased, it can lead to inaccurate targeting, which can in turn result in misguided targeting efforts. Marketers may end up reaching the wrong audience, leading to wasted resources and potentially damaging the brand's reputation if customers receive irrelevant or inappropriate content.

For instance, an e-commerce company using AI for customer segmentation has a customer database that contains outdated or incorrect customer information, the system may categorize customers incorrectly, leading to ineffective targeting and reduced campaign performance.

To protect the quality of their data, marketers should be sure to conduct thorough data audits to ensure data accuracy and completeness. They should also regularly update and validate customer information to ensure that it is up to date and implement data quality checks at various stages of data handling and analysis.





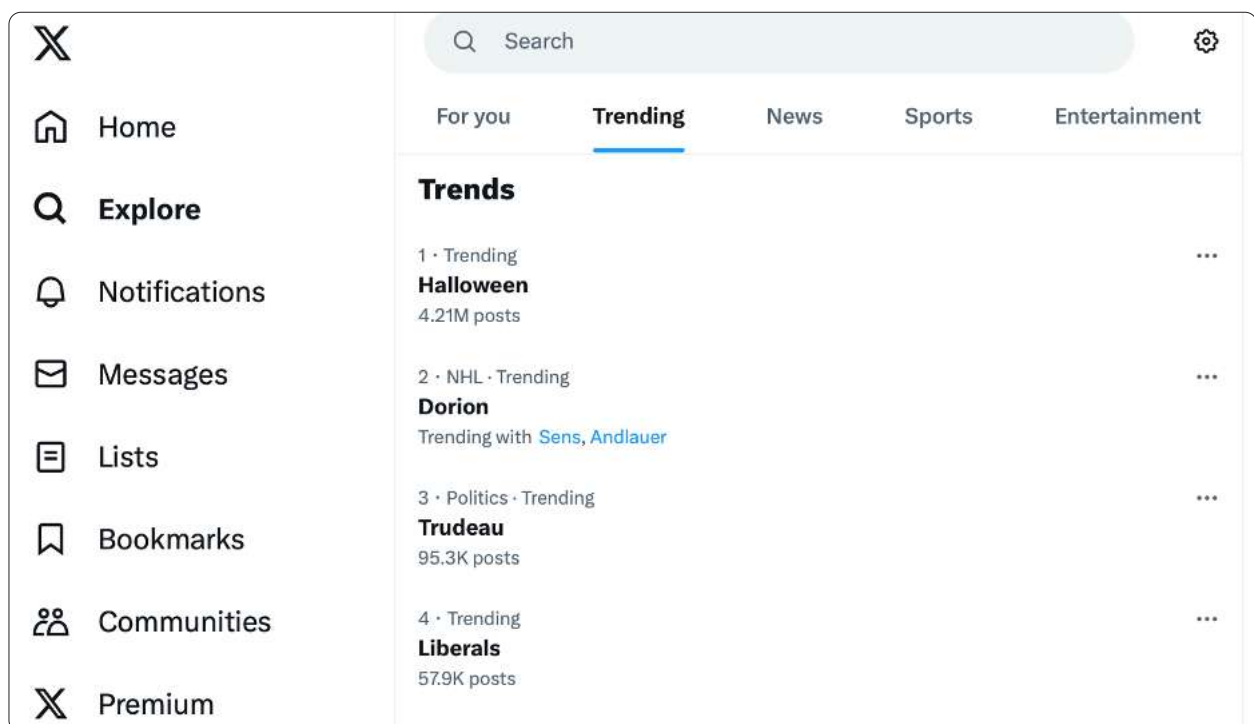
## Limited Creativity and Intuition

As with other AI systems, AI-powered targeting tools lack the ability to think creatively, make intuitive leaps, or come up with entirely novel marketing strategies or ideas. This means that while AI targeting is a powerful resource for parsing huge volumes of customer data, human marketers are still needed to find creative and interesting applications for that data.

Conversely, marketers can make the most of their targeting efforts by leveraging both AI-powered targeting tools as well as human creativity. For instance, a marketing team might brainstorm ideas for a creative new content marketing campaign, and then use an AI-powered tool to determine which of their ideas is best aligned with the interests of their customers.

## Overreliance on Precedent

Another risk of AI targeting is that, because they are trained on historical training data, they will tend to favor outcomes that are statistically probable, with a strong emphasis on historical data and patterns. While this tendency is generally seen as a strength of AI-powered tools, it has the side-effect of potentially limiting an AI tool's ability to adapt to novel or rapidly changing situations. While AI-powered tools can adapt and learn, this process can take time, and an AI tool's ability to generate useful predictive analytics data is strongly tied to convention and past precedent. With that in mind, marketers who rely solely on AI tools for customer targeting data may miss out on emerging trends or fail to respond effectively to sudden shifts in customer behavior or market dynamics.



This can have a real impact on business's ability to connect with their customers. For instance, a company that exclusively uses historical data to inform marketing strategies might choose to focus their marketing efforts exclusively on older social media platforms, such as Facebook and Instagram,

which have historically tended to generate the most new customers. While this trend may continue to hold true, the business may be missing out on an opportunity to experiment with new platforms and find new audiences. To avoid the risk of overreliance on precedent, marketers should aim to balance historical data with real-time insights and industry trends to inform decision-making.

## Algorithmic Bias

Algorithmic bias occurs when AI models make decisions that are systematically unfair or discriminatory due to biased training data or flawed algorithms. Algorithmic bias can lead to unfair targeting practices, alienating certain groups of customers or perpetuating existing biases, which can have negative consequences for brand reputation and customer trust.

Algorithmic bias can have a wide range of impacts for marketers. For instance, if a generative AI tool was trained on data that included harmful stereotypes or biases about certain demographics, those biases may appear in content generated to target individuals in those demographic groups. To avoid this risk, marketers should use diverse and representative training data to reduce bias in AI models whenever possible. They should also regularly audit and monitor AI generated content for potential biases and take corrective actions when identified.

### BENEFITS



Personalization  
at Scale



Real-time  
Decisions



Learning and  
Adaptation



Reduced  
Human Bias

### RISK



Personalization  
at Scale



Real-time  
Decisions



Learning and  
Adaptation



Learning and  
Adaptation

### Work cited

1. Shalvoy, Jessica. "Spotify Unwrapped: Inside the Company's Biggest Marketing Campaign." Variety, 2021, <https://variety.com/2021/music/news/spotify-unwrapped-marketing-shares-1235139981/>

# Activity: Developing a Personalized Marketing Campaign

Spotify Wrapped is a great example of how businesses can leverage their customer data in a fun and creative way to create personalized marketing and connect with their customers. Unsurprisingly, the “Year in Review”-style campaign has become a popular marketing tactic for many businesses, offering customers a personalized summary of their engagements with different businesses over the last year. For example, fitness app Peloton offers its users yearly summaries of their workout habits. Similarly, language learning app Duolingo sends its users a yearly summary of how many new words they studied over the last twelve months.

Importantly, these campaigns are about more than just collecting data. Effective personalized marketing needs to use that data in a creative and compelling way. With that in mind, this activity will give you an opportunity to develop your own personalized marketing campaign.

Imagine you have been hired by a local coffee shop. The shop has a loyalty program that offers their customers discounts on their seasonal items. Thanks to this program, they also generate a range of datapoints about their most loyal customers. This year, the coffee shop wants to create a personalized “Year in Review” campaign for their loyalty club members. You have been tasked with developing this campaign.

The development process can be divided into three steps:

## Step 1: Ideation

First, review the below customer data. Consider the data that is available and brainstorm which datapoints would be most interesting to share with customers for your campaign. For example, customers might be interested to learn how many cups of coffee they drank this year, or which menu item they ordered most frequently.

Once you have created your list, choose **three datapoints** to build your campaign.

Name	Number of Purchases	Most Ordered Drink	Total Spend (\$)	Earliest Order (Time)	Latest Order (Time)	Most visits in one day	Most Ordered Pastry	Month with most visits
Sarah Johns	156	Latte	624	7:15 AM	8:30 PM	3	Croissant	October
James Miller	98	Cappuccino	390	6:45 AM	7:00 PM	2	Blueberry Muffin	December
Emily Chen	132	Iced Americano	525	8:00 AM	9:00 PM	4	Cinnamon	July
Michael Rodriguez	72	Mocha	288	7:30 AM	6:00 PM	2	Chocolate Chip Cookie	November
Olivia Patel	89	Pumpkin Spice Latte	356	6:30 AM	8:00 PM	3	Banana Bread	September

## Step 2: Copywriting

Once you have chosen the three datapoints for your campaign, draft the copy that you'll use to share the datapoints with your customers. The copy should thank the customer for their loyalty over the last year, and present the information in a fun or interesting way.

Be sure to draft the copy so that it can be reused across the campaign using different customer names and data. This can be denoted with placeholders like [Name] and [datapoint]. For example:

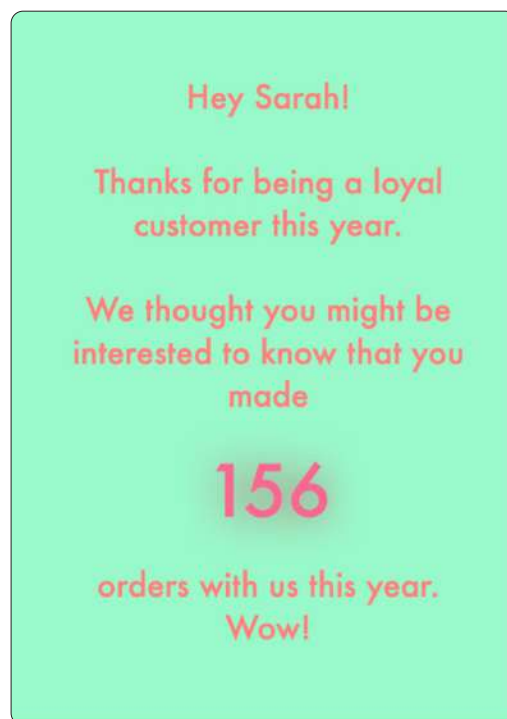
Hi [Name]! Thanks for being a loyal customer over the last year. We thought you might like to know what you made [number of purchases] orders with us over the last twelve months. Wow!

Be sure to write copy for all three of your datapoints.

## Step 3: Design

Finally, create a draft of a design that could be sent out to customers. Your designs should include the copy you drafted in the previous step. You may choose to put all three datapoints into a single graphic, or split them up into multiple graphics. Regardless of how many graphics you choose to design, your graphics should be easy to share on social media: This means the text should be large enough to be read on a phone, and it should be square or vertically oriented so it can be easily shared to platforms like Instagram.

You can design your graphics by hand, or by using a free platform like Canva.



# Reflection: Personalized Marketing

1. Have you ever received a personalized email from a business that utilizes your data?
2. What websites, apps, and devices generate data about you? What kind of story do you think your online data tells about you?
3. How do you think this data could be used by businesses to generate more effective and personalized advertisements for you?



# Evaluation Rubric

Criteria	3 Points	2 Points	1 Point
Ideation	The student has clearly identified three datapoints that would be interesting to a business's customers.	The student has identified two datapoints that would be interesting to a business's customers.	The student has identified one datapoint that may be interesting to a business's customers.
Copywriting	The copy is clear, compelling, and makes use of the three identified datapoints.	The copy is clear and somewhat compelling and includes some of the identified datapoints.	The copy is unclear or fails to include any datapoints.
Design	The designs are clear, include the relevant copy, and are easy to share to social media.	The designs are somewhat clear, include most of the relevant copy, and could be posted to social media.	The designs are unclear, are missing the relevant copy, and are not well-suited for sharing on social media.
Reflection/ Discussion	Reflection answers demonstrate a meaningful engagement with the topic at hand.	Reflection answers demonstrate some engagement with the topic at hand.	Reflection answers demonstrate minimal engagement with the topic at hand.