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Customer Data Platforms The Ultimate Handbook

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Chapter 1. Thriving in the Age of Customer-Centricity

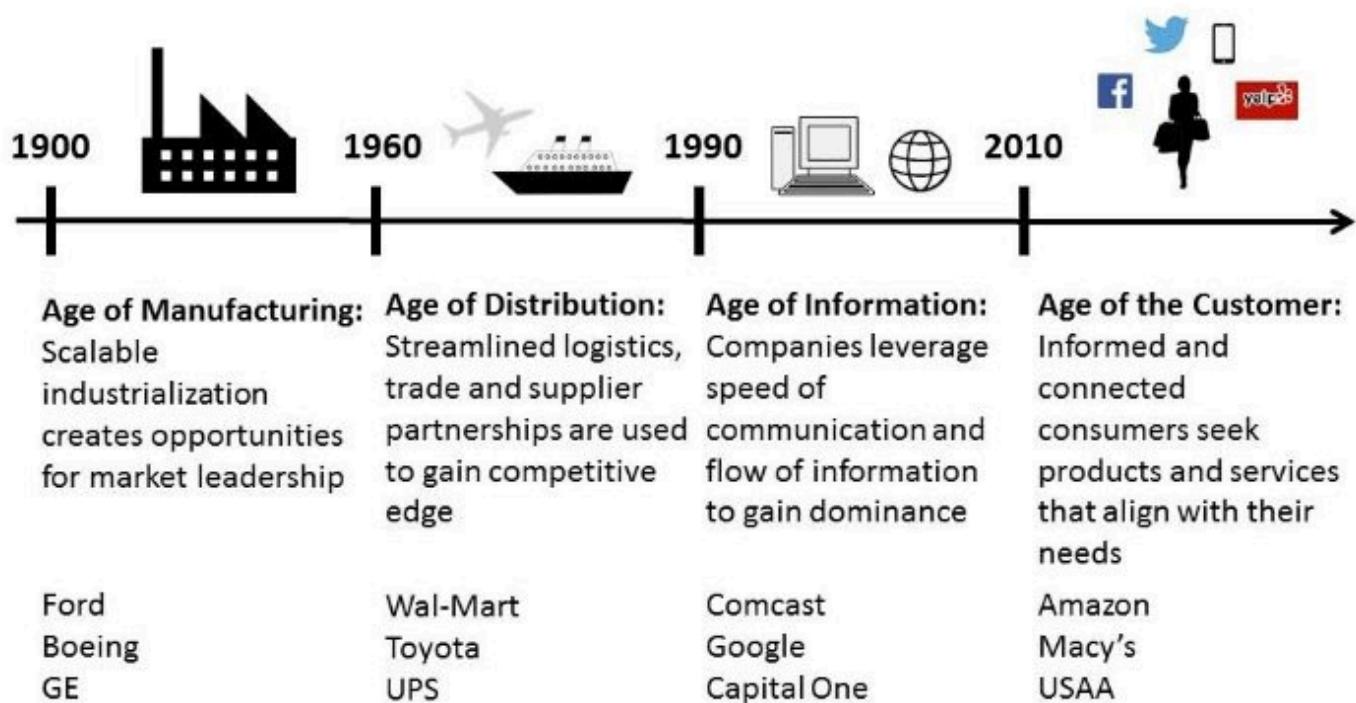


Image adapted from Forrester Research, Inc.

The Age of Customer-Centricity refers to a business era where customer needs, preferences, and satisfaction are the primary focus of all business activities. In order to thrive in this age, businesses must prioritize customer-centric strategies and adapt to changing customer behavior and preferences. Here are 5 key steps businesses can take to thrive in the Age of Customer-Centricity:

1. Put the Customer First: In the Age of Customer-Centricity, businesses must prioritize customer needs and preferences. This means listening to customer feedback, understanding their pain points, and tailoring products and services to meet their needs. By prioritizing the customer, businesses can build stronger relationships, increase customer loyalty, and drive revenue growth. Finally, an organization should build a culture that prioritizes the customer experience and puts their needs at the center of everything you do.

CDP and the 5P marketing model can work together to create a more holistic and effective approach to customer engagement.



2. Adopt Customer-Centric Technology: Businesses must adopt technology that enables them to collect and analyze customer data in real-time. Customer data platforms (CDPs) and customer relationship management (CRM) systems can help businesses gain insights into customer behavior, preferences, and intent, and create personalized experiences that enhance customer engagement.

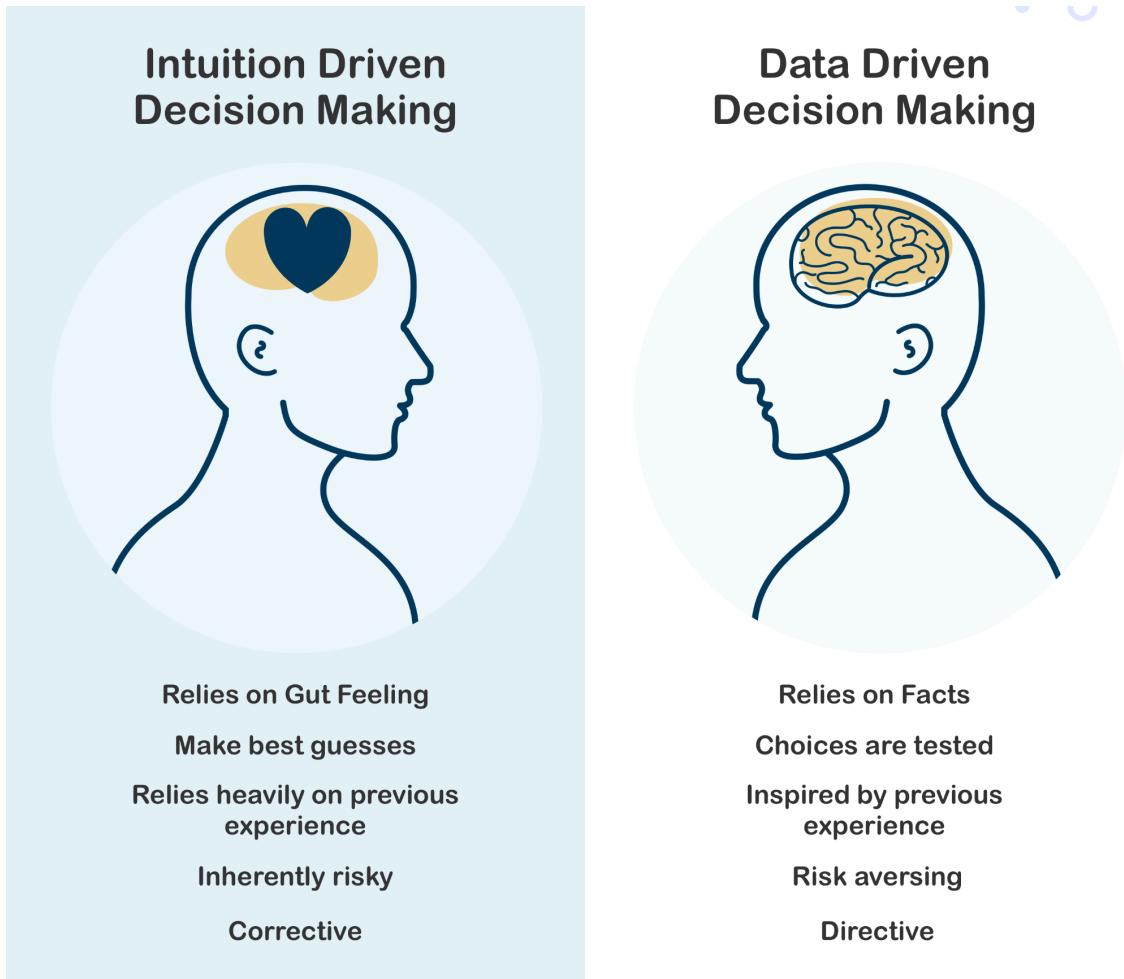
3. Embrace Omnichannel Marketing: Customers expect seamless experiences across all channels and touchpoints. Businesses must embrace omnichannel marketing strategies that enable them to create consistent and personalized experiences across all channels, including social media, email, mobile apps, and websites. By providing a seamless omnichannel experience, businesses can increase customer satisfaction and drive revenue growth.

4. Foster a Customer-Centric Culture: Businesses must foster a culture that prioritizes customer needs and preferences. This means empowering employees to make decisions that prioritize the customer, incentivizing customer-centric behavior, and investing in customer service training. By fostering a customer-centric culture, businesses can build stronger customer relationships and increase customer loyalty.

5. Continuously Iterate and Improve: In the Age of Customer-Centricity, customer behavior and preferences are constantly evolving. Businesses must continuously iterate and improve their products and services to meet changing customer needs. By staying agile and adapting to changing customer behavior, businesses can stay ahead of the competition and drive revenue growth. The organization also needs to foster innovation: Constantly seek to improve the customer experience by

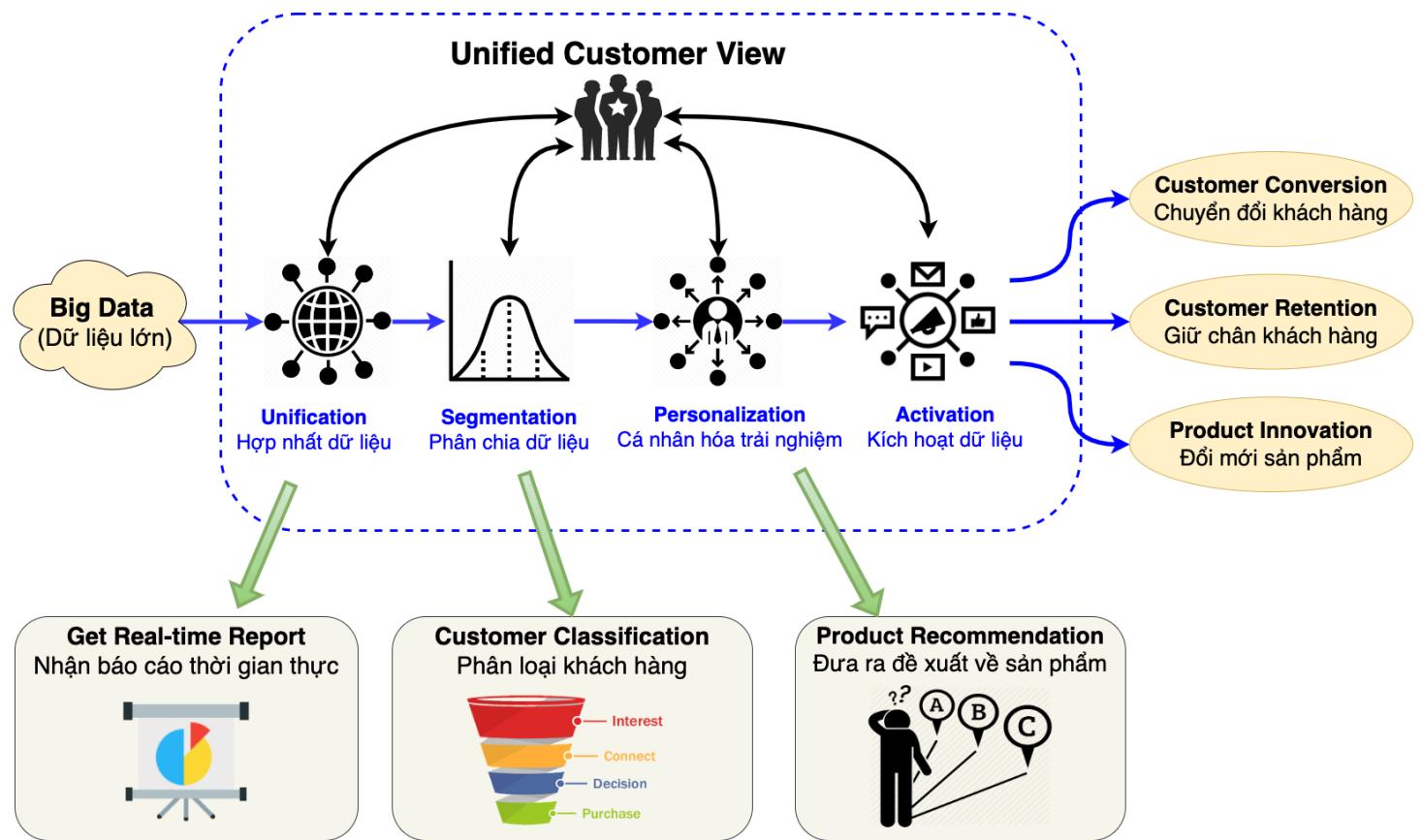
experimenting with new technologies and processes, iterating on what works and discarding what doesn't.

6. By combining intuition and data, you can make better decisions that will help you build a successful business. Understanding customers' human behaviors and needs is crucial for building a successful business. It is important to combine intuition and data to make the best decisions. Intuition can help you identify trends and patterns that may not be apparent in data alone. However, it is also important to validate your intuition with data to ensure that your decisions are grounded in reality.



In summary, to thrive in the Age of Customer-Centricity, businesses must prioritize the customer, adopt customer-centric technology, embrace omnichannel marketing, foster a customer-centric culture, and continuously iterate and improve. By putting the customer first and adapting to changing customer needs and preferences, businesses can drive revenue growth and build stronger customer relationships.

The U.S.P.A framework can help you create a customer centric strategy

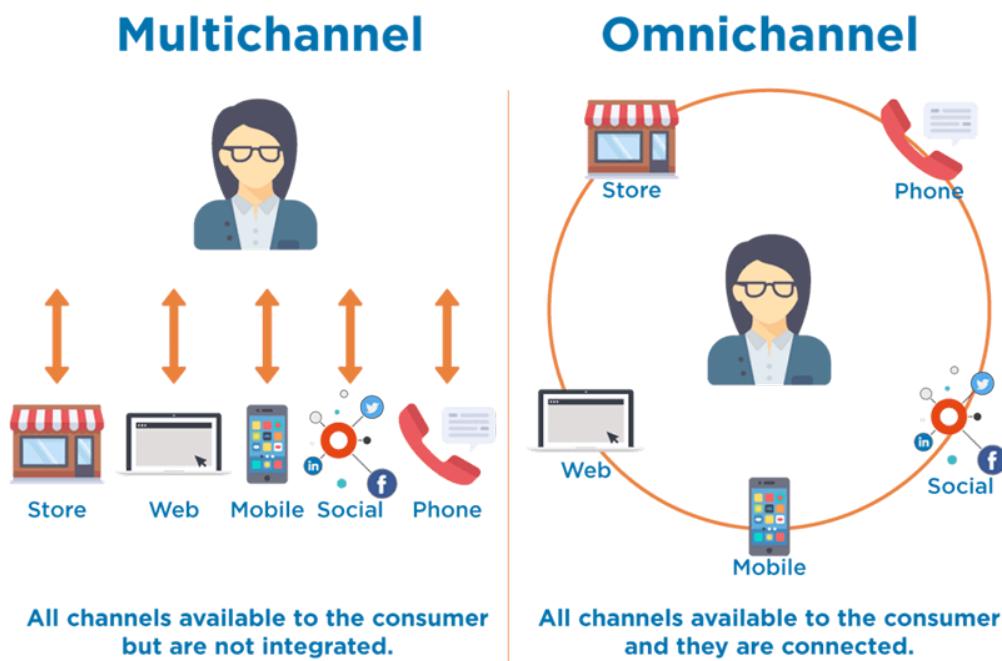


Chapter 2: The Rise of Customer Data Platforms

There are several factors that have contributed to the rise of customer data platforms since 2010.

Some of them are:

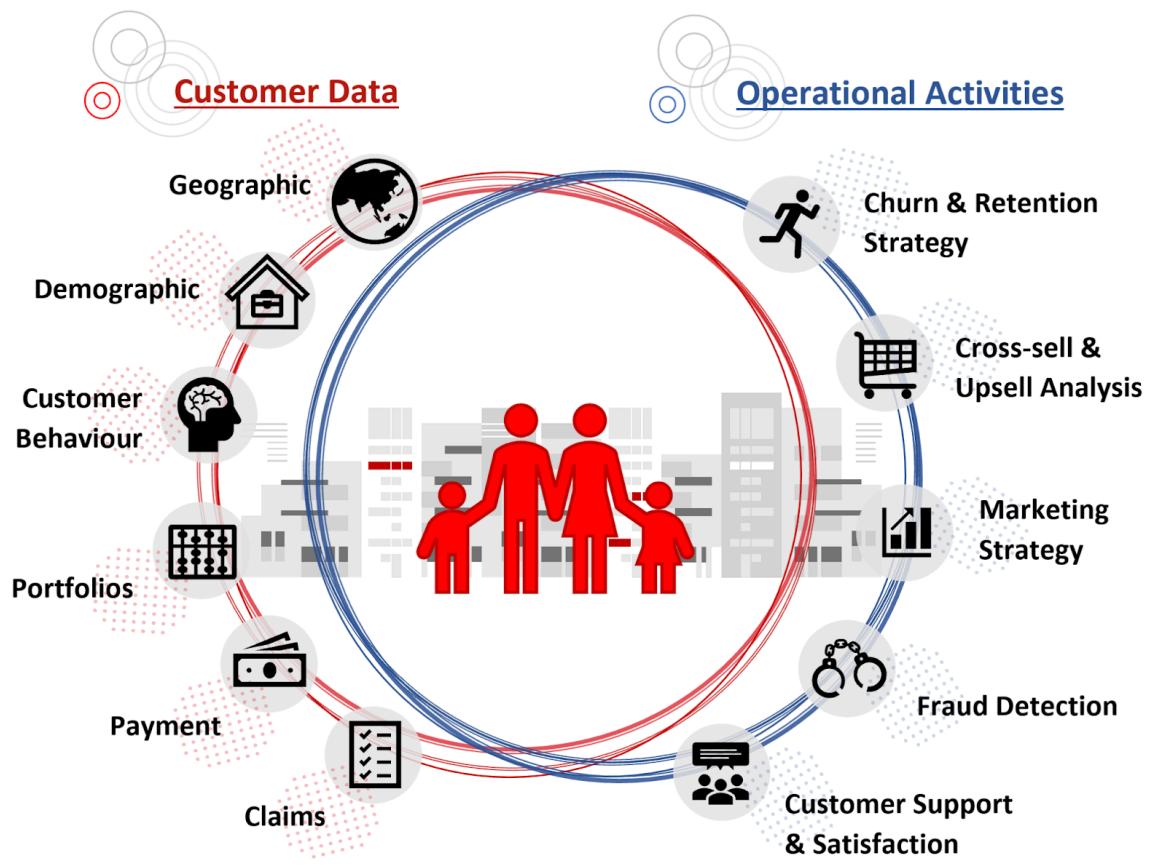
1.1 The need to deliver an omnichannel experience:



Customers expect personalized and consistent interactions with brands across multiple channels, such as web, email, social media, mobile apps, and offline stores. CDPs enable marketers to collect and unify customer data from various sources and use it to create relevant and timely messages and offers.

Use cases	Single channel	Multi-channel	Omni-channel
Audience definition	✓	✓	✓
Audience targeting	✓	✓	✓
Understand campaign effectiveness	✓	✓	✓
Understand consumer behavior	✓	✓	✓
Business insights	✓	✓	✓
Life cycle marketing		✓	✓
Predictive scoring		✓	✓
Single customer view		✓	✓
Cross-channel lead management		✓	✓
Multi-touch attribution		✓	✓
Personalization engine			✓
Omni-channel experiences			✓
Predict future consumer trends			✓

1.2 The proliferation of data sources and complexity:

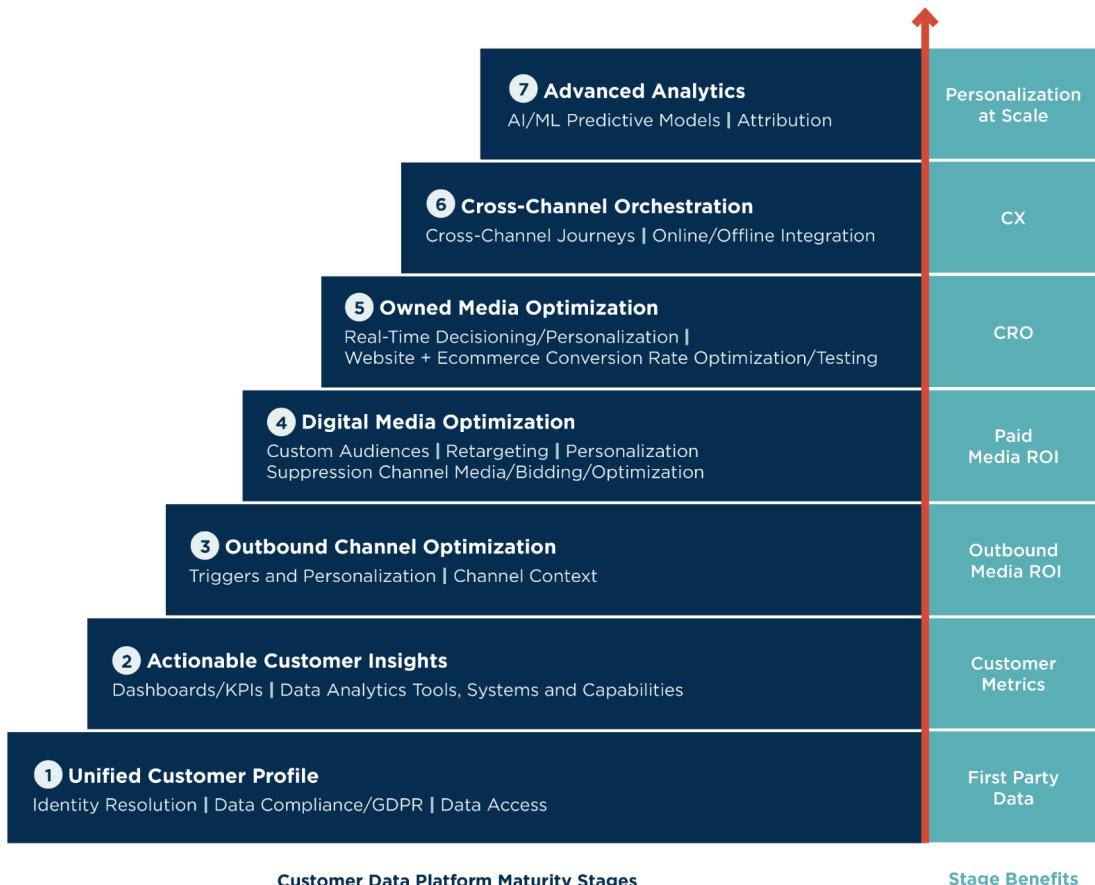


The amount and variety of customer data have increased exponentially in the last decade, due to the growth of digital channels, devices, platforms, and tools. CDPs help marketers to manage and integrate this data in a centralized and standardized way, reducing data silos and fragmentation².

1.3 The demand for data-driven decision making:

Data-driven decision making (DDDM) is a process that relies on data and analytics to inform and guide choices. It involves collecting, analyzing, and interpreting data to gain insights that can improve decision-making. DDDM is becoming increasingly important as organizations recognize the value of data in making informed and effective decisions.

By applying *Customer Data Maturity Model*, we could implement data-driven decision making, to deliver data-driven brand experiences at all stages of the customer lifecycle.



Source: London Research / BlueVenn Customer Data Excellence report

Because the model is a strategic planning tool that helps marketers define and prioritize their customer experience requirements, then methodically translate them into customer data requirements. It assists with auditing current capabilities and defining a future roadmap aligned to business goals, acting as a useful reference point. By using this maturity model, marketers ensure they adopt an integrated approach to leveraging, and ultimately monetizing, customer data by identifying and unlocking synergies across marketing programs.

Let's quickly run through the seven stages included in the model:

Stage 1 – Unified Customer Profile

The first stage is the primary function of a CDP, namely establishing a persistent unified customer profile that is accessible to other systems. First-party data is the one thing you have that your competitors don't, so a central hub that gives control over and access to your first-party data is essential. While the data hub supports compliance and data quality efforts by maintaining privacy and managing permissions, delivering highly personalized and timely experiences is the end game.

Stage 2 – Actionable Customer Insights

You're now looking to analyze and mine the data you ingested, captured and stored during the first stage to access insights that help you better understand your customers. This can be accomplished via dashboards, reporting systems, queries, predictive models or other types of analysis.

Armed with the insights uncovered during this second stage, the next step is to activate that data and deliver a better, customer-centric experience. This can be done at differing levels of sophistication, as seen in Stages 3 to 6.

Stage 3 – Outbound Media Optimization

This stage involves triggering, personalizing and then pushing messages out to customers via owned media channels, such as email, direct mail or contact center. Tackling outbound channels first is the sensible approach as they're an easy, proven way of driving engagement and response.

Stage 4 – Digital Media Optimization

You should be surfacing first-party data and defining tighter audience segments at this stage, using those insights to drive smarter targeting of off-site, paid digital media activities. With real-time decisioning and context in which content is delivered and consumed needing to be factored in, it's a higher-order undertaking.

Stage 5 – Owned Media Optimization

This stage is all about supporting real-time personalized digital experiences in response to customer actions, particularly achieving a seamless integration between ecommerce and content marketing. An example is dynamic merchandising based on search terms, site navigation and conversion events.

This is one of the findings that emerged strongly through the research: 91% of CDP owners integrate their ecommerce stores with their main websites or content hubs, compared to only 75% of their peers.

Stage 6 – Cross-Channel Orchestration

This stage brings all the previous stages together to deliver a seamless, joined-up experience across online and offline channels.

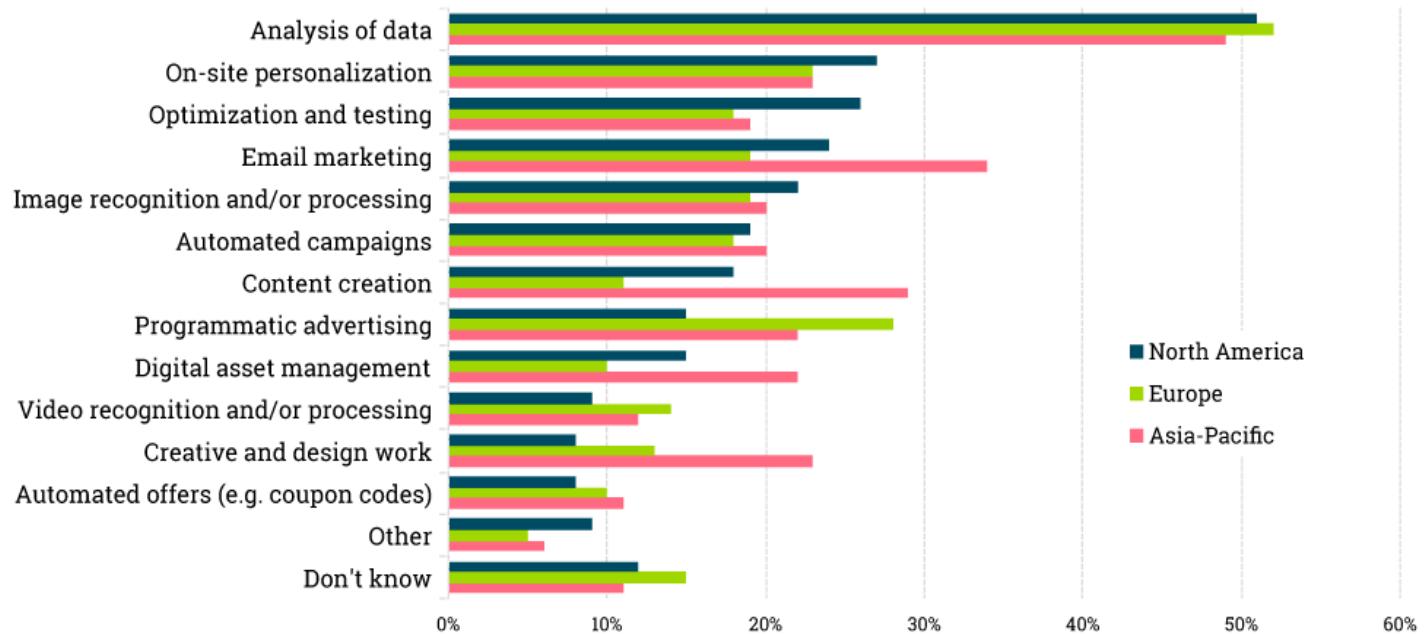
Stage 7 – Advanced Analytics

The final stage brings a whole new level of sophistication, aiming to increase the breadth, scale, speed and precision of marketing programs. Personalization and segmentation are driven in real time, using machine learning and artificial intelligence, rather than just rules created by humans.

Stages 2 and 7 are all about data analysis and insights, while Stages 3 to 6 are very much about activation. Ultimately, this is what marketers want from their CDP: deeper insights and an improved ability to act on those insights and deliver a better experience as a result.

1.4 The expansion of AI/ML to analyze customer data at scale

How Companies Are Currently Using AI



Published on MarketingCharts.com in March 2018 | Data Source: Econsultancy / Adobe

Based on a survey of almost 12,800 digital marketing and e-commerce professionals. The plurality of respondents are from Europe, with the Asia-Pacific and North American regions the next-most heavily represented. Respondents came from a mix of company sizes, types, job titles and roles.

Artificial intelligence and machine learning have become more accessible and powerful in recent years, enabling marketers to leverage advanced techniques such as predictive modeling, recommendation engines, sentiment analysis, and natural language processing. CDPs facilitate the use of AI/ML by providing clean, enriched, and actionable customer data².

Source:

(1) Four Forces Driving The Rise Of Customer Data Platforms - Forbes.

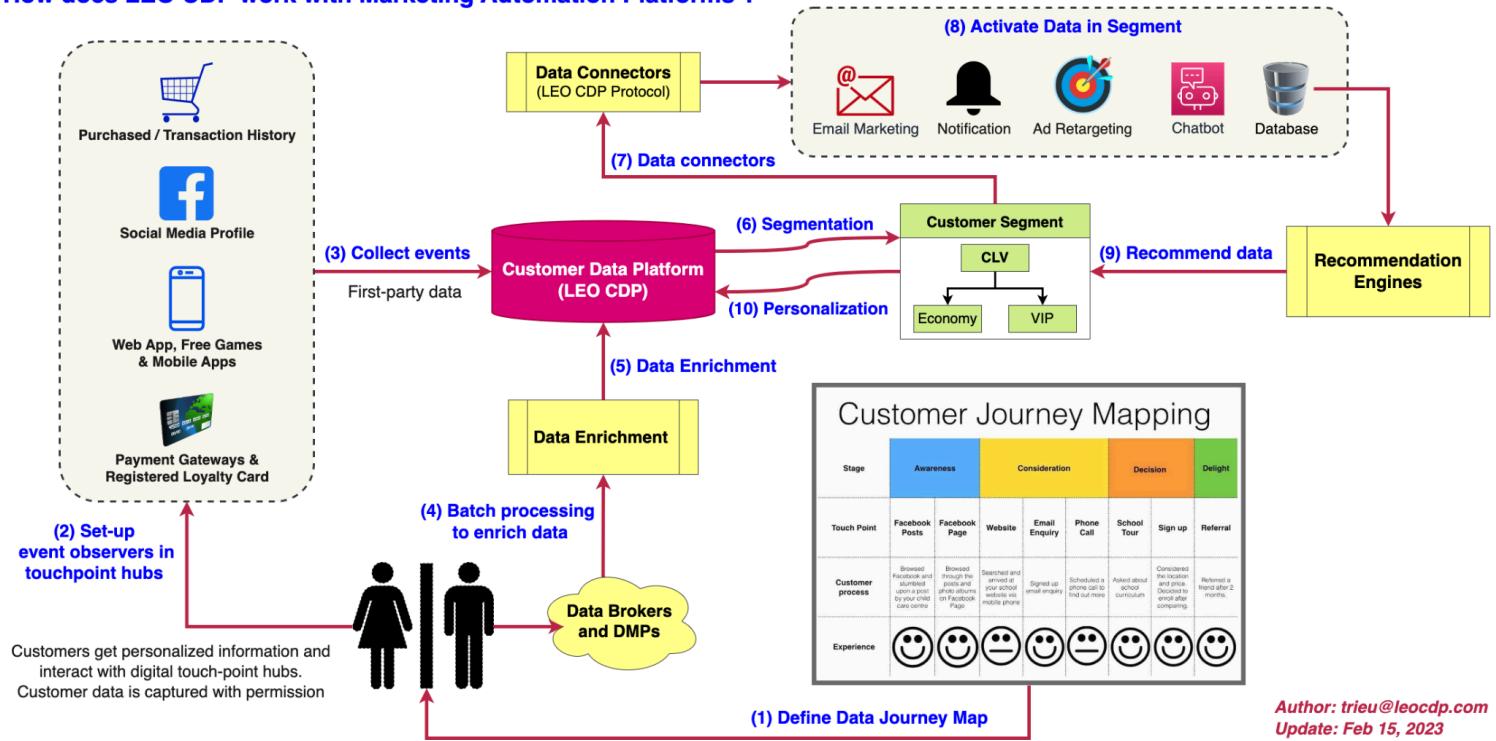
<https://www.forbes.com/sites/forbescommunicationscouncil/2020/06/17/four-forces-driving-the-rise-of-customer-data-platforms/>

(2) Customer Data Maturity: a Seven-Stage Model

<https://www.digitaldoughnut.com/articles/2019/june/customer-data-maturity-a-seven-stage-model/>

Chapter 3: Understanding Customer Data Platforms

How does LEO CDP work with Marketing Automation Platforms ?

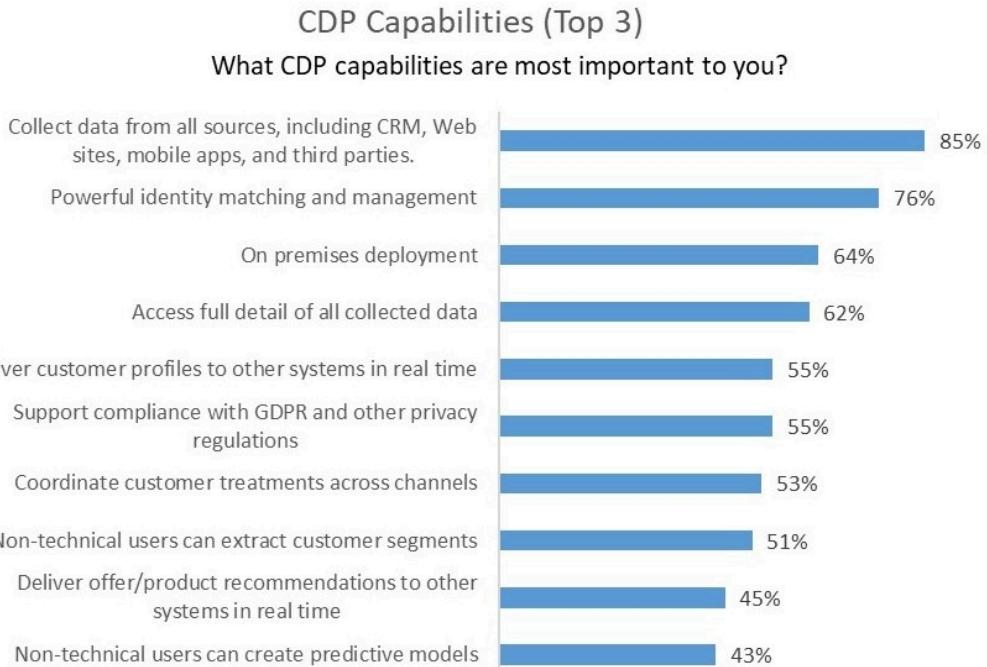
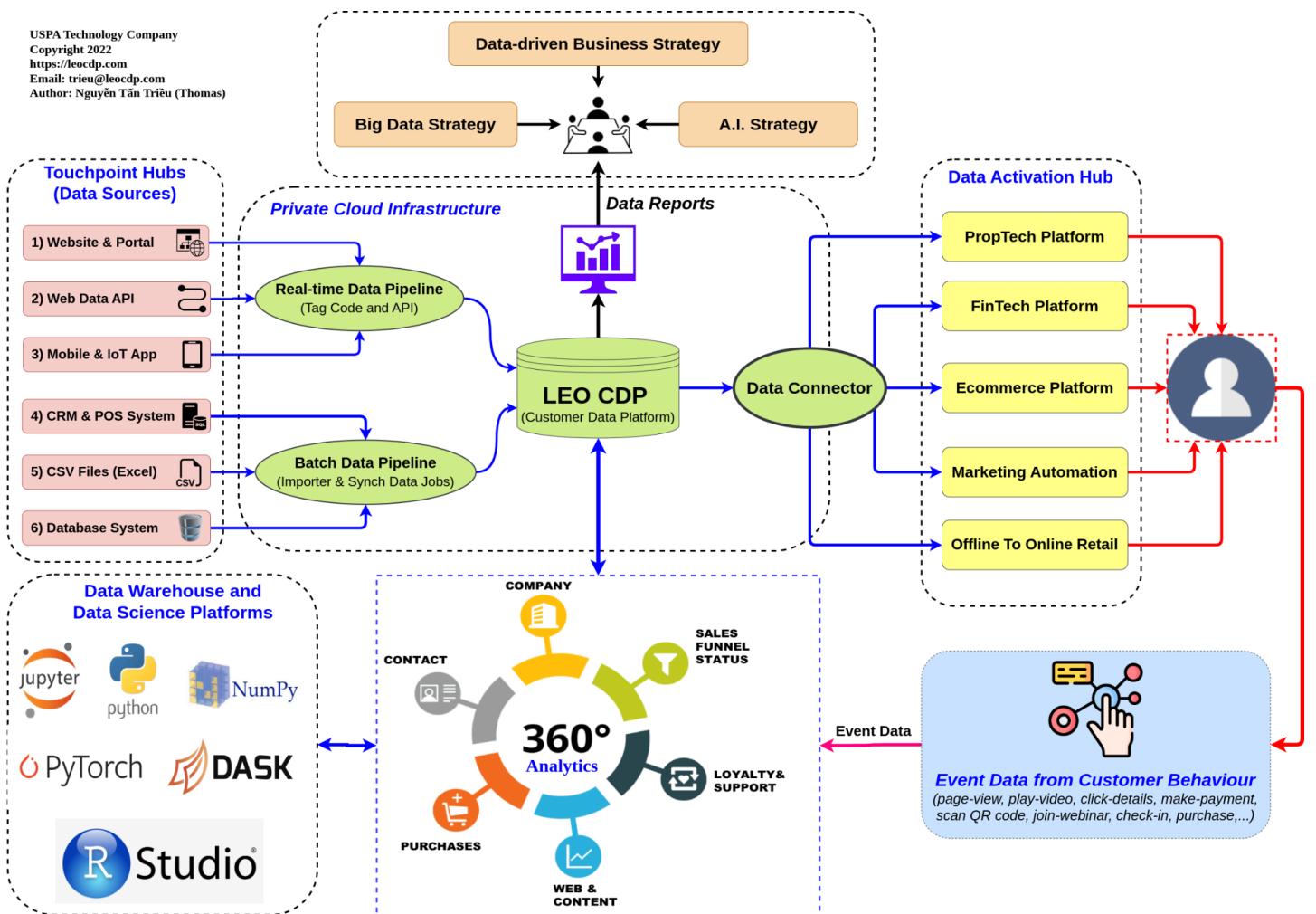


A customer data platform (CDP) is a software application that supports marketing and customer experience use cases by unifying a company's customer data from marketing and other channels. CDPs optimize the timing and targeting of messages, offers and customer engagement activities, and enable the analysis of individual-level customer behavior over time.

A customer data platform can help businesses to:

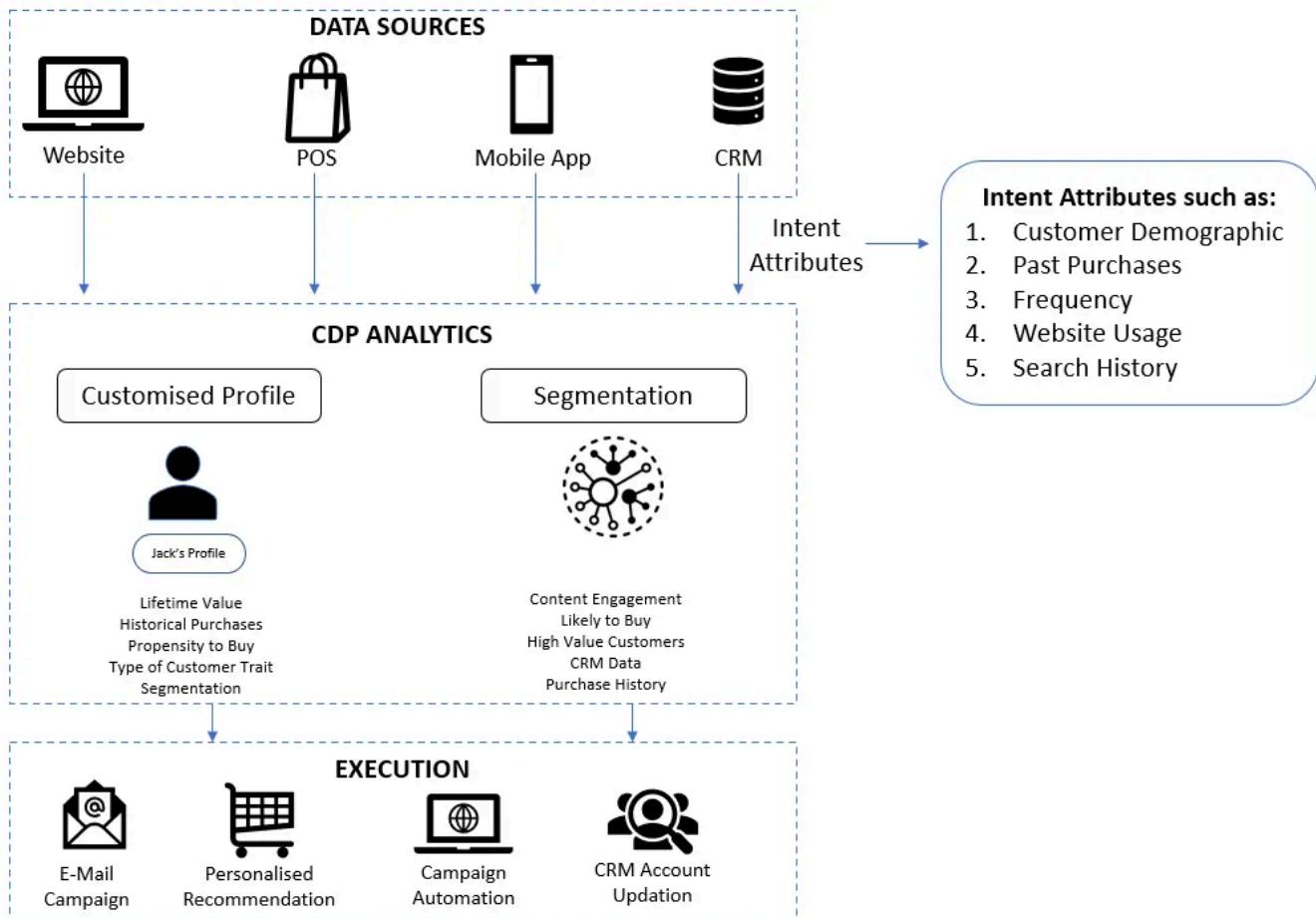
- Create comprehensive customer profiles that include online and offline data sources¹.
- Automate personalized and omnichannel campaigns based on customer segments and triggers¹.
- Predict customer behavior and preferences using machine learning and artificial intelligence¹.
- Expand advertising reach and effectiveness by integrating with third-party platforms¹.
- Manage data privacy and compliance across different regions and regulations¹.
- Gain competitive advantage by delivering superior customer experiences¹.

A customer data platform can be a powerful tool for any business that wants to leverage its customer data to create more value and loyalty.



Source: CDP Institute Member Survey, 2019

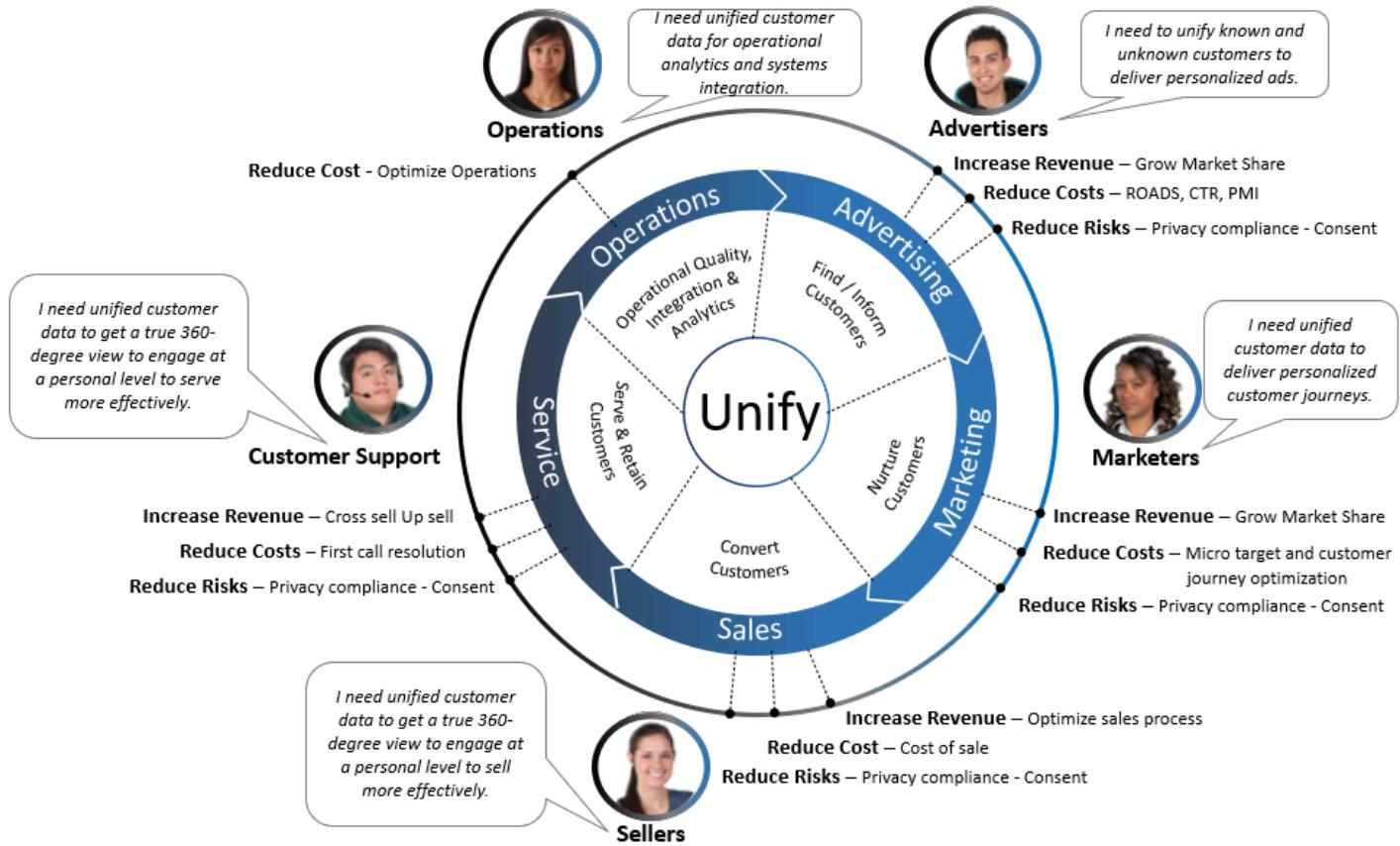
Chapter 4: Building Unified Customer 360-degree View



Building a Unified Customer View involves creating a single, comprehensive profile of each customer by consolidating data from multiple sources. Some of the primary sources include: Websites, Point of Sale (POS), mobile apps, CRM, E-Commerce sale & purchase history ad platforms, ad networks, DSPs, Lead capture forms, etc ...

This can be done by using a centralized database such as a customer data platform (CDP) to store and manage customer information. When you have a centralized database, you should specify important customer attributes: The accuracy and complexity of the customer attribute translate into high-precision targeting. Some of the characteristics include:

1. *Personal information,*
2. *Location,*
3. *Demographics*
4. *Historical Purchase patterns*
5. *Buying Behavior*
6. *Web and in-app actions and engagement details.*



A unified customer view can help organizations offer personalized service and customized marketing campaigns by providing teams with access to the most recent and relevant information when interacting with customers. Here is the list of top reasons for 360-degree customer view

Top Reasons Organizations Pursue 360-Degree Customer View

Top Three/Top Rank Summary



n = 393 leaders of customer data, excluding "don't know"

Q. What are/were the top reasons motivating your organization to establish a 360-degree customer view?

Source: 2021 Gartner Cross-Functional Customer Data Survey

Example of Unified Customer View in the LEO CDP

Customer Data Hub → Profile Management → Profile Information

Back Refresh Remove Edit



Trieu Tan Nguyen

Type: DIRECT INPUT CONTACT
Data Quality Score: 307

First Name: Trieu
Middle Name: Tan
Last Name: Nguyen

Primary Email: trieu@leocdp.com
Primary Phone: 0903122290

Profile is created at 2024-08-19 09:28:39
Updated by CDP 2024-10-10 11:21:29
Updated by CRM 2024-10-09 09:08:20

In Data Journey Maps

Demo & TEST Data Journey of ISB

In Segments

Customer Prospect Customer Lead

Data Labels

test FROM_CDP_API MBA Student Lead web-user Consideration:Nurturing Lead
 Consideration : Nurturing Lead

Behavioral Data Profile Details Recommended Contents Recommended Products Duplicate Profiles

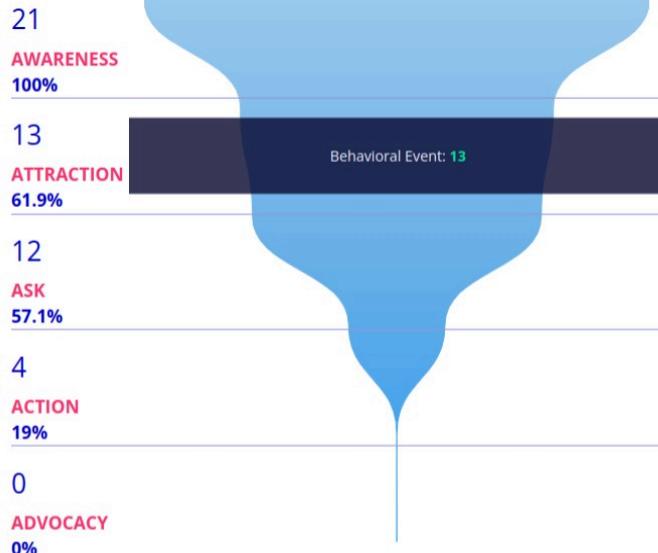
Data Journey Map

All Journey Maps

Data Journey Map

Behavioral Data Report

- Event Time Series
- Event Data Stream
- Referral Channels
- Last Session Data
- Engaged Touchpoints
- Total Scoring Data
- Custom Scoring Data
- Privacy Consent
- Purchased Products



Chapter 5: Segmentation, Personalization and Real-Time Behavioral Profiling

4.1 What is data segmentation in CDP ?

Data segmentation in a Customer Data Platform (CDP) refers to the process of dividing a user base into smaller groups with similar traits based on any attributes ingested in the platform¹. These audience segments can then be exported to different systems that have been integrated with the CDP for use in targeted marketing campaigns¹.

CDPs traditionally work with “Adaptive Segments,” which are segments that are constantly recalculated¹. This allows organizations to deliver more personalized and relevant marketing experiences by tailoring their messaging to specific audience segments.

CDPs use advanced algorithms and analytical models to segment customers based on a wide range of data sources, including website interactions, mobile app usage, purchase history, demographic data, social media activity, and more. The resulting segments are often dynamic, meaning they can be updated in real-time as new data becomes available.

Segmentation is a critical component of a CDP, as it allows organizations to gain a deeper understanding of their customers and develop more effective marketing strategies. By targeting specific segments with tailored messaging and offers, organizations can increase engagement, retention, and revenue. Example UI of data segmentation in the LEO CDP:

Customer Data Hub → Segment Management						
Show 20 entries		Search: <input type="text"/>				
Segment Name	Total Profile	Description	Data Owner	Created at	Updated at	Actions
▶ Lead Profiles for Free LEO CDP courses	189	All active profiles that can get recommended contents and products in website and email	superadmin	2021-08-29 01:10:44	2023-08-18 13:13:30	View Edit
▶ System Users	1		superadmin	2023-08-06 18:35:17	2023-08-06 18:35:17	View Edit
▶ Prospective Customers	0	All profiles have contact information and lead score is greater than zero	superadmin	2021-08-29 01:10:45	2023-08-06 18:34:13	View Edit
▶ Users who click Short Link	706		superadmin	2022-01-24 10:47:58	2023-07-31 19:59:26	View Edit
▶ All profiles have content-view	24		superadmin	2023-06-29 19:21:09	2023-07-19 14:30:03	View Edit
▶ Active Visitor Profile	239	All active profiles do not have contact data but have a lot of activities	superadmin	2021-08-29 01:10:45	2023-07-19 14:30:02	View Edit

The screenshot shows a CDP interface with the following components:

- Query Builder:** A large panel on the left containing a hierarchical tree of rules. The root node is "AND". It has two children, both "OR" nodes. The first "OR" node has two rules: "Primary Email is not empty" and "Primary Phone is not empty". The second "OR" node has two rules: "Total Lead Score greater than 5" and "Total Prospect Score greater than 5".
- Segment Summary:** A circular chart in the top right corner indicating the size of the segment. The chart is yellow with a black outline. The text inside says "Segment Size: 189" and "1% of Total Profile".
- Matched Profiles:** A table titled "All matched profiles" showing 20 entries. The columns are: Full Name, Profile Type, Gender, Email, Phone, Last-seen Touchpoint, Data Quality, Lead Score, CLV Score, and Last Updated.

Full Name	Profile Type	Gender	Email	Phone	Last-seen Touchpoint	Data Quality	Lead Score	CLV Score	Last Updated
F	CUSTOMER	-	gmail.com		Big Data Vietnam	91	53	0	2023-08-18 03:13:42
I	CUSTOMER	-	ail.com		Content Item: LEO CDP for Food and Beverage...	108	143	0	2023-08-15 16:21:04
T	CUSTOMER	-	iacct@...		Customer Data Platforms - The Ultimate Han...	71	25	0	2023-08-10 11:03:31
V	CUSTOMER	-	gmail.com		Big Data Vietnam: 2022	96	78	0	2023-08-09 08:04:40

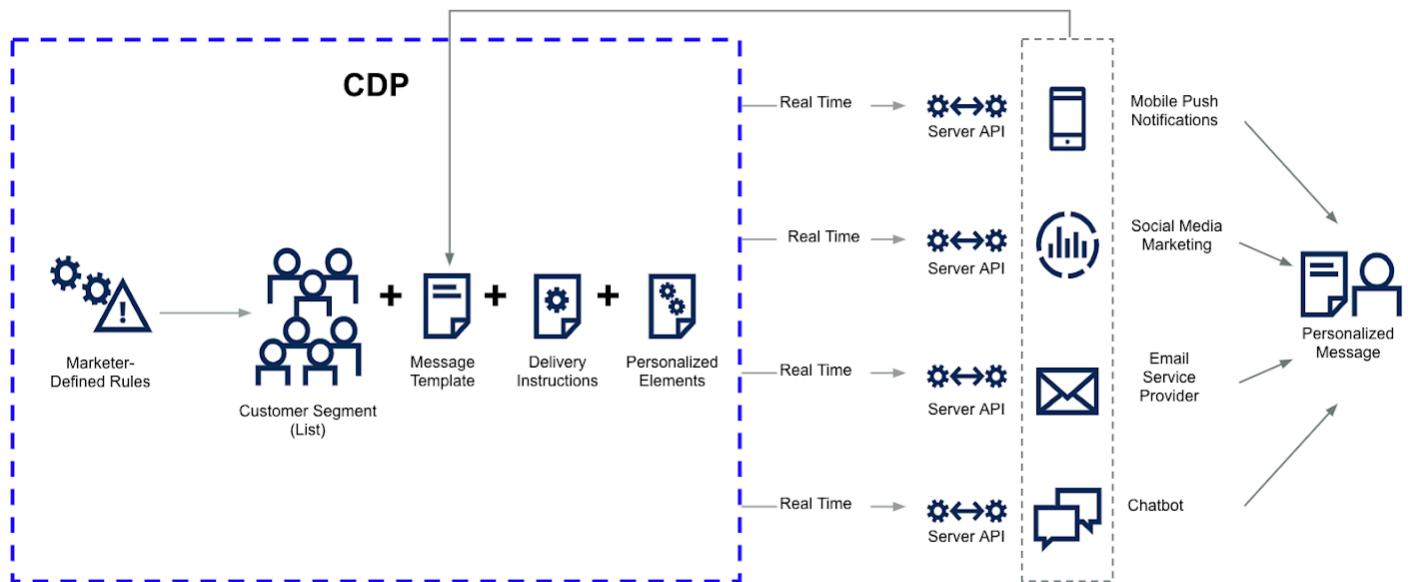
4.2 What is data personalization in CDP ?

Data personalization in a Customer Data Platform (CDP) refers to the ability to tailor messaging, offers, and experiences to individual customers based on their unique characteristics and behaviors. Personalization uses customer data to segment customers into groups based on common attributes or behaviors, and delivers targeted content and messaging to each group.

Personalization in a CDP can be used to improve engagement, retention, and revenue by providing customers with more relevant and valuable experiences. It can also help organizations optimize their marketing strategies by delivering the right message to the right customer at the right time.

CDPs use advanced analytics and machine learning algorithms to analyze customer data and deliver personalized experiences. In a CDP, personalization is often based on a combination of demographic data, behavioral data, purchase history, and other key customer metrics.

By using recommended system, a CDP can do customer personalization at scale



Example UI of personalized products in customer profile of LEO CDP

The screenshot shows a detailed view of a customer profile in the LEO CDP. At the top, there is a circular profile picture of a man named 'Trieu Nguyen'. Below the picture, the name 'Trieu Nguyen' is displayed. To the right of the profile picture, there is a list of profile details:

- Profile ID: 3hjrSH8E2taWwTWlmpoj
- Web Visitor ID: ?iXVHSsegO0FIGHrzyljd3VouyQADvNa
- CRM User ID:
- Created at: 2022-05-06 11:57:04
- Updated at: 2023-08-19 21:34:25

Below these details, there are sections for personal information:

- First Name: Trieu
- Middle Name:
- Last Name: Nguyen
- Gender: Male
- Age: 10
- Date of Birth: 2012-01-10
- Marital Status: Unknown

Further down, there are sections for profile type and contact information:

- Profile Type: SYSTEM_USER_CONTACT
- Primary Email: tan_l@gmail.com
- Primary Phone: 90 1290

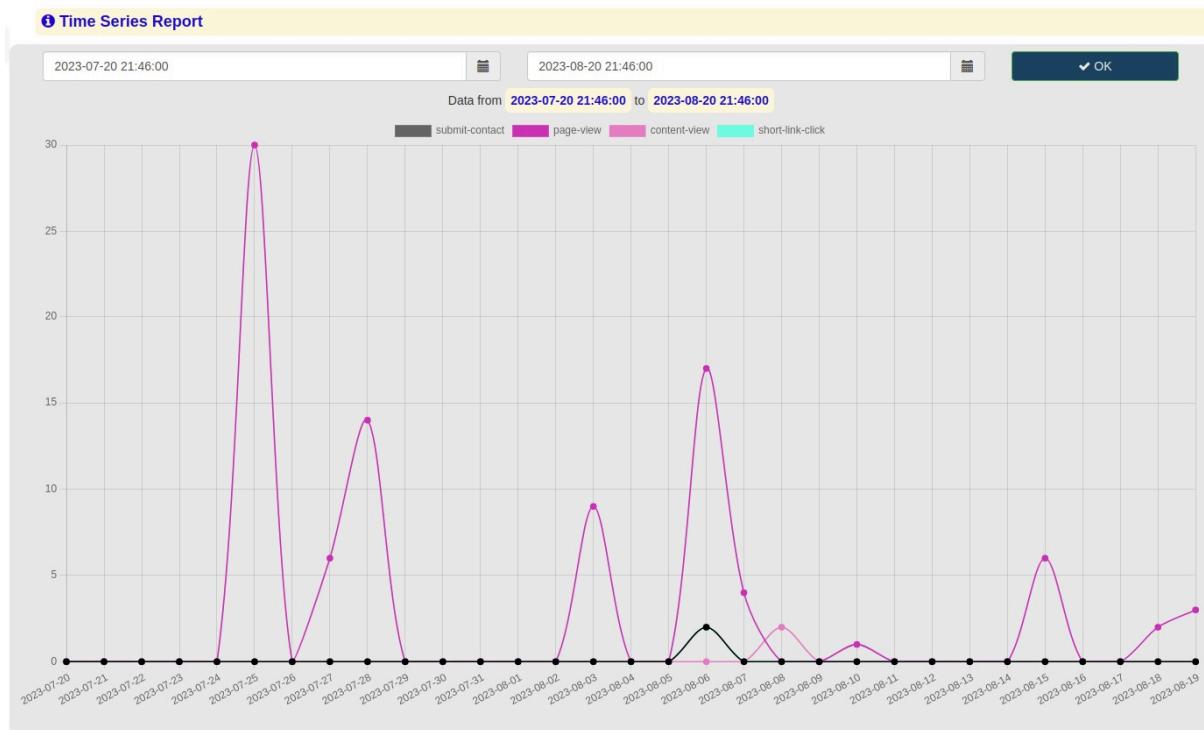
At the bottom of the profile section, there are tabs for Behavioral Analytics, Feedback Analytics, Profile Data, Recommended Contents, and Recommended Products. The 'Recommended Products' tab is currently selected.

Top recommended products

You can drag and drop the items below to customize product ranking

Item Index: 1	Customer Data Platforms: Use People Data to Transform the Future of Marketing Engagement	Updated at: 2022-05-21 10:50:42
	<ul style="list-style-type: none"> Smart Link URL: https://demotrack.leocdp.net/ct/3bfvV3G7blzXamEXUy2tf Full URL of landing page: https://www.amazon.com/Customer-Data-Platforms-Transform-Engagement/dp/1119790115/ 	<ul style="list-style-type: none"> ISBN 13 : 078 1119790112 Keywords: Digital Marketing,Big Data,CDP,Customer Data Platform
	<ul style="list-style-type: none"> Smart Link URL: https://demotrack.leocdp.net/ct/4d4SBGh8qUvwI0H23rP7ve Full URL of landing page: https://www.amazon.com/Marketing-5-0-Philip-Kotler/dp/1119668514/ 	<ul style="list-style-type: none"> ISBN-13 : 978-1119668510 Keywords: MarTech,Marketing,Philip Kotler
	<ul style="list-style-type: none"> Smart Link URL: https://demotrack.leocdp.net/ct/2OUaQZuy3AtUrIclq12ox5 Full URL of landing page: https://www.amazon.com/Digital-Scale-Playbook-Transform-Company/dp/1119433746/ 	<ul style="list-style-type: none"> ISBN-13 : 978-1119433743 Keywords: Digital transformation

4.3 What is real-time behavioral profiling in CDP ?



Event Data Stream

Enter keywords to filter tracking events Filter Refresh

	page-view	LEO CDP Blog ↳ https://knowledge.leocdp.net/ 📍 Location at	2023-08-19 11:47:12
	page-view	Big Data Vietnam: Dataism - Sự khác biệt giữa Social graph và User Interest graph ↳ https://www.bigdatavietnam.org/2023/05/dataism-su-khac-biet-giua-social-graph-va-user-interest-graph.html 📍 Location at	2023-08-19 11:45:23
	page-view	Big Data Vietnam ↳ https://www.bigdatavietnam.org/ 📍 Location at	2023-08-19 11:45:13
	page-view	Big Data Vietnam ↳ https://www.bigdatavietnam.org/ 📍 Location at	2023-08-18 12:50:40

Real-time behavioral profiling is a technique used to capture and analyze user behavior data (e.g: page-view, click, play-video,...) in real-time to create a comprehensive profile of each user's interests, preferences, and intentions. This profiling is based on the analysis of the user's online activity, including clicks, searches, purchases, and social media interactions, among other factors.

Example behavioral events with their base score in LEO CDP:

Event Name	Event Label	Event Score	Loyalty Point	Default Funnel Stage	Scoring Model	Journey Stage	Show in Tracking Code	
data-import	Data Import	0	0	New Visitor	Data Quality Score	AWARENESS	<input type="checkbox"/>	
ad-impression	Ad Impression	1	0	New Visitor	CAC Score	AWARENESS	<input checked="" type="checkbox"/>	
page-view	Page View	1	0	New Visitor	Lead Score	AWARENESS	<input checked="" type="checkbox"/>	
accept-tracking	Accept Tracking	1	0	New Visitor	Lead Score	ATTRACTION	<input checked="" type="checkbox"/>	
engaged-session	Engaged Session	2	0	New Visitor	Lead Score	ATTRACTION	<input checked="" type="checkbox"/>	
like	Like	3	0	New Visitor	Lead Score	ACTION	<input checked="" type="checkbox"/>	
content-view	Content View	4	0	New Visitor	Lead Score	ATTRACTION	<input checked="" type="checkbox"/>	
search	Search	5	0	New Visitor	Lead Score	ASK	<input checked="" type="checkbox"/>	
item-view	Item View	6	0	New Visitor	Lead Score	ATTRACTION	<input checked="" type="checkbox"/>	
survey-view	Survey View	7	0	New Visitor	Lead Score	ATTRACTION	<input type="checkbox"/>	
click-details	Click Details	8	0	New Visitor	Lead Score	ASK	<input checked="" type="checkbox"/>	
play-video	Play Video	9	0	New Visitor	Lead Score	ASK	<input checked="" type="checkbox"/>	
submit-contact	Submit Contact	10	0	Lead	Lead Score	ACTION	<input checked="" type="checkbox"/>	
file-download	File Download	10	0	Lead	Lead Score	ACTION	<input checked="" type="checkbox"/>	
register-account	Register Account	11	0	Lead	Lead Score	ACTION	<input checked="" type="checkbox"/>	
user-login	User Login	12	0	Lead	Lead Score	ACTION	<input checked="" type="checkbox"/>	
short-link-click	Short Link Click	14	0	Lead	Lead Score	ASK	<input checked="" type="checkbox"/>	

Here are some key benefits of real-time behavioral profiling:

1. Personalization:

Real-time behavioral profiling enables businesses to create personalized experiences for their customers. By understanding each user's interests and preferences in real-time, businesses can provide relevant content, product recommendations, and offers to enhance customer engagement and drive conversion rates.

2. Real-Time Engagement:

Real-time behavioral profiling enables businesses to engage with customers in real-time. By analyzing user behavior data in real-time, businesses can provide personalized responses to customer inquiries, offer real-time support, and provide targeted recommendations to enhance customer satisfaction.

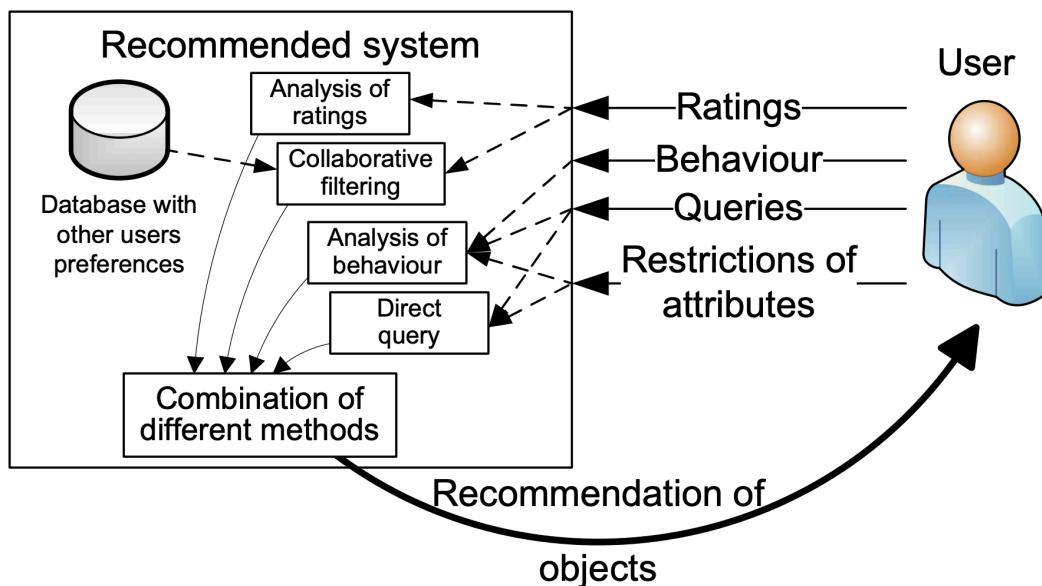
3. Improved Marketing:

Real-time behavioral profiling enables businesses to create targeted marketing campaigns that are tailored to each user's behavior and preferences. By analyzing user behavior data in real-time, businesses can create targeted campaigns that are more likely to resonate with customers and drive conversion rates.

4. Better Customer Experience:

Real-time behavioral profiling enables businesses to provide a better customer experience by providing personalized recommendations, offers, and support in real-time. By understanding each user's behavior and preferences in real-time, businesses can create a more personalized and engaging experience for their customers.

One example of Real Time Behavioral Profiling is using AI to track how customers feel in real time. This can be done by analyzing customer feedback and extracting cognitive responses and discrete emotions such as joy, love, surprise, anger, sadness, and fear¹. Another example is using real-time behavioral profile data to respond to customers' behavior with the right message at the right time³.



Source:

(1) Using AI to Track How Customers Feel — In Real Time.

<https://hbr.org/2021/05/using-ai-to-track-how-customers-feel-in-real-time>

(2) Real Time Behavioral Profiling - CDP Institute.

<https://www.cdpinstitute.org/resources/real-time-behavioral-profiling>

Here are some real-world examples of real-time behavioral profiling:

1. Netflix:

Netflix uses real-time behavioral profiling to recommend TV shows and movies to its users. By analyzing user behavior data in real-time, Netflix can provide personalized recommendations that are tailored to each user's interests and preferences.

2. Amazon:

Amazon uses real-time behavioral profiling to provide personalized product recommendations to its users. By analyzing user behavior data in real-time, Amazon can provide targeted recommendations that are more likely to result in a purchase.

3. Spotify:

Spotify uses real-time behavioral profiling to create personalized playlists for its users. By analyzing user behavior data in real-time, Spotify can create playlists that are tailored to each user's music preferences and listening habits.

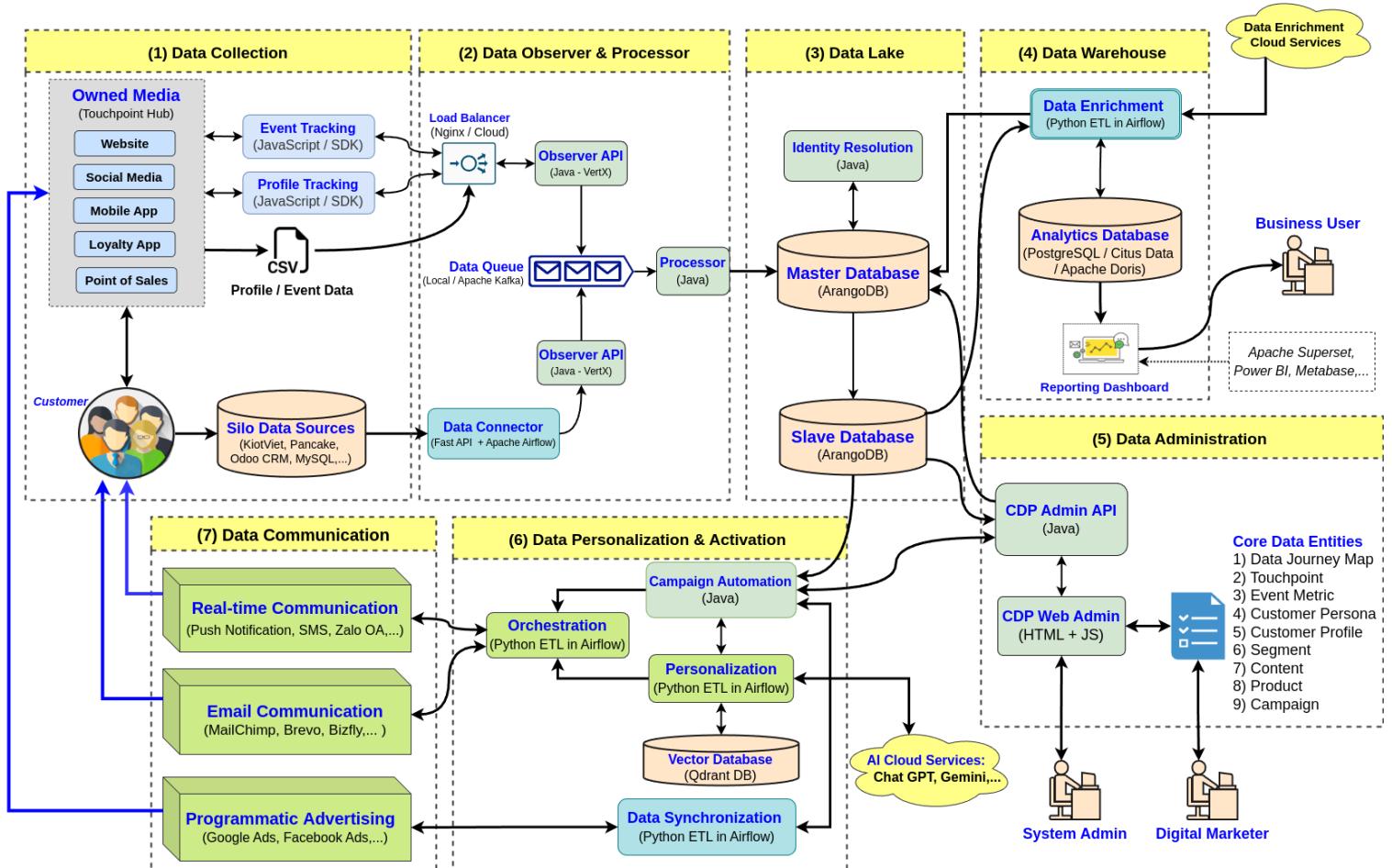
In summary, real-time behavioral profiling is a powerful technique that enables businesses to create personalized experiences for their customers, engage with customers in real-time, and provide a better overall customer experience. By analyzing user behavior data in real-time, businesses can gain valuable insights into each user's behavior and preferences and create targeted campaigns that drive conversion rates and enhance customer engagement.

Chapter 6: Implementing CDPs: Challenges and Best Practices

Software Architecture of CDP

Customer Data Platform for Smart Business

Author: Nguyễn Tân Triều (Thomas)



Implementing a CDP can be a complex and challenging process, but also a rewarding one if done right. Here are some of the common challenges and best practices for implementing a CDP:

- Challenge: Data silos and fragmentation.

Many organizations have customer data stored in different systems and platforms, which can result in data silos and fragmentation. This can make it difficult to access and integrate data, as well as ensure data quality and consistency.

→ Best practice: Data mapping and integration.

Before implementing a CDP, you need to map out your data sources and identify the types, formats, and identifiers of your data. You also need to choose a CDP that can connect and integrate with your existing systems and platforms, using built-in connectors, SDKs, webhooks, and APIs. You should

also leverage the CDP's data cleansing and standardization features to ensure data quality and consistency.

- Challenge: Data privacy and security.

With the increasing amount of customer data collected and stored, organizations need to comply with various data privacy and security regulations, such as GDPR, CCPA, etc. These regulations require organizations to obtain customer consent, respect customer preferences, protect customer data from unauthorized access or misuse, and report data breaches.

→ **Best practice: Data governance and compliance.**

Before implementing a CDP, you need to review your data privacy and security policies and procedures, and align them with the relevant regulations. You also need to choose a CDP that can help you manage your customer consent and preferences across channels, encrypt and anonymize your customer data, monitor and audit your data activities, and notify you of any data breaches.

- Challenge: Data activation and personalization.

Once you have unified your customer data in a CDP, you need to use it to deliver personalized and relevant experiences to your customers across channels. This requires you to segment your customers based on various criteria, create and execute campaigns based on customer triggers, measure and optimize the performance and impact of your campaigns, and continuously update your customer profiles with new data.

→ **Best practice: Data analytics and AI/ML.**

Before implementing a CDP, you need to define your business goals and KPIs for using your customer data. You also need to choose a CDP that can help you analyze and understand your customer data using analytics and reporting features. You should also leverage the CDP's AI/ML capabilities to segment your customers dynamically, predict their behavior and preferences, recommend the best actions and offers, and personalize your messages and content.

Chapter 7: Evaluating CDP Vendors and Solutions

Made for	CDP	DMP	CRM
Made for	Marketing	Advertising	Sales
Holistic Customer Data	•		
Lasting Customer Profiles	•		•
Packaged System	•	•	•
Real-time Capability	•	•	
Open Platform	•	•	
Cross-channel Personalization	•		
Only Anonymized Data		•	
Identity Resolution	•		
Data priority: First Party	•		•
Data priority: Third Party		•	
Requires IT Support	•	•	•

Evaluating CDP vendors and solutions involves several steps to ensure that you select the right CDP for your organization. One of the most important parts of the evaluation process is the demo, where select vendors will have the opportunity to demonstrate their capabilities and answer any questions your organization may have¹.

Before scheduling the demo, it's important to develop a list of requirements and capabilities that your organization needs from a CDP. This can be done by involving all stakeholders on the team and setting clear goals and targets for what you are trying to achieve with the tool¹. You can then give each vendor a series of questions to respond to based on these requirements, which may impact who comes in for a demo and not¹.

Some sample questions to ask prospective CDP vendors include:

1. Can you provide background on your company?
2. How does your CDP handle data ingestion and data unification?
3. What data privacy compliance capabilities does it have?
4. What analytics capabilities does your CDP have?
5. Does your software handle both structured and unstructured data?
6. How does your platform handle identity resolution?

7. How does your CDP integrate and interconnect with other technology applications?
8. What audience segmentation capabilities does your CDP have?
9. What machine learning and artificial intelligence capabilities does it have?
10. Does your software have journey orchestration capabilities?
11. What type/levels of support can you provide?
12. How long does the onboarding process take?

By the way, there are also several other factors that businesses should consider to ensure they choose the right solution for their needs. Here are some key considerations:

- 1. Data Integration Capabilities:** One of the primary functions of a CDP is to integrate data from multiple sources, so it's important to evaluate a vendor's data integration capabilities. Consider how the vendor integrates with different data sources, such as CRMs, social media platforms, and third-party data providers.
- 2. Data Management Capabilities:** CDPs are designed to manage customer data, so it's important to evaluate a vendor's data management capabilities. Consider how the vendor manages data quality, data hygiene, data privacy, and data security.
- 3. Analytics and Reporting Capabilities:** CDPs should provide robust analytics and reporting capabilities to help businesses gain insights into customer behavior and preferences. Consider the vendor's analytics and reporting features, such as dashboards, visualizations, and predictive modeling.
- 4. Personalization Capabilities:** Personalization is a key feature of many CDPs, so it's important to evaluate a vendor's personalization capabilities. Consider the vendor's ability to create customer profiles, segment customers, and deliver personalized content and messaging.
- 5. Integration with Other Systems:** CDPs should integrate with other systems, such as marketing automation platforms, email service providers, and customer service tools. Consider how the vendor integrates with other systems and whether it supports the workflows and processes of your business.
- 6. Scalability:** Consider the vendor's ability to scale to meet the needs of your business. A CDP should be able to handle large volumes of data and support a growing customer base.
- 7. Customer Support:** Finally, consider the level of customer support provided by the vendor. Look for a vendor that provides responsive support and has a good reputation for customer service.

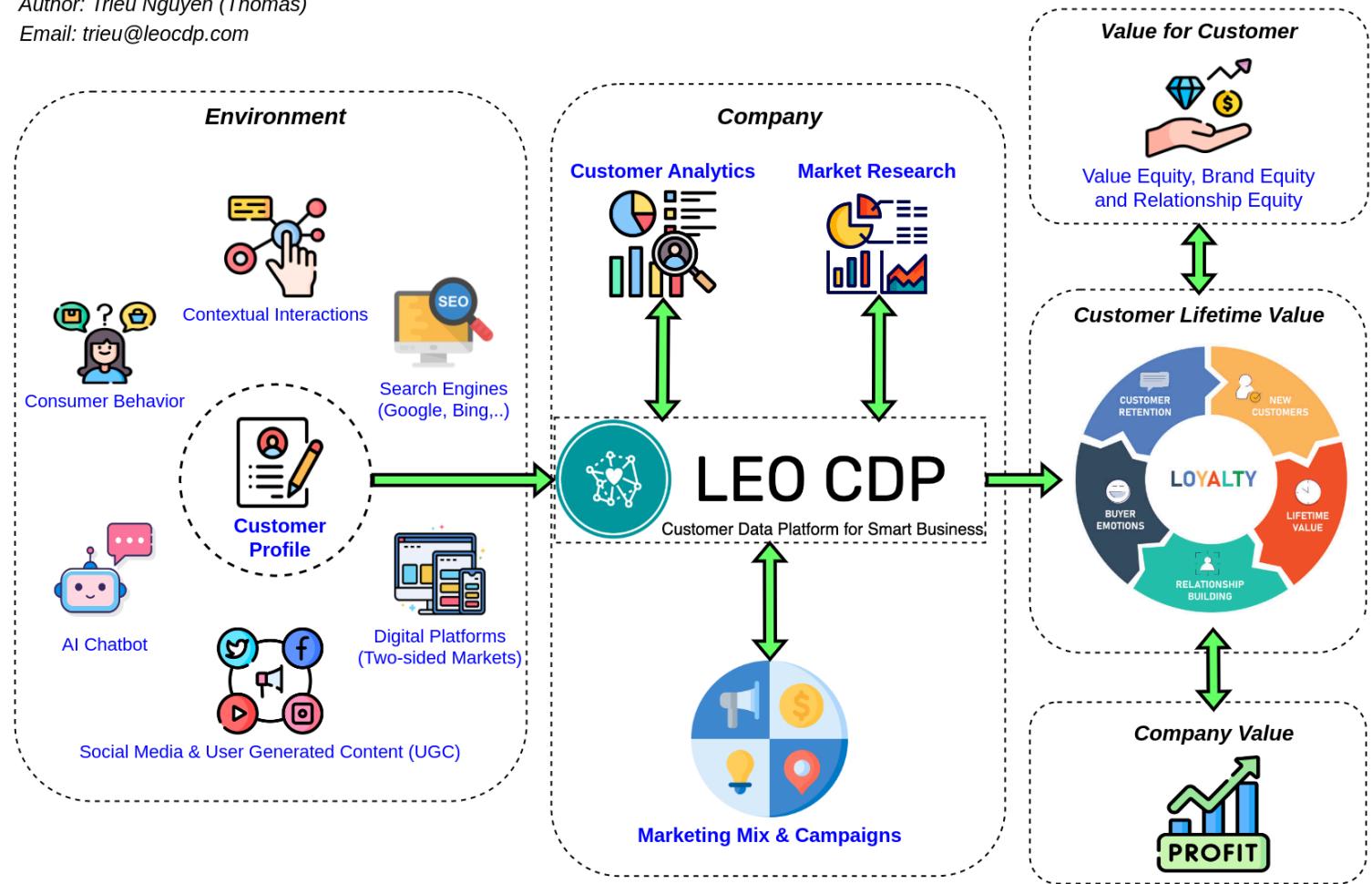
In summary, evaluating CDP vendors and solutions requires careful consideration of a range of factors, including data integration capabilities, data management capabilities, analytics and reporting capabilities, personalization capabilities, integration with other systems, scalability, and customer support. By carefully evaluating these factors, businesses can choose the right CDP solution for their needs and optimize their customer data management and marketing efforts.

Chapter 8: Real-World CDP Use Cases and Success Stories

How to use LEO CDP and digital marketing to create customer value and optimize business profit

Author: Trieu Nguyen (Thomas)

Email: trieu@leocdp.com



Customer Data Platforms (CDPs) have become increasingly popular among businesses seeking to enhance customer engagement and drive business success. Here are some real-world CDP use cases and success stories:

1. Personalization: One of the primary use cases for CDPs is personalization. A major global airline used a CDP to create personalized offers and experiences for its customers. The CDP integrated data from various sources, including web analytics, CRM, and social media, to provide a unified view of customer behavior. By leveraging the CDP, the airline increased conversion rates by 20%.

2. Omnichannel Marketing: CDPs can integrate data from multiple channels to provide a comprehensive view of customer behavior and enable personalized experiences across all touchpoints. A major online retailer used a CDP to provide personalized recommendations and offers to customers across its website, email, and mobile app. The CDP enabled the retailer to increase click-through rates by 40% and revenue by 25%.

3. Customer Segmentation: CDPs can segment customers based on their behavior, preferences, and interests to provide targeted offers and experiences. A major financial services provider used a CDP to segment its customers based on their investment behavior and preferences. The CDP enabled the provider to increase customer satisfaction by 15% and reduce churn by 25%.

4. Marketing Attribution: CDPs can provide insights into campaign performance and ROI by tracking customer behavior across multiple channels. A major telecommunications provider used a CDP to track customer behavior across its website, call center, and retail stores. The CDP enabled the provider to attribute 25% of its revenue to specific marketing campaigns and optimize its marketing spend accordingly.

5. Customer Journey Mapping: CDPs can provide a comprehensive view of the customer journey, including touchpoints and interactions, to identify areas for improvement and enhance customer engagement. A major hotel chain used a CDP to map its customers' journey and identify areas for improvement. The CDP enabled the chain to increase customer satisfaction by 20% and revenue by 15%.

In summary, real-world CDP use cases and success stories include personalization, omnichannel marketing, customer segmentation, marketing attribution, and customer journey mapping. By leveraging a CDP, businesses can gain valuable insights into customer behavior and drive personalized experiences to enhance customer engagement and drive business success.



Some success stories of companies using Customer Data Platforms (CDPs) to drive growth and improve their business operations. Here are a few examples:

- 1. A biopharmaceutical company** doubled its R&D productivity by building a clinical data warehouse using a CDP. This served as a research convergence hub where all of the company's R&D research, clinical, and third-party data sources were integrated¹.
- 2. A financial services provider** increased product revenue growth by 30% by using a CDP to improve the flexibility, performance, and scale of its data operations. This allowed the company to find and implement unique data analytics products and services¹.
- 3. A retail brand** increased average customer spending in its stores by 15% by using a CDP to power a next-best-action campaign that tapped into a wealth of data, including customers' in-store spending, demographic information, channel preferences, and many other attributes¹.

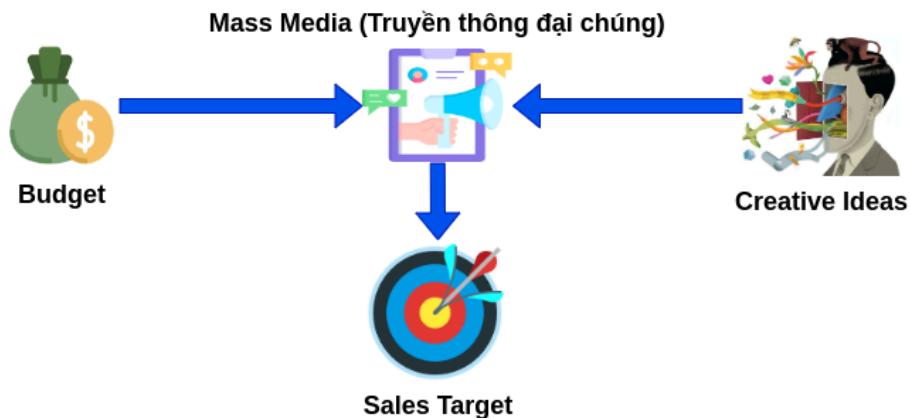
Source:

<https://www.cdpinstitute.org/tag/use-cases/>

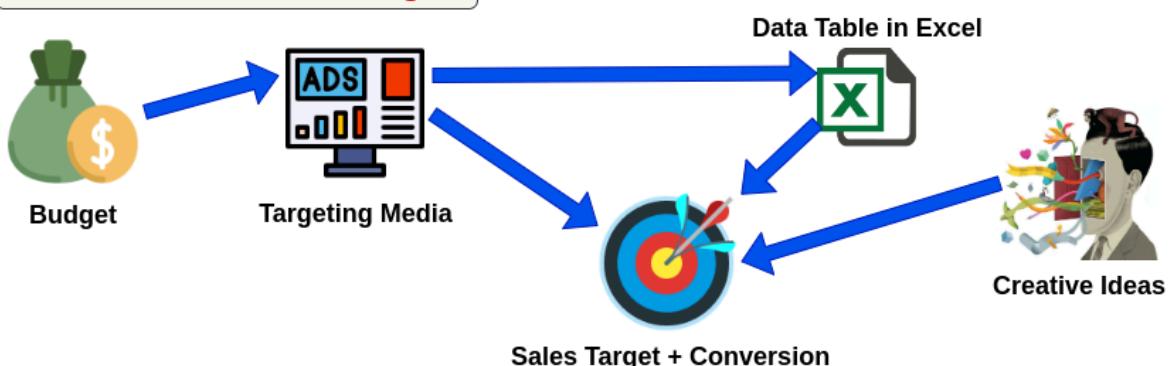
The popular use case of CDP is building customer 360-degree view in data-driven business

Traditional Marketing

Source: facebook.com/tantrieuf31



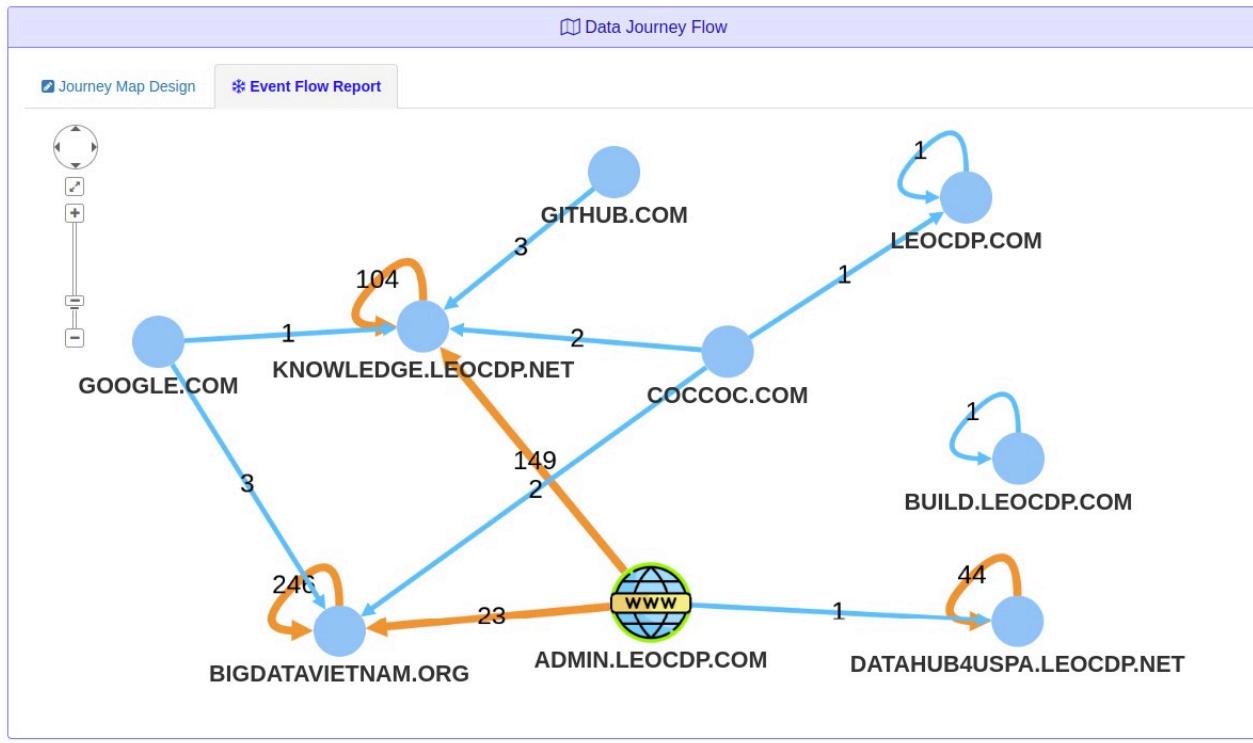
Data-driven Marketing



People-based Marketing

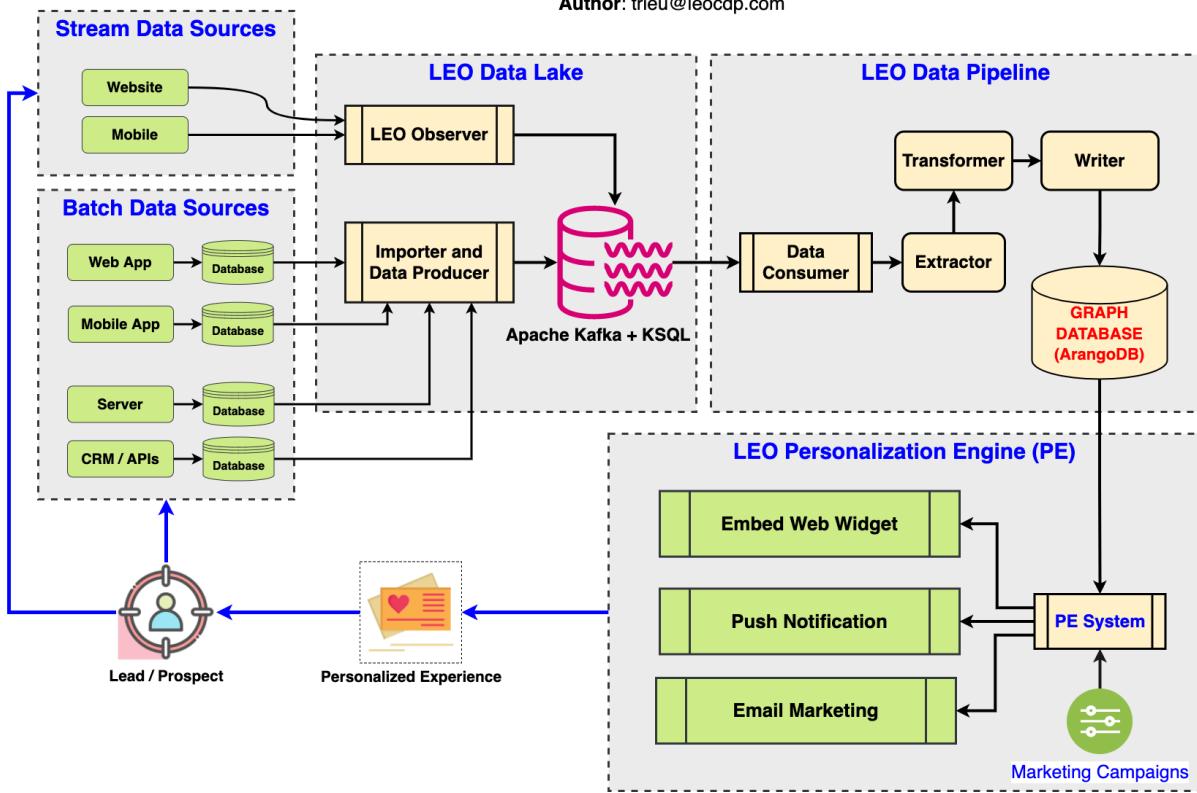


With all customer 360-degree profiles in CDP, a data-driven organization can see the flow of all their customers. This is real data from LEO CDP



LEO PERSONALIZATION ENGINE

Purpose: collect behavioral event data to send personalized information
 Author: trieu@leocdp.com



There are several success stories in various industries where Customer Data Platforms (CDPs) and Personalization Engine (PE) have been successful in driving results. Here are some examples:

Nike: Nike uses CDP and a personalization engine to create personalized product recommendations and marketing campaigns for its customers. The engine analyzes data from a variety of sources, including Nike+ fitness trackers, social media profiles, and purchase history, to build a comprehensive understanding of each customer's preferences. This information is then used to deliver personalized product recommendations, marketing messages, and offers.

Airbnb: Airbnb's use of data and analytics has allowed it to provide personalized experiences for customers and increase customer retention. By using a CDP, Airbnb has been able to analyze customer behavior and optimize its platform to meet their needs.

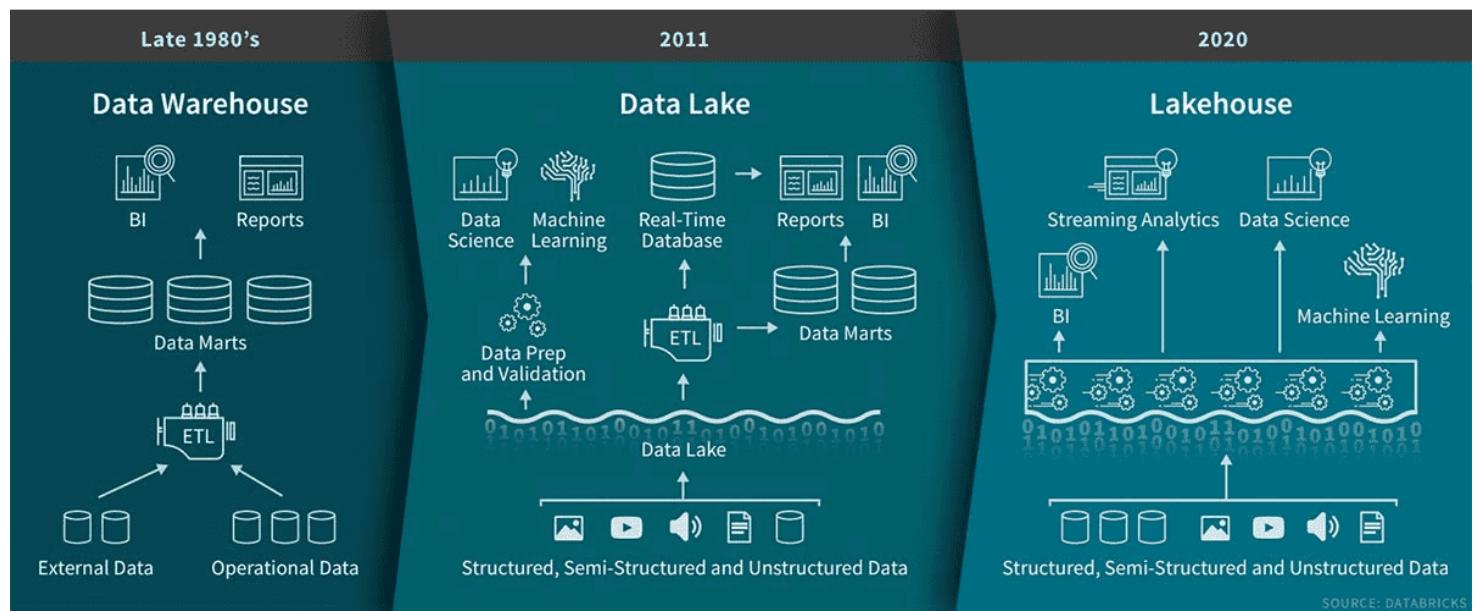
The Economist: The Economist used a CDP to improve the relevance of its marketing campaigns and increase subscriptions. By analyzing customer data, The Economist was able to provide more targeted content and increase engagement with its audience.

Overall, these success stories demonstrate the value of CDPs in enhancing customer experiences, improving marketing campaigns and increasing revenue.

Chapter 9. Emerging trends and opportunities in customer data management

Customer data management is a dynamic and evolving field, with new trends and opportunities emerging constantly. Here are some of the emerging trends and opportunities in customer data management that you should watch out for in 2023 - 2025:

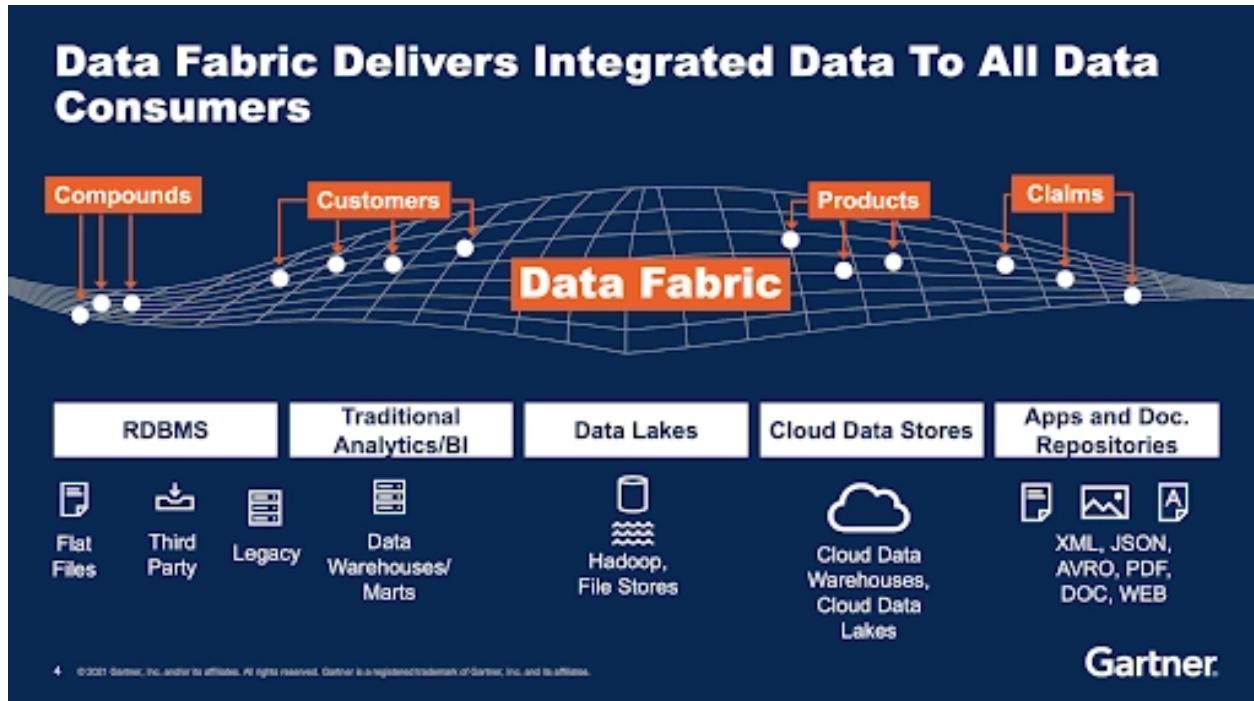
9.1 Data lakehouse



The data lakehouse is a hybrid architecture that combines the best features of data lakes and data warehouses. It enables organizations to **store and process both structured and unstructured data in a single platform**, using a common schema and metadata layer.

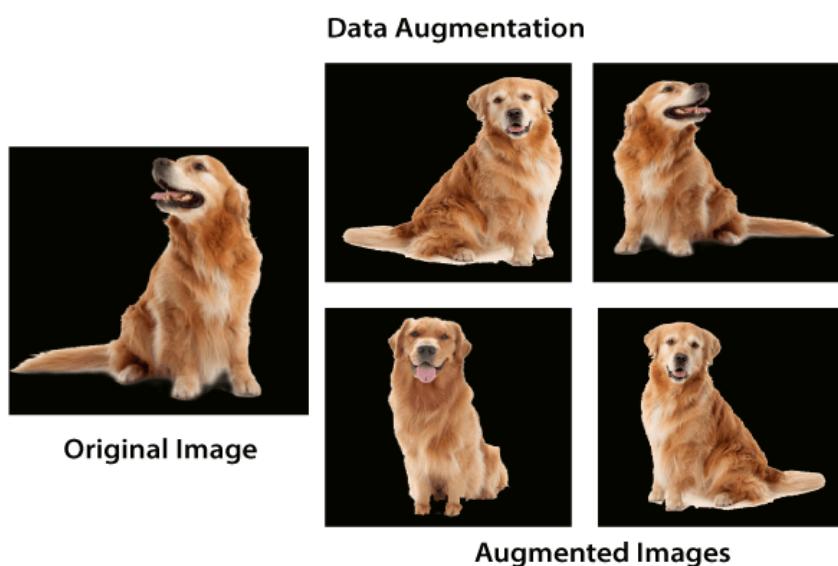
Data lakehouses provide scalability, flexibility, and cost-efficiency of data lakes, as well as the performance, reliability, and security of data warehouses¹.

9.2 Data fabric



Data fabric is a logical layer that connects and integrates data across different sources, systems, and platforms. It enables organizations to access and use data in a consistent and seamless way, regardless of where it is stored or how it is formatted. Data fabric provides data discovery, cataloging, governance, quality, lineage, and orchestration capabilities.

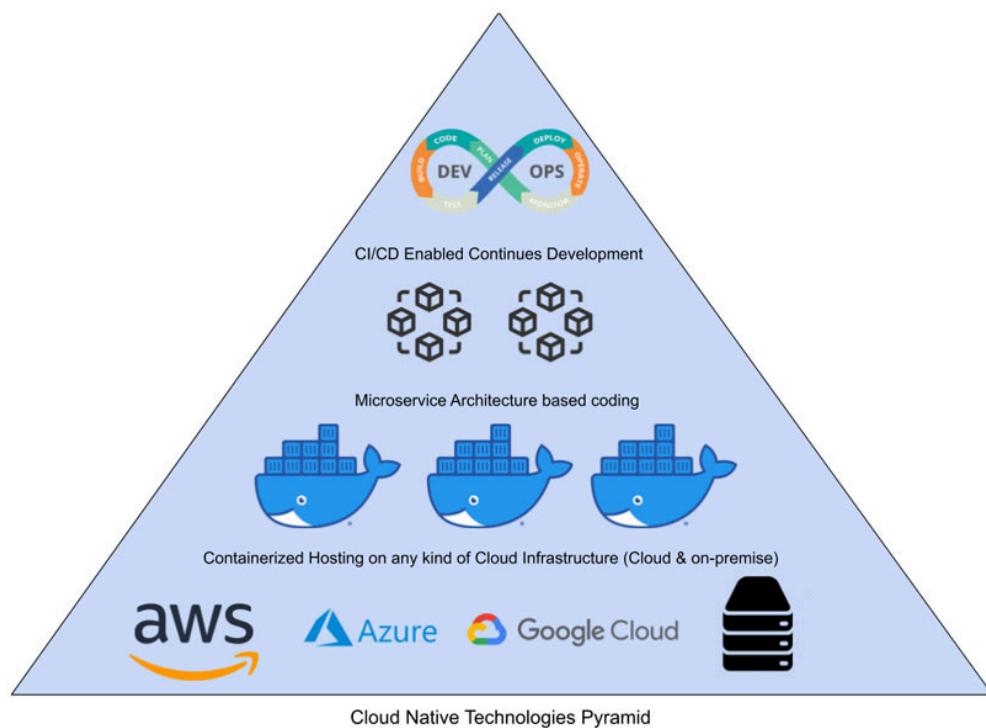
9.3 Augmented data management



Augmented data management is the use of artificial intelligence and machine learning to automate and optimize various data management tasks, such as data integration, preparation, quality,

governance, and security. It enables organizations to reduce human errors, improve data quality and consistency, and accelerate data insights³.

9.4 Cloud-native data management



Cloud-native data management is the design and deployment of data management solutions that leverage the native capabilities of cloud platforms, such as scalability, elasticity, resilience, and automation. It enables organizations to handle large volumes and varieties of data, support real-time and streaming analytics, and reduce operational costs.

9.5 Generative AI in Customer Data Platforms (CDPs)

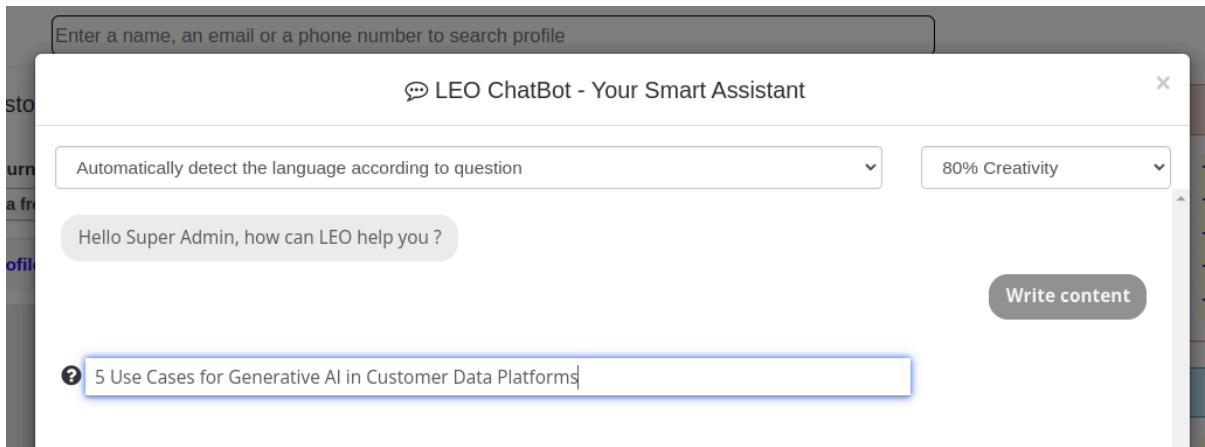
Generative AI is rapidly changing the landscape of customer data platforms (CDPs), allowing businesses to personalize customer experiences to an unprecedented level. Here are 5 exciting use cases for generative AI in CDPs:

9.5.1. Personalized Content Creation

AI can generate personalized product recommendations, email newsletters, and website content based on individual customer preferences and behavior patterns. It also creates unique landing pages, highly engaging and relevant social media content that resonates with specific audience segments.

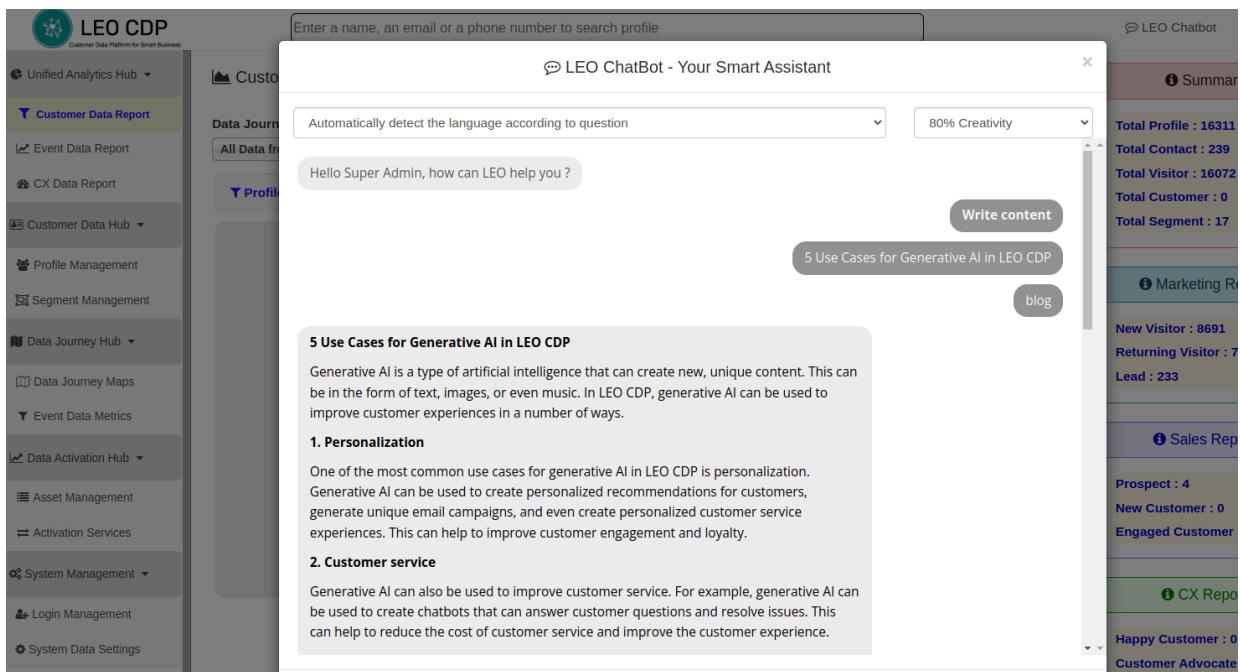
Example in LEO CDP

1) Input the title of content



The screenshot shows the LEO ChatBot interface. At the top, there is a search bar with the placeholder "Enter a name, an email or a phone number to search profile". Below it is a message input field containing the text "Hello Super Admin, how can LEO help you ?". To the right of the input field is a "Write content" button. A blue box highlights the text "5 Use Cases for Generative AI in Customer Data Platforms".

2) You can copy the result into any CMS or blog platform



The screenshot shows the LEO CDP dashboard. On the left is a sidebar with various menu items: Unified Analytics Hub, Customer Data Report, CX Data Report, Customer Data Hub, Profile Management, Segment Management, Data Journey Hub, Data Journey Maps, Event Data Metrics, Data Activation Hub, Asset Management, Activation Services, System Management, Login Management, and System Data Settings. In the center, there is a content card titled "5 Use Cases for Generative AI in LEO CDP". The card contains the following text:
5 Use Cases for Generative AI in LEO CDP
Generative AI is a type of artificial intelligence that can create new, unique content. This can be in the form of text, images, or even music. In LEO CDP, generative AI can be used to improve customer experiences in a number of ways.
1. Personalization
One of the most common use cases for generative AI in LEO CDP is personalization. Generative AI can be used to create personalized recommendations for customers, generate unique email campaigns, and even create personalized customer service experiences. This can help to improve customer engagement and loyalty.
2. Customer service
Generative AI can also be used to improve customer service. For example, generative AI can be used to create chatbots that can answer customer questions and resolve issues. This can help to reduce the cost of customer service and improve the customer experience.
To the right of the content card is a sidebar with various metrics: Total Profile : 16311, Total Contact : 239, Total Visitor : 16072, Total Customer : 0, Total Segment : 17, Marketing Rep : 1, Sales Rep : 1, Prospect : 4, New Customer : 0, Engaged Customer : 0, CX Rep : 1, Happy Customer : 0, and Customer Advocate : 0.

9.5.2. Enhanced Customer Segmentation

Leverage generative AI to identify hidden patterns and discover new customer segments based on previously unknown data correlations. Create dynamic customer segments that automatically update based on the latest customer interactions and behavior. Develop hyper-personalized marketing campaigns targeting specific segments with the most relevant offers and messaging.

GEN AI for Enhanced Customer Segmentation

The screenshot shows a data query interface with the following configuration:

- Filter 1:** Total Lead Score between 10, 50
- Filter 2:** Data Funnel Stage equal to Lead
- Filter 3:** Data Funnel Stage equal to Prospect

On the right, there is a circular progress bar with a yellow ring and a black center, labeled "Segment Size: 191" and "1% of Total Profile".

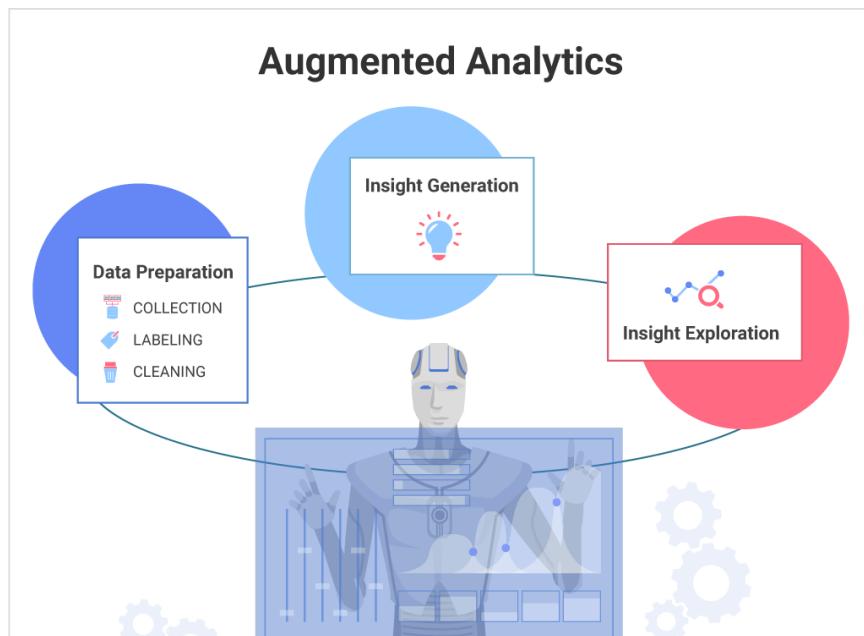
All matched profiles

Show 20 entries

Full Name	Profile Type	Gender	Email	Phone	Last-seen Touchpoint	Data Quality	Lead Score	CLV Score	Last Updated
John Doe	CUSTOMER	-	jma...@gmail.com		Customer Data Platforms - The Ultimate Hand...	71	27	0	2023-12-05 13:59:08
Jane Smith	CUSTOMER	-	jns...@gmail.com		[LEO CDP] CUSTOMER DATA PLATFORM - THE ULT...	61	24	0	2023-12-05 08:22:32

9.5.3. Data Augmentation and Prediction

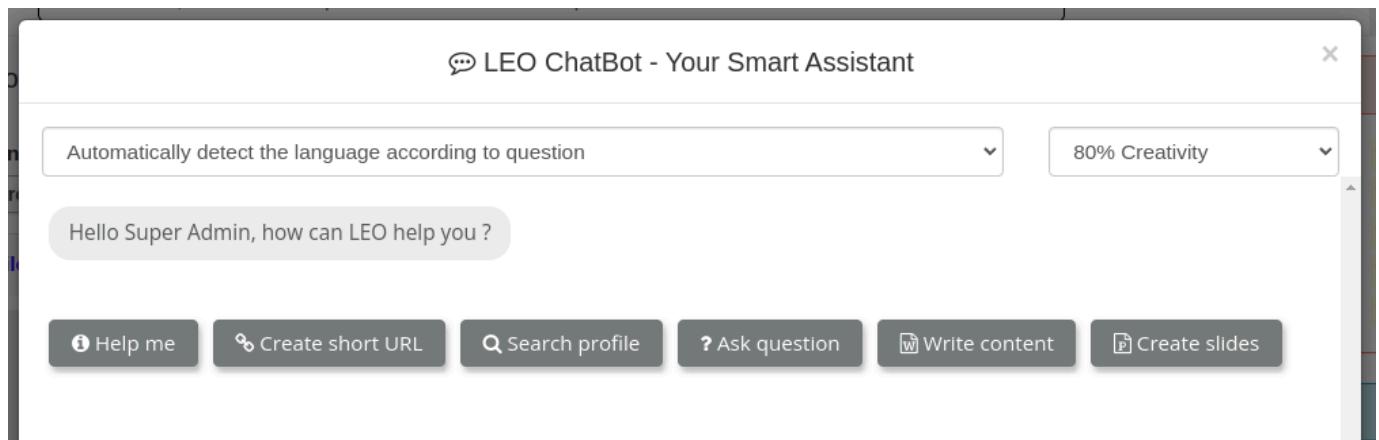
Generate synthetic customer data to fill in missing information and improve the accuracy of customer models. Predict future customer behavior, such as churn risk or purchase probability, to inform proactive marketing and customer service interventions. Identify potential customer needs and preferences before they even manifest, allowing for pre-emptive engagement and satisfaction.



9.5.4. Conversational AI and Chatbots

Train chatbots with generative AI to provide personalized support and answer customer questions in a natural and engaging way. Develop chatbots that can adapt to individual customer needs and preferences, offering personalized solutions and recommendations.

Create interactive product demos and onboarding experiences powered by conversational AI for a more engaging customer journey.



9.5.5. Automated Customer Service

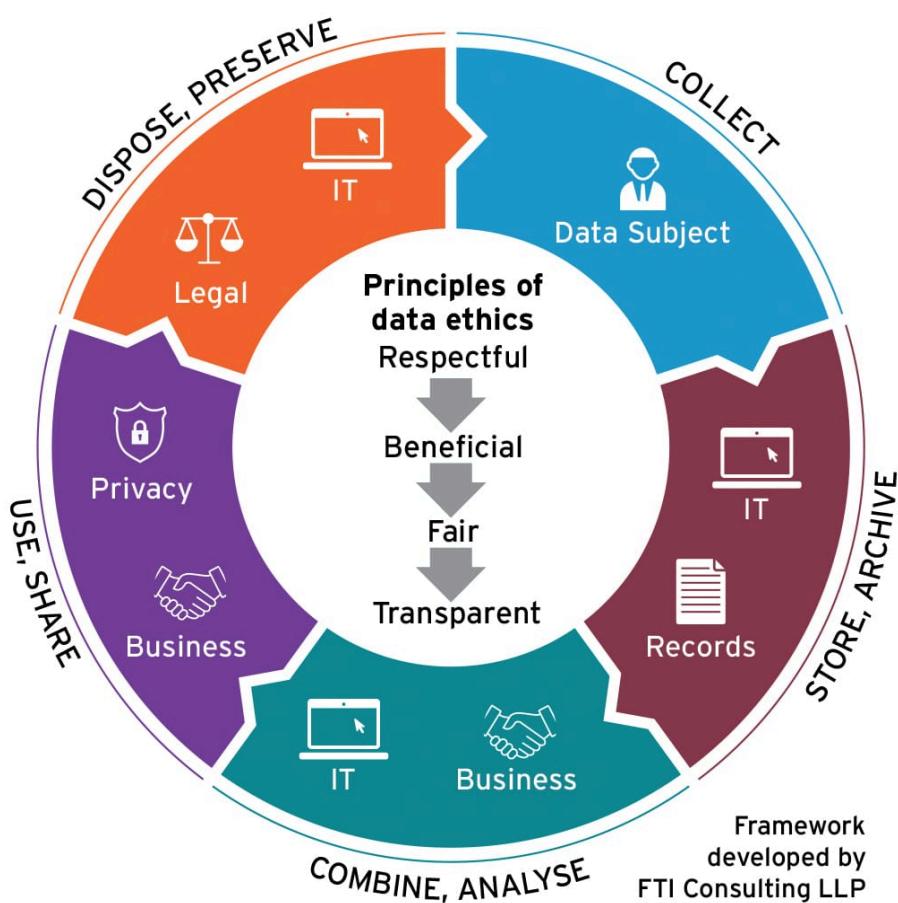
Generate personalized responses to customer inquiries and support tickets, reducing the need for manual intervention. Automate routine customer service tasks, such as order confirmation and account updates, to streamline operations. Provide 24/7 customer support with AI-powered chatbots that can resolve simple issues and escalate complex ones to human agents.

These are just a few examples of the potential uses for generative AI in CDPs. As the technology continues to evolve, we can expect even more innovative and powerful applications that will revolutionize the way businesses interact with their customers.

9.6 Data privacy and ethics



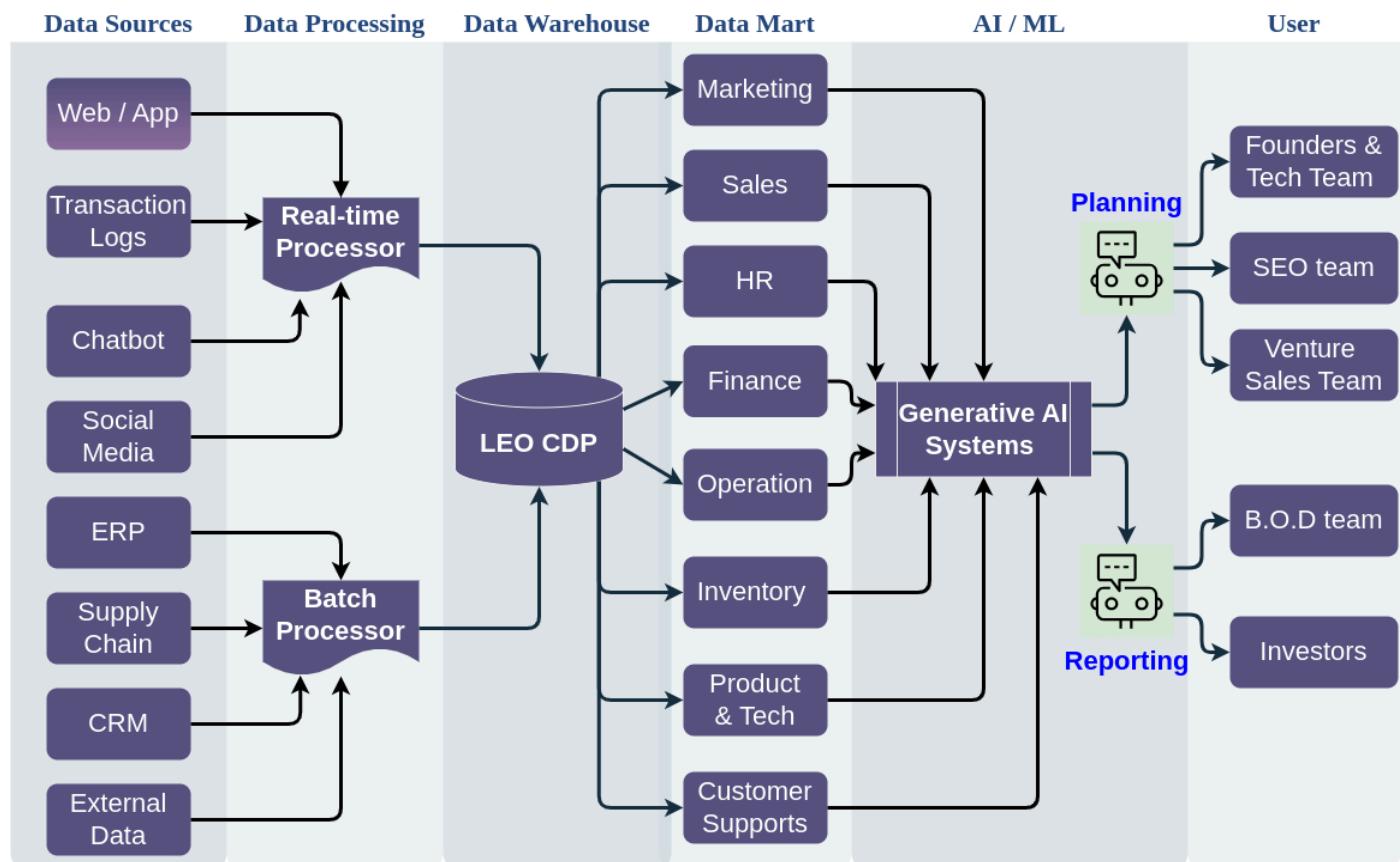
Data privacy and ethics are the principles and practices that ensure the responsible and ethical use of customer data. They involve obtaining customer consent, respecting customer preferences, protecting customer data from unauthorized access or misuse, and providing value and transparency to customers. They also involve complying with various data privacy and security regulations, such as GDPR, CCPA, etc.



Chapter 10: The Future of Customer Data Platforms with AI

Customer Data Platform and AI Strategy

Author: Triệu
Email: trieu@leocdp.com

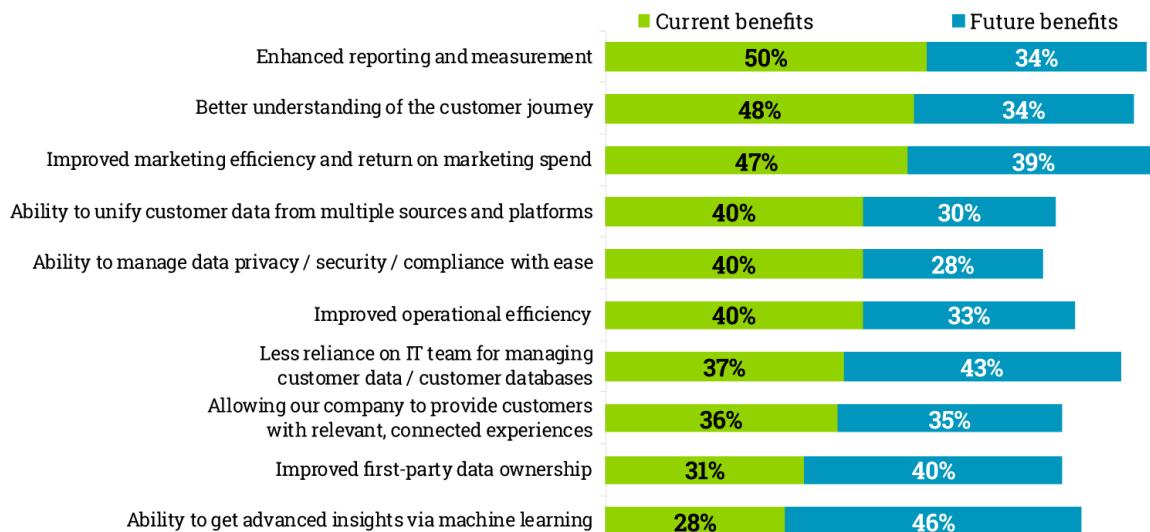


Customer data platforms are evolving and expanding rapidly, as more organizations realize the value and potential of unifying and activating their customer data. Here are some of the trends and predictions for the future of customer data platforms:

- **CDPs will become more accessible and affordable.** As the CDP market grows and matures, more vendors will enter the space and offer different types and levels of CDP solutions. This will increase the competition and innovation in the market, and lower the barriers to entry and adoption for organizations of all sizes and industries.
- **CDPs will become more intelligent and autonomous.** As the amount and complexity of customer data increases, CDPs will need to leverage more advanced AI/ML techniques to process and analyze the data. CDPs will also become more proactive and self-learning, providing recommendations and insights to users, and automating tasks and workflows.

- CDPs will become more integrated and collaborative.** As customer data becomes more central and strategic for organizations, CDPs will need to integrate and collaborate with other systems and platforms, such as CRM, marketing automation, analytics, advertising, etc. CDPs will also enable cross-functional teams and stakeholders to access and use the customer data, fostering a data-driven culture within organizations.
- CDPs will become more customer-centric and ethical.** As customer expectations and regulations evolve, CDPs will need to put the customer at the center of their design and operation. CDPs will need to respect customer consent and preferences, protect customer privacy and security, ensure data quality and accuracy, and provide value and transparency to customers.
- Expansion of CDPs beyond Marketing:** As CDPs become more sophisticated, they are likely to expand beyond marketing to other areas of the business, such as sales, customer service, and product development.
- Integration with Other Technologies:** CDPs are likely to integrate with other technologies such as Customer Relationship Management (CRM) systems, Digital Asset Management (DAM) systems, and Content Management Systems (CMS) to provide a more comprehensive view of customer data.
- Increased Focus on First-party Data:** With the recent changes in data privacy regulations and the depreciation of third-party cookies, CDPs will enable businesses to focus more on collecting and using first-party data to create personalized experiences.

Current and Future Benefits of CDP Use



Published on MarketingCharts.com in January 2023 | Data Source: Treasure Data / Advertiser Perceptions

Based on a survey of 100 US-based martech decision-makers from companies of 1,000+ employees who use CDPs

In conclusion, the future of customer data platforms is bright. As CDPs continue to evolve and become more sophisticated, they will play an increasingly important role in helping businesses create stronger relationships with their customers and achieve sustained success in the years to come. By embracing these emerging trends and continuously innovating, CDPs can empower businesses to truly put the customer at the center of their universe and deliver experiences that are both personal and valuable.

The journey towards a customer-centric future has begun, and CDPs are leading the way. The future is bright for businesses that embrace the power of customer data and leverage CDPs to unlock its full potential.



For more information, please visit <https://leocdp.com>. Thank you !