

Unit-3

AI for Marketing Continued

Using AI to Get Their Attention - Market Research: Whom Are We After?, Marketplace Segmentation, Raising Awareness, Social Media Engagement, In Real Life, The B2B World, Using AI to Persuade - The In-Store Experience, on the Phone, The Onsite Experience - Web Analytics, Merchandising, Closing the Deal, Back to the Beginning: Attribution

Market Research: Whome Are We After?

Market research began as a means of identifying just how big the marketplace is for your new invention or special service.

Demographics were needed by radio and TV stations to describe their audience to potential advertisers.

Age, gender, education level and the like within a specific territory were the first data tools.

Market research through telephone interviews, shopping mall clip-board surveys, and direct mail response lowered the risk of investing.

ML in Market Research:

In 1937, the National Association of Marketing Teachers (founded in 1915) and The American Marketing Society (founded in 1937) joined to

become the AMA - American Marketing Association.
In 2004, the AMA defined the marketing research:

"The function that links the consumer, customer, and public to the marketer through information. Information used to identify and define marketing opportunities and problems; generate, refine, and evaluate marketing actions; monitor marketing performance; and improve understanding of marketing as a process."

Marketing research specifies the information required to address these issues, designs the method for collecting information, manages and implements the data collection process, analyzes the results, and communicates the findings and their implications."

The AMA is working with ~~Equal~~ 3's Lucy, born of IBM's Watson, to develop the AMA's next generation marketing superhero.

7 big problems in the Marketing Industry:

- (i) Effectively targeting high-value sources of growth
- (ii) The role of marketing in the firm and the C-suite
- (iii) The digital transformation of the modern corporation.
- (iv) Generating and using insights to shape marketing practice.
- (v) Dealing with an omnichannel world
- (vi) Competing in dynamic global markets.
- (vii) Balancing incremental and radical innovation

In market research, identifying your target audience is crucial for effective marketing strategies.

- Demographic information.
- Psychographic information.
- Behavioral information.
- Needs and Pain points.
- Competitive Analysis.
- Market Segmentation.

Marketplace Segmentation:-

Market segmentation also called a customer profiling is a marketing strategy which involves dividing a broad target market into subsets of consumers, businesses or countries that have, or are perceived to have, common needs, interests, and priorities, and then designing and implementing strategies to target them.

Market segmentation strategies are generally used to identify and further define the target customers, and provide supporting data for marketing plan elements such as positioning to achieve certain marketing plan objectives.

ML delivers personal profiles into segmentation "buckets" which can be predefined or automatically machine generated.

Dynamic market segments are then sized and prioritized based on the untapped incremental revenue opportunity.

ML can also slice and dice customer data sets to identify potential new segments of customers.

who are undermonetized relative to their peers.
ML might identify how the behavior of a region (or country) varies from the global norm and requires a specific product assortment.

Target aggregates customer data from a variety of online and offline sources, including web and app analytics, CRM-Customer Relationship Management databases, and internal-facing enterprise resource planning (ERP) and data warehouse (DW) systems.

Social Media Monitoring:

Relevancy:

Content is something AI is good at, given enough data. This is a relatively straightforward problem to solve.

Authority:

"Influencer marketing" has come into its own as a specialty. Ask a machine to determine who has the most influence, and the def'n requires some clarification.

Influence doesn't have to be very large to be effective. It can also be influence on an intimate level.

e.g. Kira

Sentiment:

Customer reviews go a long way to build credibility, and simply tracking ratings may be fine for some.

Social media monitoring is very reliable for quantity of mentions.

sentiment analysis systems try to imitate humans, but humans only agree about 80% of the time.

eg: CFPB - Consumer Financial Protection Bureau
ML and rule-based sentiment analysis can support each other in a complementary analysis and produce actionable information from large amounts of free-form text.

Competitive Analysis:

Quid uses text based data. The data has been organized into different groups. Quid provides a range of different perspectives on the data.

Market segmentation is the process of dividing a broad consumer or business market, normally consisting ~~and~~ ~~part~~ of existing and potential customers, into sub-groups of consumers known as segments based on some type of shared characteristics.

Raising Awareness:-

Public Relations:

Get to know the proper journalists at the proper publications and encourage, cajole, and coax them to write positive articles about the products and services on offer.

With an unmanageable number of potential "publications", this task must be automated and the industry is differentiating public relations visibility by dividing it up into paid, earned, shared and owned media.

→ Paid → earned → shared → owned

Direct Response:

The ability to ~~the~~ tightly measure the response to a direct mail piece was music to the ears of marketers who depended on lessons from their predecessors, painful personal experience.

Database Marketing:

The direct marketing industry was quick to dive into computers because its actions were not based solely on creative genius like Don Draper.

Direct marketing people had actual behavior-responses to match up to specific names and addresses.

Advertising:

The buying, selling and placement of ads online was ripe to be automated due to the overwhelming amount of options and decisions that need to be weighed when deciding where to buy and space.

Banner Ads: In Oct-1994, AT&T placed the very first banner ad on the Internet.

While search has made Google one of the most recognized companies in the world, programmatic advertising has become the least understood.

Intell? Ads are personalised in real-time for each individual consumer, every time.

We determine the best performing ad, branding, messaging and product selections in milliseconds every time we see a consumer.

Programmatic Creative:

certainly not every advertiser is going to run thousands of ads in each campaign.

One retail client can potentially generate 80 quintillion creative ads on a weekly basis.

Programmatic TV:

data gathered OTT-Over The Top is ~~now~~ now used to plan and buy TV time.

The information collected in diaries kept by hand by household was supplemented by data collected in set-top-boxes of cable companies.

PPC-Pay Per Click Search:

Search has become the primary supplier of customer intent.

The abilities that ML affords PPC efforts gives extraordinary power to an entire industry of PPC professionals and drop billions of dollars to Google's bottom line.

Companies like Amazon try to put their ads in front of millions of searchers, judging outcomes based on actual sales and profitability results.

Even automation has a tough time tracking hundreds of thousands of keywords and phrases in real-time.

Search Optimization: aka content marketing.

The other side of the search coin is "organic" or unpaid results.

This has given rise to the content marketing

movement where marketers have become publishers.

Content Management: Image Matters

Other technologies are in the picture to help you with your pictures or even user-generated content.

Instagram will help you pick the best thumbnail for your video.

Pinterest is working with visual recognition in photos to help you buy things you see in real life.

→ Content Consumption Analysis:

Social Media Engagement:

Monitoring social media to get a clear picture of what the market place is saying about you is one thing. Engaging with social media is another.

One is a passive, observational task, the other is reaching out reactively or proactively to engage people where they tweet.

Social Snooping:

Want to get a clear picture of the environment your customers inhabit?

Salesforce.com acquired PL startup MetaMind in April 2016.

Social bots:

AI can help you find people, figure out what they up to, and what interests them. It can also help you communicate. Welcome to the world of bots.

Since ELIZA, in the mid 1960s, computers have been trying to imitate human communication.

Lots of bots answer straight questions with prewritten answers, but hand over a Twitter account to a socialbot, train it well, and you have the equivalent of a voice response system at a call center.

Socialbots are starting to take on the Turing Test with modest success, but in time they will be able to represent your brand as a first line of defence.

Social Postings:

AI can help you find people, figure out what they're up to and what interests them, and help you communicate. It can also post on your behalf.

Combine an intelligent social agent with well-managed content and you might ~~see~~ come up with something like Echobox's Larry.

Larry analyzes your historical and real-time data to create an entire social media strategy for you.

Social media advertising can respond to trending topics being discussed, who your friends are at the moment, and adjust based on your mood.

Mobile advertising can be based on the location of the individual down to the specific, they are standing in while in your store.

In Real Life:

SymmitSync plays matchmaker at conferences, finding the best match for introductions across multiple attributes, not just industry and city.

Ampry uses hyper-local geofencing to catch publically shared content at a given location at a given time.

a business conference, sporting event (concept)
Social media engagement in real life refers to
strategies that bridge the gap b/w online internet
and real-world experiences.

UGC - User Generated Content

The B2B World:-

Trade magazine advertising, conference booth display,
direct mail to the Vice President of (whatever),
prospecting on the phone, lead management,
pipeline management. These are the content
management services.

B2B - Business to Business

ABM - Account Based Marketing systems were developed
to track entire committees of cross-functional
evaluators from the same firm on account.

The goal is to track group behavior within each
organization to determine who might be more
interested in the app features of a product.

Lead Scoring:

With thousands of leads, the sales team needs
to know which to reach out to first.

Traditional lead scoring would assign more points
with higher weights to those who had viewed a
video, requested a demo.

In an effort to improve and prioritize leads
more accurately, the second generation of lead
scoring added math and predictive modeling to
the lead-scoring approach.

Predictive intelligence ties together billions of rows
of third-party data from search engines, publishers
websites, review websites, online communities,

buyers' guides - places where B2B buyers research products and services and connects that time-sensitive, intent data to customers, internal data sources including CRM, marketing automation and weblogs.

Sales Management Advisory:

while sales rep track accounts, sales managers track rep.

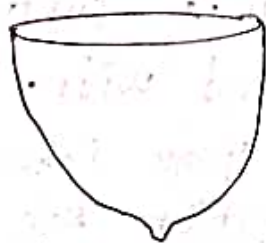
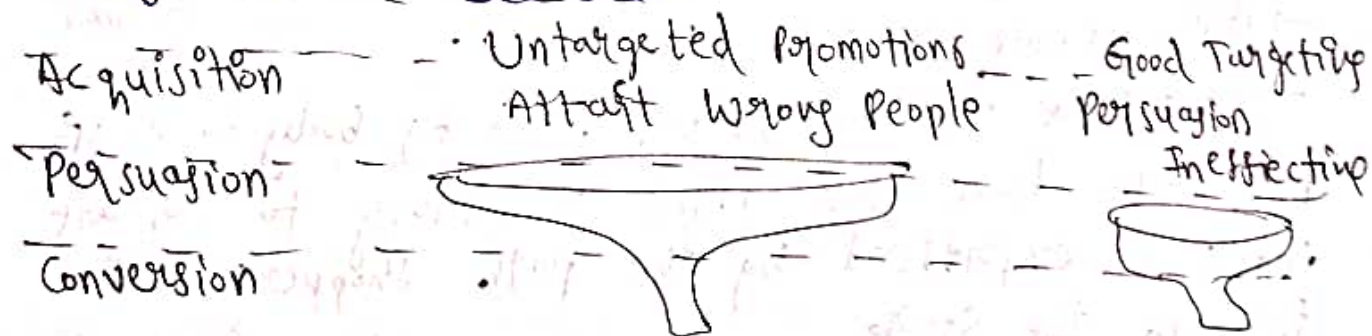
BTY Some Models are Useful:

The strategic Marketing Organization at Cisco Systems started building predictive models back in the mid-2000s to guide sales reps in their prospecting.

In the B2B world, effective engagement revolves around building strong relationships, demonstrating value, and addressing specific business needs.

In the B2B world, successful engagement involves demonstrating expertise, providing value, and nurturing relationships over time.

Using AI to Persuade:-



Good Persuasion
Poor Conversion



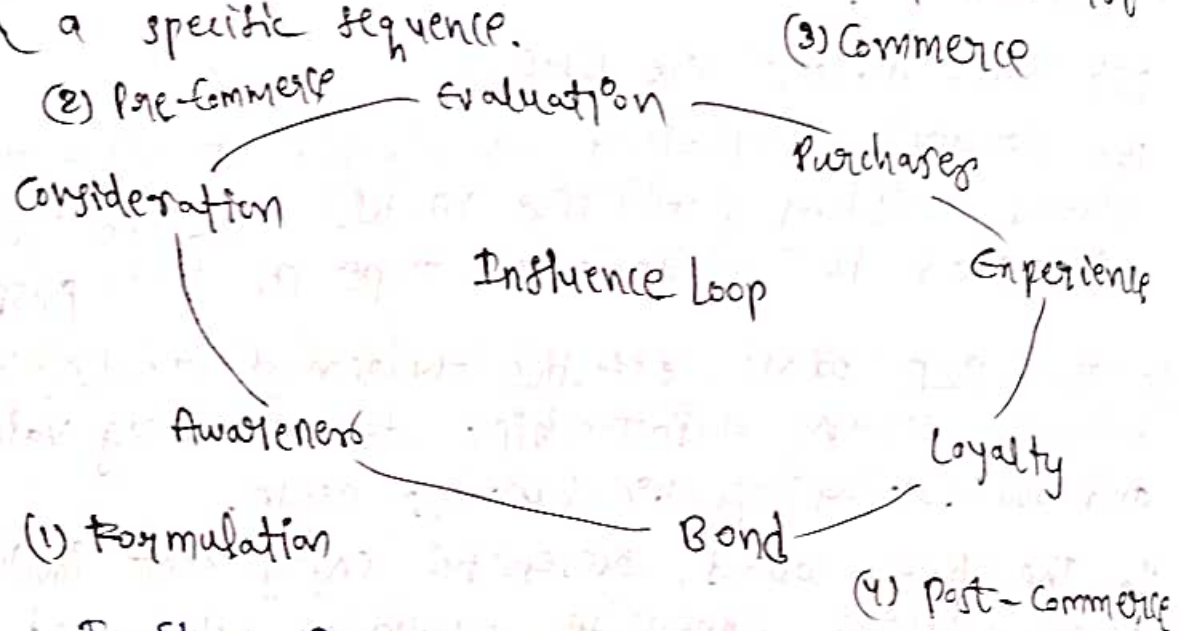
Good Persuasion
Good Conversion

The Customer Life Cycle Funnel

The natural progression was always the same straight line:

- Suspect → Prospect
- Qualified Lead → Hot lead
- Negotiating → closed.

B2C consumer journey is not a straight path. It wanders from channel to channel and not in a specific sequence.



The In-Store Experience:

Walking into a store and the clerk responds to lots of bits of information.

- Age → Gender → clothing style
- Hair style → Interest expressed by body language.

Retailers have also added technology to capture interest expressed by the path shoppers take through the store.

Digital Mositar offers an in-store customer tracking system using video and wifi-tracking. Store performance evaluation, store layout assessment, and staffing optimization are on the menu along with customer care.

coupled with online apps, the AI-enabled store smoothes online transactions that are intended for store pickup by allowing people to buy online and return to a store pickup or deliver vice versa.

AI able to manage high-dimensional data.

Digital Monitor systems are able to differentiate customers from staff. In order to monitor both without mixing them up or ignoring them altogether.

Shopping Assistance:

SatisSi Labs has created a location-based intelligent engagement platform that can capture customer intentions, sentiments, questions, and needs to drive sales.

People should be able to interact with technology the same way they act in real life.

Store Operations:

With customers fully analyzed, it's time to turn our attention to the store itself, starting with layout as an obj of optimization.

Using AI to enhance the in-store experience and persuade customers involves leveraging technology to personalize interactions, streamline processes, and create memorable experiences.

On the Phone:

Through a combination of voice-to-text, NLP, and ML, it's now quite reasonable to glean meaning from telephone calls.

Dynamically generated telephone numbers pinpoint

the promotion on the landing page to a given call with a specific cookie.

If you see an ad and make a call, they know which ad you saw.

Invoca can correlate calls to web pages visited, keywords searched, and previous digital marketing engagements, all while the phone is still ringing.

The system can be used to identify the caller and offer a propensity-to-buy rating, correlate outbound promotions with inbound calls, and help guide marketing spend, even to the point of triggering a marketing automation workflow.

Using AI to persuade customers over the phone involves leveraging technology to enhance communication, provide personalized experiences, and drive desired actions.

→ NLP

→ Voice Assistants and chatbots

→ Predictive Analytics for Customer Insights

→ Speech Recognition and Sentiment Analysis

→ Call Routing Optimization

→ Dynamic Scripting and Personalized Offers

→ Sales Forecasting and Decision Support

→ Automated Follow-Ups and CRM Integration

→ Continuous Learning and Improvement

By integrating AI technologies into phone interactions, businesses can improve sales efficiency, deliver personalized customer experiences, and ultimately increase customer satisfaction and retention rates.

The Onsite Experience - Web Analytics:

The Internet was a breakthrough because of one technical insight.

One telephone caller used to be connected to another over a switched n/w. Think of banks of operators manually inserting a wire into a plug-board, physically connecting the callers over a switch.

In the 1970s, packet switching was employed to move information - which could include voices - from one computer to another without the need for a central controller.

Packets of data include from and to addresses as well as a sequence number. If packets are missing, they can be requested by the recipient machine to fill in the blanks.

The very nature of this technical underpinning gave rise to a field called web analytics.

When asking for a specific page, the browser shares the following with the server:

- Time and date
- IP address
- Domain name
- OS and version
- Browser type and version
- Pages Requested
- Referrer.

The information suggested from a lack of memory. A request came from an IP address, a page was sent, and then the connection was lost.

Cookies were developed to remember a visit from one click to the next.

Page-tagging technology unlocked a great deal of additional information about visitor's experience and behaviors.

Page tags can collect dynamic information.

Other data collection techniques included remembering a browser's fingerprint: the make and version of the browser, the OS version, the specific plugins activated, and so on.

Landing Page Optimization:

The customer experience is hard to manage in the wild. Prospective customers are clicking, scrolling, tweeting, and watching, but ~~the~~ when they come to your website and hit that landing page, you have a lot of layers. You can push and pull to change their behavior.

A/B and Multivariate Testing:

A/B testing is every web manager's dream. It is simply send 90% of your web traffic to the usual page and 10% to a variation.

Multivariate testing is much the same, but rather than head-to-head contests, multivariate testing seeks to discover which combination of elements works best.

Sentiment Ascend uses a generic alg^m to generate web-page candidates to be ~~state~~ tested. Simulated generic operators such as crossover and mutation are then performed.

onsite User Experience:

session replay records each mouse movement and click and can quickly reveal where the user on the website went wrong.

sessionCam capturer and analyzer recorded visitors to your website to highlight the highest value issues first using a Customer Struggle score.

Recommendation Engines:

Amazon was the first to bring us the 1-click button, a groundbreaking convenience.

They were also first to popularize the online recommendation.

personalization:

One-to-one marketing has always been just out of reach.

HSN - Home shopping Network uses IBM's Watson to personalize across devices.

web analytics for onsite experiences involves using data to understand how users interact with your website or app.

A/B tests are used to compare different versions of web pages or elements to determine which performs better in terms of conversions or engagement.

Merchandising:-

Rather than a static mixture of store layout and product assortment, digital merchandising is a dynamic display, moving ever closer

to one-to-one, per-person persuasion.

Pricing:

Attempts at dynamic pricing have upset consumers.

Dynamic price optimization is extremely demanding when it comes to individual products as the products are subject to different price elasticity.

The direct financial benefits associated with a price planning and optimization solution can be attractive.

Market Basket Analysis:

In one (or more) implementations, a model is build is usable to compute a likelihood of a given customer that leaves an online store with unpurchased items in an online shopping cart will return to purchase ~~that~~ ~~described~~ those items.

To build the model historical data that describes online store interactions and attributes of unpurchased items in online shopping carts is collected for other customers that have abandoned online shopping carts.

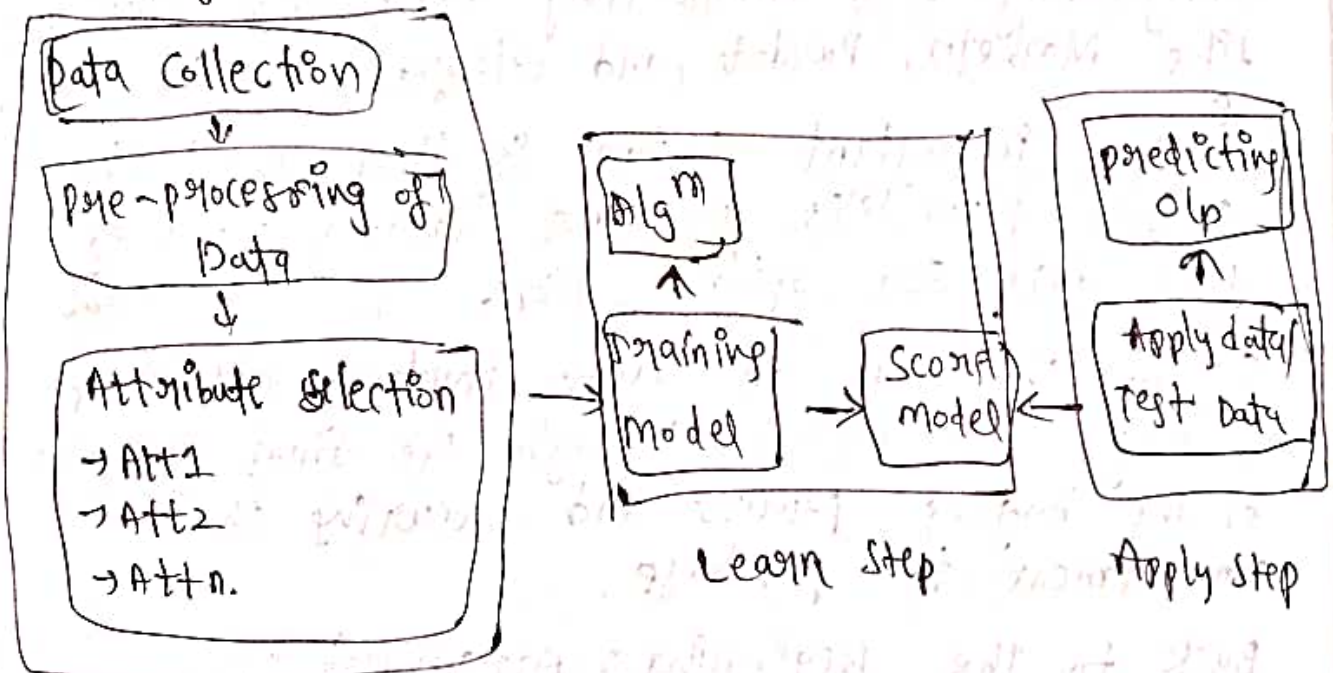
Using the model, data collected for a subsequent customer that has abandoned an online shopping cart is PLP and the likelihood of that customer to return to purchase unpurchased items is returned as OLP .

Based on the computed likelihood, the customer may be associated with different advertising segments that corresponds to different marketing strategies.

Merchandising involves the planning, promotion, and presentation of products in retail environments to maximize sales and profitability. It also enhances brand perception and customer satisfaction.

Closing the Deal :-

The marketer must decide where to invest resources. The classic conversion funnel imagines tons of people at the top, expressing some sort of interest.



Initialization
Step

Iskander's Alg^m Framework

The conversion funnel is a useful analogy at first, but no linear customer journey fits inside a funnel.

Google Offers Smart Goals as part of their Google Analytics suite.

Smart Goals uses ML to examine dozens of signals about your website sessions to determine which of those are most likely to result in a conversion.

ReMarketing:

E-mail Marketing:

E-mail is the workhouse of Internet ads. Once you have an individual's email address and permission to use it - you can hone your message to stimulate the desired response.

Rather than relying on website activity and click-through rates, Conversica engages in real conversations with leads and shares their actual responses.

Integrating with marketing automation platforms like Marketo, Pardot, and Eloqua is table stakes.

Another important factor is that marketing service providers are not limited to using your data for optimization.

Closing the deal in sales involves effectively guiding a prospect through the final stages of the buying process and securing their commitment to purchase.

Back to the Beginning: Attribution:

Attribution is one of the most hotly contested concepts in online marketing and the one we sincerely hope AI can resolve.

Top-down marketing mix modeling and bottom-up web analytics both tackle the same problem.

Google Analytics offers 7 different attribution models.

- Last Interaction
- Last Non-direct click
- Last AdWords Click

→ First Interaction

→ Linear

→ Time Decay

→ Position Based

Digital marketing channels don't drive user behavior independently, but in combination and also interfere with each other.

Attribution models end up including so many assumptions.

Attribute selection known as feature selection in data science is a critical step in making optimization work.

One of the biggest problems with turning all this data into a true cross-channel optimization quest is the need to integrate marketing functions and operations.

An intelligent ML alg^m is the only way to get a truly accurate representation of what is a highly varying weighting calculation.

The ever changing landscape of audience targeting and marketing means that any applied model should be able to iterate constantly, and differently from one business to the next.

Attribution in marketing refers to the process of identifying and assigning credit to the various touchpoints and channels that contribute to a desired outcome such as a sale or conversion.

It helps marketers understand the effectiveness of

* Each marketing effort and optimize their strategies accordingly.

Types of Attribution Models:

First Touch: Credits the first interaction a customer had with your brand of the conversion.

Last Touch: Credits the last interactions before the conversion.

Linear: Distributes credit evenly across all interactions leading to the conversion.

Time Decay: Gives more credit to interactions closer in time to the conversion.

Position-Based: U-shaped Gives credit to the first touch, last touch, and assigns some credit to interactions in b/w.

Data Sources for Attribution:

Analytics Platform: Use tools like Google Analytics, Adobe Analytics, or other marketing automation platforms to track and analyze user interaction.

CRM Systems: Integrate customer relationship management systems to track leads, opportunities and sales conversions.

Ad Platforms: Utilize data from advertising platforms (eg- Google Ads, Facebook Ads) to track ad interactions and conversions.