

AI in Product Management
Prof. Zillur Rahman
Department of Management Studies
Indian Institute of Technology, Roorkee

Lecture - 18
AI in Omni-Channel Customer Engagement

. Welcome to this NPTEL online certification course on Artificial Intelligence in Product Management. We are now talking about Module 18, which is AI in Omni-Channel Customer Engagement. This is what we are now discussing: AI in Omni-Channel Customer Engagement. To give an overview of this module, we will understand what Omni-Channel Customer Engagement is and the role of AI in Omni-Channel Marketing. We will discuss AI use cases in Omni-Channel Marketing, which includes recommendations, predictions, and contextual personalization. We will understand how AI and Machine Learning are revolutionizing Omni-Channel Marketing. So now, let us look at what Omni-Channel Customer Engagement is.

Omni-Channel Customer Engagement is a marketing strategy that enables businesses to interact with customers over multiple channels seamlessly without missing the context through an integrated dashboard. By employing a Customer Engagement Automation Platform, businesses provide their customers with a personalized experience throughout all touchpoints and allow them to switch platforms without losing out on conversations. For example, your business provides internet services and has a customer-centric Omni-Channel Customer Engagement strategy. One of our existing customers wants to upgrade their plans, and regarding this, they send you a message on your WhatsApp channel. They want to apply a promo code, and they send that over Instagram and ask if it is applicable to their requested upgrade.

Through automation and Omni-Channel integration, the customer immediately receives the response. That is the Generation Z level of engagement. Today, most businesses have a multi-channel presence with a disintegrated communication channel. A multi-channel customer engagement strategy has shortcomings, and businesses must upgrade it to provide a better customer experience. Research by Gartner shows that 50% of brands have failed to unify the customer engagement channels.

This leaves customers annoyed and frustrated as they need to repeatedly convey their issues to different teams across different channels. The multi-channel engagement strategy does not connect or blend the interactions happening over various touchpoints, creating a gap between businesses and customers. To build a bridge and connect the interactions, an omnichannel strategy is a must. An omnichannel customer engagement strategy will have a great positive impact on customer mindsets.

If the sales team, support team, and social media management team are on the same page interacting with agitated customers, they may resolve their issues before sending them marketing collateral. In a multi-channel strategy, businesses can obtain insights into different customer touchpoints. They usually block the overall experience a customer has during their journey with the organization. This problem is solved by using an omnichannel customer engagement strategy. The insights gained through this are precise and can give a detailed perspective about the customer experience.

These differences result in some amazing benefits and improve customer engagement for a business. Now, what omnichannel marketing means for industries: omnichannel marketing means creating your brand presence across multiple online channels (website, app, social media, email, SMS, and WhatsApp) and offline channels (retail store, events, and call center) to ensure a positive and seamless experience throughout the customer journey. Omnichannel marketing presents itself in different ways for different industries. So, for retail, omnichannel marketing means providing a seamless shopping experience across physical stores, e-commerce platforms, mobile apps, and social media. It enables customers to browse, purchase, and receive products through multiple channels, fostering brand loyalty. The second is e-commerce for online businesses.

It entails integrating various touchpoints like websites, mobile apps, emails, and social media. It optimizes the customer journey, enabling customers to shop conveniently and receive personalized recommendations. Finance banks and financial institutions utilize omnichannel strategies to provide customers with consistent service across branches, mobile apps, websites, and customer support channels. Fintech: In the fintech sector, omnichannel marketing helps create a cohesive user experience across web and mobile applications, making it easier for users to manage their finances and access services seamlessly.

In media and entertainment, omnichannel marketing allows media and entertainment companies to engage users across various platforms, from streaming apps to social media.

Ensuring that content is accessible and enjoyable wherever the audience is. Health and fitness: Omnichannel marketing in health and fitness involves providing fitness enthusiasts with a consistent experience from booking classes online to accessing workout plans through mobile apps, making their fitness journey smooth and convenient. Let us say one of your customers receives a mobile app notification about a limited-time offer on a mobile app.

If they don't engage with it, they may receive an email reminder with the same offer or a more personalized one. This coordinated approach across mobile and email maximizes the chances of conversion. Omnichannel marketing leverages technology to create seamless and personalized experiences across customer touchpoints. You will notice that Technology plays a vital role in omnichannel marketing.

It enables the integration of online and offline channels, allowing customers to switch between them effortlessly. It ensures consistency in messaging, pricing, and product availability across channels, enhancing the customer experience. Advanced analytics and AI technologies analyze customer data, helping businesses understand customer behavior and preferences. This data informs omnichannel marketing strategies, enabling personalized product recommendations and targeted promotions.

Technology also improves supply chain visibility and agility, allowing retailers to meet customer demands promptly. Real-time analysis and automation streamline the movement of goods from suppliers to customers. Lastly, chatbot social media integration and mobile apps enable real-time customer interaction. Technology facilitates instant responses to queries and fosters engagement, building stronger relationships. The words positive and seamless are crucial because 67% of customers cite bad customer experience as a reason for churn.

To acquire and retain customers, building an omnichannel marketing strategy that encapsulates all channels your customer preference cushion and constantly improving it to reach your customers where they are and enhance customer experience is pivotal to achieving your business goals. Now let us look at the role of AI in omnichannel marketing. Omnichannel marketing AI plays a role in personalizing and optimizing the entire customer experience across multiple channels. It unifies and analyzes data about customers and products to inform marketing campaigns, predict channels customers are more likely to convert on and automate repetitive tasks. Omnichannel marketing automation powered by AI is what truly enables end-to-end personalization at scale. There are different types of

AI technologies such as natural language processing, natural language generation, machine learning, and computer vision, and so on.

All these play a role in supporting and enhancing different areas of the customer experience, from personalized recommendations. to automated customer service and providing a smoother shopping experience. The relationship between marketer and AI may be looked upon as somewhat symbiotic because the marketer tells the AI what to pay attention to, while they fine-tune, experiment, and test ideas. Meanwhile, AI leverages that data to run experiments, learn from a marketing user's input, ultimately determines what a customer wants. Let us explore some of the most popular AI use cases in omnichannel marketing today and how you can go about successfully implementing them. AI use cases in omnichannel recommendation: AI-driven algorithms can be used to help you manage the product discovery experience you create for your customers. It does this by displaying personalized

Product recommendations. These recommendations allow customers to discover more products, resulting in more engagement, add-to-carts, and conversions. You can power your page with merchandising based on recommendation widgets that you can manage and control. There are different recommendation widget types that you can use, such as 'Frequently Bought Together,' which displays other products that are commonly bought together with a given product. 'Frequently Viewed With' displays other products that are commonly viewed along with a given product.

'Similar Products' displays other products that are similar to a given product. 'Experience-Driven Recommendations' display highly targeted customer recommendations by creating real-time users' affinity profiles that use semantic understanding and browsing behavior to understand user intent. 'Best Sellers' displays products that are likely to generate the most revenue. 'Fast Purchases' displays previously purchased products to logged-in customers to enable quick add-to-cart for repeat purchases. 'Trending Products' displays products based on the most popular or trending products for a given time period. 'Recently Viewed Products' displays personalized product recommendations based on the user's past purchasing history.

Browsing behavior and customer preferences. Here are some of the ways in which you can integrate AI recommendations into your marketing practices. The first is an automated welcome email series. These are the set of emails triggered by a customer action that signals interest in your brand. For example, account sign-up or event registration.

They are intended to be helpful and informative and can help you build a personal relationship with your customer. With an automated welcome email, series, you can go beyond sales-based messaging and use AI recommendations to show your audience helpful content that can guide them to a purchase decision. The second is an SMS marketing campaign. You can go beyond the reams of welcome emails and send a welcome text message featuring personalized offers, special deals, and event promotions that can go a long way toward building customer trust and loyalty, increasing customer lifetime value with personalization. AI-based recommendations recommend products and services that are based on a customer's past behavior, resulting in improved engagement, conversion, and customer lifetime value. The AI can also base recommendations on available inventory in real-time.

AI use cases in omnichannel market predictions. So, AI-powered platforms use advanced algorithms to create models and find connections between data and customer decisions. In this way, AI has the capability to analyze customer data and make predictions about future behavior. So, instead of flying blind, marketers can leverage their vast amount of data to identify patterns and anticipate future customer behavior, sales trends, and marketing outcomes. Predictions offer you many business benefits, including insights into future customer behavior.

Advanced machine learning algorithms can accurately predict a customer's next action. Campaign efficiency optimization and predictive insights help you achieve your chosen marketing goals by allowing you to target the right customers with the right campaigns. Revenue optimization targets the customer audience likely to generate the majority of your revenues. Omnichannel utilization provides the option to use predictions across different channels, including web layers, on-site personalization, and emails. Predictions enrich customer profiles, with individual customer profiles filled with prediction data. Ease of use is enhanced by the Prediction Builder, which allows you to build customer prediction models with minimal effort. Predefined templates are ready-to-use models for the most popular predictions. Transparent model visualization offers easy-to-understand dashboards containing the data on which prediction models are based. So, predictive marketing techniques enable you to optimize your omnichannel marketing and drive revenues. Here are some of the types of AI-powered predictive analytics that are useful to increase customer engagement. One is purchase prediction, which predicts the likelihood of a future purchase by a customer.

The second is open email prediction, which predicts if a customer will open a future email campaign. Optimal send time predicts when a customer is most likely to open a campaign message. Churn prediction predicts the likelihood of a customer churning. In-session predictions predict if the customer will fully fulfill a selected goal during a session. Customer prediction predicts if a customer will match a custom target condition. Now, AI use cases in omnichannel marketing include contextual personalization, which is where AI-driven contextual personalization can help. Instead of trying to find the best overall messaging to appeal to as many customers as possible, you can use contextual personalization to match the best customers to a particular message. The go-to testing market strategy for many companies is the A/B test.

And while A/B testing generally works, that is also the inherent problem. It is general. You take a winning variant based on a control and then apply that variant to the rest of your audience. Even though there is a higher chance of that version resonating, there is also a good chance it won't click with a large number of your customers, which is a missed opportunity. The key difference here is that AI can use each customer's context, such as clicks on the website, past purchases, opened emails, and even data from their ongoing sessions.

to select the variants most likely to lead to a conversion. Not only does this method help you realize greater conversions and revenues, but it also allows you to scale your testing strategy in a way that traditional A-B testing cannot match. How are AI and machine learning revolutionizing omnichannel marketing? So, AI and machine learning are enabling omnichannel strategies to scale. by providing insights into the changing needs and preferences of customers, creating customer journeys that scale, and delivering consistent experiences.

For any omnichannel strategy to succeed, each customer touchpoint needs to be orchestrated as part of an overarching customer journey. That is the only way to reduce and eventually eliminate customer perceptions of using one channel versus another. What makes omnichannel so challenging? To excel at it is the need to scale a variety of customer journeys in real time as customers are also changing. 89% of customers used at least one digital channel to interact with their favorite brands, and just 13% found the digital and physical experiences well aligned, according to the study conducted by Accenture.

AI and machine learning are being used to close these gaps with greater intelligence and knowledge. Omni-channel strategies are fine-tuning customer personas, measuring how

customer journeys change over time, and more precisely defining service strategies using AI and machine learning. Disney, Oasis, REI, Starbucks, Virgin Atlantic, and others excel at delivering omni-channel experiences using AI and machine learning. Omni-channel leaders, including Amazon, use AI and machine learning to anticipate

Which customers' personas prefer to speak with a live agent versus using self-service, for example. McKinsey also found that omnichannel customer care expectations fall into the three categories of speed and flexibility, reliability and transparency, and interaction and care. Omnichannel customer journeys designed to deliver on each of these three categories excel. And scale between automated systems and live agents, as the following examples from the McKinsey article show, how to capture what the customer wants. Now, this is what we are talking about.

So, escalation to live channels, online mobile app, automated SMSs, live, this is the physical layer, fulfill order, shop from point and discover evaluation, transaction, fulfillment, and after-sales. The foundation of all great omnichannel strategies is based on precise customer personas, insight into how they are changing, and how supply chains and IT need to flex and change. AI and machine learning are revolutionizing omnichannel in these three core dimensions with greater insights and contextual intelligence than ever before. The following are 10 ways AI and machine learning are revolutionizing omnichannel strategies, starting with customer personas, their expectations, and how customer care, IT infrastructure, Supply chains need to be responsive to grow.

First, AI and machine learning are enabling brands, retailers, and manufacturers to more precisely define customer personas, their buying preferences, and journeys. Leading omnichannel retailers are successfully using AI and machine learning today to personalize customer experiences to the persona level. They are combining brand, event, and product preferences, location data, content, viewed transaction histories, and most of all, channel and communication preferences to create precise personas for each of their customer segments. The second is achieving price optimization by persona, which is now possible using AI and machine learning.

Factoring in brand channel preference, previous purchase history, and price sensitivity. Brands, retailers, and manufacturers are seeing that cloud-based price optimization and management apps are easier to use and more powerful, based on rapid advances in AI and machine learning algorithms. Than ever before, the combination of easier-to-use, more powerful apps and the need to better manage and optimize omnichannel pricing is fueling

rapid innovation in this area. Capitalizing on insights gained from AI and machine learning, omnichannel leaders are redefining IT infrastructure integration so they can scale customer experience. Succeeding with omnichannel takes IT infrastructure Capable of flexing quickly in response to changes in customer preferences while providing scale to grow. Every area of a brand, retailer, or manufacturer's supply chain, from supplier onboarding to quality management,

Strategic sourcing to yard management, dock scheduling, manufacturing, and fulfillment need to be orchestrated around customers. So, the following graphic illustrates how omnichannel leaders orchestrate infrastructure to achieve faster growth. So, this is the customer experience, customer journey, personalization, and robotic process automation. And here we have systems of record, systems of management, systems of intelligence, and systems of things. Omnichannel leaders are relying on AI and machine learning to digitize their supply chain, enabling on-time performance and fueling faster revenue growth.

For an omnichannel strategy to succeed, the supply chain needs to be designed to excel at time-to-market and time-to-customer performance at scale. According to a study by Gravity Supply Chain, 54% of retailers pursuing omnichannel strategies say that their main goal in digitizing their supply chain was to deliver a greater customer experience. 45% say faster speed to market is their primary goal in digitizing their supply chain by adding AI and machine learning-driven intelligence. AI and machine learning algorithms are making it possible to create propensity models by persona, and they are invaluable. By predicting which customers will act on a bundling or pricing offer.

By definition, propensity models rely on predictive analytics, including machine learning, to predict the probability of a given customer acting on a bundling or pricing offer. Email campaigns or other calls to action leading to a purchase, upsell, or cross-sell. Propensity models have proven to be very effective at increasing customer retention and reducing churn. Every business excelling at omnichannel today relies on propensity models to better predict how customer preferences and past behavior will lead to future purchases. The success of combining machine learning-based pattern matching with the product recommendation engine is leading to the development of a mobile-based app where shoppers can virtually try on garments they are interested in buying.

Machine learning excels at pattern recognition, and AI is well-suited for creating recommendation engines, which together are leading to a new generation of shopping apps where customers can virtually try on any garment. The app learns what shoppers prefer and

also evaluates image quality in real-time, then recommends either purchasing online or in-store. Seventy-six percent of brands and retailers say that order Track and traceability strengthened with AI and machine learning is essential to delivering an excellent customer experience. Order tracking across each channel, combined with predictions of allocations and out-of-stock conditions using AI and machine learning, is reducing operating risk today. AI-driven track and trace is invaluable in finding

where there are process inefficiencies that slow down time to market and time to customer. Gartner predicts that by 2025, customer service organizations that embed AI in their customer engagement central platform will increase operational efficiencies by 25%, revolutionizing customer care in the process. So, customer service is often where omnichannel strategies fail due to the lack of real-time contextual data and insight. There is an abundance of use cases in customer service where AI and machine learning can improve overall omnichannel performance. Amazon has taken the lead on using AI and machine learning to decide when a given customer persona needs to speak with a live agent. AI and machine learning are improving marketing and selling effectiveness by being able to track purchase decisions back to campaigns by channel, understand why specific personas purchased while others did not, so marketing is already analytically driven, and with the rapid advances in AI and machine learning, marketers will, for the first time, be able to isolate why and where their omnichannel strategies are succeeding or failing.

By using machine learning to further qualify Customers and prospect lists using relevant data from the web. Predictive models, including machine learning, can better predict ideal customer profiles. The tenth is predictive content analytics powered by AI and machine learning, which improves sales close rates by predicting which content will lead a customer to buy. Analyzing previous prospects and purchase behavior by persona using machine learning provides insights into which content needs to be personalized and presented when to secure a sale.

Predictive content analytics is proving to be very effective in B2B selling scenarios and is scaling into customer products as well. So, to conclude this module, we have discussed what omnichannel customer engagement is and the role of AI in omnichannel marketing. We have also learned about AI use cases in omnichannel marketing, which include recommendations, predictions, and contextual personalizations. Finally, we have discussed how AI and machine learning are revolutionizing omnichannel marketing. These are some of the sources from which the material for this module was taken.

Thank you.