AI in Marketing
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Week 10
Lecture-46 AI in Sales promotion and Direct Marketing

Welcome to this NPTEL online certification course on artificial intelligence in marketing. Now we will talk about module 46. So, as you can see from this slide, we are talking about the use of AI in sales promotion and direct marketing. And in this module, we will talk about the use of AI in sales promotion scenarios. Then we will talk about a case study of Harley Davidson to understand how they have used AI for sales promotion. Then we will talk about the advantages of using AI for sales promotion and then promotion planning complexities and how to tackle them using AI.

Then we will talk about the use of AI and its benefits in direct marketing. So, let us start with the first point that is use of AI in sales promotion. So, promotion planning is a constant balancing act. There are many types of promotions to choose from, each with its own effects on consumer behavior and the resulting outcome.

So, there are many types of promotions, and they have different inputs and outputs. These promotions may also fit within the overall promotional strategy which supports the company's business goals. Sometimes those goals will require running promotions that are only indirectly linked to store sales. So, keep in mind that all these promotions, they may not be linked to the store sales. So, there can be other business goals to achieve from sales promotion.

What is more challenging to keep in balance are the hundreds of variables, some more subtle than others that affect promotions outcome. The maths needed to account for this effect is hard enough. If you multiply that effort by the hundreds or thousands of promotions that is being run every year, the workload quickly balloons beyond the capacity of any planning team. So, it becomes very difficult to work out the outcomes. Because of the number of variables, uncontrollable factors and the campaigns themselves.

But in the era of AI, not only the major players but the small ones have also started automating the sales promotion process entirely from the starting till the end. The extent of automation would obviously be different from company to company based on the budget. The willingness and the technological advancements that the firm is already at. Nonetheless, various AI tools are being used extensively for promotion which is not only reducing the workload but brings about more efficiency and accuracy than humans could

have done. So, reducing the workload and at the same time increasing the efficiency and accuracy much more than the humans they have done.

Now, let us look at the case of the Harley Davidson dealership in New York. Asaf Jacobi's Harley Davidson dealership in New York City was selling one or two motorcycles a week and it was not enough. He then took the help of an AI firm Adgorathims which has Albert Adgorathim's AI driven marketing platform. It works across digital channels like Facebook and Google to measure and then autonomously optimize the outcomes of the marketing campaigns. So, Jacobi decided he did give Albert a one weekend audition.

That weekend Jacobi sold 15 motorcycles. It was almost twice his all-time summer weekend sales record of 8. Naturally, Jacobi kept using Albert. His relationship went from getting one qualified lead per day to 40. In the first month, 15% of these new leads were lookalikes meaning that the people calling the relationship to set up a visit resembled previous high value customers and therefore were more likely to make a purchase.

But by the third month, the dealership leads had increased 2930%. 50% of them look like. Leaving Jacobi's scrambling to set up a new call center with 6 new employees to handle all the business. While Jacobi had estimated that only 2% of New York City's population were potential buyers, Albert revealed that his target market was larger, in fact much larger and began finding customers Jacobi didn't even knew existed. Now how did he do that? Today, Amazon, Facebook and Google are leading the AI revolution and that has given them a huge market advantage over most consumer goods companies and retailers buy enabling them to lure customers with highly personalized target advertising and marketing.

However, companies such as Salesforce, IBM and a host of startups are now beginning to offer AI marketing tools that have become more easier to use. That is they don't require hiring expensive data scientists to figure out how to operate the tool and analyze its outputs and it is less expensive to acquire. This is Software as a Service Pay as you go pricing. And instead of optimizing specific marketing tasks or working within individual marketing channels, these new tools can handle the entire process and that too across all the channels. In case of Harlow Davidson, the AI tool Albert drove in-store traffic by generating leads.

Albert, a salesperson, defined as a customer who expresses interest in speaking to a salesperson by filling out a form on the dealership's website. Armed with creative content, headlines and visuals provided by Harlow Davidson, the key performance targets Albert began by analyzing existing customer data from Jacobi's customer relationship management system to isolate defining characteristics and behavior of high-value past

customers, those who either had completed a purchase, added an item to an online cart, viewed website content or were among the top 25% in terms of time spent on the website. So, now you can see that Jacobi has come up with, with entirely new set of key performance indicators. Using this information, Albert identified lookalikes who resembled these past customers and created micro segments, small sample groups with whom Albert could run test campaigns before extending its efforts more widely. It used the data gathered through these tests to predict which possible headlines and visual combinations and thousands of other campaign variables would most likely convert different audience segments through various digital channels that is the social media, search, display and email or SMS.

It also determined what was working and what was not. Albert scaled the campaigns, autonomously allocating resources from channel to channel, making content recommendations and so on. So now it started working autonomously. For example, when I discovered that ads with the word call such as don't miss out on the pre-owned hard day with a great price, Call Now performed 47% better than ads containing the word buy, such as buy a pre-owned hardly from our store now. Albert immediately changed the buy to call in all ads across all relevant channels.

Now use of AI in CS motion, the advantage of using AI is the increased return on investments. For Harley Davidson, AI evaluated what was working across digital channels and what was not and used what it learned to create more opportunities for conversion. In other words, the system allocated resources only to what has had been proven to work, thereby increasing digital marketing ROI. So, what has worked in the past? Using guess works, gathering and analyzing enormous volumes of data and optimally leveraging the results insight is the AI advantage. Real customers, marketers have traditionally used buyers' persona, broad behavior-based customer profiles as guides to find new ones.

These personas are created partly out of historic data and partly by guess work, gut feeling and marketers' experiences. Companies that design their marketing campaigns around personas tend to use similar blunt tools such as gross sales and more guess work to assess what has worked and what has not. AI systems don't need to create personas, they find real customers in the wild by determining what actual online behavior have the highest probability of resulting in convergence and then finding potential buyers online who exhibit these behaviors. To determine what worked, AI looks only at performance. Did this specific action increase conversions? Did these keywords generate sales? And did this spend increase ROI? Another advantage of using AI is enormous amount of keywords deduction.

Even if equipped with digital tools and other marketing technologies, humans can only manage a few hundred keywords at a time and struggle to apply insights across channels

with any precision. Conversely, an AI tool can process millions of interactions a minute, manage hundreds of thousands of keywords and run tests in silica on thousands of messages and creative variations to predict optimal outcomes. Then AI can also manage 24 by 7. The promotion requires supervision at all the time as it keeps on changing with time, traffic, different items, competitors, counter promotions, etc. For humans, supervising all the time is not possible.

However, AI does not need to sleep. So, it can do all this around the clock throughout the whole day and every day. Consequently, AI can determine exactly how much a business should spend and where to produce the best result, how much and where to spend. Rather than base media buying decisions on past performance and gut instinct, AI acts instantaneously and autonomously, modifying its buying strategy in real time based on ever-changing performance parameters of each campaign variable. The next advantage of AI is promotional planning complexity.

In a situation of an abundant supply of products and services, consumers see promotion as a simple way to increase their purchasing power and are therefore more inclined to change their consumption habits which not only impact the article in promotion but also similar items not on special offers. Therefore, carrying out promotional campaigns is an important marketing and financial issue that must be planned as well as possible to maximize the impact on consumers and the benefits generated. This implies succeeding in determining, according to predefined constraints, the most suitable promotion mechanism and a maximum number of occurrences by brand and by mechanism. Today, artificial intelligence with techniques such as machine learning or the ability to learn and make decisions from data provides tools that really improve the planning and performance of promotions. To be able to prepare campaigns in the best possible way, the marketing team set up promotional plans in advance.

The completion of this complex work requires several parameters that have an impact on the promotion performance including seasonality, promotion duration, promotion type, category and item targeted and sales outlets among others. In addition to the planning complexity, it is difficult to quantify the real global impact of a promotional campaign. As a matter of fact, it cannot simply be calculated from the increase in volume sales of the promotional item. Now these are the distinct effects of promotion. So, they are four distinct effects generated by a promotion that must be quantified to understand its real impact.

The first is the anticipation effect. The second is the increase in sales volume of the products on special offer. The third is the cannibalization, and the fourth is the accumulation effect. Now let us look at each of these effects in some more detail. So, we will start with the anticipation effects.

This appears when the promotion is announced in advance. So, the outcome is anticipated. Consumers then tend to reduce their purchases of similar items within the preceding period of the promotion for maximum advantage. This leads to a decrease in the consumption of similar items over this period compared to their reference sales volume. The next effect is the increase in sales volume of the product on a special offer.

So, there is a significant increase in the sales volume of a promotional product compared to its reference sales volume. So that is the third. The third is cannibalization. Consumers tend to turn to the promotional item at the expense of a similar item or the same item not on special offer. Now this leads to a sales drop for similar non-promotion products during the special offer period compared to their reference sales volume.

The fourth is the accumulation effect. During a promotion, consumers tend to buy in larger quantities and therefore to make stock followed up by a decrease in the consumption of similar items during the period after the promotion compared to their reference sales volumes. So, the consumption or the buying after that promotion decreases because people have stopped the item. The real impact of a promotion corresponds to the profits achieved owing to the increase in promotional product sales volumes minus the losses caused by other effects mentioned before. So, this is on offer product, and this is a regular product.

So, before promotion this was a sales. During this offer the sales here went down and then that is because of the cannibalization effect and then it reached the same levels after that offer. Now when the product is on offer in anticipation the sales goes down and then it increases. Then after the sales again, the after the promotion this sale goes down and after that it achieves the same level. So here the here the here the the issue is that because people anticipate that the sales is coming so they they decrease their buying. Then there is an increase in buying and then again because people have stopped so this sales it comes down.

AI advantage in promotion planning complexity. So, considering the complexity of this artificial intelligence has the ability to learn and to take decisions from data which makes it a very interesting tool for improving operational performance. Promotion plans have been carried out for many years now and their impact can be directly calculated from the sales records of distributors and suppliers. It is then possible to create complete data sets that match each former promotion situation with the four resulting effects and to train machine learning models to predict these effects. However, before the creation of a usable training data set we need to match the information on which we base the prediction which are the inputs.

That is information concerning a promotion such as promotion type, product category, sales point, seasonality etcetera with the values we want to predict namely the outputs

effect of a promotion. Once trained the model will be able to predict the impact regarding the four effects mentioned before of a future promotion according to their different contextual parameters and thus, they will be able to optimize them of a strain. So, an example of a usable training data set is given besides. So, these are the inputs, and this is the output. Output include product information, article, category, average sales volume, current sales volume.

The information is promotion period, promotion duration, calendar, geographical data, PUS typology, current country and then comes the promotion information. Promotion typology mechanics used, advertising claim in advance yes or no. So, all these are the inputs. Now output is the observed effect of the promotion that is sales boost for the promotional item anticipation effect, cannibalization effect and accumulation effect. So now let us look at the use of AI in direct marketing.

Most of the marketers try to build long-term relationships with customers. They send birthday cards, information material or small premiums, airline, hotel and other businesses adopt frequency reward programs and club programs. Direct marketing is the use of consumers direct channels to reach and deliver goods and services to customers without using the marketing middleman. So, marketers have been using personalization in their direct marketing strategies for a long time and in many forms. From a welcome back message for returning users to more individualized product recommendations in email newsletters, it is known fact that customers who experience a more personalized shopping experience are more likely to spend and keep returning whether they are business to business or business to consumers.

AI can analyze each traffic segment and provide the most relevant content to different audience groups. As a result, personalization can exist for every single customer, and it can be done automatically. So, that is the biggest advantage that personalization can be done for every single customer and obviously it can be done automatically. Now benefits of using AI for direct marketing.

The first is smart personalized emails. When we consider variables, such as type and tone of language used, the style of writing, the geographic location and demographic of the reader, the age and gender and all those other variables, suddenly we need to think about how we are creating all kind of emails to suit these different types of people. With AI, you can customize the email to suit the recipient automatically. Even based on the individual data you are holding on them, you will be able to effortlessly craft both personalized emails and direct mail that maximizes your chances for a conversion or engagement. Since 2016, eBay has been working with the artificial intelligence powered customer experience platform, Phraezy, to enhance its marketing copy focusing on email. With over 101 million email subscribers across the US, UK and Germany alone, crafting impactful subject line to drive open rates is a colossal undertaking.

Phraezy, which uses a combination of natural language generation and deep learning to create copy at scale while dynamically optimizing performance, built larger models for eBay's along the e-commerce giant to generate custom copy tied to its brand tone, customer needs and specific promotions at the click of a button. Next is predictive analytics to serve personalized recommendations. According to the research firm, Aberdeen, companies identify customer needs through predictive analytics can increase their organic revenues by 21% year over year compared to average of 12% without predictive analytics. Starbuck is one example of a brand using its loyalty card and mobile apps to collect and analyze customer data. They announced plans for personalization back in 2016.

Since then, they have built quite the app experience. It records purchases, including where they are made and at what time of the day. Starbucks uses predictive analytics to serve customers with personalized marketing messages. They include recommendations for when a user approaches a local store and special offers to increase the customer's average order value. The next benefit is mailing frequency. If you send too few emails, you won't sit in the mind of your reader as much.

And if you send too many, you will end up in the spam folder. One of the biggest obstacles email and direct mail marketers have is being able to figure out the balance of how many emails to send out and at what frequency they should be sent. With AI, the companies are able to recognize and analyze data based on the number of times emails are sent, the open and bounce rates and how well received the emails are. It will be able to determine exactly when emails are sent, how often they should be sent and when you should be cutting back in order to achieve the best results possible across on your analytic channel.

Another benefit is optimization. AI can also be used to optimize direct mail campaigns in real time. By tracking responses to marketing messages and adjusting the campaigns accordingly, companies can improve the effectiveness of their marketing efforts over time. This can lead to significant cost savings and increased revenues. Campaigns can be optimized further by preventing mistakes in targeting, creativity and timing, especially in more expensive campaigns. A 10% reduction in cost or a 10% lift in effectiveness can result in millions of dollars of profits over the life of a campaign.

The next benefit of using AI for direct marketing is optimized marketing retargeting. Retargeting is the act of someone adding something to their basket and at last don't end up following through with the purchase. However, if you have your user's data for example, if they are signed into their account and you can see their basket, then you can retarget them so that they can make a purchase. You can also use this data to complement your online remarketing with direct mail winback campaigns. Using AI, the data you hold can be used for retargeting customers who have items left in their basket and will

understand the best way to sell and upsell to them based on their past spending and even browsing history.

So, to conclude in this module, we have first discussed about the use of AI in sales promotion scenario. Then, we have discussed a small case study on Harley Davidson to understand how they have used AI for sales promotion. We then went through some advantages of using AI for sales promotion. Then we have also understood some promotional planning complexities and how to tackle them using AI. Then we have discussed the use of AI in direct marketing and finally we went through some of the benefits of using AI for direct marketing.

And these are the 7 sources from which the material for this module was taken. Thank you.