

AI in Marketing

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Week 6

Lec 28-Understanding the Use of AI for Addressing Competition

Welcome to this NPTEL online threat evaluation course on artificial intelligence and marketing. And now we will talk about module 28. As you can see in this module we will talk about understanding the use of AI for addressing competition. Now let us look at what are the things that we will cover in this module. So we will start with discussing how to address competition using AI. Then we will discuss the relevance of brands in the AI age.

We will study intelligent agent technologies to discuss brand competitive advantage in the light of IATs that is Intelligent Agent Technologies. And then we will study IAT characteristics and the classification of marketing IAT with competitors orientation. So we will start with the first point that is addressing competition using AI. The following are various ways to leverage the power of AI to generate a competitive advantage over your rivals.

So first is implementing machine learning systems. AI has the ability to give companies a competitive advantage in marketing due to its ability to learn and train based on data. AI can offer numerous insights into how to market, how to market, who to market to, when and where to market and even why to market. The insights AI can offer are numerous and they stem from the basic principle that companies already own a significant amount of data about consumers. AI offers objective and highly data-driven insights fueled by the data companies already have.

AI has the ability to get to know a customer on a personal level which was never experienced in the past. It is done by going back to the behavioral patterns discussed earlier and AI's ability to detect them. Giants like Amazon have already nailed this approach to the customers following the user's behavior on the platform. What type of product they buy, how long they spend on the product page etc. The system quickly learns to generate recommendations that are uniquely suited to each user's taste and preference reflected in their activity on the platform.

So based on the past activity and all this data is there with Amazon. Now they know that what type of products will you buy, how long you will spend there. Enhancing your customer relationship management by taking on customer service task, automatic marketing communication and lead scoring. Efficient marketing today is creating touch points from customer brand interactions at the right place, at the right time and with the right message. So these are the touch points where customers and brand interacts.

So we have to monitor those points so that the interaction can be targeted at the right place, at the right time and with the right messages. AI offers a shortcut to understanding the customer needs better and offering a top level experience to the consumers. Turning them into loyal customers and even brand advocates thus driving revenue through strong relationships. So this strong relationship is the bottom line. Protecting your data against fraud and hacking attempts by identifying potentially harmful messages.

You can turn to the power of AI to fight back against cybercrime and protect your business from costly frauds. The use of AI in managing user access to company resources has revolutionized cyber security and reduced the risk of data breaches. Additionally you can use machine learning to detect potential cyber attacks. Keeping a much closer eye on your system and the data protected within. AI systems can flag suspicious emails and keep up with the tactics used by successful cyber criminals the world over.

Adopting instantly over time to create a more secure and reliable security infrastructure. This carries over into the financial sector as well. Mastercard for instance uses 13 different AI technologies coupled with rules based tools to scan for fraud within its platform. The system is able to identify potential fraud in under 50 milliseconds. Now let us tackle this question.

Are brands going to be important? Understanding the collective demographic shift in the market is the most fundamental way to predict where marketing is heading. See figure given alongside. So now you see that this is generation alpha, generation Z, generation Y, generation X and the baby boomers. The definition is that they are the economic powerhouses, they are middle child leaders, the generation Y millennials, the first digital natives and the children of millennials. So these have, they go in for established brands, they go in for experiential brands and these people they go in for engaging brands.

The generational cohort is one of the most popular ways of mass market segmentation. The premise is that people who are well born and grew up within the same period

experience the same significant events. Thus they share the same socio-cultural experience and are more likely to possess similar set of values, attitudes and behaviour. Today five generational cohorts are living together. One is baby boomers, second is generation X, generation Y, generation Z and generation alpha.

So that is the fifth one. Maybe generation is shaped by different socio-cultural environment and life experience. So it means that generation Y and generation Z they are different but they will behave and these people they will behave. So generation Z will behave similarly and generation Y will behave similarly but there will be a difference between the behaviour of these two because they have been influenced by the different socio-cultural environment and life experience. So are brands going to be important in the sharing economy? Every generation also have different preferences and attitude towards products and services prompting marketers to respond with a different offering, customer experience and even business model.

Generation Y for instance puts more priority on experience over ownership. They prefer using an Uber to owning a car. So they will take an Uber but they do not like to own a car. So they have more priority on experience rather than the ownership of the car. This preference has led to the rise of all kinds of on-demand services.

Business models have also shifted from selling products to selling subscriptions. Generation Y prefers steaming on Spotify to buying a music album. Despite understanding the distinctive needs of different generations, most companies are not well positioned to serve all of them. Companies are often stuck with a rigid portfolio of products and services that do not allow customization for every generation. It forces companies to serve only two or three generations at the same time.

Companies also struggle to adapt to the short-term product life cycle possessed by the ever-changing needs and wants of younger generations. Many companies across industries like automotive, electronics, high-tech, consumer packaged goods, fashion feel the pressure to quickly develop new products and make a profit in a narrow window of time. Developing product quickly and then selling them quickly. Targeting also creates a dilemma since the most value is still being created when brands are serving baby boomers and Generation X with their powerful resources and high willingness to pay. But most brand equity is created when brands are being endorsed by Generation Y and Z with their cool factor and digital savvy.

And most importantly Generation Y and Z are beginning to influence their baby boomers and Generation X parents in many purchase decisions. Thus brands shall continue to differentiate firms offering in market by adopting their role from being a

established brand to an experience-driven and engaging brand. So whether you are established or not is not important. This is important. Experience-driven and engaging brand.

KPMG is a strategy for competitive advantage. The strategy division of KPMG Ireland offers a refined branding service for clients aiming to pinpoint their brand strengths and retain a competitive advantage in the forthcoming AI era. Integrating the following analytical and creative approaches. Gauge the brand strength, craft selling points and then develop content strategy. So the step 1 is to gauge present brand strength against that of the competitor.

Undertake an analysis of your brand's existing profile. Assessing its strengths, pitfalls, potential and challenges within the market context. This would include using rapidly developed mass B2B or B2C surveys, dwelling into essential brand metrics including image, perception and efficacy and benchmarking against competitors. Step 2 is to discern brand distinctiveness and unique selling point. They employ both qualitative and quantitative research techniques encompassing client dialogues, questionnaires and market scrutiny to discern what genuinely differentiates your brand whether that be of product caliber, service, aesthetics, heritage or emotional rapport.

Your strong brand differentiators are then refined into succinct, persuasive, unique selling points. Step 3 is to divide, is to devise branded content communication strategy. In today's marketplace saturated with misinformation and information, it is vital to establish an unmistakable brand persona. This requires a meticulously created content blueprint that not only appeals to a target audience but also sets you apart from the competition.

So this is the brand persona. A strong brand persona is one that appeals to, to the target audience and it distinguishes you from competitors. By interviewing a brand's fundamental values, message and vision within every item of content, create a narrative that attracts, engages and retain clientele so that brand persona should reflect the fundamental values, message and vision. Managing one great channel's comprehending audience inclinations and maintaining uniformed messaging are critical to this strategic process. Now we will talk about brand competitive advantage with intelligent agent technologies that is IATs. Intelligent agent technologies are computational systems that inhabit a complex dynamic environment and continuously perform marketing functions.

Such as dynamic scanning of the environment and market forces including competitors and customers and firm's action impacting the marketing mix. Then it's also collaborating and interact to interpret perceptions, analyzing, learning and drawing

inferences to solve the problem. Then it also goes in for implementing customer focused strategies that create value for the customers and the firms within the boundaries of trustworthiness and policy. Intelligent agent technologies also referred to as IATs or simply as agents are a bundle of different AI and smart technologies and specializing in different tasks. So it is a bundle of different AI technologies.

IATs are still undergoing transformation but brands are already using these agents to gain competitive advantage. Agents such as Amazon, eBay, Netflix are embracing IATs for collaborative filtering, personalization, recommendation systems and price comparison engines to facilitate exchanges in the marketplace. What are these agents' characteristics? IAT possess internal characteristics such as autonomy, intelligence, interactivity and mobility that facilitates information exchange at much higher efficiency than humanly possible, leading to an increase in companies' market orientation. Agent technologies can influence the intangible aspect of branding such as trust building, customer retention and loyalty as well as tangible aspects such as market share and return on investments. The adoption of IATs when coupled with smart marketing concepts and protocols allow companies to function innovatively while at the same time safeguarding their self-interest and group interest which ultimately leads to the competitive advantage.

For example, IATs participating in a virtual marketplace and negotiating with other agents' human is an innovation that can lead to competitive advantage. IAT applications have been broadly divided into 1. Information search, acquisition and analysis and 2 is interaction through communication, collaboration and negotiation. So these are the two things that they do. We will look at the first one that is information search.

Agents not only enhance consumer search and reduce search cost but also provide vital information to companies about their customers and the competitors. IATs have the capability to collect and mine real-time product and price information from thousands of websites. They can also learn user preferences in terms of price and quantity and provides better fit and marketing efficiencies due to an expansive reach and faster access to information. For example, adaptive IATs called spiders act as intelligent clients on behalf of the user searching the web to retrieve information. The next characteristic is information acquisition.

Agents provide opportunities to track consumers who visit a firm's website by gathering detailed information about their demographics, psychographics and purchase behaviors. So companies can also use the IATs to track and maintain information about consumers' personalization and make customized offers. The next is information analysis. So agents can find non-obvious statistical relationships among items by investigating how often

two or more items appear in the same context or interact with consumers during the same browsing or shopping session. An agent can also conduct competitor and market structure analysis online.

Websites of competitors and internet retail stores offer valuable resources for the dynamic capture and analysis of competitor information which can provide a deeper understanding of competitors' business, their strengths, weaknesses and also their future strategic and tactical moves. For example, a software agent programmed to generate tracking numbers can retrieve delivery information for competitors' product and then use that information to identify competitors' geographical market and major accounts. Online communication interaction and negotiations. IATs support data-driven communication and could be of immense value in marketing communication. Specifically in heterophilias groups, heterophiliophy or love or the different is the tendency of individuals to collect in diverse groups where communication and exchange of information otherwise would be limited.

They can also act as bridges among different heterophilias networks turning them into larger networks leading to wider and faster diffusion of knowledge. Autonomy in decision making. Decision making in competitive environment is an important role of human marketing managers. Autonomy is perhaps the one of the most difficult concepts for marketing applications of IATs. The autonomy in decision making exercised at different functional levels of the firm and the decisions made by IATs may have different rational and different objectives.

The autonomy of IATs in decision making implies rules of reason that are bounded by moral and ethical considerations. IATs decision making is also tempered by the evaluation of managers' belief about the future. The autonomy of IAT in decision making can provide assistance and guidance to their human counterparts in forming and testing coalitions, strategies, interactions and negotiations. In this sense, IATs excise autonomy from traditional belief systems and assumptions and provide alternative and novel perspective for decision making.

Next comes the collaboration and integration. Agents are classified into three systems. Individuals working specifically for the user, collaborative communities that cooperate to achieve a goal and societal that is developed to operate in complex dynamic environment. An important part of agent approach is the principle that agents like human can function more effectively in group that are categorized by cooperation and division of labor. Collaborative IATs may also provide transparency across customer relationships and sales incentives.

Reward systems could be integrated in the process. Furthermore, collaborative IATs can gather and synthesize information for proactive marketing and future orientation. The information can also be used to design future strategies and elaborate the existing models to improve decision making. Now we will look at the classification of marketing IATs. As IATs are relatively new, marketing applications appear only in a piecemeal fashion. A new research systematically breaks down the wide array and considering nomenclature associated with IATs into easily recognizable groups from a marketing perspective.

IAT characteristics as we have discussed are integrated with four marketing concepts or objectives of the firms to classify IAT appropriately in the marketing context. So the four marketing objectives considered for this classification are, one is market governance, second is customer orientation, optimizing marketing mix, customer heterogeneity, the third is competitor orientation, maximizing competitive opportunity and the fourth is learning orientation. Let us take a detailed look at the IATs from the competitors orientation being used by brands to gain competitive advantage. Now let us look at the classification of marketing IATs through the competitive orientation.

So the first is competitive intelligence agent. Competitive intelligence is not limited to gathering information about the competitor's marketing mix from time to time. But it has become a regular activity. It is not about time to time. With companies undertaking it on a formal and dedicated basis. In fast changing product markets, competitive orientation becomes increasingly important for companies to remain competitive and to survive.

So that is to keep an eye on the competitor regularly and always. Markets remain abound of example where a company came with a new product or marketing strategy but quickly lost due to copying of the product or marketing strategy by competitors with deeper pockets and established distribution structures. In such an environment, companies need to answer questions not only regarding the marketing mix of the competitors but also regarding underlying motivations, human and capital resources, channel partnerships and sourcing arrangements. Information needs for competitive intelligence could be classified into marketing mix level that is pricing, promotion, product features, designs and patents. Competitors' internal, sales statistics, cost data, manufacturing facilities, capacity, research and development and financing and competitors' strategic that is expansion plan, key executives and sourcing strategies.

At the very basic level, IATs can scan the market environment and mine information about competitors' finances and resources which can be gathered from various financial reports and companies' balance sheets at a regular basis and provide important indicators for competitive advantage. Dynamic changes in the product and pricing information can

be obtained by IATs through monitoring competitors' websites, detecting changes and analyzing patents. So, here they are taking data from the companies' report and here they are scanning the websites and detecting changes. Other important aspects of competitive intelligence and analysis involves understanding competitors' sourcing and channel strategies. For example, IATs may analyze the communication patterns of competitors with suppliers, search keywords and conduct content analysis of communications to recognize and understand patterns of communication and related activity.

These may be difficult and may require continuous scanning and analysis of online communication. The second is competitive analysis agents. Social media, blogging related communication and collaboration activities, social aspects play important roles in enhancing business performance because they increase consumer insights and integrated marketing communications. The classical face-to-face word of out communication model might be translated and adapted to a just based network and word of mouth communication. Competitive analysis agents collect competitive intelligence and also employ game theoretic strategies and tactics to respond to the competitors' move.

Firm performance depend on its sources of sustainable competitive advantage. For example, better competitor information will result in better and timely responses to competitors' moves and higher performance. In knowledge based environments, market sensing and market orientation become key firm resources for both tangible and intangible firm performance. Competitor orientation, IATs and the summary are discussion on competitor orientation based classification of intelligent agent technologies through the lens of competitive intelligence and analysis agents can be summarized contextually to give 5 competitor agents being used by the brands. The first is competitors intelligence agents, active business, competitors analysis agents, memory based reasoning in real time, Kora, NetBase and Deep Blue.

Competitors, response agents understanding and proactively preempting or responding to competitors' strategies and tactics in real time, Lending Tree and Deep Blue. The fourth is competitive decision making agents. Real time price comparisons and price tactics evaluation and responses, for example Price Watch. And the fifth is competitive collaborative agents, threats, Masquedate Trust, BDI system, so that is RIDS and NED. So in order to conclude, we have discussed how AI is being used to address competition using machine learning and other technologies especially in safeguarding the brand.

Then we have discussed the relevance of brands in AI age through the lens of various generational cohorts. And then we have discussed the strategy by KPMG for gaining competitive advantage. We then studied the concept of intelligent agent technologies and discussed the various agent characteristics. We finally discussed about the different



types of marketing IATs with competitor orientation and how they act as a source of competitive advantage for brands in the AI age. And these are the 7 sources from which material for this module was taken. Thank you.