**AI FOR DIGITAL MARKETING**

Dr. M Jithender Reddy

Assistant professor

Dept. of CSE

Vasavi College of Engineering, Hyderabad.

E-Mail id : [jeethreddy1@gmail.com](mailto:jeethreddy1@gmail.com)

ABSTRACT : In this chapter, we will tell you the various Artificial Intelligence **(**AI) technologies available to do the digital marketing in this era. And also we will provide the available AI applications for marketing. Data comes to the desk from various sources. Handling of this data is tough job is the managers. How do managers use this data for competitive advantage. AI uses this data for perfect management. There is no doubt to say Artificial intelligence is becoming more mature and advanced than any time. In fact, it is an umbrella term to describe how machines and computers can be taught to mimic human behavioural patterns. While AI is commonly thought of in terms of chatbots, it encompasses a wide range of technologies. AI is now capable of everything from assisting in content development to advertising strategies and predicting consumer behavior. AI isn't a substitution for human insights, but it can be a priceless partner when utilized accurately. Marketers can glean insights from AI to automate processes, re-strategize their campaigns, and increase overall Return on investment (ROI).

Keywords : Digital Marketing, Data, Machine, computer

1. INTRODUCTION

Artificial intelligence always seeks to minimise mistake and difference while also mathematically and practically maximising certain operations. The methods used to gather information and carry out actions are the only differences between the many fields of artificial intelligence: Robotics gathers data via sensors (such as optical, ultrasonic, etc.), whereas machine learning uses data. Robotics uses search engines for machine learning and actuators (electric motors or other electromechanical devices) to carry out tasks. However, the fundamentally identical techniques are employed to eliminate mistakes and optimise functions. The same concept, used differently. AI enables marketers to work more efficiently. Natural language understanding, picture recognition, emotion analysis, and biometrics are a few examples of AI technology. There are several chances offered by this material that not only offer greater insights but also lessen the intrusion and distraction of advertisements.

Recent studies demonstrate the value of AI in marketing expenditures and corporate development plans. Artificial intelligence develops knowledge based on the analysis of data sets, a process supported by algorithms that instructs the machine how to carry out tasks and understand the details. Because AI can quickly and accurately make judgments based on data, it would become increasingly relevant. AI has made it possible for digital marketers to fully utilise their data, improve and modify their campaigns and spending connected to content marketing, lead generation, email marketing, and other areas.

To understand how AI and machine learning will affect digital marketing in the future, it is important to understand how it has progressed so far. The first set of algorithms used in content curations was simple, judging the various webpages based on their popularity. However, based solely on popularity the results for the search queries often were unreliable, resulting in the promotion of spam and fake news, for instance, the linking of the phrase miserable failure to the American ex-president Bush [2]. The next major change in these algorithmic ranking was the inclusion of relevance as a criterion. The integration of relevance as a criterion seems to have smoothed out the kinks in how webpages are ranked and what results from a search query, at least to some extent [2]. But this is not the endpoint for algorithms. The development of algorithms seems to be directed towards the goal of understanding human behaviour persistent in digital media activities. We already experience how algorithms can follow our activities and curate the content we see based on the best possible understanding of our behaviour, an upgrade from the simplistic way in which webpages are ranked in a search engine. Examples of these can be found in the newsfeed of any social media app such as Facebook or Twitter, as well as in the search results from any of the search engines [4]. However, there is still one major obstacle in reaching this goal – the ability to develop an algorithm that can understand behavioural quirks of the user, the key to which lies in AI.

A critical feature that humans bring to the table with targeted marketing is the emotional understanding of behaviour. Most algorithms that are employed in the public sphere extract data and formulate trends based on big data [1], however, an important aspect of marketing is thick data or the emotional/behavioural data. This “human” component of data is not readable by the algorithms and it proves to be one of the biggest limitations in producing fruitful results from data analysis 100% of the time. AI is the key to overcoming this limitation because AI algorithms can have more direct interaction with users. Using these interactions, it is possible that algorithms can be developed so that they are self-evolving. If this could be achieved in the foreseeable future, AI can be used for more than just content production. Its understanding of human behaviour can be used to decide when and how frequently we ads for particular products, in addition to the actual content of those ads. With an advanced AI, digital marketing can be curated for micro-groups and may even go as specific as creating content specifically for a family or even an individual. Future developments may bring in certain aspects of human emotion behind each search query but at present that is not the reality. Machine learning and AI are certainly developing and becoming more complex with each upgrade. The coding that runs the algorithms embedded in AI and machine learning is still very much dependent on numbers as engineers and coders haven’t found ways to embed human emotions into codes (Moz, 2017). As for the future of AI and machine learning, the primary goal is to create algorithms that are independently evolving. Algorithms that are strong enough to interpret and understand at least the most basic levels of human emotion to predict changes in trend based on behavioural responses in conjunction with big data gathered from the users.

**2.0 AI and Digital Marketing**

The creation of intelligent robots capable of doing tasks that typically require human intelligence is the focus of the vast topic of AI in computer science. The phrase typically refers to the objective of creating systems with human-like cognitive abilities, such as the capacity for reasoning, meaning discovery, generalisation, or experience-based learning. AI development is still under progress. But the beneficial effect is now discernible. AI can think, read, and act almost like humans do when educated with a large data set. Although AI is capable of doing any task, it is most commonly used for robotics, speech recognition, and picture recognition. Artificial intelligence is transforming several industries. Brands operate in a variety of sectors, from retail and banking to technology and artificial intelligence. Artificial intelligence is now being used by brands to interact with their audience. Incorporating conversational marketing into their daily life is an experiment.

In ways that humans are unable to, machine learning enables an in-depth examination of complicated data sets from data management platforms, data warehouses, or other repositories by using algorithms. This helps business intelligence and forecasting.

By examining in-store interactions, past purchases, referral sources, and geo-specific behaviour, AI may assist marketers in creating a 360-degree image of their consumers so that they can tailor their content and promotions to suit them. Marketers can help by automating the lead generation and scoring process with the use of machine learning and predictive analysis. They also assist marketers in keeping customers motivated by foretelling turns: by analysing customer interactions with marketers, they may tell when a customer is ready to lose interest.

Brands will then utilise emails and updates to try to re-engage certain people. It is indisputable that social media has an influence on digital marketing. Social media is an essential part of every marketer's toolset since it has a proven track record of boosting a company's marketing endeavours. AI may enhance marketers' capacity to take into account and assess the impact of these organic encounters, which may be crucial to their overall success. Through programmatic advertising, platforms for optimization, and measurement, AI automates the time-consuming media procurement cycle and makes sure that adverts are viewed by the intended consumers. AI is assisting marketers in evaluating, tracking, and assessing the results of marketing campaigns with essentially no human input.

**3.0 Artificial Intelligence and SEO**

One area where AI is having the largest impact is search engine optimization (SEO). Site accessibility is directly impacted by machine learning, and this influence will only grow in the future. Despite being finished, technical SEO is not yet extinct. The data structure, schema implementation, AMP implementation, and voice search improvement will be the areas of emphasis for the SEO professionals.

AI assists marketers in enhancing the user experience on websites by analysing data on individual users' behaviours to personalise content, promotions, and warnings. According to a survey by Evergage, 63% of advertisers that used AI on their websites reported greater conversion rates, while 33% said that customer relations had improved.

Although chatbots are theoretically part of the customer experience, they have altered marketing to the point where they now require their own specialised content. For dozens of international firms, AI-enabled bots effectively provide customer assistance using machine learning and natural language processing.

In the field of content, AI has a wide range of applications. AI-enabled tools and platforms may write content without human input using well-defined rules and formats, such as business reports, product evaluations, stock market reports, and sports recaps. By establishing the standards and conventions, marketers will control the tone and style that the material adopts.

One of the best marketing tactics still in use is email marketing. Customers love receiving weekly promotional emails 61% of the time. Email marketing is now much simpler thanks to AI, for both you and your clients. Based on the subscribers' prior brand encounter, AI may utilise files to create personalised emails for each of them.

**4.0 Uses of AI in Digital Marketing**

Traditional marketing methods like media advertising and direct mail are no longer as effective as they once were. Today’s consumers expect brands to tailor messages to their location, demographics, or interests.

Personalized marketing messages have a higher chance of being interacted with by consumers. Emails with customised subject lines are 26% more likely to be opened, according to Experian data. In addition, 79% of customers claimed they are only inclined to use brand promotions if they are particularly catered to prior encounters in a global survey by Marketo.

Instead of the general target groups on which marketers previously depended, AI enables marketers to customise their messaging on an individual level.

Based on knowledge gained from earlier brand contacts, this technology forecasts consumer behaviour. As a result, marketers may distribute content and marketing messages at the most effective periods to drive conversions in order to maximise lead-to-sale conversion rates.

Customers now often use Facebook Messenger, WhatsApp, and other messaging applications to communicate with businesses, but maintaining active customer care workers on these accounts may be expensive.

Some businesses are already adopting chatbots to deal with frequent customer inquiries and deliver rapid responses at any time of the day or night in an effort to decrease burden and provide consumers a quicker response. Chatbots can be trained to offer predetermined responses to frequently requested queries and to forward inquiries that are too complicated to a human agent. In other words, customer service time is cut down and burden is lightened, freeing up the agents to handle discussions that require a more personal response.

**5.0 Conclusion**

AI holds tremendous potential to shift the entire marketing landscape. As it is already proven to be extremely useful for producing an impactful ROI, even in its relative infancy period. Artificial intelligence solutions can provide us opportunities to develop, make our job simpler and more enjoyable. Marketers should be able to concentrate on the strategic, imaginative elements of their work and it depends on educating marketers themselves so they can help their companies invest in smart solutions. Digital marketing is one of the most efficient ways to reach target demographics as well as to create advertisements tailored for the users. This kind of targeted marketing was possible due to the development of algorithms that could identify activity trends in the online behaviour of several users based on the large amounts of data collected from each user. This was achieved through the development of various algorithms that support applications or programs such as machine learning and AI.

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