



## THE RISE OF ARTIFICIAL INTELLIGENCE IN MARKETING: THE NEXT FRONTIER

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### ABSTRACT

Marketing has been significantly impacted by artificial intelligence (AI), which has begun to change many facets of our personal and professional life. The application of artificial intelligence in marketing is revolutionising how consumers are reached and engaged. AI may assist marketers with performing better across a range of tasks, including data analysis and programmatic advertising. In the past few years, it has become crucial for companies to be cognizant of and acknowledge customers' expectations and needs for both products and services which is the prime agenda of this study is to bring to the light how various AI technologies are changing the landscape of marketing. The data used for this study were gathered from secondary sources, which included a thorough examination of published research papers, official documents, scholarly journals, and trade publications. The purpose of this research is to examine the entire idea of applying artificial intelligence to marketing. It goes into detail about the positive aspects of using AI in marketing and how it is changing the industry in terms of new trends like chatbots, voice and visual search, VR and AR, and many more. AI's necessity in marketing is demonstrated using instances from actual companies in the real world. The reader will have advanced knowledge of modern approaches to marketing after reading this paper. The reader will also gain a thorough understanding of modern Artificial Intelligence Marketing techniques as well as a comprehensive understanding of the AIM field.

**Keywords:** Artificial Intelligence, Emerging trends, Consumer, Marketing.

### 1. INTRODUCTION

Artificial intelligence is now widely used in all areas of our life. When combined with marketing, artificial intelligence may successfully revolutionise conventional marketing strategies and raise the standards for the field of marketing as a whole. AI is not new, despite how novel it may sound. The term itself originated in a proposal made in 1956 by a select group of computer scientists and mathematicians who planned a summer workshop known as the "Dartmouth Conference" (Chintalapati & Pandey, 2022). They described AI as the capacity of machines to interpret, logic, and learn in a way that is comparable to that of humans, demonstrating the capacity of computers to imitate human intelligence. The idea of AI today goes well beyond what humans are currently capable of, and it is also a key component of the fourth technological revolution in human history (Mr, 2021). Additionally, artificial intelligence may be divided into two sub-groups.

**STRONG Artificial Intelligence:** The machine learning that can be used in a variety of different fields and that can link those distinct fields to one another. This type of AI is able to learn, interpret its concepts, and be intelligent in a variety of domains by correlating them. The e-commerce websites leverage this knowledge.

**WEAK Artificial intelligence:** It is the result of machine learning, which is limited to a single field and only uses its intelligence there, without relating it to other fields. In GPS, for example, machine learning is used (Khokhar, n.d.). Modern business functions have undergone a significant transformation as a result of artificial intelligence (AI) development and marketing is one of the most important areas where AI is being used mainly because it helps to improve performance. With the advent of internet a large volume of data is generated every single minute for a business and thereby large-scale data analysis has becoming a standard practice in the marketing industry. Artificial intelligence and machine learning have started to influence business processes. Personalization, forecasting, and automation are the major innovative marketing megatrends that artificial intelligence is advancing. In order to build useful

competencies, marketing executives should primarily concentrate on these areas. Automation is the process of using technology to assist humans in making decisions by generating recommendations. Automation includes things like dynamic pricing and product recommendations. Forecasting is the creation of models for future events by identifying trends in previously recorded data. These forecasting systems are flexible because they continuously learn from and integrate fresh data (Khokhar, n.d.). The continuously evolving innovations and improvements in AI, which are causing excitement in the field of marketing, as well as the high adoption rate of AI in the sector, make the AI in marketing even more fascinating for future research. Furthermore, by enhancing, creating, optimising, and sharing value, AI benefits marketers, consumers, and society at large in a positive way, necessitating the need for additional literature to highlight the significance of AI in marketing. Looking at this growing need, this study aims to study the emerging trends and technologies in artificial intelligence in the field of marketing and also the numerous applications of these technologies in the diverse areas of marketing from product development to distributing to the customers to even providing after sale services. Along with this the study also discusses and shows with specific examples how the giant companies are making use of artificial intelligence in boosting marketing efforts and thereby increasing their sales. But there is also the other side of the coin as well which is the issues and challenges that AI comes with which are also discussed further in the study.

## 2. LITERATURE REVIEW

The quick adoption of AI by businesses and the growth of AI have demonstrated marketers' efficacy, which has profoundly altered the nature of marketing. Big data analysis, machine learning, and other technologies have demonstrated that the environment created by AI may acquire insights into the hearts of consumers. As a result, marketers can now better understand their target audiences (Nanayakkara, 2020). AI marketing is a strategy for maximizing the use of technology and consumer information to improve the customer experience. There are several applications of AI Marketing exist, including AI-enhanced ad-targeting, website customization, chatbots, email content generation, churn forecasts, dynamic pricing, customer analytics, automatic speech and picture recognition, business projections, and more (Jain & Aggarwal, 2020). Artificial intelligence and computer instruction are the two major advancements in marketing. It provides exceptional chances for telling stories and advertising. The way that people and information, technology, brands, and services are connected will change. Advertising agencies will need to change their campaigns to fit into the current digital economy by using artificial intelligence technology (Mr, 2021). AI can improve consumer satisfaction by automating customer care services, which will additionally help organisations cut costs. Before determining how big of an influence the adoption of AI in customer support service apps can have from a global standpoint, it is important to grasp the research viewpoints (Devang et al., 2019).

AI is used to personalise the user experience and raise consumer happiness. In addition to predicting customers' requirements, ML algorithms may be used to identify groups of consumers who appear to be similar, enabling businesses to target precise personalised offers (De Mauro et al., 2022). Recent advancements in segmentation, targeting, and positioning (STP) research have mostly focused on issues related to dealing with a company's customer base through factors like demographics, psychographics, geographic considerations, and behavioural segmentation, which seem to be the fields in which AI provides crucial assistance. One of the finest examples of AI's strength may be seen in the right suggestions that Google's algorithms can provide based on millions of unintentionally produced wrong inputs (Vlačić et al., 2021). AI technology advancements are improving the capacity of an increasing number of businesses to gather, store, analyse, and use a wide range of consumer information. Human-machine interaction and automated analysis of text, audio, pictures, and video have been investigated in relation to the worldwide implications of this technological breakthrough at three separate levels (country, company, and consumer). Consumer-level issues regarding ethics and privacy are being raised by AI technology, and this is the one that has to be taken into account. As a result, there is a greater need for legislation, education, and training (Kopalle et al., 2022). Marketing managers may benefit from using artificial intelligence (AI) for a number of functions, including for the generation of leads, research on markets, social media management, and consumer customization (Shaik, 2023).

## 3. RESEARCH QUESTION/PROBLEM STATEMENT

- i. To comprehend how AI is changing the landscape of marketing?
- ii. To figure out if businesses should use these AI-powered tools for their marketing and sales, or whether this is merely a trend that is temporary?

#### 4. RESEARCH OBJECTIVE

The purpose of this study is to draw attention to how artificial intelligence is nowadays increasingly being used by companies in marketing to boost the efficiency of marketing plans and strategies and, in turn, sales. To accomplish these goals, the research aim has been split into three parts:

- i. To identify the key technologies of artificial intelligence which are being used in marketing.
- ii. To study the applications of marketing technologies in artificial intelligence.
- iii. To discuss the opportunities and challenges associated with the use of artificial intelligence in marketing.

#### 5. RESEARCH GAP AND RESEARCH PROBLEM

Organisations across all industries and countries are utilising artificial intelligence (AI) technologies at every stage of the marketing. However, no research has yet been done on the significant benefits that these organisations have experienced from deploying AI. It is not obvious if other organisations should use AI and take the lead in the industry, or disregard this evolving trend. The adoption of AI applications in marketing and the effects they have on the marketing environment require a thorough investigation.

#### 6. RESEARCH METHODOLOGY

To investigate the influence of artificial intelligence (AI) on the marketing landscape, this study employs a secondary source-based research methodology. The data were collected from various sources which included a thorough examination of published research papers, official documents, company's websites, scholarly journals, and trade publications. By integrating these approaches, we aim to gain comprehensive insights into the role and impact of AI in India's marketing domain using existing secondary data and literature.

#### 7. EMERGING TRENDS IN ARTIFICIAL INTELLIGENCE FOR MARKETING

Change is the only constant in life. And right now, the marketing industry is seeing a significant upheaval. With the introduction of intelligent marketing tools and generative AI like ChatGPT, artificial intelligence (AI) marketing is playing a larger role and providing a wealth of chances for marketing professionals to do more of what they're good at. This is a crucial benefit for marketers. Artificial intelligence (AI) technologies like natural language processing (NLP), machine learning (ML), sentiment analysis, and many others helping companies to make such decisions which are helping them to stay one step ahead of the. Let's have a look at the latest developments in artificial intelligence and how marketers are utilising them to their fullest potential.



**Figure 1:** Emerging trends in the Artificial Intelligence Marketing. Author sourced

##### 7.1 Chatbots

Hi..How may I assist you? We have all seen this claim in a small chat box on websites, and when we respond, the response comes back to us right away. Have we ever questioned what this is and how it works. So let's examine the underlying technologies.

A chatbot is a computer programme that functions as a colloquist between a user and the bot. It is a type of virtual assistant that has gained enormous popularity in recent years, largely as a result of significant advancements in

artificial intelligence, machine learning, and other foundational fields like natural language processing and neural networks. These chatbots can successfully converse with any person using engaging questions (Gupta et al., n.d.). These chatbots use interactive questions to efficiently converse with any human. Recently, there has been a significant increase in the number of cloud-based chatbot services that have been made accessible for the growth and enhancement of the chatbot industry which are shown in the following table.

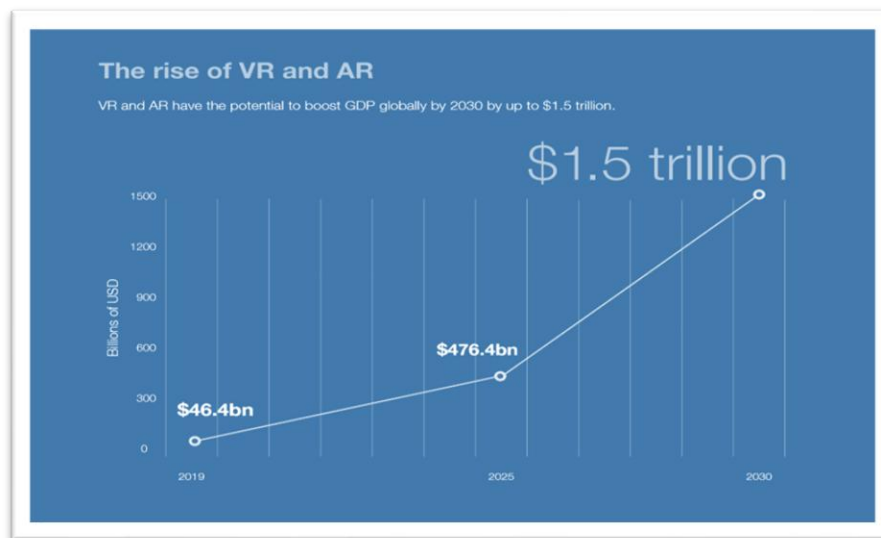
**Table 1: The Evolution of Chatbots**

Chatbots	Company	Year	Purpose
GPT-3 Chatbot	OpenAI	2020	Conversational AI and natural language tasks
Woebot	Woebot Labs	2017	Mental health and emotional well-being
Bold360	LogMeIn	2017	Customer engagement and support
Pegg	Sage	2016	Small business financial management
Google Assistant	Google	2016	Voice-activated virtual assistant
Ada Support	Ada Support	2015	AI-powered customer support
Xiaoice	Microsoft	2014	Voice-activated virtual assistant
Amelia	IPsoft	2014	Enterprise AI assistant
Amazon Alexa	Amazon	2014	Conversational AI and social chatbot
IBM Watson Assistant	IBM	2011	Customer support and personalized services
Siri	Apple	2010	Voice-activated virtual assistant
Mitsuku	Pandorabots	2005	Conversational AI and entertainment
LivePerson	LivePerson	1995	Customer engagement and support

Source: Author sourced

## 7.2 Virtual Reality

“Virtual reality is the use of computer technology to create the effect of a three-dimensional interactive world in which objects give the impression of being physically present. VR allows the user to interact with an alternative reality and to immerse themselves in the virtual world. Virtual reality design consists of multimedia that creates an image of the real or fictional world, objects, space, or events.” (Stecula, 2022). Virtual reality produces an actual fully immersive simulation of a world that engages a number of senses, which users may access via VR headgear or applications. VR may be used, for example, to apply a filter on a picture or a video. Consider the filters on Snapchat and Instagram. In the meanwhile, virtual reality headsets may "transfer" users into a 3D virtual environment, improving the simulation experience. The user may gaze about in the virtual world (360-degree view) and connect with the many digital components of the simulation since the headgear reacts to their motions (Mileva, 2022).



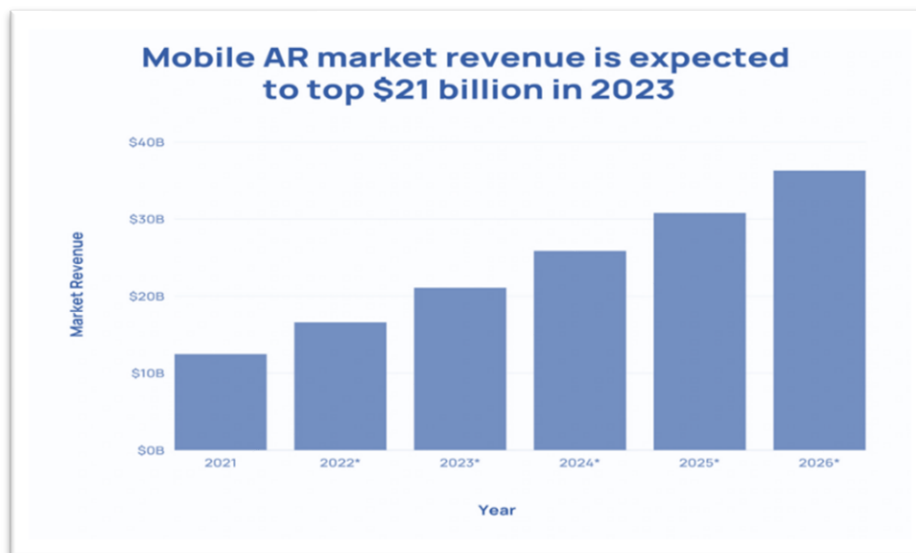
**Figure 2:** Representation of expected growth rate in virtual reality and augmented reality from 2019 till 2030.

Adapted from (*Seeing Is Believing*, n.d.) <https://www.pwc.com/seeingisbelieving>.

Even if virtual reality isn't a brand-new innovation, its use is anticipated to increase over time, along with that of other digital innovations like augmented reality. According to PwC, VR and AR have been estimated to increase the world's gross domestic product to USD 1.5 trillion by 2030. The technology of virtual reality is already a reality and is quickly gaining popularity. Virtual reality is predicted to develop at an annualised compound growth rate of 15% over a ten-year period (2022 to 2030), with a total market value of more than 28 billion United States dollars in 2022 (Mileva, 2022). Virtual reality marketing has a promising future as it can be anticipated seeing an increase in the number of companies employing VR to reach their target consumers as the technology gets more accessible and less expensive. Virtual reality is now increasingly utilised to hold online trade exhibitions and product launches. This is potentially an excellent way to engage users and reach a worldwide audience.

### 7.3 Augmented Reality

With the advent of this technology, companies have started leveraging it by integrating augmented reality technology in their marketing content. "AR presents digital information, objects, or media in the real world through a mobile device or headset. These elements can appear as a flat graphical overlay or can behave as a seemingly real '3D' object." (Andres, 2021). In light of these current developments, retailers have started to make use of cutting-edge technology, such as augmented reality (AR) advertisements, to broaden consumers' awareness of a brand or product and to improve their in-store shopping experiences. For example, Starbucks used augmented reality in its holiday advertising campaign and allowed consumers to use their cellphones in animating their red coffee cups in order to boost sales of the brand. More recently, in-store marketing through handheld devices has continued to grow in popularity, leading to the creation of new options for how retailers communicate with customers. These options have several advantages, including the ability to remind consumers of specific labels, boost within the store consumption, and increase the intent to purchase (Seeing Is Believing, n.d.).



**Figure 3:** Data representing the growth in mobile augmented reality. Adapted from "How augmented reality affects advertising effectiveness: The mediating effects of curiosity and attention toward the ad," by Yang, S., Carlson, J. R., & Chen, S. (2020) *Journal of Retailing and Consumer Services*, 54. <https://doi.org/10.1016/j.jretconser.2019.102020>

As shown in figure no. 3 it is completely evident that growth of this technology is skyrocketing in near future and companies are making maximum possible of the augmented reality to boost their brand sales as well as attract new customers and retain them. The chart depicts that revenue from the mobile augmented reality market is anticipated to increase to \$21.03 billion by 2023 from \$12.45 billion in 2021 and revenue from mobile augmented reality is anticipated to increase by over \$15 billion to \$36.26 billion by 2026 (Yang et al., 2020).

## 7.4 Natural Language Processing

Natural language processing, also known as NLP, is a particular type of artificial intelligence (AI) that gives computers the capacity to interpret spoken and written words in a manner similar to that of humans (Khurana et al., 2023). NLP isn't really a new discipline; it's been under research since the 1950s, but recent developments have brought us one step closer to creating intelligent machines that can comprehend and react to very intricate as well as subtle information.

OpenAI's ChatGPT is one example, which has gained attention for its uncannily organic and instinctual method of creating convincing and well-written replies to user queries. But even with that, ChatGPT's Natural Language Processing has surprised numerous individuals, particularly writers, because of how fast, simple, and instinctively the machine is capable of generating text with quality that can compete with many beginner copywriters.

Among all the innovations available, Natural language processing has the most potential to alter the field of marketing, with professionals all over globally attempting to determine how to effectively use NLP for their marketing requirements. So let's look into the few uses of natural language processing in the marketing field.

### 7.4.1 NLP powered Chatbots

The NLP chatbot is an AI-driven chatbot that enables people to engage in casual conversations with a machine and quickly get the answers they need. Businesses are always looking for ways to engage with customers in meaningful dialogues amid the cutthroat environment of today. Due to the growing demand for more effective communication platforms, conversational NLP chatbots are gaining importance among businesses (Khurana et al., 2023).

### 7.4.2 NLP driven Customer Sentiment Analysis:

By analyzing customer reviews, social media posts, and other text data, NLP can help businesses understand how customers feel about their products or services. This information can be used to improve customer satisfaction and loyalty (Khoa Dam, 2019).

### 7.4.3 Market Intelligence

Natural language processing may help marketers gain greater insight into their target audience and utilise that information to develop tactics that are more successful. Market research may be greatly enhanced by analysing subjects, sentiment, keywords, and intention in unorganised data, which reveals trends and commercial potential. Additionally, marketers may also do data analysis to pinpoint client problem areas and monitor rivals (by seeing what strategies are effective for them and which ones are not) (Alzubi et al., 2018).

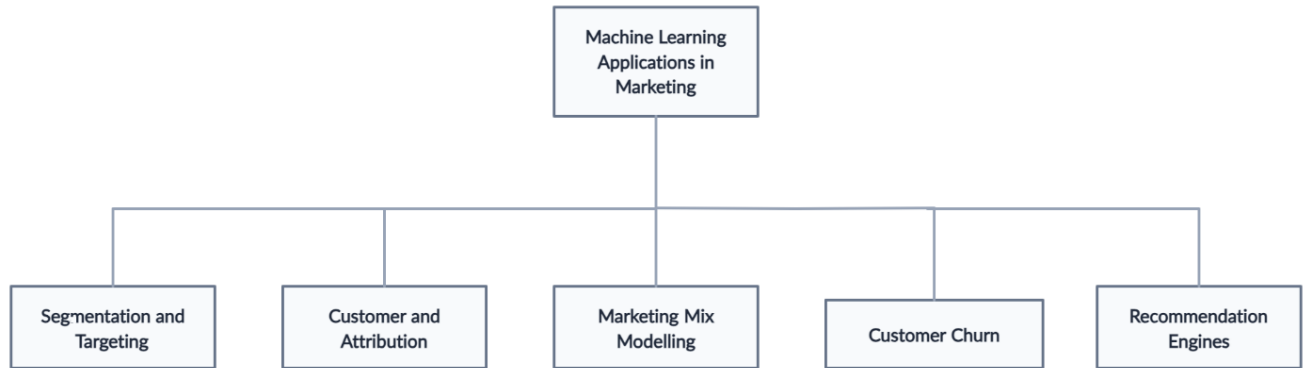
### 7.4.4 Personalize marketing campaigns:

NLP can be used to personalize marketing campaigns by understanding the needs and interests of different customer segments. This information can be used to create more targeted and effective marketing messages. For example, Netflix uses NLP to understand what its users are watching and to recommend new content.

## 7.5 Machine Learning

Machine learning is not a newly developed concept. For more than 60 years, scholars, students, and business professionals have studied, used, and reinvented them. Arthur Samuel was the first to use the phrase in 1959 and first used the term "ML" to refer to a branch of research that allows computers to learn without having to be explicitly programmed (Alzubi et al., 2018). Marketing is one of the industries that has paid a lot of attention in recent years to machine learning (ML) and artificial intelligence (AI) and has discovered that AI and machine learning hold significant potential for making marketing more intelligent and efficient.

A new digital marketing environment has just begun to emerge as a result of the tremendous growth of information and communication technology in both the public and commercial sectors. As information technology develops quickly, a vast amount of marketing data is collected and leveraged to provide insightful data. Companies must handle and analyse these data using new data-oriented methodologies in order to make smart marketing decisions. Machine learning (ML) may be used to forecast customer behaviour and enhance marketing decision-making by extracting relevant information from massive volumes of produced data. As a result, the marketing industry has paid close attention to the applications of machine learning (ML) and artificial intelligence (AI).



**Figure 4:** Applications of Machine Learning in Marketing. Author sourced

- Clustering algorithms of machine learning is used to group customers together based on their shared characteristics. This can help marketers to identify different segments of their customer base, each with its own unique needs and interests.
- Machine learning is used to analyze customer journeys and identify the touchpoints that have the most influence on conversions. This information can be used to optimize marketing campaigns and improve the customer experience.
- This technology is used to analyze historical data on customer behavior to identify patterns that may indicate churn.
- It is a powerful tool that is being used to improve the accuracy, personalization, and efficiency of recommendation engines. By using machine learning, companies can deliver more relevant and engaging content to their customers, which can lead to increased sales and customer satisfaction.

## 7.6 Voice And Visual Search

Voice search is a technological innovation that underpins many spoken dialogue systems (SDSs) that offer customers the information that they seek via a spoken inquiry. The information is usually stored in a huge database, and the inquiry must be compared to a field within the database to acquire the relevant information (Wang et al., 2008). Voice search is yet another AI tool, though when it comes to marketing, it's about utilising the technology built by the main companies (Google, Amazon, and Apple) rather than developing your own. A brand that uses voice search extensively might benefit from significant increases in traffic from organic searches from customers who are highly motivated to make purchases. Voice search will impact future SEO techniques, and brand marketers must adapt Seligman, J. (2020).

Recent years have seen a rise in the use of visual search, which enables users to search using a picture they are uploading from their photo gallery or capturing with their mobile device. Visual search is particularly useful in electronic commerce, as customers look for products to buy. When comparing search by picture to typical text-based search, the former provides a number of potential benefits.

First off, it can be quick and easy to use, like snapping a photo or uploading anything and then starting a search. Second, it is language-independent, which is a quality that is more and more crucial as online buying grows more international (Dagan et al., 2021). Additionally, it is not necessary for users to be familiar with the e-commerce site's vocabulary for the kind of goods they are looking for. Some e-commerce sectors, including fashion, decor for homes, and art, are primarily defined by visual elements that are occasionally challenging, if not impossible, to describe in words.

## 7.7 Predictive Analytics

Another highly effective artificial intelligence tool is predictive analytics, which can be applied to a variety of fields. For example, it can be used to predict whether a particular customer will switch, at what price they will convert, or which customers are most likely to make subsequent purchases Seligman, J. (2020). As it applies analytics data to

predict consumer behaviour, this application is known as predictive analytics. Predictive Analytics is useful to marketers in number of ways, like identifying high value customers, predicting customer churn, optimizing marketing campaigns, personalizing the customer experience and the most obvious predicting the future trends. Though predictive analytics has several uses in the field of marketing but lets try to understand it with its one use which is product development

### 7.7.1 Product Development

By making use of this technology, a company may accurately anticipate which goods are going to be demanded in the future, allowing it to outperform its competition. For example, L'Oréal, the top cosmetics company in the world, employs a consumer intelligence platform powered by AI that Synthesio built to remain on top of fashions in the beauty industry and to supplement its product creation with predictive analytics. L'Oréal is able to forecast beauty trends at least 6 to 18 months in advance of their emergence to keep its position as the market leader in such a cutthroat sector.

## 7.8 Sentiment Analysis

Sentiment analysis, also known as opinion mining, is a machine-generated study of people's perceptions of, and attitudes towards, things like products and services, organisations, human beings, issues, events, concepts, and their features (Sandansing et al., 2020).

Sentiment analysis is the comprehensive analysis of online expressions. More precisely, sentiment analysis focuses on analysing attitudes and views about an area of interest by implementing machine learning approaches. Customer emotions are considered indirect drivers of consumer behaviour when it comes to making purchases. It affects attitudes, beliefs, perspectives, and perceptions while affecting brand saliency. Strong brands, consumption, and the impact of emotions on product assessments have all been linked in the past (Rambocas & Gama, 2013).

Sentiment analysis reveals if our data is related to a positive or negative attitude. While there are several ways to generate sentiment analysis, typical use cases involve figuring out the attitude that is communicated in a document or collection of lines to get a sense of how people are feeling overall. This can be helpful in marketing for determining how individuals react to various forms of communication. For instance, feedback from a chat system could be more unfavourable than response from an email system since email feedback might suggest that the customer is engaged and interested in your business, but chatbot feedback might draw prompt inquiries or help demands.

## 8. HOW COMPANIES HAVE IMPLEMENTED AI IN MARKETING

Since we are all already familiar with the various artificial marketing technologies, let's look at some examples of how companies have actually incorporated these technologies into their marketing strategies and the benefits they were able to achieve which is shown in the following table.

AI Technology	Company	Case Example	Benefits Obtained
<b>Chatbots</b>	Sephora	Sephora's Virtual Artist chatbot uses AI to provide personalized makeup	Sephora's chatbot had more than 10 million interactions within eight months of its launch, showcasing high customer engagement.
	Domino's	Domino's Pizza introduced a chatbot that allows customers to place orders, track deliveries, and get assistance with their inquiries	Domino's reported a 15% increase in their online pizza sales after implementing the chatbot. The chatbot assisted in

			processing over 100,000 orders per day.
	1-800-Flowers	1-800-Flowers' chatbot helps customers order flowers and gifts, providing recommendations based on occasion and recipient's preferences.	1-800-Flowers saw a 20% increase in conversion rates through the chatbot compared to other channels.
<b>Virtual Reality (VR)</b>	IKEA	IKEA's VR app lets customers visualize and explore how furniture and home decor items would look in their homes before making a purchase.	The app resulted in a 35% decrease in product returns, showcasing improved purchasing decisions.
	Audi	Audi offers a VR showroom experience, allowing customers to explore and customize their desired car models virtually	Audi's VR experience resulted in a 60% increase in customer footfall at showrooms.
	Marriott Hotels	Marriott Hotels created "VRoom Service," a VR experience where guests can preview and book excursions to different destinations.	Marriott Hotels reported a 70% increase in bookings for showcased destinations through the VR experience.
<b>Augmented Reality (AR)</b>	Nike	Nike's AR app allows customers to virtually try on sneakers, providing a more engaging and convenient shopping experience.	Nike's AR app resulted in a 32% increase in conversion rates for customers who used the virtual try-on feature
	Snapchat	Snapchat's AR lenses enable users to apply fun and interactive filters to their selfies, promoting brand partnerships and advertising	Snapchat's AR lenses were viewed more than 180 billion times, indicating high user engagement
	Pokémon GO	Pokémon GO utilizes AR technology, overlaying digital creatures onto real-world environments, creating an immersive gaming experience	The game generated over \$1 billion in revenue within its first seven months of release.
<b>Natural Language Processing (NLP)</b>	Amazon	Amazon's Alexa utilizes NLP to understand and respond to voice commands, assisting users with various tasks and providing product information	As of 2022, Amazon has sold more than 200 million Alexa-enabled devices, demonstrating widespread adoption
	Google	Google's search engine utilizes NLP to understand and process user queries, delivering relevant search results and answering questions	Google processes over 3.5 billion searches per day, highlighting the immense scale of NLP-powered search queries
	Apple	Apple's Siri uses NLP to interpret voice commands and perform tasks on iPhones, iPads, and other Apple devices	Siri is actively used on over 1 billion Apple devices worldwide, demonstrating its widespread usage
<b>Voice and Visual Search</b>	Pinterest	Pinterest introduced visual search functionality, allowing users to search for products using images rather than keywords.	Pinterest's visual search feature has been used to search for over 600 million objects daily
	Microsoft	Microsoft integrated voice search capabilities into its virtual assistant, Cortana, enabling users to perform various tasks by voice.	Cortana has been installed on more than 1.3 billion devices, showcasing its widespread adoption

	Google	Google integrated voice search into its search engine, enabling users to perform searches using spoken commands.	Over 20% of mobile searches on Google are made using voice search
<b>Machine Learning</b>	Netflix	Netflix leverages machine learning algorithms to personalize content recommendations based on users' viewing history and preferences	Netflix's recommendation algorithm saves the company an estimated \$1 billion per year in customer retention
	Spotify	Spotify employs machine learning to curate personalized playlists for users based on their listening habits and preferences.	Spotify's Discover Weekly personalized playlist has been streamed over 2.3 billion times, increasing user engagement and satisfaction
	Amazon	Amazon utilizes machine learning for its product recommendation engine, suggesting items based on customer behavior and purchase history	Machine learning-powered recommendations on Amazon account for 35% of the company's total revenue.
<b>Sentiment Analytics</b>	Twitter	Twitter analyzes user tweets and interactions using sentiment analysis to gauge public opinion and sentiment towards brands and topics	Sentiment analysis on Twitter has been used to predict stock market movements with 87% accuracy
	IBM	IBM's Watson provides sentiment analysis capabilities, helping companies analyze customer feedback and sentiment across various channels	IBM's sentiment analysis tools have been used to analyze over 100 million social media posts.
	Salesforce	Salesforce offers sentiment analysis features to help businesses understand and analyze customer sentiments expressed in reviews and feedback	Companies using Salesforce's sentiment analytics observed a 20% increase in customer retention rates.
<b>Predictive Analytics</b>	Target	Target utilizes predictive analytics to identify customer purchasing patterns and make personalized product recommendations and offers	Target achieved a 50% increase in sales through personalized recommendations driven by predictive analytics
	Amazon	Amazon leverages predictive analytics to forecast customer demand and optimize inventory management, ensuring timely product availability	Predictive analytics contributed to a 15% decrease in stockouts for Amazon
	Walmart	Walmart employs predictive analytics to optimize pricing and promotions, offering personalized discounts to customers.	Walmart achieved a 10-15% increase in sales through the use of predictive analytics for pricing optimization.

Source: Author sourced

## 9. FUTURE OF AI

The term artificial intelligence (AI) has been in vogue for a long and isn't going away anytime soon. By 2023, it is anticipated that investment in AI would total \$97.9 billion, according to research by the International Data Corporation (IDC). It indicates that companies from many sectors use AI technology to enhance their processes, acquire a competitive edge, and then unlock fresh opportunities. But there are also specific issues raised by the growing use of

AI that need to be resolved. Let's discuss the future of artificial intelligence in terms of the opportunities it offers and the challenges it poses.

### **9.1 Opportunities Of AI for Marketing**

One of the most significant opportunities for AI in marketing is personalization. In order to develop personalized messages and experiences, marketers may analyse tremendous amounts of customer behaviour and preference data using AI-powered algorithms. Predictive analytics is a further area in which AI may be used in marketing. By examining customer data, AI computers may find trends and forecast future behaviour. With the use of this data, promotional campaigns may be customised for the best possible outcomes and targeted at specific customers with relevant offers and content. Another area where AI is having a big influence on marketing is chatbots. They may be used to respond to client inquiries, offer assistance, and even sell goods and is available 24/7 for the customers.

Finally, AI is also boosting the efficiency of marketing automation. Using software to automate processes like lead generation, lead scoring, and client retention is known as marketing automation. By figuring out which customers are most likely to convert and personalising the messages that are sent to them, AI may be used to increase the accuracy of marketing automation. Overall, AI provides a wide range of potential for marketers. AI can help marketers design more individualised, pertinent, and successful marketing efforts. This may result in greater consumer interaction, better brand recognition, and higher sales.

### **9.2 Challenges Of AI for Marketing**

Marketers that apply artificial intelligence face challenges such as data quality, bias, privacy, cost, skills, a lack of knowledge, integration, and regulations. Data quality is critical for AI algorithms to function properly. The findings of the algorithms will be wrong if the data is not accurate or full. This can result in a loss of time and money, as well as missed opportunities. Another issue is that AI systems might be biased, reflecting the biases in the data on which they are trained. As a result, certain groups of individuals may be treated unfairly. It is critical to properly monitor AI systems for bias and take corrective actions. Privacy is also an issue for marketers that use AI. Large volumes of personal data are frequently collected and used by AI systems. This information may be used to follow people's movements and target them with advertisements. It is critical, to be honest about how data is gathered and utilised, and to acquire people's consent before collecting their data. Another issue is that AI may be costly to create and maintain. For small firms and organisations with little resources, this might be a hindrance. To employ AI efficiently, skills are also necessary. To comprehend and apply AI algorithms, marketers must have a certain amount of technical knowledge. This might be difficult for firms that lack in-house knowledge. Despite these challenges, AI is a powerful tool that can be used to improve marketing results. By carefully considering the challenges and opportunities, marketers can use AI to their advantage.

## **10. CONCLUSION**

In recent years, Artificial Intelligence (AI) has gained significant popularity, which, if properly harnessed, has the potential to deliver on various application areas throughout the globe. In a nutshell, AI technology brings both immense opportunity and major challenges for organisations and society as a whole. Individuals and organisations must work together and commit to the proper development and application of AI technology. By solving AI's problems, we can realise its full promise and guarantee that technology is employed in a way that benefits everyone. In conclusion, it can be said that businesses should embrace artificial intelligence (AI) technology in their marketing efforts since these technologies have the potential to help organisations in a variety of ways, including automating processes, personalising content, analysing data, and anticipating consumer behaviour. The development of AI is expected to increase security concerns, and the ongoing discussion over privacy vs personalisation is expected to touch on increasingly delicate marketing issues. The AI technologies has wider opportunities in future as the rate at which this transformation takes place will change the overall environment of marketing in the academic, scientific, and business worlds. Businesses will need to regularly train their staff when new technologies are introduced. Working with AI will soon become necessary for survival, and is no longer thought of as science fiction. Marketing professionals need to understand how to improve and adapt their skills for AI and robots if they want to be prepared for the near future. The current state of affairs is both fascinating and alarming. The marketing landscape is changing and will eventually completely shift due to artificial intelligence (AI).

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