



A study on the role of Artificial Intelligence in Digital Marketing

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1. ABSTRACT

There are lots of advantages of digital marketing which enables marketers to reach customers at low cost over traditional marketing. Digital marketing is playing vital role in growing business. In marketing AI is also playing vital role through more intelligent search's engine, chatbots, personalization, programmatic advertising, creating and generating content, web designing, email marketing campaigns, dynamic pricing, predicting customer behavior etc. Artificial intelligence enables businesses to gain a clear and precise understanding of their customers' needs, enhancing their sales and revenues. This paper focuses on the application areas of artificial intelligence in digital marketing environment and the impact of artificial intelligence in digital marketing world. Artificial intelligence enables digital marketers to gain a clear and precise understanding of their customers' needs, enhancing their sales and revenues.

Keywords: Digital Marketing, Artificial Intelligence, AI, Marketing, chatboats, AI tools

2. INTRODUCTION

Today many technologies are making our world smarter by automating tasks, computing solutions, and improving efficiencies. Artificial intelligence is one of them. Artificial intelligence is a technology that enable computers or machines as intellectual as humans, able to perform activity is associated toward those performed similar to the human brain (Dr N Thilagavathy, 2021).

Artificial intelligence is playing vital role in our lives but sometimes we are unaware about that. A small example of AI is if you drive a car to your office, you may not reach on time because of traffic. AI is helping to reduce your travel time by putting real-time traffic data into software so that you will be aware about congestion, accidents etc. AI also enables you predicting pick-up times, ride times, and ride-sharing when you use ride sharing app.

AI is also ubiquitous in your daily online activities if you use SIRI, Google, email, Facebook, Alexa, Amazon, Instagram, Netflix, Pandora, and countless other technologies. We are really dependent on such technologies. Yes, absolutely AI is everywhere.

AI also entered in digital marketing domain working in background. User gets better feeling of digital marketing in the field of pay per click advertisement, personalizing websites, creating content, predicting behavior and many more. Sellers have realized the advantages of this technology and many organizations are implementing and expanding the use of AI and machine learning. Organizations can use AI in two ways to enhance digital marketing. One is businesses use AI to forecast demand for product, develop customer profile at backend and other is to improve the customer experience, thereby strengthening the brand and making more sales (Sasikumar, 2022). AI technology can help to optimize and speed up many different marketing tasks, improving customer experiences and driving conversions. But many marketers still do not understand the benefits of AI over traditional marketing software. (Brenner, 2020)

Digital marketing refers to doing advertising, marketing, and promotion using digital channels such as website, social media, and email or search engine. Using these digital channels organizations can reach to their customers. There are various types of digital marketing such as content marketing, SEO, social media marketing, email marketing, affiliate marketing etc. Traditional marketing use offline methods like billboard, print

ads etc. to create awareness, for promotion or to sell products or services, while digital marketing use digital channels. There are lots of advantages of digital marketing which enables marketers to reach customers in low cost. Digital marketing offers cost effective marketing strategy where marketer can set budget, bid for ad space and control over how much you spend. Digital marketing also offers advanced targeting and personalization option where marketers can use targeting options like age, gender, location, interest, marital status, hobbies, device and many more. Creating personalization experience for users via email marketing campaign or social media marketing or pay per click advertisement can leads to better marketing results. Digital marketing also helps in campaign tracking and measurement. In traditional marketing it is quite difficult to track marketing efforts and to measure performance. In contrast in digital marketing, it's easy to track the performance and results of digital marketing. Google metrics like Google analytics, Google search console, and Google ad words are very much helpful in monitoring your strategy, track website traffic, user behavior, rate of conversion and also analyze the performance of online marketing (Digital Marketing).

There is an increasing need of digital Marketing. South Asian companies are taking moves in different areas of modern digital marketing to capture potential opportunities. Customers are now spending more time and resources on websites, mobile apps, and customer-service channels. Social and digital video channels are driving the highest ROI. It has been seen that there is increase in digital sale where some companies are reducing churn by up to 40 percent.

Digital marketing is playing vital role in growing business. Several ways are there where digital marketing can help to grow business.

With digital marketing, marketers can reach people all around the world. Digital marketing helps you create an online presence by running campaign via paid advertisements. Compared to other types of advertisement digital marketing in the form of social media ads are much less expensive. Digital marketing strategies can be used to generate better revenues by getting high conversion rates and high numbers of visitors. The more traffic your website gets the higher the chances that someone will make a purchase and invest in what your company has to offer.

1. LITERATURE REVIEW

In this paper the author has highlighted the role of AI in digital marketing to change consumer behavior. If AI is combined with digital marketing

to make it easier for firms then it reaches the right customers at the right time. Artificial Intelligence helps the firms to get perception about the customer needs which boosts their sales and revenues. This paper also explain the challenges of AI in digital marketing also identifies the relevant tools and technologies which help marketer effectively implement the AI in digital marketing. (Khatri, 2021)

The author has explored the various application of artificial intelligence (AI) to social media and digital advertising professionals and agencies to specialize to an advanced degree and maintain collaboration and creativity to bring a better return on investment. Based on the literature review, the paper identifies the various AI applications in the field of digital media marketing. (Kiran Nair, 2021)

Chatbots are used not only for communication but also services provided by regulated profession such as doctors, lawyers, etc. Issues such as taxonomy, IPR, civil liability, consumer protection, cyber security, privacy and data protection, and other human rights issues are taken into consideration (Leaua & Didu, 2021).

In this article author had tried to examine the determinants behind the acceptance of the AI wearable. Also highlighted on the issues related to adoption of AI wearables. (Sułkowski & Kaczorowska-Spychalska, 2021)

This study aimed to explore how clinicians perceive AI assistance in diagnostic decision making and suggest the paths forward for AI-human teaming for clinical decision making in health care. This study used a mixed methods approach, utilizing hierarchical linear modeling and sentiment analysis through natural language understanding techniques. Total 114 clinicians participated in online surveys. These clinicians studied family medicine and used AI algorithms to aid in patient diagnosis. Further the study concludes clinicians' current perceptions and sentiments toward AI-enabled diagnosis. (Hah & Goldin, 2021)

In this research paper authors have highlighted on how AI drive digital marketing and Role of AI on marketing. The objective of this study is to analyze the importance of artificial intelligence and its impact on the e-commerce industry and the recent strategy followed by marketers to promote their products and services. AI not only leads marketing, plays a major role in Banking, Financing, Trading etc. AI is most trending topic, and it is being used in various fields including digital marketing. (Mohana, 2020)

2. RESEARCH GAP

A research gap is a problem that has not been addressed or answered in previous studies in the form of books, journal articles or reports. Presently, there is a lack of research on artificial intelligence in digital marketing. It is important to recognize the area that is unexplored. In this research I have undergone some literature surveys to understand the topic of artificial intelligence and the impact of AI in digital marketing. I have tried to find the concept of digital marketing and artificial intelligence. I have identified some gap in my research where I have concentrated in this research. In my literature review it has been found that issues and challenges of chatbots are discussed where it has not been highlighted on the impact of AI in digital marketing. One of the authors has focused on the issues related to adoption of AI wearables. Some writers are concentrated on how AI can be used in clinical research, but there is less research on the impact of artificial intelligence on digital marketing. Hence there is a scope of research in artificial intelligence in digital marketing..

Objectives of the study:

To identify the application areas of artificial intelligence in digital marketing

To study the impact of Artificial Intelligence in digital marketing world

3.ROLE OF AI IN DIGITAL MARKETING:

Now days AI is everywhere. AI in digital marketing as well. AI has helped organizations to understand what customers want and helped to increase customer satisfaction. Artificial Intelligence isn't here to replace jobs but increases productivity and efficiency. AI can identify which customers are most likely to unsubscribe your service and also analyzes which features are responsible for unsubscribing customers. Marketers can then take action to avoid un-subscriptions (Maruthai, 2021). AI has highlighted its presence in almost every field such as social media, travel and transportation, finance, healthcare, ecommerce etc. AI is not only reducing human intervention in business transactions but also helping to do their jobs in better way. In digital marketing massive data is generated where it require to process the data. AI helps digital marketers to process the data generated in daily transactions faster, which helps them to make digital strategy more efficiently. Artificial Intelligence has impacted Digital marketing in many ways; here are some effects that Digital Marketing is going to face in the coming years

AI Powered Chatbots: It is a software application used to conduct an on-line chat conversation via text or text-to-speech providing direct contact with a live human agent. It helps answer customers'

questions and solve problems quickly. Jenny and Slush, Vainu are some of the popular bots. Jenny and Slush handled questions from approximately 20,000 attendees. Dominos has built a Facebook chatbot to make the ordering process faster. Eva (HDFC Bank) has answered more than 5 million queries from around a million customers with more than 85% accuracy (Patel, 2022). AI-Powered Chatbots can respond to multiple user inquiries simultaneously.

Personalization: It helps by understanding the personal preferences, likes, and dislikes of individual customers. Through this, marketers can provide consumers with a personalized experience. Grammarly, an app catch grammar mistakes and sends weekly reports to users on how their writing has improved. Starbucks remembers customers' favorite drinks and preferences and rewards them with perks and freebies based on past activities. Tesla car remembers each driver's preference for seat, steering wheel, mirror location, braking, radio presets and even driving style which is comfortable for drivers. (Morgan, 2021). Personalization helps in providing a great customer experience. AI has made it possible. It can be done by collecting and analyzing user data while considering physiographic, demographics, devices, and geographical location (Afshan, 2021).

Programmatic Advertising: There are many kinds of online campaigns are running everyday by many organizations where it requires analysis and research and also have chances of human errors while running campaign. Now it has changed and can be done with AI enabled programmatic advertising where it takes care of placement of the ad on right platform, to the right customer and optimizing the campaign in real time quickly and effectively. Today whatever we see ads most of that are delivered using artificial intelligence mechanism called as programmatic advertising. (Shah)

Creating and Generating Content: Yes, in digital age a machine can write content by itself with the help of AI. There are certain areas where AI can useful and help to attract customers to your website. Example is AI can write news and reports based on data and information available. Some Intelligent tools like Wordsmith, Articoolo, and Quill are being used by the Forbes to create news, which leads to clicks on their websites. BBC, New York Times also implementing this technology to generate content.

Web designing: To develop a website, knowledge of HTML, CSS, JavaScript and programming languages is required. But AI has made simple. Popular website developer like wix uses AI to build websites. Facebook and Google have offered free

AI enabled services such as *wit.ai* and *Dialogflow* respectively which developers can use to develop a website (Agarwal, 2019).

Email Marketing Campaigns: Email marketing is a way to create awareness of product or convey the message by sending mails to multiple recipients at the same time. In today's digital age people are expecting personalized emails that are relevant to them. By taking the advantage of AI capabilities you can send a customized email for your email marketing campaigns by analyzing user behavior and preferences. AI has the capability to analyze thousands of GB data to get right title and subject line that attracts the customer attention. It can also find the right day, time or frequency to shoot the email that will help to increase rate of conversions (Agarwal, 2019). AI can help you to sending personalized email for email marketing campaign. (Afshan, 2021)

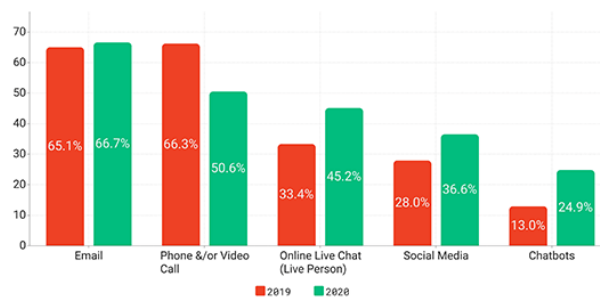
Dynamic Pricing: The price of the product or service is not fixed in dynamic pricing; it can be changed as per the demand and supply in the market. Providing on products or services for sale is the marketing strategy to increase the sale and revenue. AI can be used to set the price of the item dynamically depending on demand, supply, availability, customer profiles, profitability of customer and other factors to maximize sale and profit. The website *camelcamelcamel.com* tracks the price of the Amazon products over time. On this site the graph shows how much item pricing fluctuates depending on season, availability, popularity and other factors. You might have also experienced that the price of the product after few days gets changed automatically when you revisit.

Predicting Customer Behavior: AI can predict the personality traits better than your spouse, friend or even family members. Many marketers are having problem of how to tackle with their audiences. They are trying to understand how to reach target customers in the competitive environment. Customer Service provider are also looking for improving customer satisfaction. AI can help to automate recommendations in real time to improve customer experience. AI tool can help to scan your customer's browsing history to present different options. AI-software uses data and statistical models to predict future behavior based on past behavior and characteristics. AI not only gives new insights about your customer but also automatically deliver message to right customer at right time (Brenner, 2020).

3. FACTS ABOUT AI IN DIGITAL MARKETING

4.

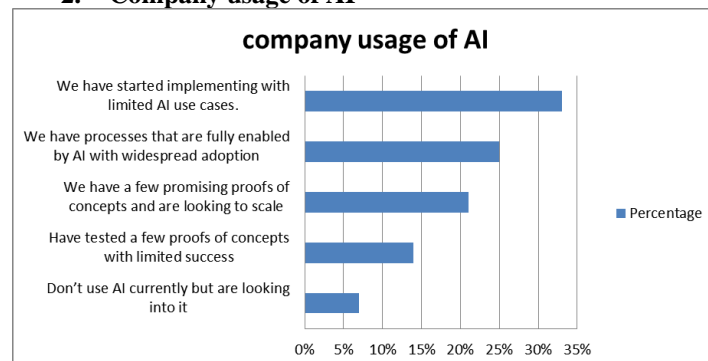
1. Usage of Chatbot for communication



Source: Startupbonsai(2020)

Interpretation: According to Drift's 2020 report, 24.9% of buyers used chatbots to communicate with businesses in 2020, up from 13% the year before.

2. Company usage of AI



Source: (Howarth, 2023)

Interpretation: Majority of the companies have started implementing AI, whereas only 7% companies don't use AI currently but are looking into it. Automated emails and chatbots are two of the most common uses of AI in everyday business communications.

3. AI use in email marketing

4 Positive Effects of AI Use in Email Marketing

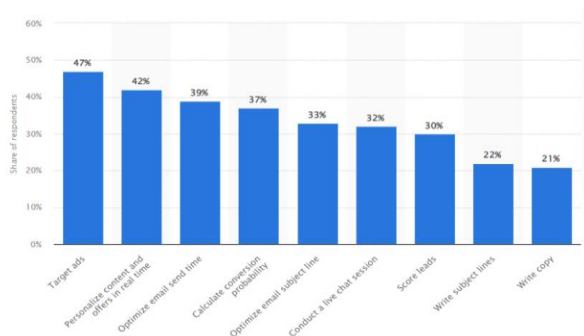
Positive effect of AI use on email marketing according to marketers in the U.S., 2018*



Source: (Feldman, 2019)

Interpretation: In total 41.29% of marketers agree that using AI for email marketing generates higher market revenue. 40% marketers believe that AI email marketing improves market revenue.

4. Use of AI in variety of tasks



Source: Statista (2022)

Interpretation: From the graph it has been seen that out of top marketers throughout the globe 47% are using AI for target advertisement followed by personalize content, optimize email, to calculate conversion probability etc.

5. AI in Marketing



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