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APPLIED ARTS-ORIGINAL ARTICLE

Enhance the Advertising Effectiveness by Using Artificial Intelligence (AI)

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Abstract

A subfield of computer science called artificial intelligence (AI) creates machines that are trained to analyze data and acquire knowledge similarly to humans. AI may be utilized in a variety of industries, including finance, eCommerce, and more. Examples of AI in use today include speech recognition, problem-solving, learning, and planning. With numerous the future of advertising and how businesses connect with consumers are being impacted by AI advertising techniques like intelligent advertisements, interactive advertisements, behavioral advertisements, and automated advertising. In order to maximize the money, they spend and maximize their return on savings, companies may benefit from artificial intelligence in advertising. artificial intelligence (AI) and its contribution to personalized engagement A technique to creating, communicating, and providing clients with individualized offerings is advertising. It suggests that consumers are prepared for a new journey in which AI will be a tool for limiting and curating countless options and information in a personalized fashion. This article discusses the significance of artificial intelligence for advertising and why you need.

Keywords: AI in advertising, Application of AI in advertising, Artificial intelligence (AI)

Introduction

The targeted advertisements that appear in customers' computer browsers and the chatbots that help them make decisions are changing, as consumers are recognizing this. Advertising is fast evolving due to the usage of information and artificial intelligence (AI). But what does advertise that uses AI actually mean? The term artificial intelligence in advertising, the term AI means to the emulation of human intellect in devices that aim to behave and thinking like humans based on the data that is provided to them. These devices make use of previous information to identify skills from past experiences and apply the information to make future choices that are more better (IBM Watson Advertising, 2021a; IBM Watson Advertising, 2021b).

The company used IBM Watson, an AI system, to examine award-winning auto advertising over the previous 15 years, and Lexus released an advertisement in 2018 that was totally written by AI. Watson began by identifying the components of effective advertisements that audiences responded to the most. Companies already use AI to by default, in real time, and on a large scale find and categorise people, develop novel advertising, review commercials, improve ad effectiveness, and control budget. Nowadays, AI

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is swiftly evolving into the future generation of advertisements Kaput (2022).

Review of literature

Artificial intelligence definition (AI)

Fig. 1.

Demis Hassabis, the creator of the artificial intelligence business DeepMind, which Google bought, provided the clearest explanation of AI. The 'science of making machines smart', according to him, is AI. Artificial intelligence is described as automated machines that collect information and use it to complete tasks in the most practical manner possible. Because there are so many various kinds of AI, Guruduth Banavar, the director of IBM's AI research, refers to it as 'a portfolio of technologies'. These AI technologies have a variety of applications and advance at different rates, but they are all concerned with recreating human cognitive abilities in machines to make them 'smart'. This entails building technological systems capable of doing mental activities that people can. tasks including hearing and understanding language, moving around barriers, seeing and identifying objects, reading, writing, and comprehending literature, as well as sensing the surroundings. AI has enabled machines to perform all of these tasks Kaput (2022).

That is because AI allows machine learning; in contrast to previous technology, AI is able to identify patterns in data, learn how to predict these changes, and then adapt what it has discovered to future estimations. Whether you realize it or not, you use AI on a daily basis multiple time. After obtaining human education, AI can continue to grow and learn on its own. The more data you feed an AI system, the faster it learns and improves. AI is used by Google Docs and Gmail to comprehend your input and anticipate what you will need to enter next. You and many others contribute to the AI's ability to anticipate text every time you use this function. AI is used by self-driving cars to identify obstacles and maintain a safe distance from them Kaput (2022).



Fig. 1. Use of Artificial intelligence in advertising (Kaput, 2022).

In actuality, the term 'AI' refers to a wide range of useful technologies, including those that are able to learn and develop on their own. You may have heard of AI technologies such as computer vision, deep learning, neural networks, detection of speech, natural language generation (NLG), natural language processing (NLP), and machine learning. You do not need to be an expert in every word to succeed with AI; all you need to know is that this innovative technology is capable of learning and growing on its own. Due to AI's ability to learn and grow on its own, you have a significant advantage over competitors in the advertising sector Kaput (2022).

Aartificial intelligence categories

(1) Artificial general intelligence (AGI), Powerful AI, as it is frequently referred to, is a type of artificial intelligence that, in theoretical terms, is able to perform every work that a thinking human can think of. True AGI, a sort of AI that frequently appears in fantasy books and is described as AI that can carry out a wide range of tasks and behave like humans, has never been successfully developed. This is due to how complicated human behavior is and how less we actually understand about how the brain works.
(2) Narrow AI, Weak AI, often referred to as narrow AI, focuses on building a single domain of cognitive skills, such as picture identification, forecasting, self-driving cars, and segmentation of clients. It is capable of a limited set of tasks. On a variety of websites, such as those that advertise things on Amazon and customize movies and TV episodes on Netflix, we frequently encounter this type of AI by way of junk mail robots and recommendation engines Buch and Thakkar (2021).

AI's role in advertising

If your goal is to be successful in the new field of machine learning in advertising today, AI is a

necessity. We can now target consumers based on tens of thousands of demographic and behavioral data points, reach them across hundreds of digital platforms, and test tens of thousands of ads to see which ones work best. All of this is possible because to the internet and programmatic advertising. Sadly, humans are terrible at managing all of this. We are currently unable to review all of the information we have in order to progress towards developing advertisements, In order to achieve the greatest outcomes, We cannot manage ad, targeting, and budget versions in the hundreds or thousands. And in a huge amount of information, we can't possibly find new potential customers. AI, however, is capable of doing all of these things and more. Because of this, innovative companies are using AI to: Distribute advertisements funds among various platforms and target markets, Automatically adjust advertising spending to achieve KPIs, Locate potential customers for your ads and fresh conversion chances. create detailed audience profiles, Identify and achieve marketing objectives, Learn about the advertising spending, ideas, and tactics of your competitors. Publish ad copy, Make unique graphic ads. hyper-personalize content and pictures in advertisements for specific consumers, target ads with extreme personalization Identify ad performance trends before you launch campaigns. And a lot more Your business may be engaging in this as well Kaput (2022).

The implementation of AI in advertisement

Customer advertising becomes increasingly complex over time. social media sites' use of 'deep learning' technology has made social media more personalized and effective since AI started to identify company logos in photographs, for instance, Peloton, a home spin bike, used Lightning AI to improve the probability that their advertisements would be successful considerably faster. Additionally, AI is utilized by advertisers to enhance their email marketing in a variety of ways, including automation and testing. For example, Phrase employs AI to create superior email subject messages. It is able to overwrite inside a particular voice thanks to its arsenal of well-known brands like Virgin America and Domino's. The World Wide Web generates roughly 2.5 billion gigabytes of unstructured data each day, and Install is a customer support platform that uses the Microsoft Bot Framework to give customers faster responses by merging artificial intelligence and human customization. Calculations or elements are then produced by AI. The results of these computations could be very helpful for the advertising. The following computations can be used in combination to help advertisers better understand consumer behavior Shumanov (2021).

Natural language processing (NLP)

It Automation with AI may analyze the specifics of human conversation to draw inferences from users' social media activity, which may include regular messages, postings, ratings, updates, and opinions.

Photo identification

Photo identification: Even photos that users submit via the internet display their preferred brands and private information.

Voice recognition

Enables artificial intelligence to analyze the meaning of spoken words.

Challenge

Advertisers seek to employ user-generated material to solve a given problem. To do this, they apply AI 'reasoning', such as recognizing user personal characteristics to improve marketing choices.

Algorithms

The machine memorizes all of the computations it made before after identifying patterns in the data and using reasoning. More unorganized data is analyzed by an AI system, acquiring more useable information for the advertisers and facilitating more precise targeting. along with the application of machine learning to gain knowledge from its current capacity for recognizing and resolving problems. Advertising's goal is to win consumers' trust and influence their decision to buy after they have narrowed down their list of possible brands. Advertisers use empathy AI to understand how clients feel about their brands

generally and what they are saying in their online interactions. These jobs are backed by the use of AI, allowing advertisers to make accurate forecasts about what customers will buy. Advertisers are able to control data while drawing motivation from real-time consumer encounters thanks to machine learning, picture, speech, and natural language production.

Encourage someone to buy

Advertising aims to place consumers in a difficult situation by highlighting the brand's advantages over competing products when consumers choose their favorite company and budget. A huge amount of information is available to marketers thanks to the large AI drives and tools provided by companies like Google and Facebook. Google uses Chrome, Android, YouTube, Google Analytics, and Chrome to gather data. Amazon, Microsoft, and IBM are all leading the way in AI advancements, along with Google and Facebook. utilizing a three-layer pyramid for the purposes of offering, aiming for, and messages, AI can assist marketers with Google Ads. Bidding is a mathematics exercise on websites like Google and Facebook. The marketer might be interested in knowing how much to provide Google in exchange for a click on its advertisement. Systems have learned the skill of placing bids. When targeting, one must consider the demographics and content before deciding where an advertisement would show. When a customer searches for a specific keyword, advertisers can request that Google display an advertisement. Top importance is given to messaging. Over time, the AI has improved at recognizing the context and meaning of a page. Although there are various industries where AI is used, marketing and sales have found clear utilization. It gives advertisers a way to interact more intelligently and effectively with their customers Nikhil and Binish (2020).

The following are some of the most effective use cases for artificial intelligence in advertising.

Purchase and deliver digital and programmatic ads

Although you might not always see it, AI is an important factor of the infrastructure that supports advertising goods on many platforms. Automated is used nowadays in advertising to reach specific audiences and display ads through the internet in real-time. Recent programmatic systems usually employ AI to regulate the purchase and sale, and promotion of adverts quickly. It is true that every online advertising platform and agency uses artificial intelligence to manage the buying and selling of advertising in real-time. This includes social media advertising on websites like Facebook, Instagram, and Snapchat as well as programmatic exchanges, third-party networks, and other channels. However, it won't be long before these marketplaces, services, and platforms make their AI algorithms public. But here's the key: Even invisibly, artificial intelligence controls how your advertising dollars are spent, who sees your commercials, also how well your general campaigns succeeded. Therefore, if you control advertisement spending, you must be familiar with the terms used in relation to artificial intelligence and formulate the appropriate inquiries on the potential impact of the AI employed by ad platforms on your expenditure. An easy illustration of this is:

Specially the frequency and relevancy score of Facebook ads. Without human input, Facebook's algorithms use these two important pieces of data to determine how much you spend and how your ads are presented.

You might believe that running your advertisement more often is important. Yet it is not the best ad frequency, according to traditional advertising research, having three or more interactions during the brand−purchase cycle, as stated by Social Media Examiner. According to conventional advertising schools, you should 'hit' your target with the same advertisement as frequently as you can. Repeated Facebook exposure, though, can actually harm your effort. This is due to the fact that Facebook's algorithms take user comments into account. Your relevant rank may decrease if you display your advertisement too frequently and users give it a low rating. According to Social Media Examiner, 'the higher the frequency, the lower the relevancy score 'is the rule most of the time.

A high relevance score increases the chance that your ad will be displayed to a target audience over the competing ads. Better

performance and cheaper expenses follow from this. In recent advertising, it is important to make an effort to learn the algorithm as well as your target market Kaput (2022).

Improve the effectiveness and budget of advertising

Efficiency optimization is one of the primaries uses of AI in advertisements. The effectiveness of your advertising throughout certain applications is evaluated by commercially available solutions, which then offer recommendations on how to improve effectiveness by utilizing artificial intelligence algorithms. These applications frequently use AI to intelligently automated tasks that you are aware you should be performing in accordance with best practices, saving your time. Sometimes they can reveal performance issues that you weren't even aware you have. In more complex situations, AI is able to effectively control advertisement effectiveness and cost optimization, choosing the optimal course of action for achieving your advertising Objectives and putting forth an entirely optimized budget on its own. In a different scenario, at least one platform evenly distributes advertising budgets across all applications and target markets automatically, freeing up staff to focus on higher-value strategic tasks instead of to manual estimations of what will and would not work.

In addition to your ad language and creative, your ad targeting is important. Websites like Facebook, LinkedIn, Amazon, and Google provide you accessibility to an attractive extensive database of customer information that you can use to reach specific consumers for both desktop and mobile advertising. However, doing it by hand is not always effective. AI can be useful in this situation. We are aware of at least a couple AI systems that analyze prior audience and ad performance, compare it to current KPIs, and identify new audiences that are likely to make purchases from you Kaput (2022).

Effects of AI in advertising cycle

Understanding how traditional communications 'work' throughout the consumer's purchasing path is necessary for understanding what opportunity AI has for advertisers. The phases of initial thinking, active discussion, and purchase, and postpurchase follow after the client becomes aware of a need at the beginning of the customer journey. In this part, at each stage of the cycle, the authors outline the consumer processing phases, advertising objectives, and traditional advertising roles for advertisers. Then they demonstrate how various advertising tasks are modified by the AI building blocks Buch and Thakkar (2021) (Fig. 2).

Understanding of need

It's been challenging to pinpoint the moment at which a demand is sparked due to it takes place at the product level as instead of the brand level, Advertisers have traditionally used market research, web analytics, and data mining to develop consumer profiles to be able to more effectively comprehend and define needs. However, AI now makes it possible to comprehend evolving needs and desires in the moment, as they are communicated online, and to faster develop better profiles. Customer profiles are created using Azure, Microsoft's AI platform, by the media company Astro. In a couple of seconds, the system analyses billions of points of information to establish a person requires, and it then quickly adapts online content on Astro's platform to those consumers' preferences. AI updates the consumer's profile



Fig. 2. The consumer decision making process (Professional academy, 2021).

if a consumer's internet activities change, whether as a result of a purchase, a change in social media status, or online feedback and postings. The demands or wishes of consumers may be 'manifested' by advertisers using AI, by analyzing the photographs that users have pinned to the site, by applying machine learning to recognize images, Pinterest can determine a user's interests. The website then suggests further images that match the users Buch and Thakkar (2021).

Data search

Getting the brand into the consumer's mind when they consider various offerings that meet their desires or needs is one of the most important advertising goals. Two of advertising's tasks include enhancing brand awareness and emphasizing crucial reasons to buy. Advertisers might accomplish these goals, for instance, With the use of internet marketing, advertisements for paid natural search, or targeted advertising. Advertisers could use Using AI-powered search, consumers may locate, rate, and receive the most probable results based on the data they provided demands at that same moment. Google employs using artificial intelligence to analyses search request information, including terms and expressions, consumer activity data, and other critical data in addition to keywords. A company called Zendesk used special computer programs to learn more about the people who might want to buy their products. Then they put ads on Facebook that would be more interesting to those people. This helped them get more customers who were really interested in what they were selling Buch and Thakkar (2021).

Analysis of alternative

When consumers decrease their choice of brand possibilities, advertising seeks to give them trust in the good they are buying and persuade them that they are making a sensible decision. One strategy is to deliver trustworthy and persuading material to customers with high buy intent. These jobs are considerably facilitated by AI in three fundamental ways.

(1) Artificial learning-based predictive lead scoring helps advertisers provide reliable forecasts about consumer intentions to buy by seeing trends and patterns in a database of confirmed current client information. By analyzing what those people do and desire, an intelligent computer program aids businesses in learning more about the people who could be interested in purchasing their goods.
(2) Machine learning, picture, audio, and natural language production allow advertisers to choose content while adapting it immediate time responses to altering customer behavior. As customers browse product listings, product recommendations are generated in real time by ASOS, a British online clothing retailer, using Microsoft Azure to determine an item relevancy and the opportunity that a website user will see, save, add to a basket, and then buy a product.
(3) Marketers use emotion AI to analyze consumer sentiment about their brands in online forums like blogs, videos, and reviews as well as to pretest advertisements. In order to help design a marketing campaign for their Crunchy Nut cereal, Kellogg's used Effective emotion AI engine, removing ad executions when viewer's attention waned after seeing the ad several times.

Fig. 3.
Fig. 4.

Purchase decision

Were to purchase it in an effort to persuade consumers to acquire it. Additionally, they guarantee that the item is good and that any



Fig. 3. Asos website.

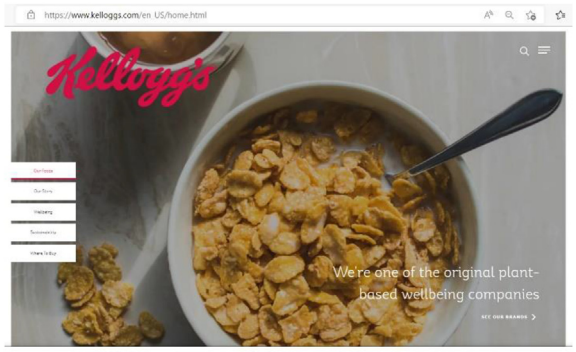


Fig. 4. Kellogg's website.

issues can be remedied or returned. They might even provide special discounts to entice customers to purchase it. Making people pick their product over rivals is the aim. When Staples converted their 'Easy' click into a smart buying system that enables clients at work to order things by voice commands, text, or e-mail, they demonstrated how AI has the potential to radically revolutionize the shopping experience for customers. Additionally, marketers can select the 'sweet spot 'for price. The term dynamic pricing refers to the ability for a product's price to alter fast in response to factors including demand, the season, and what other retailers are doing. During a significant sale known as Black Friday, Amazon employed an advanced software program to alter the pricing of 28% of its merchandise each day Buch and Thakkar (2021) (Figs. 5 and 6).

After-purchase evaluation

People think about how much they liked something and decide if they want to get it again. On the other hand, advertisers work to win over consumers by ensuring them that the

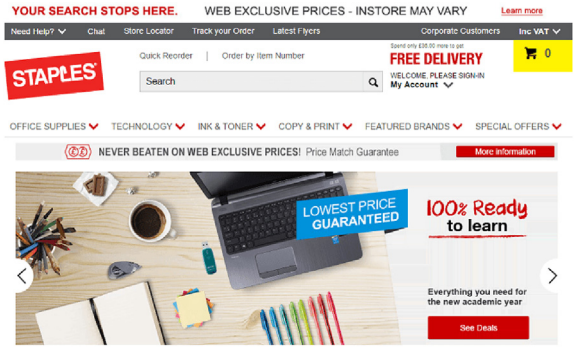


Fig. 5. Staples website.



Fig. 6. Amazon website.

brand is living up to their expectations or solving any potential problems. After a customer makes a purchase, advertisers may contact them using AI-enabled 'chatbots, 'It helps solve problems much faster by using smart computer programs that can understand what people are asking and figure out what they really need help with by using natural language processing (NLP). Instead of waiting for a day and a half for an answer, you can get help in just a few minutes. Autodesk is a software company that uses a virtual assistant to quickly respond to customer questions. They have a helper that can answer questions from people really fast. The company can also figure out who their best customers are and group them together. They use a special tool that looks at a lot of information to see how much a customer is worth and if they might stop using the company's services. In order to promote desired behavior, advertisers can utilize these analytics to generate targeted communications as part of customer-relationship engagement campaigns. As the campaign moves forward, the communications can be changed in response to the customers' reactions Buch and Thakkar (2021).

Advertising improvements by AI

Because of its many benefits and capacity to become smarter over time, AI is quickly transforming the advertising landscape. Here are just a few ways that companies might use AI in advertising.

The benefits of personalization improve consumer experiences

In advertising, personalization means using data or consumer insights to make ads more relevant to their target market. Advertisers can

enhance their relationships with customers, strengthen their bond with their brand, and improve the purchasing experience by using a customized AI solution like conversational marketing. While 71% of customers want businesses to interact with them in real-time, It has become more common to use an AI conversational advertisement technology to interact with customers and attract fresh customers. While successful implementation of strategic client loyalty and relationships, personalized experiences empower brands in increasing ROI (IBM Watson Advertising, 2021a; IBM Watson Advertising, 2021b).

Audiences may be categorized previously to presenting adverts

With the help of a special computer program called machine learning, people who want to sell things can figure out what types of things are popular with a group of people and what messages they like to hear. Machine learning enables this by making an educated decision about the kind of information a specialized segment truly wants to see by taking into account all the data it has availability to about a certain person, such as demographics and online behavior. Customers are least likely to interact when given irrelevant content, which highlights the importance of understanding an audience for boosting engagement. Proper audience targeting and segmentation result in more relevant advertising. If advertisers talk about things that people are interested in, they might get more people to pay attention and buy their stuff (IBM Watson Advertising, 2021a; IBM Watson Advertising, 2021b).

More responsive advertising produced by AI

By anticipating consumer reactions, AI can ensure that advertisements are effective. By not displaying advertising that viewers won't find appealing, it can also help save money. Because of this, advertisers may use innovative in an aggressive rather than responsive manner, which will enable them to generate more qualified leads and, as a result, generate more revenue. As shown by the latest Salesforce Research study the company Technologies Trends, which indicated that 83% of IT managers believe machine learning and artificial intelligence are changing how customers interact and 69% believe it will change their company's performance, advertisers are aware of the importance of emphasizing a perfect consumer with a suitable advertising in order to raise income (IBM Watson Advertising, 2021a; IBM Watson Advertising, 2021b).

Advertising choices have a bigger impact and boost ROI

Companies supported by AI evaluate enormous volumes of data in order in order to correctly forecast developments in the future. AI is an analytical tool for advertisements. The amazing thing about AI is that, like humans, it always gets better. While it has historically been difficult for advertisements to gauge the success of their campaigns, analytics aids them in identifying what is and is not working. To continue making wiser decisions, it constantly learns and adapts. As a result, moving forward, advertisers can take responsibility for making decisions that will benefit their campaigns. 73% of AI adopters, according to Deloitte research, A lot of grown-ups think that using smart computer programs called AI is really important for their work right now. They also think that using AI helps them do better than other companies they are competing with. By consistently targeting the correct audiences with the right message, advertising waste may be reduced and ROI can increase (IBM Watson Advertising, 2021a; IBM Watson Advertising, 2021b).

Targeting and budget optimization are also affected by performance optimization

An essential application of AI in advertising is performance optimization. In order to improve performance, artificial intelligence programs can evaluate how effectively your adverts function throughout multiple platforms (IBM Watson Advertising, 2021a; IBM Watson Advertising, 2021b).

AI problems

More and more people are using computer brains to help them sell things, but there are some tricky things that they need to figure out

along the way. Let's see what those tricky things are.

(1) A limitation of AI is designed to search through huge amounts of information and convey out a variety of calculations. Machine learning and deep learning, two AI components, need powerful hardware and lots of processing power to bring out calculations quickly. However, such strong IT infrastructure is expensive for organizations, which may prevent smaller organizations from adopting AI to achieve success.
(2) Weak skill

Although there has been a little increase in interest in AI, data science courses emphasizing AI development have increased. However, more brilliant individuals will still be needed to allow every company to enter the AI bubble. For anyone wishing to enter the technology industry or shift careers within the AI bubble, the time is now. Prospective candidates can be helped by being set on the right path to developing a successful career in the technology industry by keeping a constant eye on the most recent trends. Additionally, it can aid businesses in market analysis and talent development for certain job roles.

(3) Developing Confidence For many people, AI is still a new technology. It would not be simple to build their trust in AI. If people are not given information about how AI models decide, they are hesitant to trust. For the most part, the general public is unaware of the complexity of how deep learning models generate any output. Employing AI-driven software best protection because some applications may be too specific for customers.
(4) The perception of AI is evolving

Artificial intelligence is transforming the marketing landscape. Future uses of AI in marketing are expected to go through major changes, allowing marketers to scale plans, integrate theories, and clarify the sales cycle. Big data, AI, and machine learning will help marketers with analytics, forecasting, and a variety of optimization activities Prakash (2021).

Examples

Best ice cream companies

Fig. 7.

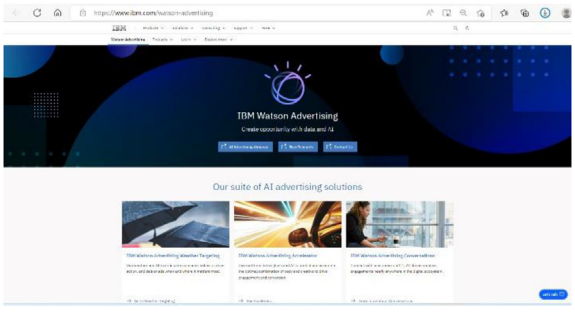


Fig. 7. IBM Watson advertising website.

Two well-known ice cream companies approached IBM Watson Advertising with the intention of encouraging mothers and children to buy ice cream throughout the summer.

IBM Watson Advertising did a customized weather study using the companies' sales data to determine which condition combinations, by location, affected product sales. Using those findings, we created special Weather Targeting triggers that were used throughout the campaign to provide appropriate messaging to customers across The Weather Channel's digital domains. 'It is a beautiful day for vanilla' and 'Today's weather asks for an ice pop' were among the messages in the advertising units. In addition to confirming that ice cream sales are often increased by warmer temperatures, we also discovered links between sales and colder weather, which is consistent with our studies on weather and emotions, which indicates that individuals turn to comfort food in colder weather.

Results

The ice cream brands observed the following benefits from utilizing these insights.

(1) 26% growth in revenues.
(2) $1.23 overall ROI.
(3) 35% decrease in waste.
(4) Real-time delivery changes (accounting for extreme weather events) (IBM Watson Advertising, 2021a; IBM Watson Advertising, 2021b).

Tru green

Fig. 8.

In order to meet or exceed targets during an important spring window, TruGreen uses the

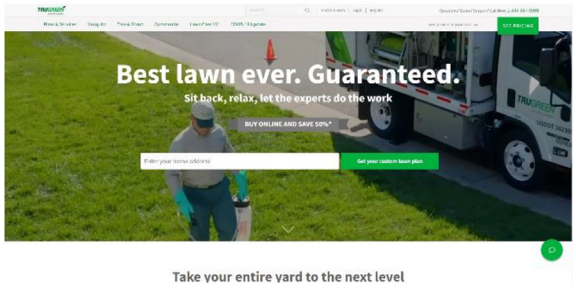


Fig. 8. Trugreen website.

influence of weather on consumer behavior. IBM Watson Advertising Conversations' artificial intelligence enables TruGreen to suggest customized outdoor care plans to customers. Homeowners start making plans as winter ends and spring begins to appear. TruGreen, a personalized tree care provider, aims to enter these customers' brains and get an advantage over by enticing people to go outside, enjoy life, and possibly carry out some simple landscaping care, the competition. The business cleverly advertised on a website called The Weather Channel using information about the weather and where people were. In order to better understand how the weather influences what individuals buy and do; they also used a computer system called IBM Watson. They were able to create incredibly appealing advertisements because to this. In order to capture consumers' attention as they transitioned out of the winter season, IBM Watson Advertising developed a special Spring Countdown campaign before to the arrival of spring. We assisted a business in assisting consumers to view their message 'Live Life Outside' on mobile phones, tablets, and desktops throughout the pleasant weather. We used special technology to make sure the message went to the right people at the right time, like when they were outside or interested in doing things themselves. In addition, the editors and writers of The Weather Channel made some videos that are called 'Amaze Me' and they are special because they have the Weather Channel's name on them.: Backyard Heroes 'to promote outdoor activity by showcasing incredible backyards with TruGreen products. Customers were served the content when the weather was ideal for receiving individualized landscaping work and next to home improvement shops.

Results

(1) The campaign achieved TruGreen's KPIs and produced outcomes that exceeded important benchmarks:
(2) TruGreen achieved Google Rich Media Benchmark with a CTR of 0.45%, a difference of more than 4x.
(3) The TruGreen website has a 92% article completion rate.
(4) Each visit took more than 2 min.
(5) Ad awareness increased by 130% on The Weather Channel app and 23% on weather.com (IBM Watson Advertising, 2021a; IBM Watson Advertising, 2021b).

Shahid's suggestions

Fig. 9.

When Shahid makes suggestions for our favorite films and TV shows, we are frequently shocked. These suggestions are based primarily on how you have been using the application. Let us trying to analyze that. The way a person uses an application to browse the web is important in this case. Shahid analyses your browsing habits, including your choices for movies, web series, and TV shows, how often you view a given type of movie, whether you fast-forward or replay it, and other factors. You receive recommendations for your application after taking into account all of these multiple alternatives. Here, AI not only meets user wants but also directly advertises web series, TV shows, and films.

Google advertisement

Fig. 10.

Many people are unaware that Google Ads has already integrated AI into its advertising approach, despite the fact that Google regularly displays a specific interest in AI and ML. The approach used by AI to analyze customer

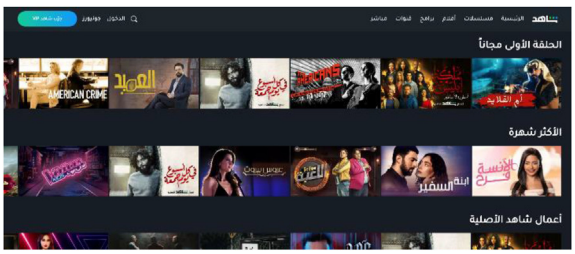


Fig. 9. Shahid platform suggestion.

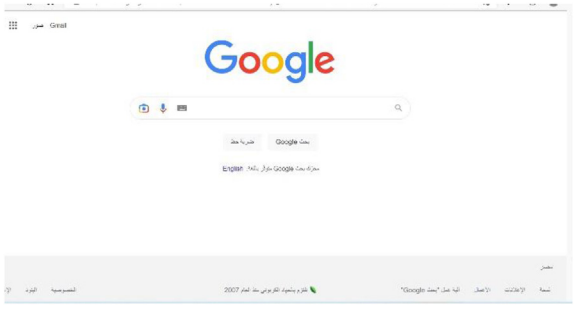


Fig. 10. Google advertising.

preferences and then display advertisements has a high return on investment (ROI) for the company Debra (2020).

Facebook

Fig. 11.

These days, social networking sites sell their private user information to businesses. This information includes things like our demographic data, our interests for particular Markets and the way we buy things are being studied by Facebook using a special tool called AI. This helps them figure out what we like and how we make decisions about what to buy. They use this information to make the ads we see on Facebook better and more useful for us. They look at things like whether we pay attention to an ad, if we think it is helpful, and what we do after we see it. All of this helps them make Facebook better for us Debra (2020).

Instagram

Fig. 12.

AI, which displaced consumer personalization as the second-largest marketing trend, impacted global corporate standards.

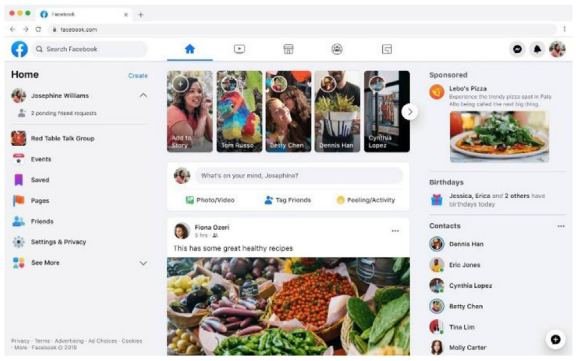


Fig. 11. Facebook platform.

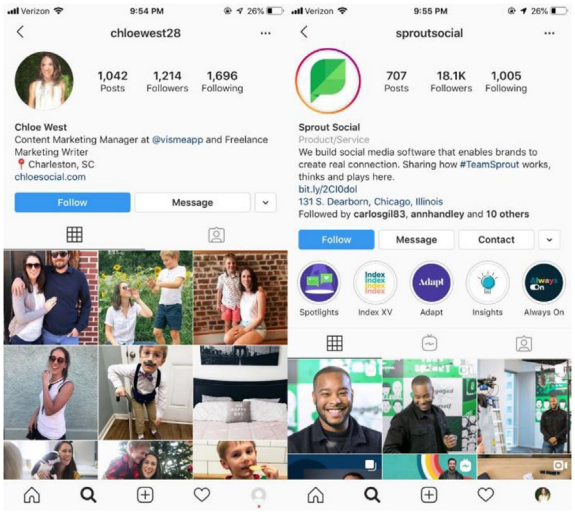


Fig. 12. Instagram platform.

Instagram completely utilizes AI, just like other leading firms. One of the major businesses adopting AI to understand their users and sell products to the correct customers is Instagram. Instagram is selective in who they share this information with, but some businesses may use it to serve us adverts they believe we will find interesting. Instagram also records our likes, dislikes, and followers and blocked users. Instagram offers businesses six alternative ways to market to us. Story advertisements.

Photo advertisements.
Videos advertisements.
Carousels advertisements.
Collectible's advertisements.
Ads when browsing Debra (2020).

Results

Through the data and statistics mentioned in the research, we find that the use of artificial intelligence in advertising achieves the following.

(1) The use of AI ads reduces the chances of missing ads and increases customer satisfaction with ads.
(2) AI ads increase your ad customer base and help target more effective and accurate ad.
(3) Artificial intelligence in advertising helps companies display their ads to the right people and increase their effectiveness based on displaying ads based on consumers' desires and the topics they care about.
(4) Artificial intelligence helps companies save money and satisfy more people with their products by displaying advertisements that consumers are

interested in and not displaying advertisements that the consumer is not interested in.

(5) AI can also help companies find new customers to advertise to by tracking their feedback and learning about their areas of interest as consumers.

Conclusions

The study found that the function of advertising has changed as a result of advancements in media technology, that society is now interacting with a number of changes in mass media that will continue to have an impact on the creation and delivery of advertising, AI can help businesses make ads that are really good at reaching the right people and measuring how well they work. Some businesses are also using AI to understand groups of people better. There are lots of ways to use AI in advertising, like making ads that interact with people and choosing who sees the ads. As more and more things become digital, AI advertising will keep getting better. It is important for businesses to check how well their ads are doing so they can keep improving.

Conflicts of interest

There is no conflict-of-interest to disclosure.

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