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09

## The Study of AI vision for images and videos marketing Campaign

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### Abstract

Artificial intelligence (AI) has emerged as a disruptive force that has altered business procedures and transformed entire sectors. Numerous organizational functional areas have benefited greatly from the incorporation of AI, with marketing seeing the biggest gains. AI technology has given marketers access to modern tools and insights, enabling previously unheard-of levels of effectiveness, customization, and strategic campaign decision-making. Image recognition is essentially AI technology that recognizes and detects a feature or object in a digital image. The first step to becoming proficient in picture recognition for your marketing plan is to unravel these complexities of AI. Businesses will be able to provide highly customized video experiences thanks to the advancement of AI-driven personalization and analytics. Video marketing is set to take on new dimensions with the rise of AI-powered virtual reality (VR) and augmented reality (AR), which will provide engaging and interactive brand experiences.

**Keyword :** AI vision, Artificial Intelligence, AI, Customer Segmentation, Digital Marketing, Audio, Image, Video, images and videos marketing

### Introduction

Video marketing has emerged as a crucial tool for brands and companies looking to interact with and establish a connection with their target consumers in the current digital environment. Because of the growing demand for

video content, content producers are always looking for new and creative ways to produce videos. Artificial intelligence (AI) is useful in this situation. Video marketing is changing quickly thanks to AI technology, which opens up new avenues for producing engaging and customized content.

With improved individualized customer insights, automated marketing tactics, and more effective operations, AI has the ability to completely transform marketing, as seen in Fig. 1.

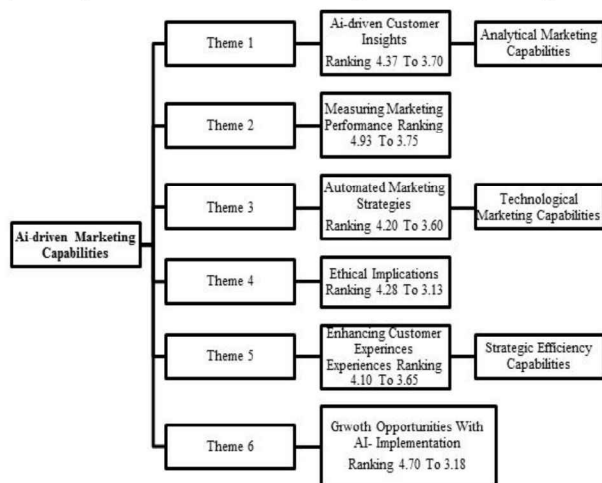


Fig. 1 Marketing areas where AI can bring about transformative effects.

Source: V. Kumar, Abdul R. Ashraf, Waqar Nadeem, AI-powered marketing: What, where, and how? International Journal of Information Management, Volume 77,2024,102783, ISSN 0268-4012, <https://doi.org/10.1016/j.ijinfomgt.2024.102783>.

### AI Marketing

Using AI technologies to automate and optimize marketing procedures based on trend analysis and data collection is known as AI marketing. Through machine learning (ML), deep learning, and natural language processing (NLP), it makes it possible to engage customers more quickly and individually. Marketing teams may concentrate on creating strategic campaign ideas by using AI marketing solutions to automate repetitive operations like email campaigns and consumer inquiries, in addition to data analy-

sis.

With AI marketing, marketers can more quickly compile and evaluate vast amounts of data from emails, social media, and the internet. This information can subsequently be used by marketers to increase campaign success and ROI more quickly. In essence, AI marketing solutions reduce the possibility of human error while streamlining and optimizing campaigns. In the e-commerce, retail, and enterprise sectors, there is a noticeable interest in effectively delivering highly customized and individualized experiences as consumer expectations change with technology. Customers anticipate that businesses will comprehend and satisfy their wants and expectations. In order to provide each consumer with a customized experience, AI marketing assists businesses in identifying their target market. Marketers may now obtain important insights into viewer preferences, engagement trends, and content performance thanks to AI algorithms' increasing proficiency in processing vast volumes of video data. Businesses can use this information to develop highly targeted video marketing that appeals to their target market.

### Types of AI Marketing

Machine learning, computer vision, and natural language processing are the three primary forms of AI marketing that can improve the effectiveness of your campaigns, your marketing efficiency, and the value of your insights.

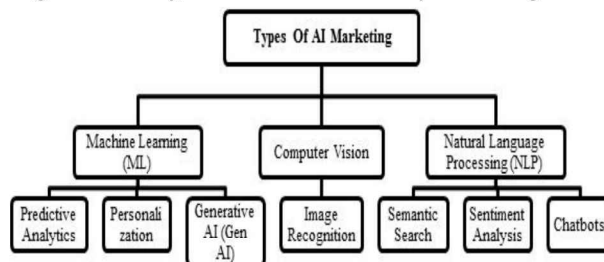


Fig.2 Types of AI Marketing

Source: AI Marketing Strategy: How to Use AI for Marketing (Examples & Tools) <https://www.eweek.com/>  
· Machine Learning

Training algorithms on data to make predictions or judgments without explicit programming is known as machine learning (ML), and it's a potent form of artificial intelligence (AI) marketing. ML may help with customer behavior research, sales forecasting, and campaign targeting as it continuously learns from fresh data.

#### · Predictive Analytics

Using machine learning (ML) to sort through historical data and find patterns and trends, predictive analytics in AI marketing helps you predict future customer behavior and market shifts.

#### Personalization

ML is used in personalization to adapt marketing experiences and content to the tastes and actions of specific users. Using browsing and purchase history, personalization allows for more accurate product recommendations.

#### · Generative AI

GenAI tools create unique marketing assets from scratch, going beyond the reach of standard personalization. These can include dynamic email campaigns catered to the tastes of specific customers, targeted social media posts, or personalized product suggestions.

#### · Computer Vision

Computer vision is used in AI marketing to extract useful insights from visual data, including photographs and videos.

#### · Image Recognition

AI is used in image recognition, a branch of computer vision, to recognize and decipher scenes and objects in images.

#### · Natural Language Processing

Machines can comprehend and react to human language thanks to natural language processing, or NLP. This technology is essential for developing more user-friendly and interactive customer support solutions, such as chatbots that can respond to consumer questions instantly.

#### · Semantic Search

NLP is used in this kind of AI marketing to comprehend the context and meaning of search queries in order to provide pertinent results. It takes user intent, synonyms, and context into account, in contrast to conventional keyword-based searches.

#### · Sentiment Analysis

This area of NLP seeks to identify if a text's emotional tone is neutral, negative, or positive. Sentiment analysis in AI marketing uses data from surveys, online reviews, and social media to analyze brand sentiment, measure consumer reaction, and comprehend public opinion.

#### AI marketing Tools

A platform or application that leverages AI technology to improve marketing efforts and make data-driven decisions is known as an AI marketing tool. These solutions automate procedures, analyze data, and offer insights to improve marketing campaigns and strategies by utilizing AI algorithms, natural language processing, machine learning, and data analytics. Chatbots, recommendation engines, content creation tools, and predictive analytics platforms are a few examples of AI marketing solutions.

· AI chatbots: AI chatbots enable users to respond to more frequently asked assistance issues, freeing up human agents to deal with more complicated situations.

· Platforms for analytics driven by AI: These tools employ AI to monitor and evaluate consumer interactions and campaign effectiveness across digital platforms, giving marketers unified customer data and actionable insights to help brands optimize ROI and strategy.

· Automated content management systems: These programs create, optimize, and disseminate information across several platforms using artificial intelligence.

· Personalization engines: Based on user behavior and preferences, these AI-powered technologies may instantly customize email and website content for each unique user, improv-

ing consumer engagement and experience.

### AI Impact in Video Marketing

Marketers may now obtain important insights into viewer preferences, engagement trends, and content performance thanks to AI algorithms' increasing proficiency in processing vast volumes of video data. Businesses can use this information to develop highly targeted video marketing that appeal to their target market. The use of artificial intelligence to produce video content for marketing is known as AI video marketing. This strategy makes use of AI-powered technologies to increase personalization, expedite video production, and boost marketing campaign effectiveness. From storyboarding and writing the script to finding material and editing the movie, making a video requires a lot of labor. AI allows marketers to create high-quality content at scale, customize messaging for specific audience segments, and enhance performance based on data-driven insights by automating different parts of video creation and delivery.

#### · Enhancing Video Editing with AI

In the area of video editing, artificial intelligence has made one of the biggest contributions to video marketing. AI systems are capable of producing automatic video montages, identifying pivotal moments, suggesting trims, and intelligently analyzing uncut video. This guarantees the creation of visually appealing and polished videos while also saving time and effort.

### Objectives

- To study AI, AI Marketing in image and video campaign
- To study how to implement AI in marketing
- To know the importance of AI marketing in business
- To evaluate reasons to implement AI in marketing
- To study the future of AI in marketing

### Research Methodology

Methodology is the systematic, theoretical analysis of the methods applied to a field of study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge. Typically, it encompasses concepts such as paradigm, theoretical model, phases and quantitative or qualitative techniques. The Researchers used an exploratory research technique based on past literature from respective journals, annual reports, newspapers and magazines covering wide collection of academic literature on Goods and Service Tax. According to the objectives of the study, the research design is descriptive in nature. Available secondary data was extensively used for the study

### Results and Discussion

Healthcare, automotive, retail, BFSI, manufacturing, agricultural, government and public sector, IT & telecom, energy & utilities, and education are the different industries that make up the market. In 2024, the market was dominated by the telecom and IT sectors. The majority of IT and telecom organizations have shifted their operations to the cloud because of the pandemic. As a result, in 2024, the IT & telecom industry segment had the largest market share.

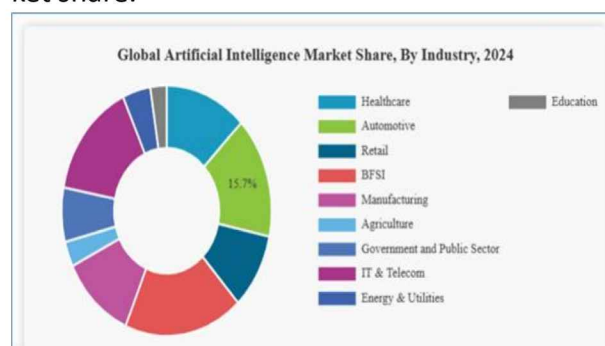


Fig.3 Global AI Market Share

Source: <https://www.fortunebusinessinsights.com/>

Due to the growing development of artificial intelligence applications tailored to this sector, the healthcare industry category is anticipated to achieve the highest CAGR through-



out the projection period. Healthcare organizations are using AI to improve the effectiveness of a number of procedures, from patient care to administrative work. About 64% of patients are amenable to the use of AI for 24/7 access to answers that support nurses offer, per an IBM study. AI can also be used to identify mistakes made by patients when they self-administer their medications.

Compared to the last State of AI survey, organizations are utilizing AI in more business functions. The majority of survey participants report using AI in several business functions for the first time. According to responses, businesses use AI in an average of three business functions, which is a rise from early 2024 but still a small percentage of functions.

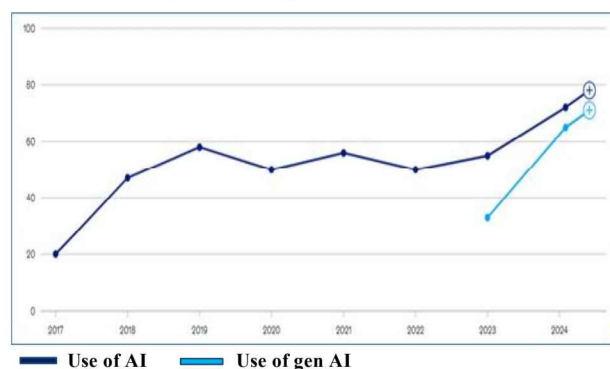


Fig. 4 Organizations that use AI in business (2007-2024)

Source: McKinsey Global Surveys on the state of AI

The term artificial intelligence (AI) encompasses a variety of technologies that can assist your company with internal operations as well as customer-facing projects. By completing more tasks in less time with a smaller crew, artificial intelligence (AI) in marketing can save operating expenses. Utilize data-driven decision-making to maximize your budget, implement adjustments automatically based on performance data, create more persuasive copy to boost conversions. Create a marketing plan that is tailored to the goals and requirements of your team. You can scale your organization more

quickly and efficiently and maintain a lean and mean marketing team by using AI into your marketing operations.

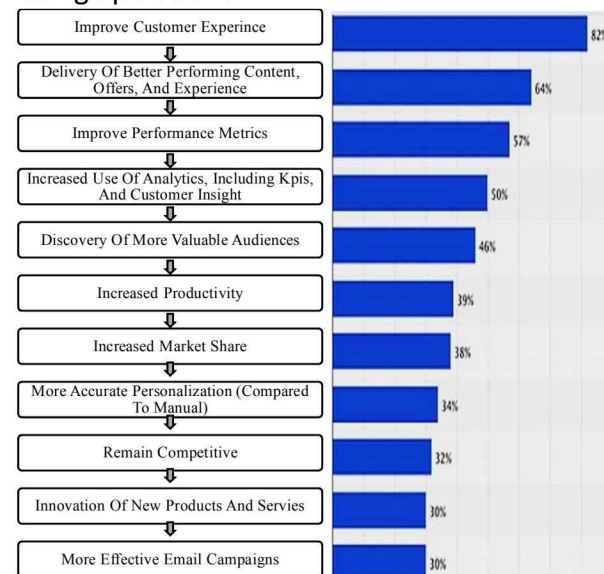


Fig. 5 Leading Reasons industry professionals use AI for marketing

Source: Ai Marketing Blog (<https://www.wordstream.com>)

Our AI Marketing Benchmark Report: 2024 states that 35.1% of marketers utilize it to create content. Despite its decline from 44% in 2023, it is still a common use case. AI is crucial during the planning stages of content creation, even if it isn't utilized in the end. 31% use it to make outlines, 18% use it to write text, and 45% use it to get inspiration and ideas.

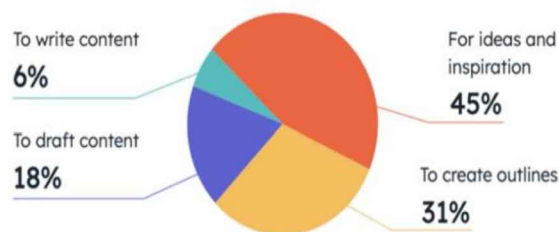


Fig.6 AI in content Creation

Source: ai-marketing-statistics (<https://influencermarketinghub.com>)

### The Future of AI in Video Marketing

Video marketing has a bright future ahead of it as AI technology develops further. It is anticipated that developments in machine

learning and computer vision will improve video editing even further, making it simpler to produce engaging videos. Furthermore, AI-powered analytics and personalization will advance further, allowing companies to provide highly customized video experiences. Video marketing is set to take on new dimensions with the rise of AI-powered virtual reality (VR) and augmented reality (AR), which provide an immersive and engaging brand experience.

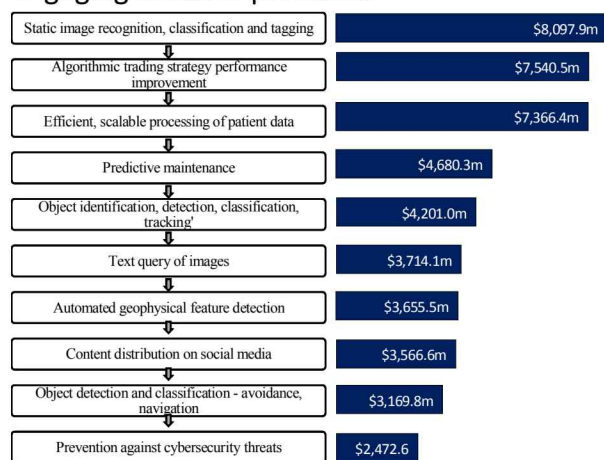


Fig.7 Future of AI in marketing

Source: Priyanka, & Mojjada, Harihararao & Prasanna, M & Deepika, Y. (2023). A Study on Artificial Intelligence in Marketing. International Journal for Multidisciplinary Research. 5. 1-15. 10.36948/ijfmr.2023.v05i03.3789.

All of the interactions a customer or prospect has with a product or solution are documented and utilized to enhance the product or service going forward. There has never been a better moment for marketers to begin experimenting with AI techniques that will enable them to provide their clients with highly customized experiences. Given that artificial intelligence (AI) is expected to continue expanding across all sectors and industries, marketers should invest time and money in trying out new tactics and making sure their company is prepared for success in the future. Though it is still in its infancy, artificial intelligence is already altering the way we think about marketing.

### Conclusion

Video marketing is being revolutionized by AI, which gives companies the tools and in-

sights they need to produce individualized and captivating content. Artificial Intelligence (AI) is revolutionizing the production, distribution, and analysis of videos through automated video editing, tailored suggestions, real-time analytics, and trend analysis. AI technologies are revolutionizing digital marketing in a number of ways, allowing companies to optimize advertising campaigns, improve consumer experiences, and increase overall marketing efficacy. The creation of personalized content, chatbots for customer service, predictive analytics for targeting and segmentation, and recommendation engines for product ideas were just a few of the many applications of AI in digital marketing that were discussed. Artificial intelligence in marketing presents a number of difficulties, such as a shortage of qualified staff, high implementation costs, and privacy and data security issues. Businesses also need to make sure that using AI complies with legal and ethical requirements. Starting small and gradually scaling up, investing in training and development, working with experts and industry leaders, and making sure artificial intelligence is used ethically and responsibly are some best practices for integrating AI in marketing. Additionally, it's critical to track and assess artificial intelligence's performance and modify plans as necessary.

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