+357 96 030922
info@marketpublishers.com

Artificial Intelligence Market Assessment, By Component [Hardware, Software and Services], By Type [Artificial Narrow Intelligence, Artificial General Intelligence, Artificial Superintelligence, and Others], By Technology [Natural Language Generation, Speech Recognition, Machine Learning Platforms, AI Optimized Hardware, Robotic Process Automation, Text Analytics and Natural Language Processing, and Others], By Deployment [Cloud-Based, and On-premises], and End-user [Healthcare, Education, BFSI, Agriculture, Automotive and Transportation, IT and Telecommunication, Government & Defense, and Others], By Region, Opportunities, and Forecast, 2016-2030F

https://marketpublishers.com/r/AE8B082C809FEN.html
Date: February 2025
Pages: 226
Price: US$ 4,500.00 (Single User License)
ID: AE8B082C809FEN

Abstracts

The Global Artificial Intelligence market has witnessed substantial expansion in the past few years and is predicted to continue growing at a robust pace in the future. With an estimated value of around USD 158.27 billion in 2022, the market is anticipated to achieve a value of USD 1371 billion by 2030, exhibiting a strong CAGR of 30.98% during the forecasted period from 2023 to 2030.

The market is experiencing significant growth due to several driving factors such as increasing adoption of AI in various industries, such as healthcare, BFSI, and

+357 96 030922
info@marketpublishers.com

manufacturing, technological advancements in machine learning and deep learning algorithms, as well as the availability of huge volumes of data for analysis. Additionally, the growing investment in AI research and development by major companies and governments worldwide are further fuelling the market growth.

Natural Language Processing (NLP) plays a crucial role in Artificial Intelligence (AI) as it enables machines to understand, interpret, and generate human language. NLP helps bridge the communication gap between humans and machines by facilitating interactions through speech or text. It enables AI systems to comprehend and extract meaning from unstructured data, such as social media posts, customer reviews or medical records. NLP is useful in various AI applications, including chatbots, virtual assistants, language translation, sentiment analysis, and information retrieval. By incorporating NLP, AI systems can process and analyze huge volumes of textual data, enabling more accurate decision-making, personalized user experiences, and improved human-machine interactions. Chatbots utilize NLP techniques as a key component of their functionality in Artificial Intelligence (AI) systems. NLP enables chatbots to understand and interpret human language, allowing them to effectively communicate with users in a conversational manner.

For example, ROSE AI chatbot , which is an innovative artificial intelligence model that employs advanced techniques in natural language processing (NLP) and machine learning to deliver tailored and contextually appropriate responses across social media platforms. ROSE AI offers intelligent and empathetic interactions that closely resemble human engagement. Moreover, this AI model has the potential to revolutionize online social interaction, enhancing user’s experiences with greater interactivity, engagement, and personalization on social media platforms.

Advancements in Machine Learning Algorithms

Machine learning algorithms are continuously advancing in the field of AI. These advancements have led to improved accuracy, efficiency, and scalability in AI systems. Innovations such as deep learning, reinforcement learning, and transfer learning have enhanced the capabilities of AI models, allowing them to process huge volumes of data, recognize complex patterns and make more accurate predictions. Furthermore, these advancements have opened the path to various applications of AI, including facial recognition, autonomous vehicles, among others. Facial recognition in AI is a technology that uses artificial intelligence algorithms to identify and verify individuals based on their unique facial features, allowing for applications in security, access control, and authentication. In 2023, Pew Research Center, a renowned research

+357 96 030922
info@marketpublishers.com

institute stated that, around 36% of Americans have trust in technology companies to responsibly handle facial recognition technology. The acceptance level for specific uses of facial recognition varies, with less than 40% finding it acceptable for tracking residential building access, monitoring employee attendance (at 30%), or real-time monitoring of people's responses to advertising displays (at 15%). However, approximately 73% of the adults in the United States believe that facial recognition is somewhat effective in accurately identifying individuals. Additionally, nearly 50% of Americans support the use of facial recognition in stores, provided it helps catch shoplifters.

AI in Biomedical and Behavioral Research

There is a growing emphasis on expanding the application of artificial intelligence (AI) in biomedical and behavioral research. This involves implementing AI technologies to enhance data analysis, prediction models, and decision-making processes in these fields. By leveraging AI algorithms and machine learning techniques, researchers can uncover patterns, identify trends, and gain valuable insights from huge and complex datasets. Moreover, the broader utilization of AI in biomedical and behavioral research has the potential to accelerate discoveries, improve diagnostic accuracy, enhance treatment effectiveness, and advance the understanding of human behavior and health.

For instance, on September 13th, 2022, National Institute of Health (NIH) launched the Bridge2AI program for expansion of AI in biomedical as well as in behavioral research . The National Institutes of Health (NIH) plans to invest USD 130 million over four years to accelerate the widespread adoption of artificial intelligence (AI) in biomedical and behavioral research. The NIH Common Fund's Bridge to Artificial Intelligence (Bridge2AI) program aims to bring together experts from diverse fields to develop AI tools, resources, and comprehensive datasets.

North America Dominates

North America has emerged as a dominant force in the growth of the AI market due to several key factors. Firstly, the region has a strong foundation in technology and innovation, with leading companies and research institutions driving advancements in AI. Additionally, North America attracts significant investments in AI research and development, bolstering its growth. The presence of a robust startup ecosystem, venture capital funding, and a supportive regulatory environment further contribute to the region's dominance. Moreover, North America benefits from a large market size, early adoption of AI technologies across industries, and a skilled workforce specializing

+357 96 030922
info@marketpublishers.com

in AI.

These factors collectively position North America as a leader in the global artificial intelligence market. Furthermore, the government has also introduced plenty of policies and plans for the market enhancement of AI such as the National Artificial Intelligence Research and Development Strategic Plan . This strategic plan outlines the primary research obstacles in the field of AI, aiming to align and concentrate federal investments in research and development. Its objective is to maintain the United States' leadership in the creation and deployment of reliable AI systems, as well as to equip the current and upcoming American workforce with the necessary skills for integrating AI across various industries. Additionally, the plan seeks to harmonize and coordinate AI initiatives across all federal agencies, ensuring effective collaboration and synergy in AI-related endeavors.

Government Initiatives

Government initiatives on AI aim to foster innovation, research, and development in the sector. Governments across the globe are implementing policies to promote AI adoption, investment, and regulation. These initiatives include funding AI research projects, establishing AI centers of excellence, facilitating public-private partnerships, and formulating ethical guidelines. Moreover, governments also focus on AI education and workforce development to meet the growing demand for AI skills. Additionally, there is an emphasis on ensuring responsible and accountable AI deployment, addressing concerns related to data privacy, bias, and transparency. Furthermore, government initiatives play a crucial role in shaping the AI landscape, fostering technological advancements, and maximizing the benefits of AI while mitigating risks.

For example, National Artificial Intelligence Initiative Act of 2020 (NAIIA) - The primary objectives of the initiative are to maintain the United States' leadership in AI research and development, establish a prominent role in the development and deployment of reliable AI systems across public and private sectors, equip the current and upcoming American workforce with AI integration skills, and facilitate collaboration among Federal agencies to ensure mutual progress and synergy in AI endeavors.

Impact of COVID-19

The COVID-19 pandemic had a significant impact on the AI market. While the crisis has disrupted economies and industries worldwide, it has also created new opportunities and accelerated the adoption of AI technologies. In the healthcare sector, AI has been

+357 96 030922
info@marketpublishers.com

highly beneficial in areas such as diagnosing and tracking viruses, drug discovery, and optimizing healthcare operations. Moreover, the demand for AI-powered solutions has increased in sectors like e-commerce, logistics, and customer service as businesses adapt to changing consumer behaviors. However, the pandemic has also posed challenges, with disruptions in supply chains and reduced investment in AI research and development. Additionally, ethical concerns related to privacy and bias in AI applications have become more pronounced during this period.

Moreover, the AI market is projected to experience substantial growth in the post-COVID era. Businesses are increasingly adopting AI for automation, data analysis, and decision-making processes, thereby leading to enhanced innovation and efficiency across industries. Hence from the aforesaid statements it can be concluded that the pandemic has accelerated the demand for AI solutions, driving the market's expansion and fostering a technology-driven future in a wide range of sectors.

Impact of the Russia-Ukraine War

The Russia-Ukraine war had a significant impact on the AI market. The conflict has disrupted supply chains and geopolitical stability, causing economic uncertainty that impacts various industries, including AI. Moreover, the companies involved in AI research, development, and manufacturing may face challenges due to the geopolitical tensions and potential sanctions. Additionally, the war could lead to a diversion of resources and government attention away from AI initiatives, impacting funding and support for AI projects. Furthermore, geopolitical instability may also affect international collaborations and partnerships, limiting knowledge sharing and hindering advancements in AI technologies. On the other hand, the conflict could drive increased investment in AI for military applications and surveillance technologies, as countries seek to enhance their defense capabilities. Overall, the Russia-Ukraine war introduces uncertainties as well as potential disruptions to the AI market, thereby highlighting the interplay between geopolitics, security concerns, and technological developments.

Key Players Landscape and Outlook

The global artificial intelligence market is experiencing a rapid growth rate as companies from all across the globe are focusing on the launching of brand-new AI platforms. Moreover, the advent of Artificial Intelligence (AI) and IoT (Internet of Things) along with the investment of the companies on creating more resources for research and development, various collaboration projects, marketing efforts, and the expansion of distribution networks is aiding the market expansion rate extensively.

+357 96 030922
info@marketpublishers.com

In May 2023, IBM Corporation launched a new generative platform AI platform, Watsonx. The organization's primary focus is on delivering a hybrid cloud ecosystem and implementing a generative AI approach that prioritizes the enterprise, data, and governance aspects of the technology.

In May 2023, Microsoft Corporation introduced an AI-driven version of Microsoft Bing and Edge, aiming to revolutionize the future of web search by serving as a helpful companion. The goal is to address the common issue of unanswered web searches, which currently leaves a significant number of users dissatisfied. By leveraging powerful language models like OpenAI's GPT-4 and a vast search index, Bing delivers up-to-date, authoritative, and conversational results that are unique to the platform. This development is fundamentally transforming the information-finding process for individuals.

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

8. GLOBAL ARTIFICIAL INTELLIGENCE MARKET OUTLOOK, BY REGION, 2016-2030F

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

9. MARKET MAPPING, 2022

10. MACRO ENVIRONMENT AND INDUSTRY STRUCTURE

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

*Companies mentioned above DO NOT hold any order as per market share and can be changed as per information available during research work.

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Artificial Intelligence Market Assessment, By Component [Hardware, Software and Services], By Type [Artificial Narrow Intelligence, Artificial General Intelligence, Artificial Superintelligence, and Others], By Technology [Natural Language Generation, Speech Recognition, Machine Learning Platforms, AI Optimized Hardware, Robotic Process Automation, Text Analytics and Natural Language Processing, and Others], By Deployment [Cloud-Based, and On-premises], and End-user [Healthcare, Education, BFSI, Agriculture, Automotive and Transportation, IT and Telecommunication, Government & Defense, and Others], By Region, Opportunities, and Forecast, 2016-2030F

Product link: https://marketpublishers.com/r/AE8B082C809FEN.html

Price: US$ 4,500.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/AE8B082C809FEN.html