

Artificial Intelligence: Current Trends, Advantages, and Future Potential

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Abstract: *Artificial Intelligence is an interdisciplinary field that combines Machine Learning, Big Data, Cloud Computing, and Information Theory. The major advantage of machine learning is that it builds on prior experience, so machines are self-learning and can predict the future without error. It is a kind of decision-making approach that is applied in various domains like social media, health care, finance, etc. In Big Data and Cloud Computing, the volume of data is sustainable and increasing, which is processed with low power consumption with the help of machine learning. It is possible to support the next generation of smart grid by providing the platform that integrates, in addition to the communication infrastructure, the AI and IoT support, providing a multitenant system, thanks to the future Massive Internet of Things (MIoT), one of the pillars of the 5G/6G network factory. Rapid development in Deep Learning, Artificial Intelligence (AI) and Machine Learning (ML) will give better results for future applications. This paper focuses on the trends and challenges related to AI is discussed.*

Keywords: Machine learning, decision making, self learned, low consumption

I. INTRODUCTION

Can machines think?" Alan Turing posed this question in his famous paper "Computing Machinery and Intelligence." He believes that to answer this question, we need to define what thinking is. However, it is difficult to define thinking clearly, because thinking is a subjective behavior. Turing then introduced an indirect method to verify whether a machine can think, the Turing test, which examines a machine's ability to show intelligence indistinguishable from that of human beings. A machine that succeeds in the test is qualified to be labeled as artificial intelligence (AI).

AI refers to the simulation of human intelligence by a system or a machine. The goal of AI is to develop a machine that can think like humans and mimic human behaviors, including perceiving, reasoning, learning, planning, predicting, and so on. Intelligence is one of the main characteristics that distinguishes human beings from animals. With the interminable occurrence of industrial revolutions, an increasing number of types of machine types continuously replace human labor from all walks of life, and the imminent replacement of human resources by machine intelligence is the next big challenge to be overcome. Numerous scientists are focusing on the field of AI, and this makes the research in the field of AI rich and diverse. AI research fields include search algorithms, knowledge graphs, natural languages processing, expert systems, evolution algorithms, machine learning (ML), deep learning (DL), and so on.

1.1 Advantages

By using Artificial intelligence human works can be reduce, by replacing peoples by machines, people Can do others works.

programming, self-writing , self modifying etc by these works man feels burden on him.

The artificial intelligence is like a cheap labor, and by using this labor our work will be fast and the profit will be Increased.

Artificial intelligence can be deployed easily. Machines not required refreshments and breaks as like human beings. The machines can be re programmed for work for long time without getting bored or getting tired. The science of robotics and artificial intelligence can be deploy into mining and other fuel exploration process by This we can save human life because human can make new robots but we cant make that human.

Artificial intelligence can be deployed at industries and companies.

1.2 Disadvantages

Not easy to develop the machines because the equipment are also expensive. Can cost tons of cash and time to create , rebuild, and repair. Robotic repair can occur to scale back time and Humans wanting to fix it, but that'll cost extra money and resources.

Robots, with them replacing jobs, can cause severe unemployment, unless if humans can fix the unemployment With jobs AI can't do or severely change the govt to communism.

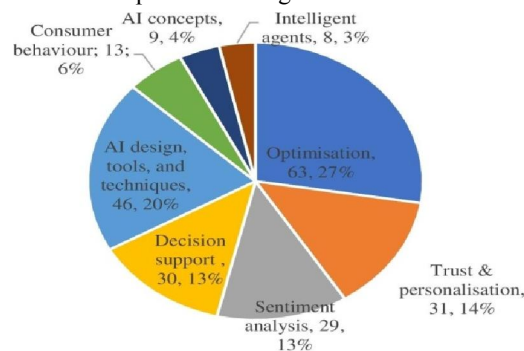
Machines can easily cause destruction, if put within the incorrect hands. That is, a minimum of a fear of the Various humans.

AI is making humans lazy with its applications automating the bulk of the work. Humans tend to urge hooked in To these inventions which may cause a drag to future generations.

As AI is replacing the majority of the repetitive tasks and other works with robots, human interference is Becoming less which may cause a significant problem within the utilization standards. Every organization is Looking to exchange the minimum qualified individuals with AI robots which may do similar work with more Efficiency.

There is little question that machines are far better when it involves working efficiently but they can't replace the Human connection that creates the team. Machines cannot develop a bond with humans which is an important Attribute when involves Team Management.

Machines can perform only those tasks which they're designed or programmed to try to , anything out of that They have a tendency to crash or give irrelevant outputs which migh



II. AI IN SAFETY AND SECURITY

AI is used only when necessary. And deployment is very carefully done, AI is also helpful for Removing some of the bias inherent in human decision-making. The term AI is also helpful in Cybersecurity, And machine learning is making an impact. The CCTVs are deployed almost everywhere in the world today Tend to be more useful for helping solve crimes and preventing them. and preventing them.

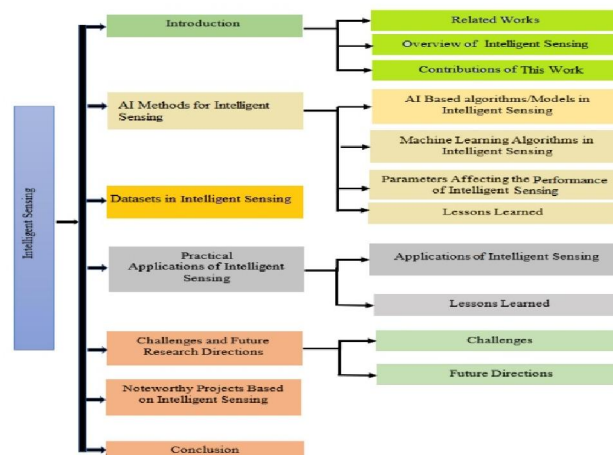


Table -1: Recent trends in Ai-based
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Chart -1: Artificial intelligence E-Commerce

Classification of MIS literature on AI in e-commerce by current research themes.

MIS is necessary in today's world because it provides organizations the tools and information to operate efficiently, make better decisions, and compete effectively in a rapidly changing business environment. Raw data is collected through hardware & software, which is then processed and analyzed to generate reports that inform managers and other stakeholders about key performance indicators, such as sales, inventory levels, and production output to improve their decision-making, and ultimately achieve their strategies goals.

III. CONCLUSION

Artificial Intelligence (AI) has revolutionized marketing domain, driving rapid digital transformation by enhancing processes, accelerating growth, and transforming the business landscape. Despite the growing attention towards artificial intelligence review studies, there remains a dearth of comprehensive reviews within the marketing domain. To address these gaps the aim of this review study to explore the use of artificial intelligence in marketing as an emerging research topic using a systematic literature review (SLR) method. The bibliometric analysis of 522 studies highlight that AI in marketing domain has six clusters: psychosocial dynamic of AI, AI-enhanced market dynamic & strategies, AI for consumer services, AI for decision making, AI for value-transformation and AI for ethical marketing. The review study highlights that there is a possibility to pave the path for the future by creating a comprehensive model or theory that precisely describes the current context of AI system adoption in the field of marketing. Moreover, future researchers could shed light on the choices, processes, and variables that integrate AI-based systems in marketing into the contemporary business landscape by initiating these investigative trajectories.

Analysis technique

The two key types of data analysis are qualitative and quantitative analysis. Statistics are not used in qualitative research. Instead, statements, symbols, or observations are employed to collect data, which are evaluated via content analysis, sentiment analysis, or thematic analysis (Nueman, Citation2014). Quantitative analysis employs statistical methods to examine data linkages and evaluate the gathered data (Nueman, Citation2014). The aforementioned explanation and data insights outline a pattern among the top 20 frequently referenced publications, which collectively highlight a preference for qualitative analysis. Only two writers (Deng et al., Citation2019; Kaiser et al., Citation2020) used statistical analysis, while the majority adopted qualitative approaches, which proves that marketing AI remains in its infancy and that few empirical studies exist. Therefore, academics favour qualitative analysis of textual data as a practical means to comprehending this developing field.

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