

A Study on the Applications and Impact of Artificial Intelligence in E-Commerce Industry

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ABSTRACT

Trends in computer science show that various aspects of Artificial Intelligence are emerging, and other trends show that these advances are being applied to create intelligent information systems. In recent days artificial intelligence is changing the ways in which computers are usable as problem solving tools. The talent of humans is thus smartly creating and operating tools are indeed a feature of human based brainpower. This technology is now adapted by various E-Commerce websites in order to identify the customer preference, pervious purchases, frequent checks etc. Google and Microsoft are also investing in artificial intelligence through various forms in order to enhance better customer service. The main aim of the study is to analysis and explores the various applications and impact of artificial intelligence in E- Commerce industry. This study analyses and concludes that by replacement of human expert with artificial intelligence systems in E-Commerce industry can significantly speedup and cheapens the production or service process.

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KEYWORDS: Artificial Intelligence, E-Commerce industry, Applications and Impact

INTRODUCTION

Artificial intelligence is the development of computer system which are capable of performing tasks normally requiring human intelligence, such as visual perception, speech recognition decision making And translation since the invention of computers or machines, beyond the Expectations.

Human beings develop the computer system in terms to diversity their working domains, in order to increase the speed and decrease the time duration. Artificial intelligence is one of the branches of computer science which pursues creating computer as intelligent humans. John Mc Carthy is enraged as the father of Artificial intelligence the various disciplines that artificial intelligence is based as science and technology, are biology computers science, psychology, linguistics, mathematics and engineering. The Artificial intelligence helps the companies in quick decision making and also to improve the position of the companies in the competitive business world these are many changes that have been implemented over different platforms of Artificial intelligence and specially in e-commerce platforms this recent technology of Artificial intelligences attracting everyone to get more innovative into online market. Artificial intelligence is revolutionizing thee-commerce by shaping the world of online shopping by creating new standard.

tremendous promises as solutions and optimization for variety of stamen problems we face.

Review of literature:

➤ Shruthi Anand and Sidharth Ray: "Artificial Intelligence Literature Review. Creative Common Attribution 4.0 International License, The Centre of Internet and Society, India) This Literature synthesis attempts to provide abroad over view of key technologies that compose the umbrella term referred to as. AI and key common factors/issues to its different disciplines. As is evident from literature synthesis, the field of AI offers

- Dheeraj Kapoor, RKGupta: "Software cost Estimation using Artificial Intelligence Technique"(International Journal Of Research and Development in Applied Science and Engineering) The Artificial neural based software has been proposed by the authors in order to improve the precision of Software cost estimation. The performance of the model has been analyses in terms of MEA [Mean absolute error], correlation, co-efficient and RMSE [Root-Mean-Square-Error] method.
- Mausami sahu: "Plagiarism Detection Using Artificial Intelligence" (International Journal of Scientific and Technology Research) this paper suggested a new technique of Plagiarism. This method clusters the string and matches word with neigh bourse. The technique was proposed based on K-NN method in order to counter is used. The file is compared with a existing set of files. The matched set of words are selected as copied words and regarded as output. The percentage of copied matched words is also calculated.
- Ashish, A. Dongare, prof R D Ghongade: "Artificial Intelligence Based Bank Cheque Verification System"(International Journal of Engineering and Technology) In this paper the signature verification system with the base of Artificial intelligence has been proposed. The first step of the system is to acquire the

image of the system is to acquire the image of the signature in order to train the neural network the actual and forged signature images of 10 persons has been used features like stroke, colour dominant histogram, moment invariants generalized linear models subject to constraints are selected. Compared to existing verification method the proposed system considers less time.

- Unnati Dhavare, prof. Umesh Kulkarni: "Natural Language Processing Using Artificial Intelligence" (International Journal of Emerging Trends and Technology in Computer science) in this paper natural language processing concept has been studied; natural language processing is one of the applications of Artificial intelligence. In order to analyzer, understand the human language by computers natural language processing is done.
- Nishika Guptha "A Literature Survey on Artificial Intelligence" (International Journal of Emerging Trends and Technology in Computer science) this paper is based on the concept of Artificial Intelligence, are as of artificial intelligence and techniques. The field of AI gives the ability to machines to think analytically the concepts. AI will continue to play an increasingly important role in many fields.

Objectives of the study:

- To analyse the various applications of Artificial Intelligence in E-Commerce industry.
- To evaluate the impact and influence of Artificial Intelligence in E-Commerce industry.

Study Methodology:

This article explains the prospective of many individuals relevant to this research article and data is obtained as per their research. The information regarding this research is made available through secondary sources on which entire research is based.

Limitations of the study:

- This study is confined only to the secondary data which is obtained as per the individual research with their perspective.
- The study only concentrates on the applications and impact of artificial intelligence only with reference to E-Commerce industry.

Applications of Artificial Intelligence in E-Commerce industry

In order to provide customers the best services all E-Commerce sellers are adapting various applications of Artificial Intelligence in various forms. E-Commerce industries are aiming to ensure better customer relationship management by adapting various applications of Artificial Intelligence. The various applications of Artificial Intelligence are explained as follows:

➤ Chatbots:

E-commerce websites are using chat bots to improve the customer supports service. Chatbots is one of the applications of artificial intelligence they communicate to humans through SMS chats or message in order to know the consumers preference.

➤ Handling customers data:

E-Commerce has two things to done is the end less list of products and the other is maintaining lot of data. E-Commerce website shas to maintain the in forma it on related to both consumers and the preferred products by customers and also the data like the total sales made per day, and the count of orders received and the information about the inventory, asitisnot able for the human beings to maintain this huge data E-Commerce websites adapt artificial intelligence to handle data.

➤ Recommendation systems:

This is one of the applications of artificial intelligence in E-Commerce. The recommendation systems predict the customer/user preference based on the past purchases, frequent checking, and ratings for the particular product.

➤ Inventory Management:

Inventory management is one of the important task in the business. It is very important for the E-Commerce businesses in order to manage inventory. Inventory management is also on of the import and application of artificial intelligence, this application of artificial intelligence keeps an eye on the stock of Product every day and updates the inventory information to the E-Commerce industries.

➤ Sales Improvement:

The main objective of every business is to increase the sales. Artificial Intelligence application predicts and forecast the sales based on the historical data, data analytics and latest trends for optimizing the resource allocation and sales of the organization.

Impact of Artificial Intelligence in E-Commerce industries

Adapting Artificial Intelligence in E-Commerce industry has its own impact and benefits. The impact of adapting artificial intelligence in E-Commerce industry are explained below.

➤ Smart customer relationship management:

Customer relationship management is one of the impact of Artificial Intelligence in E -Commerce industry. Every business organization needs constant customer retention. Businesses small or big always look to capture market which always begins by understanding customers. Artificial Intelligence generates the data about customer preferences with the help of past purchases of customers and frequent check-ins by customers. An AI app could provide valuable details such as specific shopping patterns, a target market's lifestyle habits, and family- specific data.

➤ Enabling operational Efficiency:

By transferring automated tasks to employees the companies can enhance higher skill growth in order to reach the target market. One of the applications of Artificial Intelligence i. e. chatbots help in customers in solving complex issues and answering simple questions.

➤ Customer centric:

Analyzing the customer needs is very important for any business organizations. Artificial Intelligence helps the E-Commerce industries to analyze the customer preferences, likes and dislikes of the customers through data analytics and assist the E-Commerce websites about customer preferences.

➤ **Visual search:**

Artificial Intelligence enables visual search for customers. Visual search enabling customers to take a picture of a product they like and then upload it. The AI software will then be able to evaluate that specific product, brand, style, colour, etc. and then provide suggestions on al 3.

➤ **Virtual Personal Shopper:**

In a world where many consumers are time poor, the thought of being able to use a personal shopping assistant appeals to many, with the only objections being the cost of seeking their advice. When that personal shopper is effectively a computer using artificial intelligence, the cost implications will quickly fade away.

Conclusion:

Replacing the human expert with artificial intelligence systems in particular/specific systems and of course in E-Commerce can increase the operations and functioning of E-Commerce industry. The revolution of artificial intelligence in E-Commerce industry will give way for the growth of data science, machine learning and engineering. The widespread of artificial intelligence creates transitions to a qualitatively new stage of progress and also helps for the growth of industries automation and one of the main advantages of using artificial intelligence in E-Commerce is to maximize the efficiency of the business. Thus it is concluded that implementation of Artificial Intelligence in E -Commerce

industry will fetch more benefits and increases the operation and ensures effective functioning of an industry.

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