

AN ANALYTICAL STUDY OF ARTIFICIAL INTELLIGENCE IN THE MODERN ERA**Mrs. Swapna Thackeray**

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ABSTRACT

Artificial Intelligence (AI) has emerged as one of the most transformative technologies of the modern era. This paper explores the concept of artificial intelligence, its historical development, applications, advantages, disadvantages, and its impact on society and employment. The study aims to provide a balanced and original overview of AI for academic purposes.

Keywords: *Artificial Intelligence, Machine Learning, Automation, Technological Advancement, Applications of AI, Employment Impact, Ethical Challenges*

INTRODUCTION

Artificial Intelligence (AI) involves the development of machines capable of performing tasks that require human intelligence, such as learning, reasoning, and decision-making. With rapid technological progress, AI has become an essential part of everyday life.

METHODOLOGY

This study adopts a descriptive and qualitative research approach to examine the concept, development, and impact of Artificial Intelligence. Secondary data has been collected from books, research journals, academic articles, and reliable online sources related to artificial intelligence. The collected information is analyzed systematically to understand the applications, advantages, disadvantages, and employment implications of AI. Content analysis is used to interpret existing studies and reports, allowing the research to present a balanced and structured overview of artificial intelligence and its future scope.

OBJECTIVES OF THE STUDY

The objectives of this study are to understand the concept and development of AI, examine its applications, analyze its advantages and disadvantages, and evaluate its impact on society and employment.

History and Evolution of Artificial Intelligence

Artificial Intelligence originated in the 1950s with early ideas proposed by Alan Turing. Since then, AI has evolved from basic rule-based systems to advanced machine learning and deep learning technologies used in modern applications.

Applications of Artificial Intelligence

AI is widely applied in sectors such as healthcare, education, business, transportation, and finance, improving efficiency, accuracy, and decision-making processes.

Advantages of Artificial Intelligence

AI reduces human error, increases efficiency, supports faster decision-making, operates continuously, and enhances productivity and innovation.

Disadvantages of Artificial Intelligence

High costs, job displacement, ethical issues, data privacy concerns, and limited creativity are key challenges associated with AI.

Impact of Artificial Intelligence on Employment

While AI may replace some routine jobs, it also creates new opportunities in technology-related fields, making skill development essential.

Future Scope of Artificial Intelligence

AI has strong future potential in areas such as healthcare, smart cities, and space exploration, with responsible and ethical development ensuring its positive impact.

CONCLUSION

Artificial Intelligence is a powerful technology that continues to shape the modern world. While it presents

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challenges, its potential benefits outweigh the drawbacks when implemented responsibly. A balanced approach is necessary to maximize its positive impact on society.

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