Artificial Intelligence in Women Empowerment

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ABSTRACT:

In recent years, Artificial Intelligence (AI) has emerged as a powerful tool with the potential to transform various aspects of society. In India, where women have historically faced gender disparities and social challenges, AI has the potential to play a significant role in promoting women's empowerment. This article explores the background and impact of AI on women empowerment in India. India, as a diverse and culturally rich country, has made significant strides towards women empowerment. However, gender inequality persists in various domains, including education, employment, and healthcare. Discriminatory social norms, limited access to resources, and lack of opportunities have hindered the progress of women across the nation. The role of AI in women empowerment is very important.AI is study the impact of AI on women empowerment. To assess the potential of AI for women empowerment. To examine the gender biases in AI algorithms.To explore the challenges and opportunities for future growth.

KEYWORDS:

Artificial Intelligence, Empowerment, Education, Healthcare, Entrepreneurship, Gender.

Introduction:

In recent years, Artificial Intelligence (AI) has emerged as a powerful tool with the potential to transform various aspects of society. In India, where women have historically faced gender disparities and social challenges, AI has the potential to play a significant role in promoting women's empowerment. This article explores the

background and impact of AI on women empowerment in India. India, as a diverse and culturally rich country, has made significant strides towards women empowerment. However, gender inequality persists in various domains, including education, employment, and healthcare. Discriminatory social norms, limited access to resources, and lack of opportunities have hindered the progress of women across the nation.

Generally speaking, Artificial Intelligence is a computing concept that helps a machine think and solve complex problems as we humans do with our intelligence. For example, we perform a task, make mistakes and learn from our mistakes likewise, an AI or Artificial Intelligence is supposed to work on a problem, make some mistakes in solving the problem and learn from the problems in a self–correcting manner as a part of its self–improvement. Or in other words, think of this like playing a game of Chess. Every bad move you make reduces your chances of winning the game. So, every time you lose against your friend, you try remembering the moves you made which you shouldn't have and apply that knowl–edge in your next game and so on. Eventually, you get better and your precision, or in this case probability of winning or solving a problem.

A Brief History of AI the concept of Artificial Intelligence is not as modern as we think it is. This traces back to as early as 1950 when Alan Turing invented the Turing Test. Then the first catboat computer program, ELIZA, was created in the 1960s. IBM deep blue was a chess computer made in 1977 beat a world chess cham–pion in two out of six games, one won by the champion and the other three games were draw.

Definition and Concept Artificial Intelligence:

AI is the emulation of human intellect in robots trained to do

activities that would normally require human intelligence. It includes a wide range of technologies and approaches aimed at allowing robots to see, reason, learn, and make decisions in the same way that people do. AI is centred on the creation of intelligent systems that can analyse massive volumes of data, derive relevant insights, and modify their behaviour or activities in response to changing conditions. AI is divided into two categories: Narrow AI and General AI. Narrow AI, usually referred to as weak AI, is intended to do certain jobs or address specific issues. It is widely used in applications like as voice assistants, picture recognition systems, recommendation algorithms, and self-driving cars. General AI, also known as strong AI or AGI (Artificial General Intellect), on the other hand, aspires to human-level intellect and skills across various disciplines. The pursuit of general AI is a continuing subject of study and development. Machine learning, which allows systems to learn from data and improve their performance over time, and natural language processing, which allows machines to interpret and synthesize human language, are key components of AI. Computer vision, robotics, expert systems, and neural networks are some more AI approaches. Artificial intelligence has the potential to transform a wide range of industries, including healthcare, banking, transportation, and manufacturing. It has the potential to improve decision-making, automate repetitive operations, optimize resource allocation, and stimulate creativity. However, ethical issues such as privacy, prejudice, and job effect must be properly addressed to enable the responsible and useful deployment of AI technology.

Objectives of the Study:

1. To study the role of AI in women empowerment.
2. To study the impact of AI on women empowerment.
3. To assess the potential of AI for women empowerment.
4. To examine the gender biases in AI algorithms.

5. To explore the challenges and opportunities for future growth

Goals of AI:

1. To Create Expert Systems: The systems which exhibit intelligent behaviour, learn, demonstrate, explain, and advice its users.
2. To Implement Human Intelligence in Machines: Creating systems that understand, think, learn, and behave like humans.

AI at Work Today:

The most common examples of uses of Artificial Intelligence can be found today in smart personal assistants like Apple's Siri and Amazon's Alexa. People interact with these devices to command them on a daily basis and these devices use the commands as a part of their dataset to learn from. Another known example of Artificial Intelligence is the use of algorithms in Netflix. Netflix provides very much accurate and relevant suggestions of movies, tv series from our data which is created every time we stream or click on something in Netflix. As the dataset for these systems grows, their accuracy and precision increase as well. Artificial Intelligence is also viewed as a great tool for better cyber security. Many banks are using AI as a means to identify unauthorized credit cards uses. From analysing complex genetic data to perform the most delicate surgeries at the highest precision is also being worked on to integrate with AI. We all know about companies like Tesla and Apple working to make flawless self-driving cars which is going to have game changing impacts on the future of transportation.

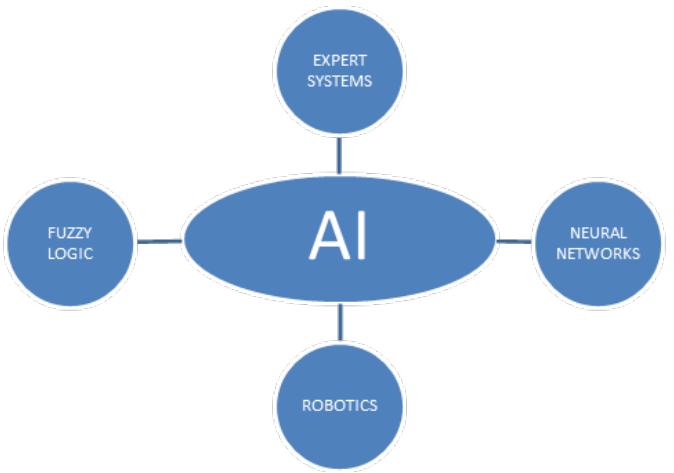
What Contributes to AI?

Artificial intelligence is a science and technology based on disciplines such as Computer Science, Biology, Psychology, Linguistics, Mathematics, and Engineering. A major thrust of AI is in the development of computer functions associated with human in-

telligence, such as reasoning, learning, and problem solving. Out of the following areas, one or multiple areas can contribute to build an intelligent system.

Research Areas of AI:

The domain of artificial intelligence is huge in breadth and width. While proceeding, we consider the broadly common and prospering research areas in the domain of AI:



Expanding Economic Opportunities for Women:

Artificial Intelligence (AI) is playing a pivotal role in empowering women through philanthropy by expanding economic opportunities. AI-driven programs and platforms can provide women, especially in underprivileged regions, with access to skills training and job opportunities in tech-driven sectors. This fosters economic independence and empowerment.

Potential of AI for Women Empowerment

1. Education and Skill Development:

AI has the potential to change education and skill develop-

ment, allowing women equitable access to high–quality learning opportunities. Online platforms and AI powered applications may provide tailored education, allowing women to learn new skills and gain new information. These technologies have the potential to close the educational gap and allow women to pursue their dreams, improving their employability and economic independence.

2. Employment and Entrepreneurship:

By facilitating fair and transparent recruiting procedures, AI can reduce gender prejudices in the workplace. Biases in job ads, selection procedures, and performance reviews can be reduced with AI–powered technologies. Furthermore, AI can promote remote employment and flexible hours, giving women additional possibilities to enter and excel in the industry. AI may also help women launch their own enterprises by offering market data, automating activities, and improving decision–making.

3. Healthcare and Well–Being:

Artificial intelligence has the potential to improve healthcare results and increase women's access to quality healthcare services. AI–powered solutions can help with illness identification and early detection, individualized treatment strategies, and remote patient monitoring. These improvements have the potential to eliminate healthcare inequities and improve the well–being of women, particularly those living in rural and underserved regions.

4. Safety and Security:

AI–based solutions can help women feel safer by tackling issues such as harassment, violence, and security. Preventing crimes against women can be aided by smart surveillance systems, face recognition technology, and predictive analytics. AI–powered smartphone applications can give real–time emergency assistance, allow–

ing women to seek aid and report instances as soon as possible.

5. Economic Empowerment:

AI can play a significant role in empowering women economically by providing new avenues for employment and entrepreneurship. It can enable women to participate in the digital economy, access online marketplaces, and explore work–from–home opportunities. Initiatives like the Government of India's Digital India program and various e–commerce platforms have opened doors for women to start their own businesses and become financially independent.

6. Gender Equality:

AI has the potential to tackle gender biases and promote gender equality. By removing human biases from decision–making processes, AI algorithms can ensure fair opportunities for women in areas such as recruitment, promotions, and access to financial services. Additionally, AI–powered catboats and virtual assistants can provide support and information on gender–based violence and women's rights, empowering women to seek help and support.

Conclusion:

AI has the potential to address and mitigate various challenges faced by women, such as gender bias and discrimination. AI algorithms can help eliminate biases in recruitment processes, performance evaluations, and decision–making systems, leading to fairer outcomes and increased opportunities for women in education, employment, and leadership positions. AI can also enhance women's economic empowerment by providing access to new markets, entrepreneurship opportunities, and flexible work arrangements. AI–powered tools can also assist in skills development and training, enabling women to participate in emerging fields and industries. AI

applications have the potential to improve women's access to quality care and address gender–specific health issues. However, it is important to recognize and address potential challenges and risks associated with AI. Gender bias in training data and algorithmic decision–making can perpetuate existing inequalities and further marginalise women. To harness the full potential of AI, it is necessary to adopt inclusive and ethical practices, while actively engaging women in AI development and decision–making processes. By doing so, AI can be a powerful tool for achieving gender equality and creating a more inclusive and empowered society for all.

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The Authors have no conflict of interest to declare that they are relevant to the content of this article.