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EXPLORING THE POTENTIAL OF AI TO BRIDGE THE GENDER GAP IN ACCESS TO JUSTICE IN INDIA

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ABSTRACT:

India faces an enormous gender gap in access to justice. This research investigates the ability of artificial intelligence (AI) to bridge this gap by looking into how AI-powered solutions may help women by giving legal knowledge, guiding them through difficult legal procedures, and relating them to legal services. The study examines the usefulness of AI chatbots, legal assistance platforms, and other AI tools in overcoming traditional barriers faced by women in India's justice system. This paper addresses possible issues like algorithmic bias and the digital divide. The purpose of this paper is to contribute to a more inclusive and equitable legal landscape for women in India by suggesting ways for responsible AI development and implementation for gender justice. It examines the potential of AI to address gender disparities, improve access to promote gender equality by highlighting the opportunities and challenges of AI in advancing equal access to justice. This study aims to identify how AI can be leveraged to dismantle existing obstacles and ensure equal access to justice for all in India.

Keywords: AI, gender justice, gender bias, access to justice.

INTRODUCTION:

Artificial Intelligence is changing the world in so many ways, from impacting healthcare and finance to manufacturing or entertainment. While it may be up to interpretation, AI essentially describes how a machine can replicate human cognitive tasks such as learning, problem-solving and decision-making. It sprawls a range of methods such as machine learning, deep learning and natural language processing which allow the machines to analyze input data compute information relate patterns predict likelihoods with increasing precision. AI in itself is at a place where it could change everything, from our daily lives to the way we look at things; that means

as AI evolves further, which it will if companies like Google and Baidu continue putting more money into R&D, bringing in what Programmers call AGI or Artificial General Intelligence would need a lot of thought put behind not only its ethical implications but societal effect.

In India, there are several financed global programs that try to increase the execution of justice-related proclamations. These projects typically originate from a context where law and culture are perceived to be exemplified by gender disparity. Women seeking access to justice may encounter challenges due to the severe societal obstacles, economic inequality, and a backlogged legal system. This research investigates if artificial intelligence (AI) can be used to solve this issue. With comprehensive data gathering and clever wordplay, AI may help women navigate the legal system, understand their rights, and contact counsel.

Artificial Intelligence (AI) has been a strong instrument that has the potential to change many sectors of society in recent years. Artificial intelligence (AI) has the potential to significantly contribute to women's empowerment in India, a country where women have historically experienced social hurdles and gender inequities¹. The history and effects of AI on women's empowerment in India are examined in this article. India, a multicultural nation with a rich cultural heritage, has made great progress in empowering women. But there is still gender disparity in a number of areas, including as healthcare, work, and education. Social norms that discriminate against women, restricted access to resources, and a lack of opportunity have impeded their advancement throughout the country.

METHODOLOGY:

The doctrinal research approach is used in this paper. Secondary and tertiary statistics from sources like books, periodicals, essays, e-sources, newspapers, and other sources are used. Numerous magazines, articles, newspapers, journals, e-books, specific legislation acts, conventions, policies, regulations and schemes were referenced. By following this research methodology, the study aims to contribute to a comprehensive understanding of the potential of AI to enhance women's access to justice in India while also identifying challenges and opportunities for future development.

¹ Kuklinski, C., & Brachten, F. (2020). Gender Bias in AI—A Systematic Literature Review. *Information Systems Frontiers*, 1-31.

OBJECTIVES:

1. To Determine the main causes of the gender disparity in India's access to the legal system and legal services.
2. To determine certain AI uses that might be significant to enhancing Indian women's access to justice.
3. To analyze the difficulties and limitations of applying AI to legal help.
4. To discuss potential biases that AI algorithms might inherit from training data, and how these could impact women's access to justice.
5. To provide recommendations for how policymakers and legal aid organizations may encourage the use of efficient AI solutions.

By the pursuit of these goals, this research paper aims to offer an in-depth analysis of the ways in which artificial intelligence (AI) might be employed to empower women and establish an equitable legal system in India.

AI AND THE BUZZ AROUND IT:

Artificial intelligence (AI) has become a term that's everywhere these days, grabbing attention and sparking conversations in various fields. But with so much information and hype surrounding AI, it can be easy to lose sight of what it can actually do and what its limitations are. In this section, we'll dive into the current buzz around AI, break down its core principles, and emphasize the importance of approaching its development and implementation with a critical mindset.

Artificial intelligence (AI) has become a super popular term that everyone's talking about these days. But here's the thing, there's still no universally agreed definition for AI. Basically, it's all about machines trying to do human-like stuff, like learning, solving problems, and making decisions. It's a huge field that includes a bunch of techniques like machine learning, deep learning, and natural language processing. These techniques help machines process info, find patterns, and make predictions that are getting crazily accurate. People are super hyped about the potential of AI to change the game, but it's important to remember that AI isn't just one thing. It's a constantly evolving field with its own limitations and ethical considerations².

² Beyond the hype: Navigating the impact of AI in business: Andrew gough, blog.12 June 2023, accessed on June 15, 2024, at 8.00a.m.

We rely on tech assistants like Google, Alexa, Siri, and ChatGPT in our daily lives. It's pretty clear that technology has become a crucial part of our existence, so it's important to get a grip on what AI is all about in this digital age. The term "Artificial Intelligence" (AI) was actually coined way back in 1955 by a smart Stanford Professor named John McCarthy. He defined it as "the science and engineering of making intelligent machines". His goal was to create machines that could simplify human tasks, and now we're at a point where we're working towards developing machines that can learn and perform tasks just like us humans. It's pretty amazing how AI has become a common phrase in households now³.

Even if the term artificial intelligence (AI) is being used in a different context, it is important to realize that machines can do a variety of tasks, including data recognition, pattern recognition, algorithm development, problem solving, and decision-making. As will be covered below, artificial intelligence is relevant⁴:

1. Rapid emergence of the market: Artificial Intelligence has quickly dominated the industry, regardless of domain. It now plays a significant role in our day-to-day activities. AI is the future, and this is sufficient confirmation of that.
2. Scattered over all areas: Artificial Intelligence is being employed in every potential field, including banking, healthcare, personal, IT, logistics, virtual assistants, cars, and entertainment.
3. Ethics and AI: As the AI sector expands, ethical and legal issues are increasingly becoming more pressing. In order to support the industry's growth, it is imperative that these issues be addressed.
4. Support from the government and media: These two groups are essential in raising awareness of the role that artificial intelligence is playing. Given that AI has been in the news, there are numerous grounds to think that it will have an impact on human history. It deserves the attention it needs since it will continue to be important in the years to come.
5. In spite of the media's frequent portrayal of artificial intelligence (AI) as this mysterious nearly immortal force, AI is actually based on a few fundamental ideas. Fundamentally, AI is about building intelligent robots with the ability to learn and adapt. And it

³ Stanford University, 'Artificial Intelligence Definitions', <<https://hai.stanford.edu/sites/default/files/2020-09/AI-Definitions-HAI.pdf>> accessed on June 2, 2024, at 11:15 a.m.

⁴ James Manyika and Kevin Sneader, 'AI, automation, and the future of work: Ten things to solve for' (McKinsey Global Institute, June 01, 2018, Executive Briefing) <<https://www.mckinsey.com/featured-insights/future-of-work/ai-automation-and-the-future-of-work-ten-things-to-solve-for>> accessed on June 19, 2024, at 8.00pm

accomplishes this by way of three main operations that characterize its powers.

AI systems first learn from data. They are similar to these data-crunching whizzes who sift through vast amounts of data in order to identify connections and patterns. These systems continuously process and analyze data, which allows them to improve over time. Pattern recognition is another area where AI excels. Its ability to produce incredibly accurate predictions and classifications is due to this. AI systems trained on medical imagery, for instance, are able to recognize cancerous cells with accuracy. I think that's quite remarkable. It demonstrates how AI can significantly affect a variety of fields. Finally, the core of AI is problem-solving. AI systems are capable of making clever decisions to address certain problems by taking into account a wide range of variables and utilizing data-driven insights.

AI'S POTENTIAL FOR EMPOWERING WOMEN:

Achieving gender justice in artificial intelligence (AI) involves a dual strategy. First, addressing bias in AI development requires greater diversity in the field. The underrepresentation of women in AI roles can result in algorithms that mirror the gender biases of their creators.

1. **Education and Skill Development:** Artificial intelligence (AI) has the power to transform education and skill development, guaranteeing that women have equal access to excellent educational opportunities. Women can learn new skills and information thanks to individualized education provided by AI-powered platforms and applications. This could close the achievement gap in education, enabling women to follow their goals, improve their employability, and become financially independent.
2. **Employment and Entrepreneurship:** AI can promote equitable and transparent hiring practices, reducing workplace discrimination based on gender. Biases in job postings, hiring processes, and performance reviews can be reduced with AI-driven technology. AI can also make it easier for women to work remotely and on flexible schedules, which will increase their chances of succeeding in a variety of fields. Additionally, AI can help women start their own enterprises by automating processes, allowing well-informed decision-making, and offering market insights⁵.
3. **Healthcare and Well-Being:** AI has the potential to enhance healthcare results and expand women's access to high-quality medical treatment. AI-driven systems can help

⁵ Kalyanpur, N., & Garg, V. (2020). "Artificial Intelligence for Women Empowerment in India: Opportunities and Challenges." *International Journal of Computer Applications*, 174(15), 15-19, accessed on June 10, 2024, at 3.30 PM

with remote patient monitoring, tailored treatment regimens, early detection, and disease identification. These developments could improve women's health and wellbeing, particularly for those living in underserved and rural areas, and lessen healthcare inequities.

4. **Safety and Security:** By tackling problems like harassment, assault, and security concerns, AI-based solutions can help to improve women's safety. Predictive analytics, facial recognition software, and intelligent monitoring systems can help stop crimes against women⁶. AI-driven smartphone apps can provide emergency support in real time, empowering women to ask for aid and report problems as soon as they happen.
5. **Social Awareness and Advocacy:** AI has the potential to be a major force behind social change and the advancement of women's rights. Algorithms using Natural Language Processing (NLP) may analyze enormous volumes of data, such as news articles and social media exchanges, to spot discriminatory practices, gender prejudices, and stereotypes.

The United Nations Commission on the Status of Women (CSW)⁷ highlighted the potential of AI to benefit women and girls, but also the risk of it perpetuating existing inequalities. AI development is currently dominated by men, raising concerns that the technology will be biased and not address the specific needs of women. To address this, the CSW emphasizes the need for more women in STEM fields. With only 30% of global technology professionals being women, the AI revolution risks being built on a foundation that excludes female perspectives. Encouraging girls' participation in STEM education and training is crucial to ensure they have the knowledge and tools to shape future technologies. There are positive developments in this area. The Action Coalition on Technology and Innovation for Gender Equality, established in 2021, aims to double the number of women in tech by 2026. With nearly 90% of its goals on track, this initiative offers hope for a more inclusive future of AI. There are already efforts underway to address this issue. The UN's Gender Social Media Monitoring Tool uses AI to find harmful content directed at women. Additionally, the UN Secretary-General created a group to study the risks and benefits of AI, and this group includes women from all over the world.

⁶ Varma, A., & Singh, A. (2019). "Role of Artificial Intelligence in Empowering Women in India: A Study." *International Journal of Engineering Development and Research*, 7(3), 162-167, accessed on June 8, 2024, at 9.00 PM

⁷ Tshilidzi Marwala, Rector of the United Nations University and Under-Secretary-General of the United Nations, "Now Is Our Chance to Govern AI for Women's Empowerment," United Nations University, March 14, 2024, <https://unu.edu/topics/artificial-intelligence?page=1>, accessed on June 25, 2024, at 4.00 PM

Overall, while AI development is moving quickly, there is still time to make sure these technologies are fair and work for everyone. We can't afford to leave AI development up to men only, just like we can't leave computing in general to men only. By working together, we can ensure AI benefits all of society, including women and girls.⁸

SDGs AND AI:

The United Nations' Sustainable Development Goals⁹ (SDGs) provide a comprehensive plan to create a fairer, more sustainable world by 2030. These 17 goals address numerous global challenges, including poverty, hunger, climate change, and gender inequality. In this context, artificial intelligence (AI) has surfaced as a formidable tool, capable of driving substantial progress across all these domains. The 2030 Agenda for Sustainable Development, which acts as a shared framework for promoting prosperity and peace for people and the environment, was adopted by the United Nations Member States in 2015. In order to address poverty, inequality, healthcare, education, economic growth, and climate change, the SDGs require global collaboration. Innovation in AI and gender equality are both important yet sometimes disregarded. AI applications can undoubtedly help advance women's empowerment through the SDGs. Although none of the two SDGs specifically discusses it, a few can be considered as using AI to empower women. These are listed in the section below:

1. Goal 5: Gender Equality - By identifying and eliminating gender prejudice in a variety of contexts, including employment, healthcare, education, and policymaking, AI can support the advancement of gender equality. Additionally, it can help end violence against women and increase the participation of women in decision-making processes¹⁰.
2. Goal 4: High-quality Education - Girls and women, especially those living in underdeveloped areas, can have easier access to high-quality education through the application of AI technology¹¹. AI-powered educational resources can help women and girls achieve better results by personalizing learning and providing linguistic support. They also improve access to high-quality education, particularly in areas with limited resources.
3. Goal 3: Good Health and Well-Being - Applying AI tools can help identify and stop

⁸ UNESCO, OECD & IDB. (2023). The effects of AI on the working lives of women, accessed on June 15, 2024, at 2:30 PM

⁹ The 17 Goals' (Department of Economic and Social Affairs, Sustainable Development, United Nations) <<https://sdgs.un.org/goals>> accessed on June 2, 2024, at 11:25 a.m.

¹⁰ Discussed under Chapter 1.1 'The Hype Of It All', pg. 15.

¹¹ Ibid

health issues that disproportionately affect women, like breast cancer and maternal death. Moreover, women living in rural places may have easier access to healthcare services thanks to AI- powered telemedicine and healthcare solutions.¹²

4. Goal 8: Decent Work and Economic Growth - By generating new employment opportunities, especially in the technology and AI sectors, AI can support women's economic empowerment. AI-driven solutions can also help female small company owners and entrepreneurs access markets and resources.¹³
5. Goal 9: Industry, Innovation, and Infrastructure - The development of AI can result in innovations and better infrastructure that help women have better access to resources and services that are vital to them.¹⁴
6. Goal 10: Reduced Inequalities¹⁵ - By giving women equal access to opportunities, services, and information, artificial intelligence (AI) has the potential to reduce current gender disparities and inequalities.
7. Goal 17: Collaborations to Achieve the Goals To fully realize the potential of AI for women's empowerment, governments, private sector companies, civic society, and AI professionals must collaborate¹⁶. By partnering, we can focus on developing moral AI solutions and ensuring that gender issues are taken into consideration when using AI technologies. Although AI can support women's emancipation, if it is not developed responsibly, it could also reinforce prejudices. In order to fully utilize AI's potential to advance women's empowerment and achieve the SDGs, we must assure its ethical development and application.¹⁷

Artificial Intelligence presents a complex challenge for women's empowerment. On one hand, it holds significant promise for addressing gender inequalities and advancing Sustainable Development Goals (SDGs)¹⁸. On the other, if not developed and implemented ethically, AI can reinforce existing biases, stalling progress. Therefore, it is essential to prioritize ethical practices in AI development to ensure it supports and enhances women's empowerment and the

¹² Discussed under Chapter 1.1 'The Hype Of It All', pg. 16.

¹³ Ibid

¹⁴ Ibid

¹⁵ Gender and financial inclusion' (International Labour Organization) <https://www.ilo.org/empent/areas/social-finance/WCMS_737729/lang--en/index.htm> accessed on June10, 2024, at 12:10 a.m

¹⁶ Ibid

¹⁷ Empowering Women at Work Policies and Practices for Gender Equality in Supply Chains' (UN Women, International Labour Organization Publication, 2020) <https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/---multi/documents/publication/wcms_774617.pdf> accessed on June 11, 2024, at 7.00p.m

¹⁸ AI for Sustainable Development Goals (AI4SDGs) Think Tank. (2023). AI for the Sustainable Development Goals. <https://ai-for-sdgs.academy/> , accessed on June 11, 2024, at 10.00p.m

achievement of SDGs.

LEGAL LANDSCAPE IN THE INDIAN CONTEXT:

India's legal system is making efforts to close the gap between the advancement of AI and empowerment of women. The laws that are now in place demonstrate the government's dedication to women's rights, and this commitment is being expanded to the field of artificial intelligence. Let's examine some of these particular legal actions in more detail.

The Constitution of India 1950¹⁹:

Although the Constitution of India came into being in 1950, well before the pervasive diffusion of Artificial Intelligence, many of its tenets could still be harnessed with respect to ensuring the responsible deployment of AI to empower women. None of the articles, such as 14, Equality before Law; 19(1)(a), Freedom of Speech and Expression; or 21, Protection of Life and Personal Liberty, refer to AI explicitly. However, many of the rights enshrined within them set quite a strong foundation for mitigating gender bias in AI systems²⁰. Fairness, transparency, and due process have to be respected in principle; these are of further reach if the goal is to make sure that AI does not perpetuate existing gender inequalities.

An excellent example of this interaction is the Aadhaar program in India. Among the valid concerns against this were violation of citizen privacy, but potential benefits women stood to gain in access to government services were not to be ignored. The incorporation of safeguards has solved part of the concerned issues on privacy, and Aadhaar continued to grow. This proves that responsible development and deployment of AI, based on key constitutional values, are able to steer off pitfalls and bring positive change in such areas as women obtaining equity in opportunities and justice.

The Sexual Harassment of Women at Workplace Act, 2013:

The Sexual Harassment of Women at Workplace Act, 2013 is a landmark legislation in India thatched on the base provided by the Vishakha and Ors. vs State of Rajasthan²¹ case. Though

¹⁹ ConstitutionofIndia,1950,<<https://cdnbbsr.s3waas.gov.in/s380537a945c7aaa788ccfcdf1b99b5d8f/uploads/2023/05/2023050195.pdf>> accessed on June 26, 2024, at 4:15 p.m.

²⁰ Jhalak M. Kakkar and Nidhi Singh, 'Response to Call for Inputs for the Report on 'The Right to Privacy in the Digital Age' (Centre for Communication Governance, National Law University Delhi) <<https://www.ohchr.org/sites/default/files/Documents/Issues/DigitalAge/Submissions/CSOs/CCG.pdf>> accessed on June 20, 2024, at 5:30 p.m

²¹ (1997) 6 SCC 241.

Sexual Harassment Act does not deal with AI tools directly, there exists immense scope for artificial intelligence contributing towards the safety of women in the framework of the act. Think of AI-driven chatbots as private advisors that are accessible around-the-clock to provide support and direction in situations involving harassment of women. Chatbots that have been trained to understand the subtleties of this act can respond to a variety of queries and assist women in registering complaints or locating the appropriate resources.

Through email or messaging apps, AI's sensors might detect offensive language or conduct and raise alerts before things get out of hand. Making sure that these AI technologies are appropriately created is crucial, though. Transparency and justice—the absence of gender bias in algorithms and the rigorous defence of women's privacy—are equally crucial. When used intelligently, artificial intelligence (AI) can be a powerful friend in the battle against workplace harassment against women by fostering an environment that complies with this act and is safe for workers.

The Maternity Benefit Amendment Act, 2017²²:

In India, the Maternity Benefit Amendment Act, 2017, was a much-needed step forward for working women. As a result, it expanded paid maternity leaves along with a few other essential features. As of right moment, the Act says nothing about AI's potential to speed up and simplify the benefits claim process. In the future, maternity benefit applications will be processed by AI-driven platforms. These would be the kinds of websites that help women apply, respond to questions, and make sure all required paperwork is uploaded online. With the goal of freeing women to focus more on their health during pregnancy and childbirth, this would significantly lessen administrative costs and expedite processing times. The Maternity Benefit Act's integration of AI is unique and requires careful consideration. Data security and privacy are the main issues. When used effectively, AI has the power to completely change the experience of pregnant mothers making this life-changing time easier and less stressful overall.

The Protection of Women from Domestic Violence Act, 2005:

The Protection of Women from Domestic Violence Act, 2005, continues to be an essential safety net for women safeguard. However, asking for assistance can be extremely challenging, especially for those who are victims of violent situations. This is where tools driven by AI become relevant. Consider chatbots powered by AI that can be contacted via anonymous

²² See n(22).

internet helplines. The bots would be taught to recognize instances of domestic abuse and, in certain cases, provide emotional assistance in addition to informing users about their legal rights and available options. It is imperative to recognize any possible constraints. Concerns about privacy must be addressed, and victim safety must always come first. Yet, when used carefully, AI-powered solutions can empower victims under the PWDVA by establishing secure and convenient channels for assistance requests. When it comes to escaping domestic abuse and starting over, this might be a crucial first step.²³

The National Policy for Women, 2016:

The National Policy for Women, 2016 lays down a different approach to women's empowerment in India, where tried and tested techniques are combined with the strength of technology. Given existing gender gaps, this has to strengthen opportunities for all women. It does so through the use of the internet, data, and analytics in creating a data-driven understanding of challenges women meet. These results shall form the basis for identifying locations that differ most and hence need targeted interventions. Through the utilisation of online resources for outreach and analysis, it seeks to increase further the effectiveness and impacts of the Indian approach towards women empowerment.²⁴

National Strategy for AI in 2018:²⁵

It recognizes the transformative potentials of AI, and India had detailed out a national strategy in 2018 whereby a leader in the responsible development and deployment of AI befalls. The strategy also includes integration of AI solutions across different critical sectors such as health, education, and agriculture, and even the process of governance, in congregating with the growth roadmap of the nation. Improvements in access to services, efficiency, and solving social challenges are therefore envisioned under the strategy through the creation of an innovation environment in such areas. It is this multi-pronged approach that will help India reap AI benefits while ensuring that AI works ethically and inclusively for the betterment of

²³ Ibid.

²⁴ National Policy for Women 2016, 'Articulating a Vision for Empowerment of Women' (Government of India Ministry of Women and Child Development, May 2016)

<https://wcd.nic.in/sites/default/files/draft%20national%20policy%20for%20women%202016_0.pdf> accessed on June 22, 2024, at 09:50 a.m.

²⁵ National Strategy For Artificial Intelligence' (NITI Aayog, June 2018)
<<https://indiaai.gov.in/research-reports/national-strategy-for-artificial-intelligence/>> accessed on July 22, 2024, at 05:25 p.m.

society.

The Digital Personal Data Protection Act, 2023:²⁶

With India stepping into an AI-driven era, a strong legal framework for data protection is all the more required. DPDP 2023, implemented in 2024, just fills this gap. Under this act, it brings clarity on the collecting, storing, and using of personal data. This is especially vital for AI, which thrives on vast amounts of data to function and learn. DPDP Act ensures that this shall ethically and responsibly be sourced with clear consent from users. This not only inculcates trust but strengthens the very foundation on which multiple AI applications would get built in India. By ensuring responsible data practices, DPDP empowers people and sets the stage for securing a responsible innovation of AI that benefits business and society.

CHALLENGES:

Applications of AI to empower women are risky and fraught with many challenges, reaching from the perpetuation of already existing gender stereotypes to the increase of the digital gap, and problems related to data security, privacy, and algorithm accountability. How to handle these challenges will call for robust legal frameworks, extensive testing, and a wilful pursuit of diversity and inclusivity in the making of AI. Nonetheless, the use of artificial intelligence as a means of women empowerment is associated with pros and cons. While AI can help reduce experiential, cognitive, and other forms of gaps and move ahead toward more inclusiveness, its application presents a host of risks and problems that need to be carefully assessed. Some of the major challenges and setbacks associated with using AI to promote women's empowerment are:

1. **Algorithmic bias:** AI systems often get trained on biased or lacking data, which may strengthen preexisting gender disparities and stereotypes. In areas like lending, hiring, and criminal justice, biased algorithms may produce unfair results that exacerbate rather than lessen gender gaps.
2. **Data Security and Privacy:** Because AI systems rely on enormous volumes of data, including personal data, women in particular are concerned about data security and privacy. Women's autonomy and safety may be compromised by inadequate data protection measures, which expose them to hazards like identity theft, online abuse, and

²⁶ Digital Personal Data Protection Act 2023 <https://www.meity.gov.in/content/digital-personal-data-protection-act-2023>, last seen July 28, 2024 at 09.35 am.

spying.

3. **Digital Divide:** Factors like low digital literacy, poor connectivity of the internet, and poor access to technology itself are some of the reasons that make it hard for women, particularly from disadvantaged communities, to use or benefit from AI technologies. This move will further close the existing gaps by keeping women out of the opportunities created through AI-driven innovation.
4. **Job Displacement:** AI technology can make women face more job displacement, especially when they are engaged in regular or low-skilled occupations. Where there is no retracing and reskilling of women to the new available work opportunities, job displacement might exacerbate gender inequities within the job market and further entrench economic inequality.
5. **Data security and privacy concerns:** Frequently, systems in support of artificial intelligence require a lot of personal information to create predictions and recommendations. The sensitive handling of data, such as financial or health-related information, raises questions about data protection and privacy, particularly for women who may be more vulnerable to any kind of misuse or breach. Ensuring the protection of privacy rights of women calls for the building of robust structures of data governance and privacy-preserving AI.

These risks and challenges can only be averted through a multi-stakeholder approach that brings together governments, IT corporations, civil society organizations, and academics. If the potential of AI to transform is to do so in the responsible and ethical advancement of women's empowerment, then issues of diversity and non-discriminatory practices in AI development, transparency and accountability of AI systems, women's privacy rights protection, and mitigation of socio-economic impacts of the deployment of AI have to be addressed. This means that any effective use of AI towards women's empowerment needs to consider an overall strategy that mixes these in with other socioeconomic, technological, and ethical issues.

SUGGESTIONS:

Optimize the positive impacts of artificial intelligence on gender equality with these suggestions and recommendations.

Promote Gender Diversity in AI Development: Greater representation of women in AI research, development and leadership roles should be encouraged. Invest in programs such as networking events, mentorship programs, scholarships to encourage women and girls to pursue

careers in STEM fields.

Make Sure AI Is Fair and Ethical: Prioritize development and application of AI systems that are accountable, transparent, and bias-free. Develop methods for assessing bias within AI systems so as to identify and minimize biases that could harm women. When designing and testing AI systems, consider stakeholder input as well as a range of perspectives.

Digital Inclusion and Access: Bridge the digital gender divide by providing women with equal status in terms of access to digital resources, Internet connectivity, and infrastructure. Offer specialized digital literacy courses and skill-building programs that provide information and relevant skills to women about AI as a possible means of improving their economic situations.

Encourage Women-Led AI Initiatives: Invest in new businesses, social ventures, and projects run by female entrepreneurs that use AI to provide solutions to women's needs and challenges. This will mean funding, mentoring, and incubation of women-led AI ventures for them to have a greater impact and thereby enable further innovation in the setup of women's empowerment.

Increase AI Use in Education and Vocational Training: To build better learning outcomes for women, and to develop their skills, incorporate AI Technologies into the curriculum and professional development programs for vocational training. Open up access to AI-powered learning tools, resources, and platforms that respond to the different ways and needs of learning of women, particularly from underrepresented groups Engage Women in Governance of AI and Policy: Provide women with a say in processes hooking up with governance, regulations, and policy for AI. Create forums where women's opinions can be heard while discussing data privacy and ethics, human rights, and ensuring that laws and policies respect women's rights and are gender-responsive.

Encourage women in ethical AI entrepreneurship: Boosting women in ethical AI entrepreneurship further innovations, social responsibility, and sustainable business practices in the pursuit of a culture for responsible AI entrepreneurship. Encourage women to take up ethical AI entrepreneurship through support to programmes like incubators, accelerators, challenges, which are designed for social effect and women empowerment.

Increase Public Awareness and Advocacy: Improve public awareness and advocate for AI as a means of advancing gender equality and the empowerment of women. Raise awareness among decision-makers, the private sector, and civil society regarding the importance of including a gender dimension in strategies related to AI development and deployment.

Policymakers, stakeholders, and IT professionals can embrace AI's revolutionary potential to empower women, promote gender equality, and build a more inclusive and fair society by

putting these ideas and proposals into practice.

AI Initiatives-Action Plan and Next Steps: Participate in the creation of AI and ethical frameworks, concepts, and their application by bringing gender views to the table. Make a thorough Action Plan on Gender Equality and AI as well, so that it can direct actual stakeholder activities and inform initiatives to provide the means by which gender and AI principles can be operationalized, such as by creating tools, resources, and expertise.

CONCLUSION:

Artificial Intelligence (AI) exhibits great potential in tackling and alleviating a range of obstacles encountered by women, such as discrimination and gender bias. AI algorithms can be used to minimize biases in hiring procedures, performance reviews, and decision-making processes. This will improve equity and provide women more opportunities in the workplace, in school, and in leadership positions.

To prevent abuse, the application of AI needs to be viewed from a feminist standpoint. To be competitive in the development of AI, nations must address concerns and be ready for the challenge. According to Siddharth Chatterjee, the UN Resident Coordinator in China, China is using AI to promote women's empowerment through policies that support women in their professional fields. However, this can only be achieved if all citizens of the nation are working toward excellence, as also stated by the SDGs²⁷. Gender equality is one of the SDGs that AI can hasten to be achieved. To avoid prejudice, India should close legal loopholes, integrate AI, and empower women. Overall growth will result from equitable participation and the appropriate application of current legislation.

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²⁷ Remarks by Siddharth Chatterjee, UN Resident Coordinator in China, as prepared for delivery, 'World Artificial Intelligence Conference 2023 - Women in AI Forum, United Nations' (China, July 06, 2023) accessed on June 08, 2024, at 11:30 pm

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