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Global AI Governance for Gender Equity: Proposing Policy Frameworks for Responsible AI Development and Deployment

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Abstract: The rapid advancement and global adoption of artificial intelligence (AI) technologies have brought transformative potential across sectors, but they have also intensified concerns about equity, fairness, and inclusivity—particularly in relation to gender. This review paper critically examines the current landscape of global AI governance through the lens of gender equity and proposes a set of policy frameworks aimed at ensuring responsible, inclusive, and equitable AI development and deployment. Existing governance models—such as those developed by the OECD, UNESCO, and the European Union—provide foundational ethical principles but fall short in integrating gender-specific concerns, such as bias in datasets, exclusion in AI design processes, and underrepresentation of women in AI-related roles. This paper explores these systemic gaps and evaluates the consequences of gender-blind AI systems, which often perpetuate existing social inequalities through biased decision-making in sectors like healthcare, finance, education, and criminal justice. To address these challenges, the paper proposes a multi-dimensional policy framework grounded in equity, transparency, and participatory governance. The framework includes gender impact assessments, diversity audits, mandatory inclusion of intersectional data perspectives, and the establishment of global and national gender-focused AI regulatory bodies. Case studies from leading initiatives, such as AI4ALL, the Algorithmic Justice League, and Canada's Gender-Based Analysis Plus (GBA+), are analyzed to extract actionable insights. The proposed policies advocate for cross-sectoral collaboration among governments, industries, academia, and civil society to co-create AI systems that are accountable and reflective of diverse human experiences. By embedding gender equity at the core of AI governance, this paper argues for a paradigm shift that transforms AI from a tool of marginalization to one of empowerment. The findings lay a foundation for future empirical research, international cooperation, and the creation of robust global AI policies that prioritize inclusivity and justice in the age of intelligent technologies.

Keywords: AI governance, gender equity, responsible AI, AI policy frameworks, algorithmic bias, inclusive AI, global AI ethics.

1. Introduction

In the last decade, artificial intelligence (AI) has evolved from a niche technological domain into a pervasive force influencing virtually every aspect of modern life. From automated healthcare diagnostics and predictive policing to algorithmic decision-making in finance and employment, AI systems are now deeply embedded in the social, economic, and political fabric of global societies. Governments, multinational corporations, academic institutions, and civil society organizations are investing heavily in AI innovation, seeking to harness its potential to enhance efficiency, competitiveness, and innovation. However, while the global AI revolution promises significant progress, it also introduces complex ethical, legal, and social challenges—chief among them being the issue of equity and fairness in AI development and deployment. One of the most pressing concerns emerging from this technological transformation is the systemic underrepresentation of gender equity in AI governance, which raises questions about inclusivity, accountability, and justice in the digital age [1]. Despite growing global attention to responsible AI practices, gender perspectives have remained largely marginalized in AI policy discussions and regulatory initiatives. Existing AI governance frameworks tend to adopt a broad-brush ethical lens—emphasizing fairness, transparency, and accountability—without adequately addressing how these principles intersect with gender, power, and social inequality. Numerous studies have shown that AI systems can inherit and amplify existing gender biases, especially when trained on historical data sets that reflect societal discrimination. For example, facial recognition systems have demonstrated higher error rates for women, particularly women of color, while hiring algorithms have been shown to downgrade female applicants due to biased data reflecting past employment trends. Such examples underline the real-world consequences of neglecting gender-sensitive governance in AI development and underscore the urgent need to reframe current governance models to address these gaps more comprehensively [2].

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At the core of this paper lies the belief that gender equity must not be treated as an afterthought in AI governance. Instead, it should be a foundational pillar of how we conceptualize, design, regulate, and monitor AI systems globally. The purpose of this review paper is to critically examine existing global AI governance mechanisms and assess the extent to which they incorporate gender equity considerations. Through an analysis of international frameworks such as the OECD AI Principles, UNESCO's Recommendations on the Ethics of AI, and regional legislation like the European Union's AI Act, the paper identifies key omissions and limitations in addressing gender-specific issues. It also highlights exemplary initiatives, such as Canada's Gender-Based Analysis Plus (GBA+), AI4ALL, and the Algorithmic Justice League, which demonstrate promising practices for integrating gender perspectives into AI governance structures. By drawing on these insights, the paper aims to propose a coherent and actionable policy framework that prioritizes gender equity across all stages of the AI lifecycle—from data collection and algorithm design to policy enforcement and public oversight [3]. This proposed policy framework is grounded in the principles of intersectionality, participatory governance, and global inclusivity. It envisions a governance model that is not only sensitive to gender differences but also responsive to the ways in which race, class, ethnicity, disability, and geographic location intersect with gender to shape individuals' experiences with AI.

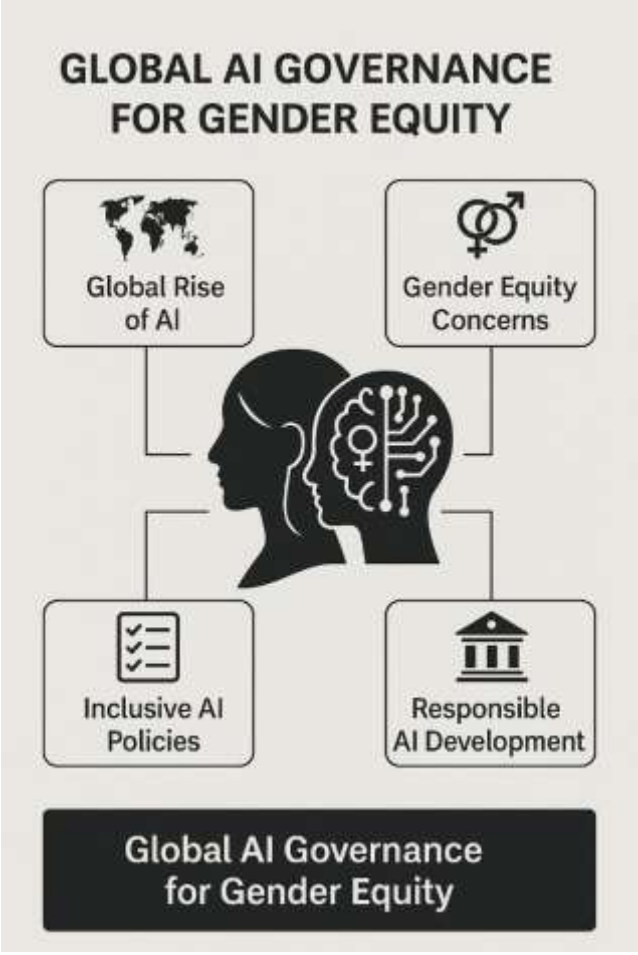

Figure 1. Key Dimensions of Global AI Governance for Gender Equity

The framework calls for the establishment of dedicated gender AI task forces, the institutionalization of mandatory gender impact assessments for all high-risk AI applications, the enforcement of transparency standards that require disaggregated data reporting, and the development of accountability mechanisms that center marginalized voices in the auditing and redress process. Moreover, the paper emphasizes the importance of creating inclusive ecosystems that foster the participation of women and gender-diverse individuals in AI research, policymaking, and development—thereby addressing both representational and structural imbalances in the AI sector [3].

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The scope of this paper extends beyond technical and algorithmic dimensions of AI to include the sociopolitical contexts in which AI is developed and deployed. It considers how power asymmetries, institutional cultures, and global inequalities influence who gets to shape AI systems and who bears their consequences. In this regard, the paper positions AI governance not just as a technical endeavor, but as a political and ethical imperative that demands inclusive and democratic engagement. While much of the literature on AI governance has focused on data privacy, cybersecurity, and economic regulation, this paper fills a critical gap by foregrounding gender equity as a central concern. It contributes to the growing interdisciplinary discourse on feminist approaches to technology and builds bridges between AI ethics, gender studies, public policy, and international development [4].In articulating a global perspective, the paper recognizes the diversity of policy environments across different regions and advocates for a context-sensitive approach to AI governance. It argues that while global coordination is essential to ensure baseline ethical standards and cross-border accountability, national and local contexts must also be empowered to shape governance frameworks that reflect their unique cultural, social, and gender dynamics. For instance, AI policies in low- and middle-income countries must address the gender digital divide and ensure access to AI-enabled tools for women in education, healthcare, agriculture, and entrepreneurship. Similarly, indigenous and grassroots communities should be consulted in developing AI systems that affect their rights, knowledge systems, and livelihoods [4].

Overall, this review paper seeks to shift the paradigm of AI governance from one that passively acknowledges gender equity to one that actively embeds it within every layer of policy and practice. Through a critical examination of existing frameworks, identification of key challenges, presentation of case studies, and formulation of forward-looking policy recommendations, the paper endeavors to lay a solid foundation for responsible AI governance that champions inclusivity and justice. The need for such a shift is not only timely but essential, as the decisions we make today about AI governance will profoundly shape the future of gender equity in an increasingly digital and algorithm-driven world [5].

1.1 Objectives

The study focuses on the following objectives:

- To critically examine existing global AI governance frameworks and their treatment of gender equity.
- To identify the key challenges and gaps in current AI policies regarding gender inclusion and fairness.
- To explore real-world case studies and initiatives that integrate gender-sensitive approaches in AI.
- To propose a comprehensive policy framework that promotes responsible and inclusive AI development.
- To recommend actionable strategies for embedding gender equity into all stages of the AI lifecycle.
- To advocate for global and local collaboration in shaping gender-responsive AI governance systems.

2. Literature Review

Hall, P. & Ellis, D. (2023) [6] "A systematic review of socio-technical gender bias in AI algorithms" explores how gender bias arises not only from datasets and model designs but significantly from social and organizational dynamics. Analyzing 64 papers, the authors find social solutions—like increasing diversity in AI teams, integrating ethics into development, and embedding human oversight—are underutilized compared to technical fixes. They emphasize the need for governance structures that address algorithmic fairness through a socio-technical lens, linking both social processes and technical design components.

Nemani, P., et al. (2023) [7] "Gender Bias in Transformer Models: A comprehensive survey" critically assesses methodologies and metrics used to measure gender bias in Transformer-based language models. Their review highlights inconsistent evaluation practices, flawed datasets, and lack of standard benchmarks. They emphasize downstream risks—like biased dialogue systems and translations—calling for standardized metrics, intersectional

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representations, and model auditing. The work paves the way for policy recommendations on evaluation protocols and transparency in model deployment.

Liu, Y. & Gao, G. (2023) [8] "From the Perspective of Gender Theory, this Paper Discusses the Causes and Governance Measures of Algorithmic Gender Discrimination" uses gender theory to explore root causes—such as stereotype reinforcement and structural power imbalances—and proposes governance strategies. The authors recommend measures like embedding gender equity into algorithm design, conducting gender-based algorithmic evaluations, and fostering equitable "algorithmic ecology." Their work bridges theory and praxis, urging robust oversight mechanisms and accountability in national AI governance.

Cheng, M., et al (2021) [9] "Social Norm Bias: Residual Harms of Fairness-Aware Algorithms" introduces the concept of SNoB (Social Norm Bias), showing that even fairness-optimized classifiers perpetuate subtle biases aligned with gender stereotypes. Using occupation classification, they reveal how "fair" models still favor profiles with masculine-styled biographies. Their findings underscore the limitations of current fairness definitions and call for governance approaches that account for nuanced social contexts.

Nadeem, A., et al. (2021) [10] "Gender Bias in AI: Implications for Managerial Practices" examines how bias manifests in AI systems used in organizational settings, such as hiring tools. The study discusses how automated HR systems often disadvantage women and highlights governance practices like algorithm audits, bias training for developers, and organizational transparency. Their recommendations push for industry standards that encompass both technical and managerial layers of AI governance..

Table 1. Literature Review Summary Table

Author Name (Year)	Main Concept	Findings	Limitations
Hall & Ellis (2023)	Socio-technical gender bias in AI	Identified that gender bias in AI arises from both technical and social-organizational processes.	Focused mainly on literature review; lacks empirical validation through case implementations.
Nemani et al. (2023)	Gender bias in transformer-based language models	Revealed inconsistent evaluation methods and metrics across studies; called for standardized auditing protocols.	Largely theoretical and technical; minimal discussion of governance or policy implications.
Liu & Gao (2023)	Gender theory-based causes and governance of algorithmic gender discrimination	Emphasized structural causes and proposed embedding gender equity in all AI stages using gender theory principles.	Limited to theoretical analysis; lacks empirical datasets or AI system testing.
Cheng et al. (2021)	Social Norm Bias (SNoB) in fairness-aware AI algorithms	Demonstrated that fair models still reinforce gender stereotypes in applications like occupation classification.	Focused on NLP-based models; findings may not generalize across other domains or algorithms.
Nadeem et al. (2021)	Gender bias in AI applications in managerial settings	Highlighted discriminatory outcomes in AI-based hiring; recommended audits and transparency protocols.	Organizational focus; does not address broader global policy or governance frameworks.

The ongoing discourse around artificial intelligence (AI) governance has evolved significantly in recent years, reflecting growing awareness of the ethical, legal, and societal implications of AI technologies. However, a critical analysis of the literature reveals a notable and persistent research gap: the lack of comprehensive integration of

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gender equity within global AI governance frameworks. While existing policies often emphasize general fairness, transparency, and accountability, they frequently overlook the nuanced and intersectional ways in which gender biases are embedded and reproduced within AI systems. This gap not only reflects an oversight in policy and governance but also signals a deeper structural issue in how AI research, development, and regulation are conceptualized and implemented across regions [11]. Many studies to date have concentrated on identifying technical biases within algorithms—such as discriminatory outputs in facial recognition or hiring systems—but have failed to sufficiently explore the socio-political and institutional structures that perpetuate these inequalities. There is a need for more interdisciplinary research that combines gender studies, data science, public policy, and ethics to develop governance models that are inclusive from the ground up. Additionally, current AI governance literature tends to focus heavily on Euro-American contexts, leaving the gendered impacts of AI deployment in the Global South significantly underexplored. The lived experiences of women, non-binary individuals, and marginalized communities in developing nations, where technological infrastructure and regulatory ecosystems are still emerging, are not adequately reflected in mainstream governance discussions.

Furthermore, most of the existing policies and guidelines, such as those issued by the OECD, UNESCO, or regional frameworks like the EU AI Act, only touch upon gender-related issues in passing, without offering clear mechanisms for implementation, monitoring, or accountability. There is limited research on how to operationalize gender-sensitive tools such as gender impact assessments, bias audits, or inclusive design processes at scale across both public and private sectors. The lack of standardized, enforceable protocols for measuring gendered outcomes in AI systems further compounds this gap, making it difficult to hold developers, institutions, or governments accountable for discriminatory consequences. Another significant gap lies in the representation and participation of women and gender-diverse individuals in AI policymaking and development roles. While several initiatives promote STEM education for girls and women, their voices are still underrepresented in the regulatory processes that shape AI standards. Without inclusive participation at every level—from technical development to policymaking and oversight—gender-equitable governance cannot be fully realized. This absence is particularly evident in high-stakes applications such as predictive policing, healthcare diagnostics, and credit scoring, where biased algorithms can result in disproportionate harm to women and gender minorities [12].

Moreover, while individual case studies such as AI4ALL or the Algorithmic Justice League offer valuable insights into gender-aware practices, there is limited synthesis or translation of these learnings into formal policy recommendations that can be adopted globally. The disconnect between grassroots advocacy and institutional AI governance mechanisms represents another area where focused research is needed. Understanding how these community-driven efforts can be scaled and institutionalized within global governance structures remains largely unexplored.

In summary, the research gap lies not only in the absence of gender considerations in existing AI governance but also in the lack of frameworks, tools, and inclusive structures that can institutionalize equity in a meaningful, enforceable manner. Addressing this gap requires a rethinking of governance through a feminist and intersectional lens—one that recognizes power differentials, historical inequities, and systemic biases. Future research must bridge the divide between ethical intentions and practical implementations by designing holistic policy frameworks that are not only technically robust but also socially just and gender-responsive.

3. Existing Global AI Governance Frameworks

Over the past few years, several international organizations and national governments have recognized the need for structured governance of artificial intelligence (AI) to ensure that its deployment aligns with human rights, democratic values, and social inclusion. Among the major developments in this direction are the creation of ethical principles, legal acts, and national strategies that attempt to regulate the development and use of AI. However, while these initiatives lay a strong foundation for responsible AI, their treatment of **gender equity** often remains superficial, lacking actionable mechanisms or enforceable mandates. This section reviews some of the most prominent AI governance frameworks and assesses their relevance and limitations concerning gender inclusiveness. [13]

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The **OECD AI Principles [14]**, adopted in 2019 by 42 countries including members of the G20, were one of the first intergovernmental AI guidelines. These principles outline five key values-based tenets: inclusive growth and sustainable development; human-centered values and fairness; transparency and explainability; robustness and safety; and accountability. Although the OECD promotes the idea of inclusive growth, the principles do not explicitly address gender equity or provide mechanisms to assess the gendered impact of AI systems. Gender inclusion is implied within the broader ideals of inclusiveness and fairness, but there is no direct obligation or methodological guidance on how to ensure gender-sensitive AI design or governance.

Similarly, **UNESCO's Recommendation on the Ethics of Artificial Intelligence [15]**, adopted in 2021, offers a more expansive approach. It is the first global standard-setting instrument on the ethics of AI and emphasizes human dignity, non-discrimination, gender equality, and environmental sustainability. The recommendation notably includes a dedicated focus on gender, calling for the elimination of gender bias in data and algorithms, equal participation of women in AI research and governance, and policies promoting digital inclusion. However, despite these strong normative declarations, the framework's non-binding nature limits its enforceability, and many countries have yet to integrate these standards into national legislation or strategies.

The **European Union's Artificial Intelligence Act (EU AI Act) [16]**, proposed in 2021 and refined in subsequent years, represents a legally binding attempt to regulate AI applications based on risk classification. High-risk AI systems—such as those used in employment, education, and law enforcement—are subject to stringent requirements regarding data quality, transparency, and human oversight. The Act acknowledges potential harms arising from biased data but does not contain explicit provisions addressing gender bias or requiring gender impact assessments. Although it obliges developers to mitigate risks and ensure fairness, the absence of mandatory equity audits or demographic reporting makes it difficult to hold entities accountable for gender-discriminatory outcomes.

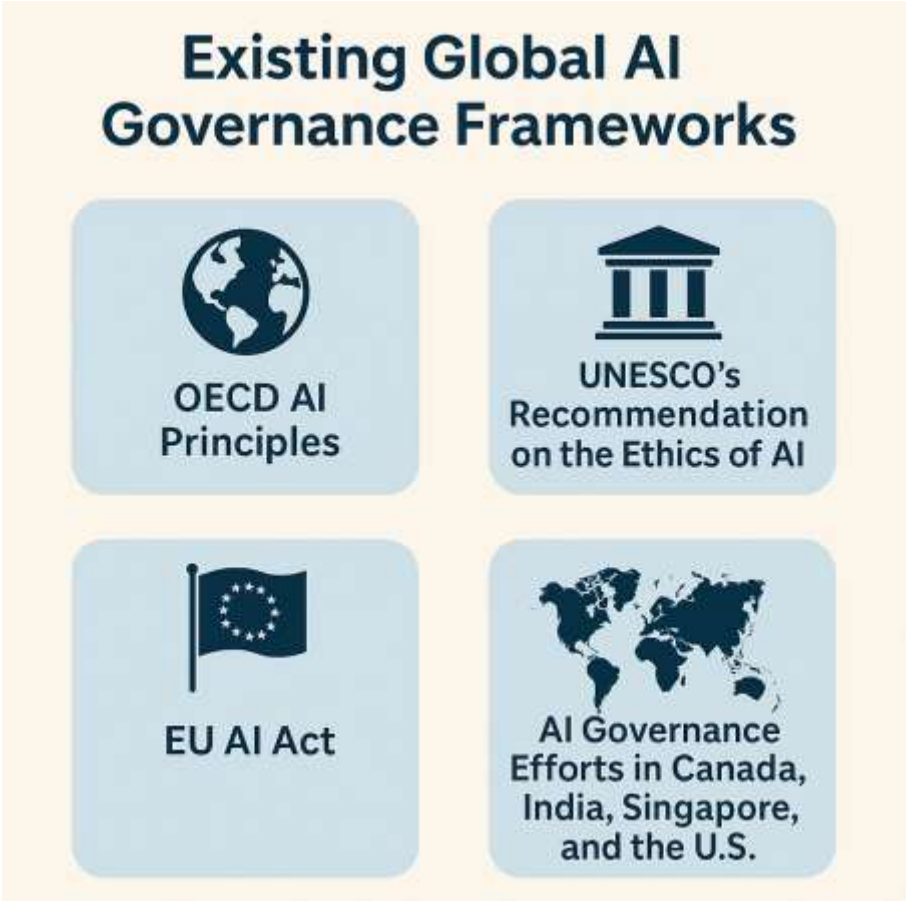

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Figure 2. Overview of Key Global AI Governance Frameworks

National-level AI strategies also provide insight into the diversity of governance approaches and their attention to gender. **Canada**, for instance, integrates gender analysis into its AI initiatives through its Gender-Based Analysis Plus (GBA+) framework. This tool is designed to evaluate the differential impact of policies on various demographic groups, including women, and is a promising model for embedding equity considerations into AI policy. Canada also funds research and supports organizations that work at the intersection of AI and social justice. **India**, in contrast, is still in the process of developing a comprehensive AI governance framework. While various initiatives like the National Strategy for AI (2018) highlight the importance of inclusive AI, there is little operational detail on how gender equity will be embedded in AI development and deployment, especially given India's significant digital gender divide. **Singapore** presents a techno-optimistic model of AI governance focused on innovation, trust, and collaboration between government and private sectors. The country's Model AI Governance Framework emphasizes transparency, explainability, and accountability but is largely silent on gender-specific issues. **The United States**, lacking a single comprehensive AI policy, has taken a more decentralized approach, with various federal agencies issuing AI guidelines. The Blueprint for an AI Bill of Rights, released in 2022 by the White House Office of Science and Technology Policy, emphasizes protection from algorithmic discrimination and calls for data privacy and equitable treatment. While the document acknowledges the risks of gender and racial bias, it is advisory rather than enforceable, reflecting the challenge of translating ethical aspirations into binding regulations [17].

In summary, existing global AI governance frameworks display a growing awareness of fairness and human rights, but their inclusion of gender equity remains inconsistent, often limited to rhetorical commitments rather than concrete action plans. There is a clear gap between normative intentions and regulatory enforceability. Most frameworks still lack mechanisms such as mandatory gender impact assessments, inclusive participation in design processes, and accountability for gender-based harms. Bridging this gap requires not only stronger regulations but also a shift in mindset: from viewing gender equity as an optional ethical concern to recognizing it as a central pillar of responsible and effective AI governance.

4. Research Methodology

This review paper adopts a qualitative, exploratory research methodology to critically analyze the current landscape of global AI governance through the lens of gender equity and to propose policy frameworks that promote responsible and inclusive AI development. The methodology is grounded in an interdisciplinary approach, drawing from fields such as artificial intelligence ethics, public policy, gender studies, and digital sociology to ensure a holistic understanding of the complex socio-technical issues at hand [18] The research process began with an extensive literature review of academic journal articles, policy reports, international guidelines, and white papers published up to 2023. Key sources included documents from the OECD, UNESCO, the European Commission, and national AI strategies from countries like Canada, India, Singapore, and the United States. Additionally, publications from feminist technology organizations and advocacy groups such as the Algorithmic Justice League and AI4ALL were analyzed to incorporate grassroots and activist perspectives. These sources were selected using systematic keyword searches in academic databases such as Scopus, Google Scholar, IEEE Xplore, and Web of Science, using terms like "AI governance," "gender bias in AI," "responsible AI," "algorithmic discrimination," and "inclusive technology policy." [19]

The literature was then thematically coded to identify recurring concepts and gaps. Themes such as ethical AI principles, algorithmic fairness, data bias, gender participation in AI, and regulatory mechanisms were extracted and synthesized. Case studies from various regions and initiatives were analyzed to illustrate best practices and areas of concern. The inclusion of both binding legal instruments (e.g., EU AI Act) and non-binding ethical recommendations (e.g., UNESCO guidelines) allowed for a comparative policy analysis approach.

To propose a new policy framework, a normative evaluative method was employed. This involved identifying the ethical and regulatory shortcomings of existing governance systems with respect to gender equity and developing

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principles-based recommendations aligned with international human rights and feminist policy principles. The framework design was informed by the intersectionality lens, which considers how gender intersects with other social categories like race, class, and geography in shaping the impact of AI technologies [20]. Additionally, expert opinion analysis was informally incorporated by reviewing perspectives from AI ethics scholars, gender and technology researchers, and international policy advisors through public talks, webinars, and published commentaries. This provided contemporary insights into real-world challenges and feasibility concerns surrounding gender-sensitive AI regulation [20].

In conclusion, the research methodology employed in this study is systematic, analytical, and interdisciplinary. It not only identifies the limitations of current global AI governance frameworks in addressing gender equity but also provides a foundation for constructing a more inclusive, accountable, and just policy ecosystem. The methodology is geared toward both theoretical rigor and practical policy relevance, enabling the paper to serve as a resource for researchers, policymakers, and advocates working toward equitable AI governance. [21]

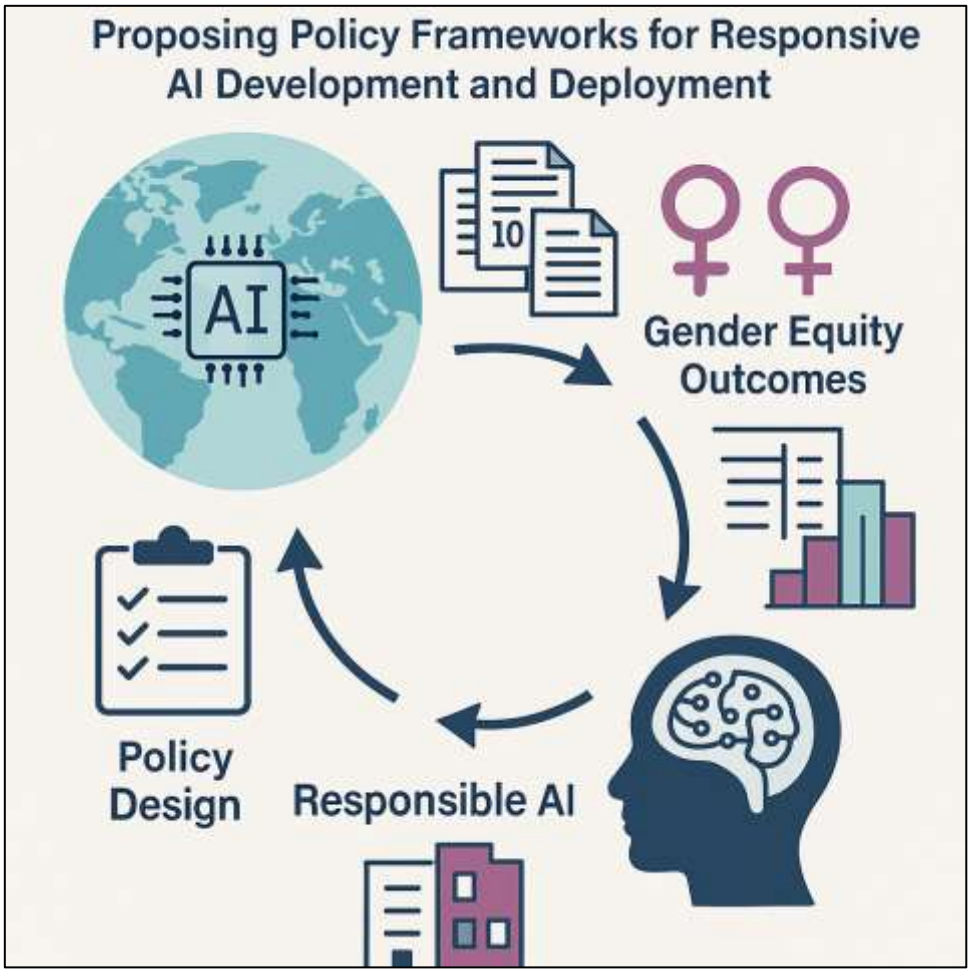

Figure 3. Research Flow Diagram

5. Findings and Discussion

The analysis of global AI governance frameworks and literature reveals a growing acknowledgment of the ethical and societal implications of artificial intelligence. However, a significant finding of this review is the persistent gap in integrating gender equity as a central pillar of AI policy. While many frameworks—such as those from the OECD, UNESCO, and the European Union—advocate for fairness, transparency, and inclusivity, they often lack the operational mechanisms necessary to address gender-specific challenges. The result is a set of governance

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systems that are theoretically inclusive but practically insufficient in mitigating algorithmic discrimination against women and gender-diverse populations. One of the key findings is that gender considerations are often subsumed under broader ethical goals, without being explicitly targeted or measured. For instance, while UNESCO's Recommendation on the Ethics of AI mentions gender equity and encourages gender-balanced participation in AI development, it does not provide enforceable tools or standards to evaluate gender outcomes in AI systems. Similarly, although the EU AI Act imposes obligations on high-risk AI systems, it does not mandate demographic impact assessments or bias audits that are sensitive to gendered dimensions. This generalized approach to ethics weakens the capacity of governance mechanisms to address intersectional harms and renders gender issues peripheral in regulatory discourse [22].

Another critical insight is the lack of gender diversity within the AI workforce and decision-making bodies, which undermines the very fabric of inclusive governance. The underrepresentation of women and gender-diverse individuals in AI research, design, and policy formulation perpetuates blind spots in technology development and exacerbates existing inequalities. Moreover, many national AI strategies fail to include dedicated action plans for reducing gender bias or promoting inclusive participation. Even in countries like India, where there is significant emphasis on AI for economic and social transformation, gender remains a secondary concern, often mentioned in passing rather than embedded in strategic objectives [23]. The findings also highlight the importance of grassroots and civil society initiatives in filling the governance void. Organizations such as the Algorithmic Justice League and AI4ALL have been instrumental in bringing gender equity to the forefront of AI discussions. These initiatives demonstrate how community-led efforts can influence public discourse, pressure policymakers, and catalyze reforms. However, such efforts remain underfunded and disconnected from formal governance structures. The lack of institutionalization of their findings and recommendations represents a missed opportunity to align ethical activism with policy development.

From a methodological standpoint, the comparative analysis of governance frameworks reveals a fragmentation of efforts across jurisdictions. While some countries, like Canada, have made progress through tools such as Gender-Based Analysis Plus (GBA+), others lack even basic gender indicators in AI risk assessments. This inconsistency underscores the urgent need for harmonized global standards that explicitly address gender equity as part of AI risk governance. The current disparity in approaches not only creates regulatory uncertainty but also allows AI developers to bypass stricter standards by operating in regions with weaker oversight [24]. Furthermore, there is a pressing need for improved data governance practices. Many AI systems are trained on historical or unrepresentative data that embeds systemic biases, including those based on gender. The review finds that few frameworks mandate the use of inclusive datasets or provide protocols for evaluating the representativeness of training data. Without such mandates, AI models are likely to continue perpetuating discriminatory patterns under the guise of neutrality. This data-centric bias, when unregulated, affects critical domains such as healthcare, finance, employment, and criminal justice, disproportionately disadvantaging women and gender minorities.

In addition, the research indicates a lack of practical tools for conducting gender impact assessments (GIAs) in AI development. While GIAs are common in public policy domains like environmental assessment or infrastructure planning, their adaptation to AI remains rare. Integrating GIAs into AI governance would provide a structured way to evaluate the potential gendered effects of algorithms before deployment and ensure accountability in cases of harm. This absence of preventive mechanisms highlights a reactive approach to governance, where problems are addressed only after they occur, often at great social cost [25]. Lastly, the findings reveal that current AI governance lacks feedback loops and participatory structures that include marginalized voices in policy design and technology evaluation. This top-down approach limits the effectiveness of regulations, as they fail to reflect the lived experiences of those most affected by AI decisions. Inclusive governance must go beyond consultation and move toward co-creation, where impacted communities play a central role in shaping the future of AI.

In summary, the discussion underscores that while global efforts in AI governance are advancing, they remain insufficiently responsive to gender equity challenges. There is a disconnect between ethical aspirations and the implementation of inclusive, enforceable policy tools. To bridge this gap, it is essential to mainstream gender

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considerations across all levels of AI governance—from design and development to deployment and redress. The proposed policy framework in this paper aims to address these shortcomings by embedding gender equity as a core value, supported by operational tools, participatory processes, and cross-sectoral accountability mechanisms.

6. Conclusion

This review has critically examined the current state of global AI governance with a specific focus on gender equity, identifying significant gaps and challenges in existing policy frameworks. While initiatives by organizations such as the OECD, UNESCO, and the European Union underscore a growing global commitment to ethical AI, they often lack the enforceable mechanisms necessary to address the deep-seated and systemic nature of gender bias in AI systems. Gender concerns are frequently generalized under broader ethical terms like fairness or inclusivity, without specific provisions or tools to ensure equitable outcomes. This lack of precision leads to the marginalization of women and gender-diverse groups in both the development and deployment of AI technologies.

The review finds that the absence of gender-sensitive regulatory tools, such as mandatory gender impact assessments, inclusive datasets, and intersectional audits, contributes to the perpetuation of algorithmic harms that disproportionately affect marginalized populations. Moreover, the limited representation of women in AI governance, development, and policy-making roles further exacerbates the exclusion of gender perspectives. Despite the existence of promising grassroots initiatives and national tools like Canada's GBA+, their lessons and frameworks are yet to be fully institutionalized or scaled globally. Thus, there is a critical need for governance models that go beyond ethical declarations and adopt enforceable, inclusive, and participatory policy instruments.

The proposed policy framework in this paper offers a path forward by embedding gender equity into the foundation of AI governance. It calls for an intersectional, participatory, and globally coordinated approach that ensures fairness is not merely aspirational but operationalized through measurable and accountable mechanisms. By aligning AI development with human rights and social justice principles, such a framework can guide both public and private stakeholders toward the creation of responsible AI ecosystems that are truly inclusive and empowering.

Future Work

Future research should move beyond theoretical discussions and focus on the development, testing, and refinement of practical tools for gender-inclusive AI governance. This includes designing standardized gender impact assessment models for AI systems, creating global auditing frameworks that incorporate demographic fairness metrics, and developing guidelines for participatory governance that involve women and gender-diverse communities in the co-creation of AI policies. Empirical studies are also needed to assess how existing gender-responsive policies affect AI outcomes in different national and sectoral contexts.

Additionally, there is a need to explore region-specific barriers to gender equity in AI, particularly in low- and middle-income countries where digital divides and institutional constraints are more pronounced. Understanding these local contexts can help create tailored strategies that align global governance principles with national realities. Lastly, future work should foster interdisciplinary collaboration among AI developers, gender experts, legal scholars, policymakers, and civil society organizations to build inclusive and sustainable AI governance models. These efforts will ensure that the transformative potential of AI is harnessed in a way that promotes—not undermines—equity, justice, and human dignity.

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