

The Gendered Code: Exploring Feminist Art through Artificial Intelligence

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Abstract

This paper provides a brief overview of the integration of artificial intelligence (AI) into feminist art practices, focusing on how AI technology critiques mainstream cultural narratives and reimagines gender representation. The study is based on a systematic review of peer-reviewed English-language literature from the Scopus and Google Scholar databases, identifying four core themes: technological application, cultural significance, ethical considerations, and creative transformation. Feminist artists utilize machine learning and generative algorithms to question authorship, identity, and systemic biases. While AI has opened new aesthetic possibilities and platforms for marginalized voices, it faces numerous challenges, including algorithmic bias, limited access to technology, and insufficient intersectional representation in datasets. Ongoing debates surrounding authorship, emotional authenticity, and data ethics further complicate the field. Despite growing academic attention since 2020, feminist-centered AI design and equitable collaboration models remain significantly lacking. This review concludes that AI holds significant transformative potential for feminist art, and future efforts should prioritize inclusivity, ethical design, decolonized data, and interdisciplinary collaboration.

Keywords: Feminist Digital Art, AI and Creative Expression, Gender Representation in Media Art, Technological Innovation in Feminist Aesthetics

Introduction

Artificial intelligence is exerting a profound influence across sectors such as art and design, raising essential questions about its socio-cultural ramifications (Han, 2021; Meelberg & Kurt, 2018). Despite growing research on AI and gender bias, related discussions have largely centered on algorithmic discrimination, data imbalance, and technological governance frameworks. Concurrently, feminist art theory has long positioned technology as a site of power, embodiment, and visual politics, emphasizing how art reveals and challenges patriarchal structures. Yet these two research trajectories have not yet engaged in sufficient

conceptual dialogue (Deckker & Sumanasekara, 2024; Nino & Lisi, 2024; Shrestha & Das, 2022).

A key question awaiting theoretical elaboration is: How does AI function as a gendered visual infrastructure? How might feminist art intervene within this system, simultaneously reproducing existing biases while creating spaces for critical reconfiguration? This study conceptualizes AI as a culturally embedded system shaped by historical data, normative classifications, and sociopolitical assumptions, rather than a neutral tool. Within artistic contexts, AI generation mechanisms can both reinforce gendered stereotypes and serve as platforms for feminist intervention (Shrestha & Das, 2022).

Based on this, this paper aims to construct an analytical framework bridging feminist art theory and critical AI studies. Its contributions manifest in three key areas: First, it redefines AI as a gendered visual system, emphasizing issues of representation, power, and subjectivity. Second, it proposes a systematic methodological framework to analyze how feminist art practices intervene in AI through strategies of critique, subversion, and reconstruction. Third, it positions artistic practice as a field for feminist knowledge production and sociocultural intervention, thereby expanding the dimensions of discourse on algorithmic bias.

Methods

A comprehensive literature search was conducted using Scopus and Google Scholar. Keywords such as:

("feminist art" OR "women's art" OR "gender art" OR "feminism") AND ("artificial intelligence" OR "ai" OR "machine learning" OR "deep learning") AND ("digital art" OR "media art" OR "installation" OR "performance") AND ("representation" OR "identity" OR "expression" OR "critique") AND ("technology" OR "innovation" OR "creativity" OR "interactivity")

Feminist Digital Art, AI and Creative Expression, Gender Representation in Media Art, and Technological Innovation in Feminist Aesthetics were utilized to collect relevant articles. Various types of articles, including [specify types, e.g., original research, systematic reviews, meta-analyses, case studies, letters to the editor, commentaries], were considered for this mini review.

Below, we provide the inclusion and exclusion criteria for studies in this review article.

Inclusion Criteria

Studies discussing key aspects of the topic, including various forms and expressions of feminist art such as digital art, media art, performance art, and installations that critically engage with themes of gender, identity, representation, embodiment, and power.

The research focuses on applying artificial intelligence technologies, specifically including but not limited to machine learning, deep learning, generative AI, and algorithmic systems, to the study of feminist art practices and discourses.

Studies analyzing the strengths, limitations, and potential applications of AI in feminist creative expression, particularly those that assess AI's role in challenging or reinforcing gender norms, facilitating interactive or generative artistic methods, or redefining authorship, aesthetics, and audience engagement.

Studies published in English.

Exclusion Criteria

Studies published in languages other than English were excluded.

Studies that discuss feminist art, gender representation, or related cultural practices without explicit reference to artificial intelligence or associated technologies (e.g., machine learning, generative algorithms, deep learning) were excluded to maintain focus on the intersection of feminist theory and AI.

Grey literature (e.g., conference abstracts, unpublished reports) was excluded.

Discussion and Results

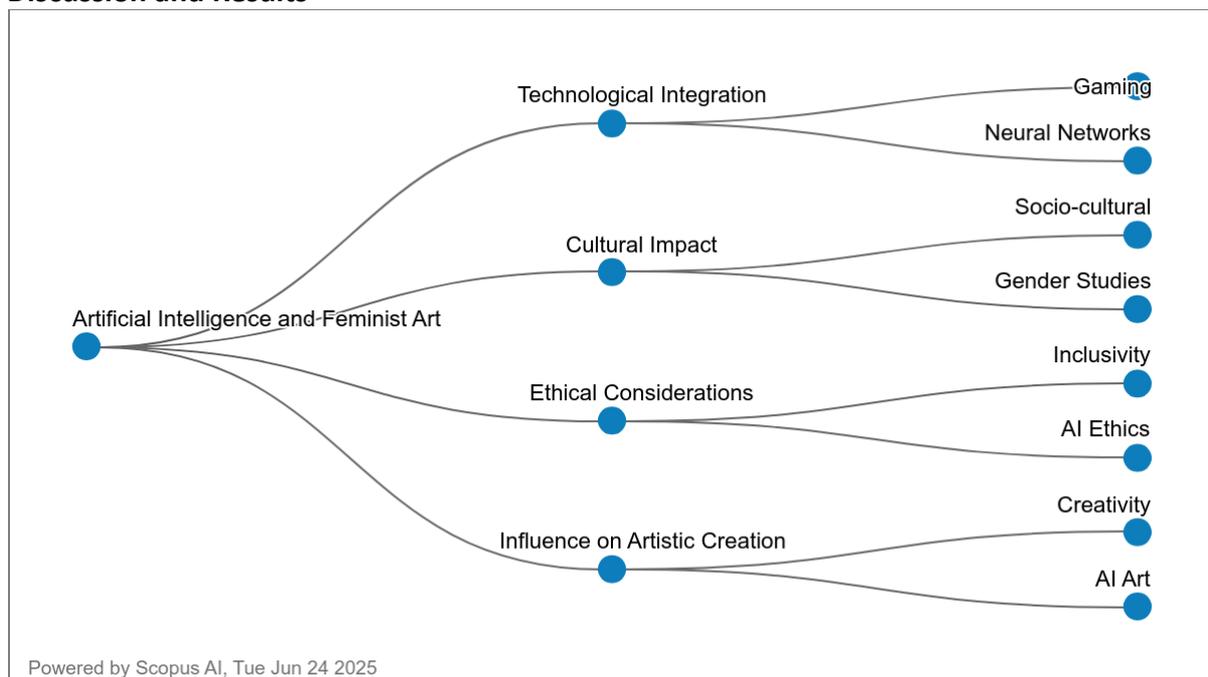


Fig 1. AI in Feminist Arts generated by Scopus AI

Current Status of the Gendered Code based on technological integration

Feminist engagement with artificial intelligence explores how artists employ generative AI, neural networks, and interactive media to critique systemic inequities and rethink authorship, embodiment and identity concepts (Nunes, 2024; Rakhmankulov, 2025). Although these technologies enable innovative aesthetic platforms and amplify the voices of marginalized groups, they also replicate algorithmic bias and reflect inequalities in access to digital tools (Srinivasan & Uchino, 2020; Zhou et al., 2024). Moreover, scholars argue that without deliberate feminist intervention, AI systems risk extending existing power imbalances, raising questions about ethical data practices and representational fairness (Weinberg, 2022). Although feminist AI applications are increasingly visible in digital installations and activist art, a lack of feminist-centered design methodologies and inclusive datasets persists (Klein & D'Ignazio, 2024). Future scholarship must therefore prioritize ethical frameworks, decolonized data infrastructures, and collaborative, interdisciplinary strategies to ensure AI becomes a tool for social justice rather than entrenched inequality (Ansari et al., 2021; Falvo & Cannataro, 2024).

Current Status of the Gendered Code Based on Cultural Impact

Examining feminist art through the lens of artificial intelligence reveals how artists harness machine learning, generative algorithms, and interactive installations to expose systemic bias, reconceptualize gender, and challenge dominant cultural narratives (Verma & Priya, 2025). These interventions expand creative agency and elevate marginalized voices, yet raise significant concerns over embedded algorithmic prejudice, contested authorship, and unequal access to technological resources (Klein & D'Ignazio, 2024; Morr, 2024). Specifically, feminist scholars emphasize that without intentional design and intersectional data practices, AI risks reinforcing rather than dismantling power inequalities (Ciston, 2019). Although feminist-oriented AI works appear across digital exhibitions and activist platforms, substantial gaps persist in intersectional representation, institutional support and feminist-centered datasets (Deepwell, 2019; Sliwinska, 2020). Future efforts must prioritize inclusive data infrastructures, feminist-led AI frameworks, and cross-sector collaboration to promote cultural equity and technological literacy in feminist art (Klein & D'Ignazio, 2024).

Current Status of the Gendered Code Based on Ethical Considerations

Through an examination of feminist art using artificial intelligence, this paper critically explores how artists utilize generative models and deep learning to challenge surveillance, consent, and algorithmic bias, thereby reclaiming digital autonomy and exposing structural inequality (Nejad et al., 2023). Yet these practices raise concerns regarding data exploitation, uncertain authorship, and exclusion from AI development (Klein & D'Ignazio, 2024). Feminist data curation methods based on intersectional epistemology advocate transparent dataset design and accountable coding frameworks to avoid data appropriation and ensure ethical oversight. Despite active use in activist installations and algorithmic storytelling, significant deficiencies remain in embedding feminist-centered methodologies and inclusive technical infrastructures. Future research must emphasize co-creative feminist ethics, open-source practices, and equitable representation through cross-sector and interdisciplinary collaboration (Leavy et al., 2021; Roth, 2018).

Current Status of the Gendered Code Based on Influence on Artistic Creation

Analyzing feminist art through the lens of artificial intelligence reveals how generative algorithms, neural networks, and computer vision are being used to challenge patriarchal structures and reimagine identity (Nunes, 2024). Although these technologies can expand creative expression, they also carry the risk of aesthetic standardization and reliance on biased data sets (Berryman, 2024; Zhou & Lee, 2024). In addition, scholars point out that algorithmic systems may inadvertently appropriate cultural narratives and blur subjectivity, so feminist oversight needs to be strengthened in the design and deployment of AI art tools (Adam & Furnival, 1995; El Morr, 2024). The post-humanist feminist perspective further questions the concept of machine agency, emphasizing the importance of maintaining feminist control in technological processes (Braidotti, 2022; Victorin et al., 2019). Although reflected in practical applications such as algorithmic portraits and interactive installations, there are still significant shortcomings in accessible platforms and inclusive model training (Kun et al., 2024; Sharma, 2024). Future research should therefore incorporate feminist co-creation, decolonized datasets, and interdisciplinary collaboration to promote technological literacy and cultural equity.

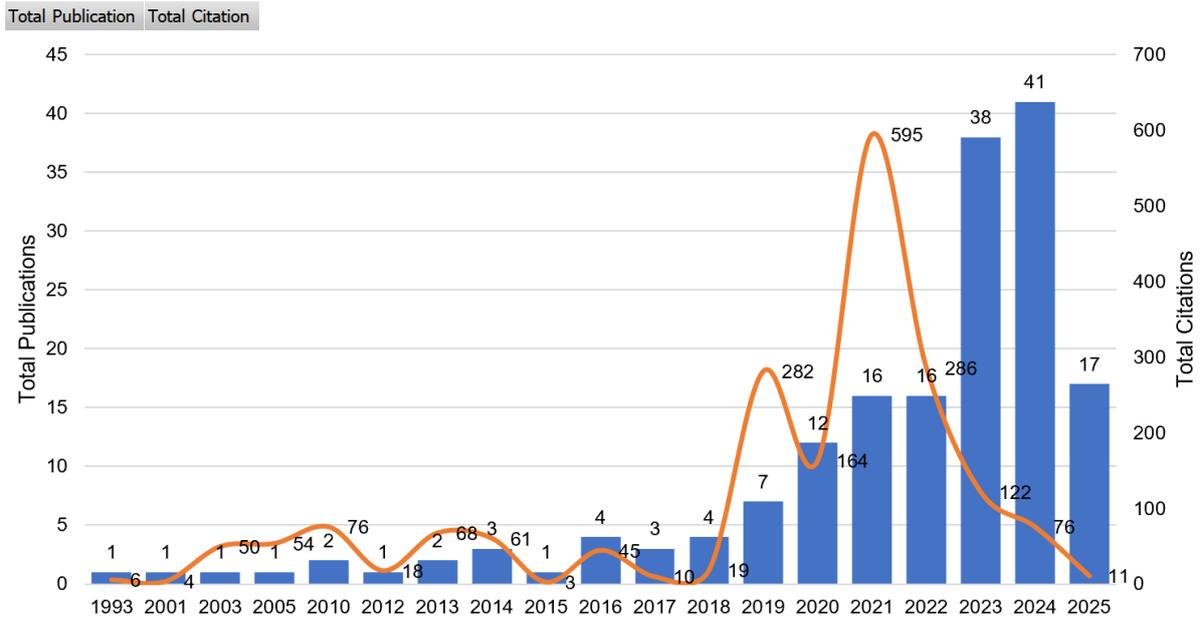


Fig2. Trend chart of total publications (bar) and total citations (line) from 1993 to 2025

The figure shows a sharp rise in feminist art and AI-related publications since 2020, peaking in 2024 with 41 publications. Citations peaked in 2021, suggesting rapid academic engagement, though recent citation trends show a slight decline.

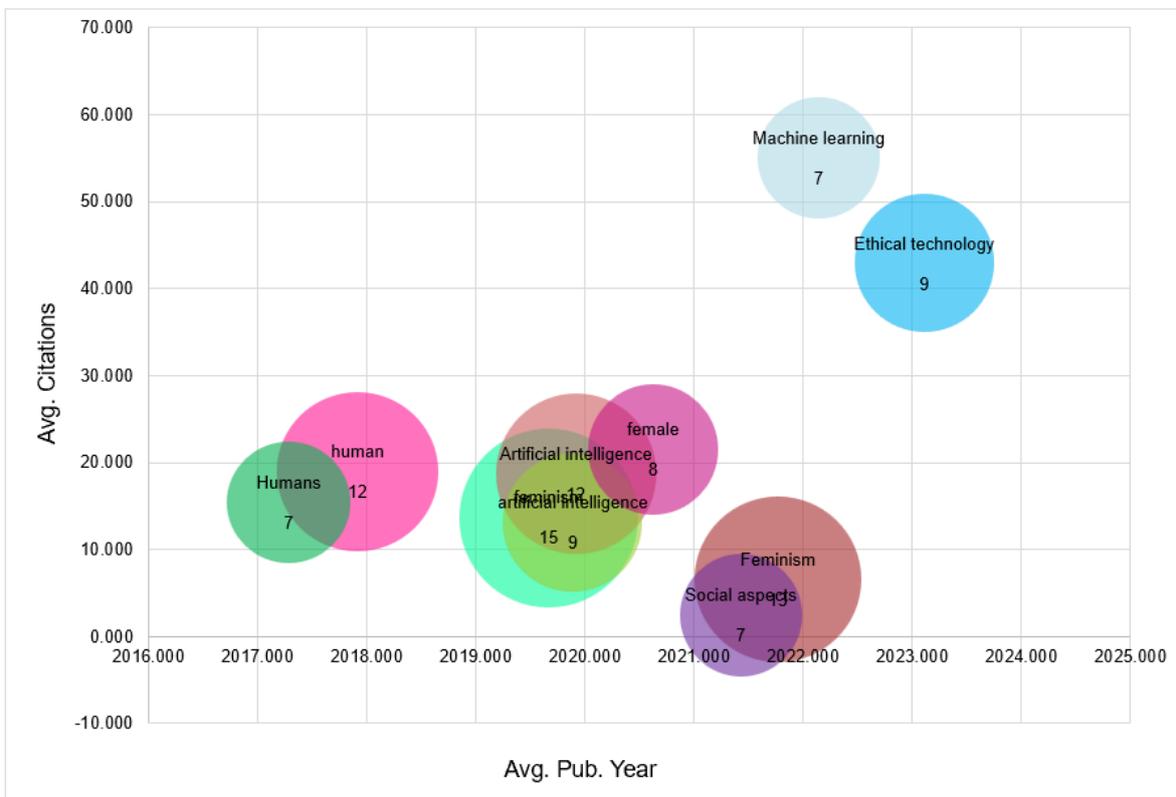


Fig 3. Bubble chart showing the distribution of each topic in terms of average publication year and average number of citations

This figure shows increasing scholarly focus on "ethical technology" and "machine learning" in feminist AI discourse, with high average citations post-2022. Earlier clusters like "feminist," "human," and "artificial intelligence" indicate foundational relevance but comparatively lower recent impact.

Conclusion

This mini review of The Gender Code demonstrates how artificial intelligence can reconstruct feminist art creation by integrating cultural criticism, ethical scrutiny, and creative innovation. Although artificial intelligence has promoted new aesthetic practices and critical examinations of gender, identity, and power, persistent obstacles such as algorithmic bias, unequal access to technology, and insufficient intersectional data representation remain. Ethical and theoretical controversies surrounding issues such as authorship, data management, and cultural appropriation further complicate the field. To overcome these limitations, future research must adopt inclusive AI design, interdisciplinary collaboration, and feminist-centered innovation to ensure that emerging technologies truly promote empowerment, equity, and transformative artistic practices.

Disclosures and Declarations

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Competing Interests

The authors have no competing interests to declare that are relevant to the content of this article.

Ethics Approval

This study did not involve human participants or animals, and therefore ethical approval was not required.

Consent to Participate

Not applicable

Consent to Publish

Not applicable

Data Availability

This study does not involve the generation of new datasets. All visualizations are based on data retrieved from Scopus, and all source materials are publicly available through published literature, artist archives, and online platforms. No additional data are available.

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