

Ecofeminism In The Age Of Artificial Intelligence: Remimagining Nature, Technology, And Gender

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Abstract:

Artificial Intelligence (AI) development is a fast-moving process that has given rise to new possibilities for social and environmental change and also raised a number of ecological and gender based issues. This paper is an ecofeminist analysis of AI and investigates the interrelationships between nature, technology, gender, and power. It explores the aforementioned environmental implications of generative AI, such as energy and water usage, carbon emissions, resource extraction, and e-waste, and their disproportionate impact on marginalized communities. Digital inequalities, gender bias, online violence, as well as the unequal representation of women and marginalised groups in technological systems are also explored. In addition, it examines the possibilities of digital platforms, social media activism, digital storytelling, green applications and electronic literature for ecofeminist environmental awareness and resistance. The paper is based on ecofeminist, feminist technoscience, and decolonial frameworks, suggesting an alternative way of thinking about AI as a harmful technology, as well as an automatic answer to environmental issues. Rather, AI needs to be critically assessed in terms of sustainability, gender equality, environmental justice, and social responsibility. The paper concludes by proposing the need to reimagine AI as a more inclusive and sustainable technology that recognises the interconnectedness of human and non-human life...

Keywords: Ecofeminism, Artificial Intelligence, Digital Technology, Sustainability, Feminist Technoscience..

INTRODUCTION

In 1979, twelve women came together to organise a meeting focused on the relationship between women and ecology, prompted by one of the worst nuclear accidents in history: the partial meltdown at the Three Mile Island nuclear plant in Pennsylvania, United States (US). The incident resulted in the release of radioactive gases from Unit 2, one of the plant's reactors. In response, local authorities evacuated 150,000 residents, including pregnant women and children, and ordered the closure of schools. Motivated by these events, these women formed the group called Women and Life on Earth. They issued a statement in 1979 calling for a reimagined society founded on ecological principles to prevent the threat of another nuclear disaster. One year later, in March 1980, they organised the first conference on ecofeminism in the US. The event drew over 600 women who engaged in discussions on ecological feminism, peace, and alternative energy solutions. This conference is widely recognised as the moment when the term ecofeminism was first introduced in the US, creating a vital intersection between environmentalism and feminism.[1]

Forty-five years later, in 2024, Microsoft announced plans to reopen one of the reactors at the Three Mile Island nuclear power station, the same site that originally sparked the ecofeminist movement in the US. This intersection of events provides an opportunity to revisit ecofeminist debates in the context of the contemporary race for innovation in Artificial Intelligence (AI). Within this race, in the last decade, Generative AI (GenAI) and its rapidly growing industry require vast amounts of energy to support the immense computational power needed for model training. GenAI models are built on larger algorithmic architectures, such as neural networks and stable diffusion techniques, which process large datasets to.

identify patterns and regenerate outputs like images, text, or videos. This computational power is translated into increased energy consumption by the GenAI industry. In fact, the energy demands of GenAI contribute significantly to its industry's carbon emissions. These emissions are exacerbated when the power grid supporting the data centres where GenAI models are trained relies on fossil fuels, raising concerns about the tech industry's ability to meet its net-zero commitments. Microsoft, for example, has pledged to eliminate its reliance on diesel fuel by 2030. To achieve this goal, the company has invested in nuclear energy, as exemplified by its plans for the Three Mile Island plant. Nuclear energy offers a means of reducing dependency on fossil fuels, yet it comes with other environmental risks such as the generation of radioactive waste and potential catastrophic accidents.

Beyond carbon emissions, GenAI has additional environmental impacts, including water consumption and waste generation. The GenAI industry relies on vast quantities of potable water to cool down chips used in the training phase of algorithmic models. For instance, the Large Language Model (LLM) LLaMA-3, developed by Meta, consumed 22 million litres of water over a 97-day period. To put this into perspective, this is equivalent to the amount of water an average person in England and Wales would use over the course of 424 years. E-waste represents another significant environmental issue associated with this technology. The electronic waste generated by LLMs is estimated to increase substantially in the coming years, 5.7 million tonnes between 2023 and 2030. The environmental impacts of e-waste are primarily linked to its toxic components, such as lead and mercury, which have the potential to contaminate water and soil and pose serious environmental and health consequences to humans and non-humans. The burgeoning literature on this topic has critically emphasised the importance of uncovering the environmental impacts of this technology in the context of the ongoing climate emergency and has also raised doubts of how it could be used as a tool to tackle the consequences of climate change.

Gender, power, inequality and the environment are also important questions that arise with the use of Artificial Intelligence. While AI appears to be a neutral technology, its creation and application can inadvertently perpetuate social inequalities resulting from the selection of biased data, algorithms, lack of representation, and the voicing of marginalized perspectives. Ecofeminist concerns include the environmental impacts of AI, such as resource extraction, energy usage, and e-waste, potentially impacting vulnerable communities. This is where critical ecofeminism is useful, as it calls into question systems that exploit nature and human labour and acknowledges both beneficial and harmful impacts by technology. While there is increasing research into the environmental impacts of AI and the gender-related consequences of digital technology, these research areas are not necessarily connected.[2] Thus, this paper investigates AI from an ecofeminist perspective, addressing the interconnections between nature, technology, gender, and power, and exploring the environmental issues, digital disparities, ecofeminist activism, and electronic literature, as well as how AI can be reimagined to serve in the interests of sustainability, gender equality, social justice, and responsible relationships between humans, technology, and nature.

LITERATURE REVIEW

Valdivia, A. (2025) Generative Artificial Intelligence (GenAI) is driving significant environmental impacts. The rapid development and deployment of larger algorithmic models consumes substantially more energy than traditional models, contributing to rising carbon emissions, water withdrawal, and e-waste generation. To mitigate these impacts, big tech companies are developing different strategies such as turning to nuclear energy to meet the demand for GenAI electricity and avoid carbon emissions, an approach that could have profound social and environmental implications beyond carbon reduction. This paper proposes a critical rethinking of GenAI's proliferation through an ecofeminist framing, which has historically interrogated the role of science and technology in the context of gender and environmental justice. To do so, it introduces seven data ecofeminist principles delineating a pathway for developing technological and just transition alternatives within the AI research context, emphasising a critical examination of this technology's role in the current socio-ecological crisis. The paper calls for an urgent reassessment of the GenAI innovation race, advocating for ecological and feminist technological projects that prioritise and respect life, people, and the planet.[3]

Åsberg, C. (2024) The cultural technologies of gender, race and empire drive much of the present Anthropocene crisis, now and in the past. Everyday algorithms reproduce and multiply our cultural biases on a global scale. Anthropocentrism, humanistic supremacy and individualistic territorialism are rampant, making us all less humane. Society awakes slowly from the modern illusion of categorical identities and divides that keep nature from culture, human from animal, environment from embodiment, technology from biology and arts from science and society. The argument here is for taking stock of ways of cyborg knowing—also beyond the academic confines. It is time for new knowledge integrations forged in intellectual generosity. The cyborg, as a discipline-crossing figure, proposed theory-practices and practice-theories for how to readjust our high consumption, high energy and hyper-instrumental society, and ourselves, adaptively. In this piece, I proposed that feminist STS and cyborg knowing work as a prominent entry into the transformative multiverse of feminist posthumanities in practice.[4]

Dong, et,al (2023) The rapid advancements in Artificial Intelligence (AI) and human-computer interaction (HCI) have profound implications for society. However, the integration of Ecofeminism and Deleuzian philosophy still needs to be explored in this context. While existing literature has separately examined HCI, Ecofeminism, and Deleuze's concept of "becoming-woman," there is a lack of interdisciplinary studies that bring these diverse perspectives together, particularly in AI and contemporary literature. This paper introduces a novel framework that integrates HCI, Ecofeminism, and Deleuze's "becoming-woman" to analyze AI technologies and literary works. We employ this interdisciplinary lens to critique and reimagine AI systems, advocating for more inclusive and ecologically responsible designs. We offer a comprehensive review of contemporary literature that engages with these themes, enriching the discourse in HCI and literary studies. Moreover, we integrate neural machine translation (NMT) models into interactive machine translation to propose a classical prefix-based NMT segment-based interactive protocol, i.e., the interactive NMT (iNMT) method. The positive impacts of such an iNMT method, when viewed through the lens of HCI, ecofeminism, and Deleuzian philosophy, lie in its potential to democratize interactions, amplify marginalized voices, and offer new tools and metaphors for exploring fluid identities in contemporary literature and beyond. Our findings reveal that incorporating Ecofeminist and Deleuzian perspectives can lead to more ethical and inclusive AI systems. Additionally, we identify emerging trends in contemporary literature that resonate with these interdisciplinary concerns, suggesting a fertile ground for future research and collaboration.[5]

Chakraborty, S. (2026) This comparative analysis of Kazuo Ishiguro's *Klara and the Sun* (2021) and Manjula Padmanabhan's *The Island of Lost Girls* (2015) employs a feminist posthumanist lens, augmented by disability studies, trans technofeminism, and decolonial AI ethics, to interrogate artificial and engineered female embodiments. It explores negotiations of vulnerability, care, surveillance, and biopolitical regulation, guided by five research questions: conceptualizations of posthuman female embodiment and emergent ethical-political-affective possibilities; manifestations of feminist posthumanist themes like relationality and techno-agency; enrichments from crip and queer technofeminist perspectives on embodied difference; influences of cultural locations on posthuman paradigms sans West/South Asia binaries; and a comparative mapping of care, resistance, and technological governance intersections. Findings delineate contrasting yet complementary posthuman visions. One is grounded in relational ethics, while the other is shaped by necropolitical control, affirming literature's capacity to theorize the ethical and political stakes of AI-mediated futures.[6]

Sage, N. (2022) In looking to the future of development, this chapter considers three areas that have become more prominent in development thinking in recent times, partly as a result of increasing globalisation and growing awareness of issues that affect the world as a whole. The advance of digital technology and moves towards a green environment and gender equality, are shown to be key areas that need to be addressed in order to advance development across the world. The chapter goes on to show that these three areas of development are also closely interconnected in ways that have not been sufficiently recognised in the past, but need to be as we look to the future. The chapter concludes by pointing out that international development requires the world to find a universally agreed way forward to find solutions that not only address issues in the developing countries of the world, but also

global issues such as climate change, in order to create a viable route to sustainable development in the 21st century.[7]

RESEARCH METHODOLOGY

This study adopts a qualitative, exploratory, and conceptual research approach to examine ecofeminism in the age of Artificial Intelligence, with particular focus on the interconnections between nature, technology, gender, and power. The study is based primarily on secondary data collected from scholarly books, research articles, academic journals, conference proceedings, and relevant literature on ecofeminism, feminist technoscience, digital technologies, AI, environmental justice, and electronic literature. The selected literature is critically reviewed and thematically analysed to identify major environmental, gender-related, technological, and social concerns associated with AI. The study further applies ecofeminist, feminist technoscience, posthumanist, and decolonial perspectives to interpret issues such as energy consumption, resource extraction, e-waste, digital inequality, algorithmic bias, online violence, and digital activism. Through this interdisciplinary analysis, the research explores both the challenges and transformative possibilities of AI and proposes directions for developing more sustainable, inclusive, gender-equitable, and socially responsible technological practices.

THEORETICAL FRAMEWORK: ECOFEMINISM IN THE AGE OF ARTIFICIAL INTELLIGENCE

Ecofeminist Theory

Ecofeminism is a movement situated at the intersection of environmentalism and feminism. It seeks to explore the interactions and potential synergies between the protection of ecosystems and natural resources and the challenges arising from gender inequality. As Vandana Shiva describes it, ecofeminism represents a 'new term of ancient wisdom' that 'grew out of various social movements—the feminist, peace and the ecology movements'.[8] Ecofeminism bridges the gap between environmental, racial, and gender justice by articulating theories and practices that interrogate ideologies that 'authorises oppressions based on race, class, gender, sexuality, physical abilities, and species', while, at the same time also sanctioning 'the oppression of nature'. And in fact, Shiva observed an ideological and material connection between the oppression of women and nature. However, this connection has not always been evident. While the term ecofeminism was first introduced in Françoise d'Eaubonne's book *Feminism or Death* (1974), her work was initially met with significant criticism from the French academic community, as they considered women and nature unrelated concepts. Despite this early resistance, her work is now recognised as foundational to the first wave of the ecofeminist movement in the 1970s.[9]

Ecofeminism has often been regarded as a predominantly white, Western movement, but it has increasingly incorporated decolonial perspectives, drawing on contributions from scholars who examine intersections of feminism, environmental justice, and racial and colonial legacies. Vandana Shiva critiqued US ecofeminists for overlooking the intersections of Western colonialism, gender oppression, and environmental degradation in the Global South. Bina Agarwal also challenged Western ecofeminism, arguing that it remains a 'critique without threat to the established order' and called for analyses grounded in Global South perspectives. Agarwal further criticised ecofeminism for treating women' as a homogeneous category, failing to account for differences of class, race, and ethnicity. Decolonial feminism has raised significant critiques of ecofeminism, emphasising the need to acknowledge the history of colonisation in processes of environmental degradation.[10] For instance, Françoise Vergès, in *A Decolonial Feminism*, calls for a feminism that recognises the legacies of European colonialism and racism, highlighting how racialised women disproportionately bear the burden of managing the waste created by capitalism and extractivism. This is evident, as Vergès points out, in examining who cleans train stations in major European cities. In the specific case of AI, this becomes evident when examining who extracts the minerals for electronics, manufactures GPUs, or manages the e-waste generated by AI hardware: usually racialised and historically marginalised subjects whose labour and struggles have been invisibilised.[11]

Digital Ecofeminism

Ecofeminism, as articulated by pioneers like Françoise d'Eaubonne, Carolyn Merchant, and Vandana Shiva, posits a fundamental connection between the oppression of women and the exploitation of nature. This perspective argues that patriarchal systems of domination underpin both gender inequality and environmental degradation. As ecofeminist thought has evolved, it has increasingly recognized the intersectionality of various forms of oppression, including those based on race, class, and geographical location.[12]

In the context of the digital age, ecofeminist theory must grapple with new forms of technology-mediated relationships between humans and nature. Donna Haraway's concept of the "cyborg" – a hybrid of machine and organism – offers one framework for understanding these new relationships. Haraway's work challenges traditional ecofeminist notions of a "natural" connection between women and nature, suggesting instead that our identities and our relationships with the environment are increasingly mediated by technology.[13]

The emergence of "digital ecofeminism" represents an attempt to apply ecofeminist principles to the realm of digital technology and culture.[14] This emerging field examines how gender and environmental issues intersect in digital spaces, considering questions such as:

- How do digital technologies reproduce or challenge existing power structures related to gender and the environment?
- What are the environmental impacts of digital technologies, and how do these disproportionately affect women and marginalized communities?
- How can digital platforms be used to promote ecofeminist goals and foster new forms of environmental consciousness?

Scholars like Janneke Adema and Gary Hall have argued for a "posthumanist ecofeminism" that recognizes the entanglement of human and non-human actors in digital networks. This perspective challenges anthropocentric views of technology and encourages a more holistic understanding of the relationships between humans, machines, and the natural world.[15]

STS have provided crucial scholarly insights into the connection between ecofeminism and technology, although it has not been always straightforward. As Julia E. Romberger aptly argued in one of the few works addressing the link between ecofeminism and digital technologies: 'ecofeminism calls for critical examination of the appropriateness of technology'. That said, ecofeminism should not be seen as an anti-technology movement.[16] Instead, it should be recognised as a philosophical, theoretical, empirical, and political praxis that: (1) recuperates science and technology from feminist, decolonial, and environmental perspectives, (2) challenges any logic of domination, capitalist modes of production, and the hegemony of mechanistic science and, (3) considers heterogeneous perspectives from those historically marginalised, with the aim to 'build a world of many worlds where everybody fits'.

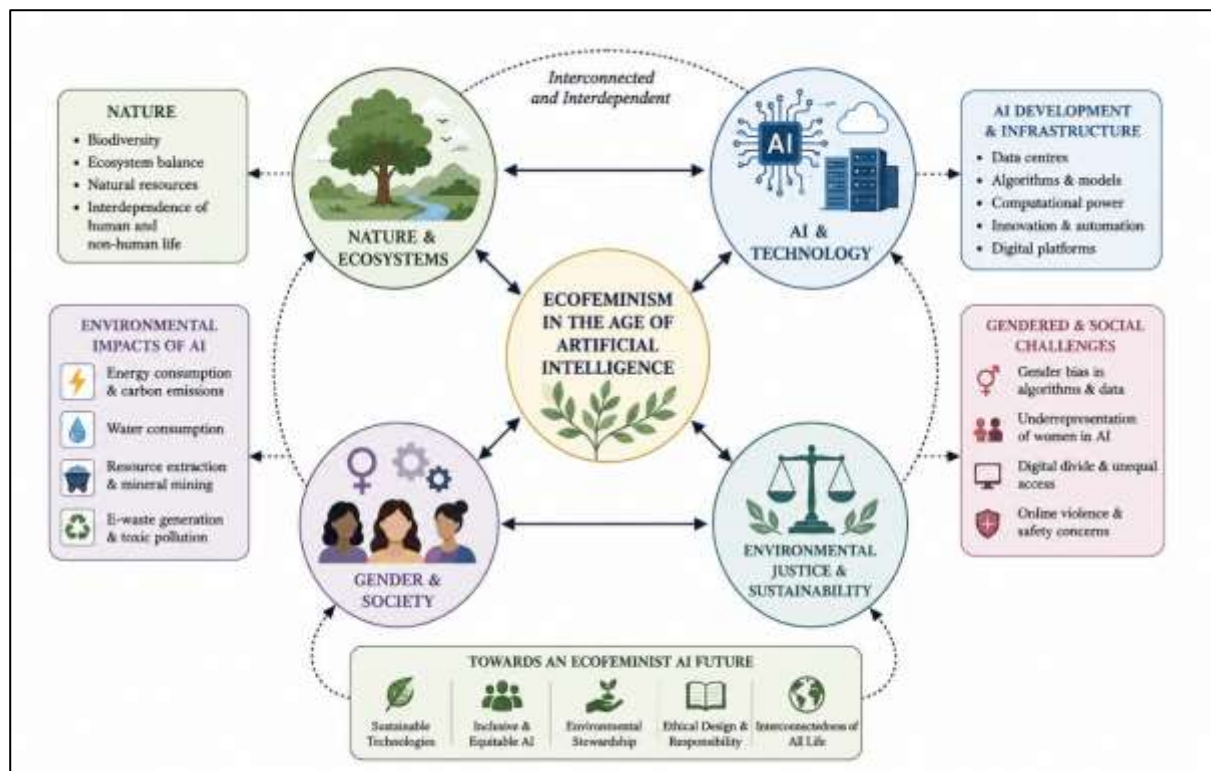


Figure 1. Ecofeminist Interconnections Between Artificial Intelligence, Nature, Gender, and Environmental Justice

Ecofeminism has historically criticised technocratic approaches and technologies that threaten life on Earth. Since Carson's *Silent Spring* (1962) demonstrated the environmental harms caused by pesticides used by soldiers during WWII, ecofeminists have challenged the illusion of rational and objective technology. They have shown how technological artifacts are shaped by Western, capitalist, and masculine values, which are used to dominate both nature and women's bodies. In this vein, Haraway also argued in *Simians, Cyborgs, and Women* (1991) that after WWII, 'electronic industries and communications technology were increasingly tied to strategies of social and military planning'.^[17] These ecofeminist criticisms have also focused on production, reproductive, and domestic technologies as well as militarist and nuclear technologies. More recently, ecofeminists in Latin America have questioned sustainable development technologies, such as green energy projects, arguing that they also contribute to environmental harms and serve as a rationale for reproducing capitalist activities. However, little attention has been given to the connection between ecofeminism and data and AI technologies. Given the increasing environmental footprint of GenAI technologies and their associated industries, this paper proposes an ecofeminist approach to data and AI technologies by contributing to critical AI literature and opening a dialogue between ecofeminism and GenAI technologies.^[18]

CHALLENGES OF ECOFEMINISM IN THE Age of Artificial Intelligence

Environmental Impacts Of Digital Technologies

One of the primary challenges for ecofeminism in the digital age is reconciling the environmental costs of digital technologies with their potential benefits for activism and awareness-raising. The production, use, and disposal of digital devices contribute significantly to global carbon emissions, resource depletion, and toxic waste. Moreover, the energy consumption of data centers and network infrastructure has a substantial environmental footprint.^[19]

Ecofeminist scholars like Arianna Bove have highlighted how the environmental impacts of digital technologies often disproportionately affect women and marginalized communities. For

instance, the extraction of rare earth minerals for electronic components frequently involves exploitative labor practices and environmental degradation in Global South countries.[20]

Digital Divides And Accessibility

While digital technologies offer new platforms for ecofeminist discourse and activism, they also risk exacerbating existing inequalities. The "digital divide" – the gap between those who have access to digital technologies and those who do not – often mirrors existing gender, racial, and economic disparities. This divide can limit the participation of marginalized voices in online ecofeminist movements and discourse.[21]

Moreover, the design of digital technologies and platforms often reflects and reinforces gender biases. Feminist technoscience scholars like Judy Wajcman have argued that the male-dominated tech industry tends to produce technologies that cater to male preferences and experiences, potentially marginalizing women's perspectives and needs.[22]

Online Harassment And Digital Violence

The anonymity and reach of digital platforms have given rise to new forms of gender-based violence and harassment. Ecofeminist activists and writers who speak out online often face disproportionate levels of abuse, threats, and trolling. This digital violence can have a chilling effect on ecofeminist discourse and activism, silencing important voices and perspectives.[23]

DIGITAL ECOFEMINIST MOVEMENTS AND INNOVATIONS

Role Of Social Media Activism And Hashtag Movements

Despite the challenges, digital platforms have also enabled new forms of ecofeminist activism and consciousness raising. Social media movements like #EcoFeminism, #ClimateJustice, and #EnvironmentalRacism has helped to raise awareness about intersectional environmental issues and mobilize global support for ecofeminist causes.[24]

Case Study: The #NiUnaMenos movement in Latin America, which began as a protest against femicide, has evolved to incorporate ecofeminist principles, highlighting the connections between violence against women and environmental exploitation. The movement's use of social media has allowed it to rapidly spread across borders and mobilize large scale protests.

Digital Storytelling And Citizen Journalism

Digital platforms have empowered women and marginalized communities to share their own stories of environmental struggle and resistance. Initiatives like the Women's Earth and Climate Action Network (WECAN) use digital storytelling to amplify the voices of indigenous women and frontline communities affected by climate change and environmental degradation.[25]

Eco-Apps And Green Technology

Innovative digital applications are being developed to promote sustainable lifestyles and environmental awareness. Apps like "Good On You," which provides information on the ethical and environmental practices of fashion brands, demonstrate how digital technologies can be harnessed to promote ecofeminist values of sustainability and ethical consumption.[26]

ECOFEMINISM IN ELECTRONIC LITERATURE

Hypertext And Ecofeminist Narratives

Electronic literature offers new possibilities for expressing ecofeminist ideas through non-linear, interactive narratives. Hypertext fiction, which allows readers to navigate through a text in multiple ways, can be used to represent the complex, interconnected nature of ecological systems and feminist perspectives.

Example: Shelley Jackson's "Patchwork Girl" (1995), while not explicitly ecofeminist, demonstrates how hypertext can be used to explore themes of embodiment, fragmentation, and the blurring of boundaries between human and non human – all concepts relevant to ecofeminist

thought.[27]

Digital Poetry And Ecopoetics

Digital poetry has emerged as a powerful medium for expressing ecofeminist themes. The ability to incorporate multimedia elements – text, image, sound, and interactivity – allows for rich, multisensory explorations of human-nature relationships.[28]

Example: Allison Adelle Hedge Coke's "Streaming" project combines poetry, video, and sound to explore indigenous perspectives on water rights and environmental justice, exemplifying how digital poetry can engage with ecofeminist themes.

Virtual Reality And Immersive Ecofeminist Experiences

Virtual and augmented reality technologies offer new possibilities for creating immersive ecofeminist experiences. These technologies can be used to simulate environmental changes, foster empathy for non-human entities, and explore alternative human-nature relationships.[29]

Example: The VR experience "Tree" allows users to embody a rainforest tree from seed to full growth, experiencing deforestation from a non-human perspective. While not explicitly feminist, such works demonstrate the potential of VR for exploring ecofeminist themes of interconnectedness and non-human subjectivity.

CHALLENGES AND CRITICISMS

While AI and digital platforms offer novel avenues for environmental awareness, activism and knowledge sharing, too much technology dependence can lead to techno-optimism. At times, digital activism can simply be an online engagement, such as sharing posts, hashtags, or petitions, without triggering any tangible change in communities or environmental habits. This “slacktivism” or “clicktivism”, as it is sometimes called, can turn complicated ecofeminist issues into quick online participation. Furthermore, reliance on digital technologies can perpetuate cycles of technological consumption, energy consumption and resource extraction which are combated by ecofeminism.[30] This means that ecofeminist perspectives on artificial intelligence should acknowledge the potential of digital technologies, but also be aware of their environmental and social drawbacks.

However, the rise of data privacy, surveillance, and algorithmic control are also concerns in the context of ecofeminist activism using AI and digital platforms. The large volume of data users release on social media platforms or in AI-based systems can lead to user activation monitoring, profiling or misuse of personal data. Algorithmic systems may also perpetuate existing gender, race, and social inequities if they are designed with unequal or unrepresentative data sets. A particular concern of ecofeminist movements is that spaces should be created for participation and empowerment, not technological control, in digital environments. Therefore, it is important to have greater transparency, data protection, accountability and ethical AI practices. Access to digital technologies is a further problem of digital ecofeminism.[31] Women and marginalised groups can be left out of the online environmental movement due to inequities in internet access, digital literacy, economic power, language and technological ability. The prevalence of English-language information and Western worldviews also can restrict access to the experiences of environmental and gender injustice from Indigenous, local, and Global South perspectives. The inequalities may also be perpetuated within AI systems if they are underrepresented in the datasets used to inform their creation. An inclusive digital ecofeminism, in other words, demands open and freely accessible digital infrastructure, multilingual websites, various sets of data, and the involvement of women and marginalised communities in developing and controlling AI.

An additional challenge is the environmental paradox of digital technologies. The manufacturing and use of AI systems consume significant amounts of energy, water, and computing resources, and electronic gadgets generate additional e-waste and environmental footprint. Mineral extraction and technological waste disposal may be an extra burden for vulnerable communities. This poses a central issue for ecofeminism as digital technologies can be used to raise environmental awareness, yet also cause ecological damage.[32]

Thus, when considering the relationship between ecofeminist and AI, the entire lifecycle of the technology from extraction and production to utilization and disposal should be taken into account. Another common criticism of AI is its tendency to perpetuate gender bias. Another dominant critique of AI is that it reinforces gender bias. AI technologies are built in social and institutional contexts that can also have gender inequities. AI systems can be shaped and utilized by biased datasets, lack of representation of women in technology and the dominance of men in decision-making processes. The inequalities may relate to employment, health care, education, security, and access to digital services. An ecofeminist perspective calls for more involvement of women and marginalised communities in designing, developing, regulating and governing AI to solve these problems. This can pave the way for a shift in technological development from systems of domination to more democratic, inclusive, sustainable and socially responsible technologies.

FUTURE DIRECTIONS

In the era of Artificial Intelligence, the future of ecofeminism needs to be grounded in the intersection of gender, nature and technology. Since digital technologies are becoming more important in our daily lives and in our interactions with the natural world, the research of ecofeminism must consider their effect on systems of power, social relations, and the environment. By acknowledging the interdependent relationship between humans, machines, animals, and ecosystems, a posthumanist digital ecofeminism can offer a more holistic view. This strategy can enable the creation of alternative technological models based on the principles of sustainability, equality, care and wellbeing, both for human and non-human life.

Artificial Intelligence and machine learning also present possibilities for furthering ecofeminist objectives. The technologies can contribute to monitoring the environment, climate studies, the management of resources, predicting disasters, and sharing information about the environment. They should be critically reviewed, however, as AI systems can perpetuate existing gender and social inequalities and can consume a lot of energy, water, and technological resources. Future work needs to therefore prioritise the creation of algorithms for AI systems that are transparent, inclusive, environmentally responsible, and responsive to the needs of women and marginalised communities. Another vital future trajectory is the eco-critical code studies, a combination of three previous studies: ecocriticism, feminist code studies, and software studies. This space can explore algorithmic, data, interface and other digital forms that embody specific thoughts, assumptions, values, and beliefs regarding gender, nature and human-technology relations. Research can focus on the integration of ecofeminist concepts in software applications and digital design to minimize the environmental impact and incorporate gender-related perspectives, thereby fostering a more sustainable and ethical approach to technological development and utilization. Another aspect of digital ecofeminism that needs to be considered in the future is a transnational and intersectional perspective. Environmental degradation and technological development are not geographically bound and their impact varies by gender, class, race, geography and economic status.

Digital platforms can facilitate the linking of women, environmental activists, Indigenous communities, researchers and other marginalised groups from various regions. These networks have the potential to promote knowledge sharing, collective action, environmental education and international solidarity, and to make the voices of local ecological and technological injustices audible. Lastly, future ecofeminist studies need to go beyond critiques on the negative effects of technology and strive to develop alternatives to technological development. However, the potential of blockchain and other decentralised technologies in supporting more transparent and equitable exchange and governance systems could be explored and their environmental costs also be considered carefully. Further research on feminist studies and environmental humanities should be promoted through collaboration with AI studies, software studies, and social sciences. A transdisciplinary and global perspective of digital tools can rethink digital technologies to create more sustainable, socially just, gender-equal and balanced relations among humans, technologies and nature.

CONCLUSION

In summary, ecofeminism in the era of Artificial Intelligence offers a valuable lens to grasp the complex equation of nature, technology, gender, and power. While AI's speedy advancement offers a chance for environmental awareness, digital activism, sustainable practices, and novel avenues of creative expression, it also introduces concerns about energy and water usage, e-waste, resource extraction, digital inequality, gender bias, and online violence. An ecofeminist view identifies these as not just technical or environmental problems but as part of broader systems of social and economic inequalities and gender inequalities. So, AI shouldn't be dismissed as bad or viewed as the panacea for all world issues. Rather, it should be developed and used with sustainability, environmental justice, gender equality, inclusiveness and moral responsibility. An ecofeminist approach to reimagining AI needs to include more women and other marginalised groups, responsible technological development, protection of natural resources and understanding of the interconnection of human and non-human beings. Finally, ecofeminism could help realize a technological future that is not one of dominance and endless consumption, but equality, sustainability, caring, and ecological justice.

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