

UNVEILING CYBER FEMINISM: ADDRESSING GENDER BIAS AND ONLINE HARASSMENT IN THE TECH ERA OF ARTIFICIAL INTELLIGENCE

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Abstract

Cyber-feminism is a branch of feminism and a feminist movement that focuses, investigate and address the intersection of gender, technology, and digital culture. It seeks to promote a more inclusive and equitable online world by challenging patriarchal structures and biases that exist in technology and digital media. Cyber-feminism encompasses a range of activities and practices, including advocating for gender diversity in the tech industry, addressing online harassment and abuse, promoting feminist digital art and culture, and empowering women to take an active role in shaping digital spaces. Overall, cyber-feminism aims to create a more just and equitable digital future for all. Cyber-feminism is a relatively new concept that combines feminism with technology and digital culture. Its main goal is to create a more gender-inclusive and equitable and just digital future for all individuals. The present chapter is an attempt to conceptualize the concept of cyber-feminism and the issue of gender bias in the present era. Cyberspace proves to be liberating for the women and helps them move beyond the traditional binaries and limitations of the popular gender politics by building major areas of cyber-feminist debate to disturb the commonly accepted notions surrounding the gender and online spaces.

Keywords: Cyber feminism, technology, digital spaces etc.

I. INTRODUCTION

Cyber-feminism stands as a distinctive branch within feminism, and it champions a movement devoted to exploring and remedying the convergence of gender, technology, and digital culture. Its core mission revolves around fostering a more inclusive and fairer online environment, challenging entrenched patriarchal norms and biases ingrained within technology and digital media.

This multifaceted movement encompasses a spectrum of initiatives, from advocating for gender diversity within the tech industry to confronting online harassment and abuse. It also celebrates

and promotes feminist digital art and culture while empowering women to actively shape digital realms. At its essence, cyber-feminism aspires to forge a digital landscape characterized by justice and equity.

Emerging as a relatively recent concept, cyber-feminism melds the principles of feminism with the dynamics of technology and digital culture. Its primary aim is to cultivate a digital future that is not only gender-inclusive but also just and equitable for all individuals. Within the present chapter, there's an endeavor to articulate the essence of cyber-feminism and delve into the issue of gender bias in contemporary times.

In the realm of cyberspace, women find a platform that liberates them from traditional gender binaries and limitations. It serves as a catalyst for disrupting prevailing gender norms and reshaping online spaces. Cyber-feminist discourse unsettles conventional perceptions surrounding gender and online domains, paving the way for critical dialogues that challenge the status quo.

II. HISTORICAL CONTEXT OF CYBER FEMINISM:

Cyber-feminist concepts have grown out of the wider feminist movement which arose during the 1980s and 1990s, a time of rapid technological advancement and the proliferation of the internet. Feminist scholars and activists began to explore how technology could advance gender equality and challenge patriarchal power structures. One of the most important early works in the development of cyber-feminism was Donna Haraway's "A Cyborg Manifesto" (1985), which proposed the cyborg as a model for a more fluid and inclusive understanding of gender and identity. Haraway rightly observed that the technologized and non-technologized spheres, or online and offline spheres, intersect in complex ways, concluding that "virtual" and "real" life is an inaccurate binary construct. And to transcend the dichotomized thinking she suggested that the cyborg could represent a hybrid form, blending human and machine that would go beyond traditional concepts of race and gender. She writes "In short, we are all cyborgs". She proposed the cyborg as the leader of a new world order. Partly human and partly machine, the cyborg deeply challenged the patriarchal biases. Though the computer technology was largely a domain for men but the cyber-feminists asked: Could we use technology to hack codes of patriarchy? Could we escape gender online? (Haraway, Donna 150). Haraway's cyborg became the cyber-feminists' ideal citizen for a post-patriarchal world. According to Flanagan and Booth, the term "Cyber-feminism" refers to "a sporadic, tactical, contradictory set of theories, debates, and practices" (Flanagan, Mary 12) Cyber-feminism is inclusive of the diverse theoretical and political stances that cyber-feminists occupy when engaging in discussions on gender and digital culture or technology, reflecting that the common ground between theoretical cyber-feminist variants is a : sustained focus on gender and digital technologies and on feminist practices"(Gajjala, Radhika 103)

The internet provided new avenues for feminist activism and expression in the 1990s, but its roots, however, go back to the earlier practices of the feminist artists like Lynn Hershman Leeson. Cyber-

feminism came to describe an international, unofficial group of female thinkers, coders, and media artists who started linking up online. Technology gave a rise to a fresh wave of cyber-feminist activism. Women were able to connect and share information through online spaces such as blogs, forums, and social media platforms in a way that had not been possible before. The “Vagina Monologues” and “Take Back the Tech” campaigns are examples of the kind of cyber-feminist activism that flourished during this period. Today, cyber-feminism is still evolving and adapting to new technological advancements and challenges. As technology continues to become more integral to our everyday lives. Thus, cyber-feminist principles and practices remain crucial for promoting gender equality and social justice in digital spaces.

III. ADDRESSING GENDER BIAS IN TECHNOLOGY:

Gender bias in technology is the reflection and reinforcement of gender inequality and discrimination in the design, development and use of technology. This bias can take many forms, from women being underrepresented in the tech industry, especially in leadership positions, to biased algorithms that perpetuate gender stereotypes.

A significant example of gender bias in technology is the lack of diversity in the tech industry, which creates an unwelcoming environment for women and reinforces the notion that technology is a male-dominated field. This can lead to limited opportunities for women in the field of technology and develop a culture that marginalizes them. Gender bias in algorithms and AI refers to the ways in which automated decision-making systems can perpetuate gender stereotypes and lead to discrimination against women and marginalized groups.

1. Examples of how gender bias can manifest in algorithms and ai:

One example is biased hiring algorithms. These algorithms, which are trained on historical data, may discriminate against women in male-dominated fields. For instance, in 2018, a study found that Amazon’s AI recruiting tool discriminated against women by downgrading resumes that contained women’s names or references to women’s organizations. Another example is gendered language. Language models, such as those used in virtual assistants, can incorporate gender bias based on training data. For example, a study revealed that Google translate consistently translated gender-neutral Turkish sentences into English as male-gendered sentences, thereby perpetuating gender stereotypes and excluding non-binary individuals. Gendered language amplifies gender stereotypes and results in discrimination against women and marginalized groups.

Furthermore, gender bias can impact the *design of products and services* also. For instance, a fitness tracking app that assumes all users are male and sets default exercise goals accordingly may exclude and discourage women who have different fitness goals and needs.

Facial recognition technology is another area where gender bias can occur. Research has shown that facial recognition technology is less accurate in recognizing the faces of women and people of color, leading to false identifications and wrongful arrests.

Predictive policing algorithms may also disproportionately target women and people of color based on biased training data. This can result in over-policing of certain communities and unfair treatment.

Lastly, *credit scoring algorithms* may use gender as a variable, leading to lower credit scores for women even when they have similar credit histories as men. This can result in women being denied loans or having to pay higher interest rates, which can have long-term financial consequences.

Addressing gender bias in technology is a tricky task and it requires a comprehensive approach that includes increasing diversity in the tech industry, creating ethical guidelines for algorithm design, and promoting awareness of gender bias among developers and users. By taking a few planned steps we can create more inclusive and equitable technology that benefits everyone.

There is sheer lack of diversity in the tech industry. It refers to the underrepresentation of marginalized groups, such as women and people of color, in the technology workforce. Despite efforts to promote diversity and inclusion, the industry remains predominantly white and male, which can perpetuate gender and racial biases in technology, including biased algorithms and products. The implications of a lack of diversity in the tech industry are far-reaching, affecting the development of technology and its impact on society. Without diverse perspectives and experiences, technology may reflect the biases and assumptions of its creators, leading to products and services that exclude or discriminate against certain groups and perpetuate social inequalities. In particular, women face significant barriers to entry and career advancement in the tech industry due to a lack of access to education and training, as well as gender bias and discrimination in hiring and promotion processes. Hostile work environments further contribute to low retention rates.

Initiatives to increase diversity in the tech industry include improving access to education and training for marginalized groups, addressing bias and discrimination in hiring and promotion, and creating more welcoming and inclusive work environments. Encouraging companies to adopt diversity and inclusion policies is also critical in promoting an industry that is representative of and accessible to all.

IV. PROPOSED SOLUTIONS TO PROMOTE DIVERSITY AND INCLUSION IN TECHNOLOGY ARE AS FOLLOWS:

a) **Education and training:** Providing access to education and training programs for underrepresented groups can help create a more diverse pool of candidates for tech jobs.

b) **Inclusive hiring practices:** Implementing inclusive hiring practices, such as using blind hiring techniques, can help reduce bias and increase diversity in the tech industry.

- c) **Mentorship and sponsorship:** Providing mentorship and sponsorship programs can help support the career development and advancement of underrepresented groups in tech.
- d) **Diverse leadership:** Increasing diversity in leadership positions can help create a more inclusive and welcoming work environment for all employees.
- e) **Creating an inclusive culture:** Building a culture of inclusivity and respect within tech companies can help create a more welcoming and supportive environment for underrepresented groups.
- f) **Diversity and inclusion policies:** Adopting diversity and inclusion policies and making a commitment to creating a more diverse and inclusive workplace can help promote diversity and inclusion in technology.

V. CHALLENGING ONLINE HARASSMENT AND ABUSE:

Online harassment and abuse are forms of harmful behavior directed towards an individual or group through digital communication platforms such as social media, online forums, email, text messages, and others. This harmful behavior can take many forms, including cyberbullying, hate speech, stalking, doxing, and revenge porn. Victims of online harassment and abuse can suffer significant psychological distress, emotional trauma, and even physical harm. This issue is not limited to any specific gender, age, race, or background, as anyone can become a victim of online harassment and abuse. Therefore, it is a critical issue that requires effective measures to be taken to protect individuals and communities from its harmful effects.

VI. IMPACT ON WOMEN AND MARGINALIZED GROUPS:

Online harassment and abuse have a disproportionate and harmful impact on women and marginalized groups, including people of color and members of the LGBTQ+ community. Studies have shown that women are more likely to be targeted than men, with some reports indicating that women are three times more likely to experience online harassment than men. This type of abuse can cause significant psychological distress, including anxiety, depression, and post-traumatic stress disorder (PTSD). It can also lead to self-censorship and withdrawal from online spaces, which can limit the ability of women and marginalized groups to fully participate in public discourse and civic engagement.

Furthermore, online harassment and abuse can have a chilling effect on free speech, as those who are targeted may fear speaking out or sharing their opinions online. This fear can result in a silencing effect on women and marginalized groups, which can significantly limit their ability to express themselves and engage in online conversations. Overall, it is crucial to address online harassment and abuse as a serious issue that affects the well-being and participation of women and marginalized groups in the digital world.

VII. CYBER-FEMINIST APPROACHES TO ADDRESS ONLINE HARASSMENT:

Cyber-feminist approaches aim to combat gender-based violence and promote digital equality in online spaces by utilizing feminist principles. These approaches recognize the intersectional nature of online harassment and prioritize the voices and experiences of women and marginalized groups.

One key strategy is to address the systemic issues that enable online harassment and abuse rather than solely focusing on individual victims. This includes advocating for changes in platform policies and regulations and challenging societal attitudes towards gender-based violence in online spaces.

Empowering vulnerable groups to actively participate in shaping online culture and discourse is another approach. This can be achieved by fostering networks of support and solidarity, creating safe spaces for discussion and engagement, and promoting digital and media literacy.

Additionally, cyber-feminist approaches acknowledge intersectionality and the fact that different communities and identities experience online harassment and abuse differently. Therefore, it's crucial to understand and address their unique experiences and needs to promote online safety for vulnerable groups.

VIII. STRATEGIES FOR PROMOTING ONLINE SAFETY FOR VULNERABLE GROUPS:

To promote online safety for vulnerable groups, various strategies can be employed. One of them is education and awareness programs that help these groups understand the risks and challenges of online spaces. This can include training on safe online practices, recognizing and reporting online harassment and abuse, and understanding the impact of online behavior.

Promoting digital and media literacy is also important to equip vulnerable groups with the skills and knowledge needed to navigate online spaces safely and effectively. This can include teaching basic computer and internet skills, as well as providing resources for critical thinking, fact-checking, and online security.

Creating safe spaces and support networks can provide vulnerable groups with a sense of community and protection. This can be done by creating online support groups, partnering with organizations that provide social services and support, and providing access to resources for mental health and well-being.

Advocating for platform policies and regulations that prioritize the safety and well-being of vulnerable groups can help to create a safer online environment. Such policies can include prohibiting hate speech and harassment, providing clear guidelines for reporting and removing abusive content, and promoting a culture of respect and inclusion.

Recognizing the intersectional nature of online harassment and abuse is crucial for promoting online safety for vulnerable groups. This involves working with and listening to vulnerable groups

to understand their unique challenges and concerns, and developing tailored strategies to address them.

IX. EMPOWERING WOMEN IN DIGITAL SPACES:

Women encounter numerous obstacles in digital spaces, such as online harassment, discrimination, and underrepresentation. Online harassment is a pervasive problem that disproportionately affects women and encompasses acts like stalking, doxing, hate speech, revenge porn, and threats, which may cause significant psychological distress, emotional trauma, and even physical harm. Gender-based discrimination in digital spaces manifests in different ways, such as the gender pay gap in tech industries, insufficient representation of women in leadership positions, and biases in algorithms and artificial intelligence. The limited representation of women in digital spaces hampers their ability to fully participate in online conversations and contribute to shaping digital culture, perpetuating existing power imbalances and marginalizing their voices and experiences. As a result, women's ability to feel safe, valued, and heard in digital spaces is compromised, restricting their opportunities for personal and professional growth.

1. Strategies for empowering women to take an active role in shaping digital culture:

Empowering women to take an active role in shaping digital culture involves various strategies. Providing education and training is crucial in helping women acquire digital skills, such as coding, cyber-security, and data analysis, which enables them to fully participate in digital spaces and contribute to digital innovation.

Creating safe and inclusive spaces is another important strategy, as women require online communities, forums, and social networks designed specifically for them, where they can confidently share their ideas, opinions, and experiences without fear of harassment or discrimination. Allan Anita rightly opines “Amplifying women's voices is also essential, and this can be achieved by creating online publications and blogs that feature women's voices and perspectives. Additionally, providing speaking opportunities and mentorship programs for women in digital industries can help promote their skills, expertise, and experiences” (Anita, Alan 52)

Advocating for change is another important strategy to address issues of inequality and discrimination in digital spaces. Women should push for greater representation of women in leadership positions, promote policies and practices that promote diversity and inclusion, and hold tech companies accountable for addressing issues of harassment and discrimination.

Finally, building networks of support and solidarity with other women in digital spaces is also important. Women can join professional associations, attend conferences and events, and participate in mentorship programs that connect them with other women in the industry, which can foster collaboration, networking, and personal growth.

2. Encouraging women to pursue careers in technology:

Early exposure to technology can help girls develop an interest in the field and consider it as a viable career option. Providing access to computer science classes, coding camps, and other technology-focused programs can encourage them to explore their interests.

3. Offering mentorship and role models:

Having female mentors and role models in technology can inspire and support women in their career paths. Mentorship programs and events featuring successful women in tech can provide guidance and help women envision themselves in technology careers.

4. Creating an inclusive workplace culture:

Creating an inclusive culture that values diversity and supports women in technology is crucial. Companies can implement policies and practices that promote equity, diversity, and inclusion. Offering opportunities for career growth and advancement can also encourage women to pursue technology careers.

5. Addressing gender bias and discrimination:

Gender bias and discrimination can discourage women from pursuing technology careers. Companies can provide training on unconscious bias, implement transparent hiring and promotion processes, and create safe and inclusive work environments to address these issues.

6. Offering competitive pay and benefits:

Providing competitive pay and benefits is necessary for attracting and retaining women in technology careers. Companies can conduct salary audits to ensure women are paid fairly and offer benefits such as flexible schedules and parental leave to support work-life balance. Offering equal opportunities for advancement and recognition for achievements can also motivate women to stay in technology careers.

7. Supporting feminist digital activism:

Feminist digital activism utilizes digital technologies to advance feminist causes, such as advocating for gender equality, reproductive rights, and ending violence against women. To support feminist digital activism, consider these strategies:

a) Amplify feminist voices: Use your digital platforms to share and promote the work of feminist activists, organizations, and movements. Share articles, videos, and social media posts, and engage in conversations with others online about feminist issues to raise awareness.

b) Donate to feminist organizations: Financial support is essential for the success of feminist digital activism. Consider donating to organizations that promote gender equality and support women's rights, such as the International Women's Health Coalition, Women's Media Center, and the National Organization for Women.

c) Participate in online campaigns: Online campaigns can be powerful tools for raising awareness and promoting social change. Join campaigns and sign petitions to support feminist causes and amplify feminist voices.

d) Utilize your digital skills: If you have digital skills, such as web development, graphic design, or social media management, consider volunteering your services to feminist organizations and campaigns. Your skills can be valuable resources for promoting feminist agendas and increasing the visibility of feminist voices.

e) Embrace intersectional feminism: Recognize that gender inequality is interconnected with other forms of oppression, such as racism, ableism, and classism. Supporting feminist digital activism means amplifying the voices of women from diverse backgrounds and experiences to promote inclusivity and equity.

8. Creating feminist digital art and culture:

Feminist digital art and culture encompasses a variety of creative practices and cultural expressions that utilize digital technologies to examine feminist themes and issues. It involves utilizing digital tools such as computers, software, and the internet to generate art that questions and redefines gender norms and advocates for feminist agendas like gender equality, reproductive rights, and ending violence against women. This art form incorporates a broad range of perspectives and experiences, with a particular emphasis on amplifying the voices and stories of women from marginalized communities. Feminist digital art and culture is diverse in its forms, including visual art, performance, literature, music, and online activism.

1. Examples of feminist digital art and culture:

Feminist digital art and culture can be seen in various forms and mediums, such as:

1. *The Dinner Party* by Judy Chicago, which is a digital artwork that challenges the male-dominated art world and celebrates the contributions of women throughout history.
2. *The Guerrilla Girls*, a feminist art collective that creates posters and other visual art using digital media to raise awareness of gender inequality and other social issues.
3. *Brown Girl Magazine*, a digital zine that amplifies the voices of South Asian women and other marginalized groups while challenging stereotypes and discrimination.
4. *Feminist Frequency*, a video game that critiques sexist and misogynistic representations of women in popular culture and video games.
5. *Black Girls Code*, an online community that provides coding and technology training resources to young girls of color, promoting diversity and inclusion in the tech industry.
6. *The Institute of Queer Ecology*, a digital performance exploring the intersection of gender and ecology while challenging traditional notions of gender and sexuality.
7. *The Vulva Gallery*, a digital art project that promotes positive images of female genitalia and challenges societal taboos and shame.

9. Promoting online communities that are led by women is crucial for various reasons:

- a. Establishing a safe and supportive environment:** Online communities that are led by women can provide a secure and supportive space for women to connect, share their experiences, and help each other. This is particularly necessary in online spaces where women often experience hostility and exclusion.
- b. Encouraging diversity and inclusivity:** Encouraging female-led online communities can promote diversity and inclusivity in online spaces. Women from different backgrounds and experiences can come together, exchange their perspectives and knowledge, and create a more diverse and enriched online culture.
- c. Empowering women:** Female-led online communities can empower women by giving them a platform to express their voices, advocate for their rights, and support one another. This can help to shatter gender stereotypes and promote gender equality.
- d. Promoting female leadership:** Promoting female-led online communities can support and encourage female leadership in the online world. This can challenge the male-dominated culture of many online spaces and promote more gender-balanced leadership.
- e. Creating social change:** Female-led online communities can be influential in creating social change. By bringing together women who share similar values and interests, these communities can raise awareness about critical issues and drive change through collective action.

10. Strategies for showcasing the work of female digital artists:

- a) Create a curated online gallery: Develop a dedicated section on your website that features the work of female digital artists. This can provide them with a platform to showcase their work and connect with potential clients, collectors, and collaborators.
- b) Partner with digital art organizations: Collaborate with digital art organizations that support female artists, such as Women Who Code, Girls Who Code, or Women in Animation. This can provide opportunities to showcase female digital artists and collaborate on projects that promote diversity and inclusion in the digital art industry.
- c) Host digital art events: Host digital art events, such as online exhibitions, artist talks, or workshops, that focus on female digital artists. This can help to promote their work and provide opportunities for them to connect with potential clients and collaborators.
- d) Offer commission opportunities: Provide commission opportunities for female digital artists to create custom artwork for your business or organization. This can provide them with exposure and income while also enhancing your marketing materials.
- e) Include female digital artists in your marketing campaigns: Feature the work of female digital artists in your marketing campaigns, such as social media posts, newsletters, or advertisements. This can help to promote their work and provide them with exposure to new audiences.

f) Provide mentorship and networking opportunities: Mentorship and networking opportunities can be valuable for female digital artists to grow their skills and connections. Consider offering mentorship programs or connecting them with industry professionals who can provide guidance and support.

X. CONCLUSION:

Cyber-feminism and digital culture have come a long way in recent years, but there is still much room for improvement. Here are some potential future directions for these fields:

Intersectionality: A crucial area for cyber-feminism and digital culture is to place greater emphasis on intersectionality, which recognizes that different forms of oppression intersect and interact with one another. This means acknowledging and addressing the ways in which gender intersects with race, class, sexuality, and other factors.

Artificial Intelligence and Automation: With the increasing prevalence of artificial intelligence and automation, it is essential for cyber-feminism and digital culture to consider the potential impact of these technologies on gender equality and diversity. This includes addressing issues such as algorithmic bias, the gendered implications of automation, and the need for greater diversity in the tech industry.

Online Safety: Online safety remains a critical concern for women, particularly those from marginalized communities who may be more vulnerable to online harassment and abuse. Future directions for cyber-feminism and digital culture could include developing strategies and tools to promote online safety and address cyber-violence.

Digital Activism: As digital tools continue to evolve, so do the possibilities for digital activism. Future directions for cyber-feminism and digital culture could include exploring new forms of digital activism, such as block-chain-based activism, or developing more effective strategies for using social media to promote feminist agendas.

Ethics and Governance: The ethical and governance issues surrounding the use of digital technologies are becoming increasingly important, particularly as these technologies become more integrated into our daily lives. Future directions for cyber-feminism and digital culture could include advocating for ethical principles and guidelines to govern the use of these technologies, and promoting greater transparency and accountability in tech companies and corporate organizations.

REFERENCES:

1. Haraway, Donna (1991) "A Cyborg Manifesto: Science, Technology and Socialist Feminism in the Late Twentieth Century" in *Simians, Cyborgs and Woman: The Reinvention of Nature*, ed Donna Haraway, New York, Routledge, 150-151.

2. Flanagan, Mary & Austin, Booth (2002) "Introduction" in *Reload Rethinking Women+ Cyber-culture*, eds. Mary Flanagan & Austin Booth, Cambridge, MIT Press, 12.
3. Gajjala, Radhika (1999) "Internet Constructs of Identity and Ignorance: Third World' Contexts and Cyber-feminism" *Works and Days* 17 and 18:33/34.177-178.
4. Plant, Sadle (1996) "On the Matrix: Cyber-feminist Simulations," in *Culture of Internet: Virtual Spaces, Real Histories, Living Bodies*, ed. Rob Shields. London: Sage, 170-178.
5. Sabdoval, Chela (1995) "New Sciences: Cyborg Feminism and Methods of the Oppressed", *Cyber-sexualities* 23, 374-377.
6. Balley, Jane & Telford, (2007) "What's So Cyber About it? Reflections on Cyber-feminism's Contribution to Legal Studies," *Canadian Journal of Women and Law* 19:2, 243.
7. Allen, Anita (2008) "Gender and Privacy in Cyberspace", *Feminist Media Studies*, Stanford Law Review 52:5.
8. Milford, Scott Trevor and Bracken, Clara Roche, "Social Surveillance Feminist Implications for Online Privacy, Self- Disclosure and Gendered Agency," *Feminist Journal of Art and Digital Culture* 30.
9. Bryson, Mary (2003) "When Jill in Queer Women and the Net". *Feminist Media Studies* 4:3
10. <https://www.csk.gov.in/>
11. <https://isea.gov.in/>
12. <https://ncbi.nlm.nih.gov/pmc/articles/PMC5914259/>
13. <https://www.cisa.gov/news-events>
14. <https://www.infosecawareness.in/>