

ARTIFICIAL INTELLIGENCE DEVELOPMENT AND ETHICS OF CARE: A FEMINIST PERSPECTIVE ON HUMAN-TECHNOLOGY RELATIONS

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Abstract

Artificial intelligence (AI) has become a bigger part of our everyday lives and has begun to play major roles associated with human lives, especially in care-giving and emotional support. From a feminist perspective, this work looks at how love, care, and AI intersect in our daily relationships. Since AI is now taking on tasks that require empathy and compassion, it raises important questions about emotional labor, ethical responsibility, and how we connect with technology and the place of humans in all these. The goal of this research is to show how the ethics of care, a moral approach that highlights empathy, connection, and the value relationships can offer a deeper and more compassionate way to design and use AI. The study fills an important gap within the parameters of AI ethics, which often focuses on rules and outcomes while ignoring the emotional and relational aspects of human-technology interactions. This paper distinguishes itself by focusing on the relational and emotion dimensions of human-technology relations. To address this, the research employs Carol Gilligan's theory on care and context in moral reflection. The study uses critical and analytical methods of inquiry. The findings show that when AI development incorporates the ethics of care, the result is more compassionate and socially responsible technology. The study identifies key principles for ethical AI design, such as mutual responsiveness, sensitivity to context, and recognizing emotional labor. It

concludes that a care-centered approach to AI ethics not only makes technology more accountable but also challenges patriarchal assumptions that often shape both tech design and mainstream ethical theories.

Keywords: Carol Gilligan. Artificial Intelligence, Technology, Feminism, Ethics of Care, ,

Introduction

The rapid advancement of artificial intelligence (AI) technologies in the 21st century has profoundly reshaped human life, from the automation of labor to the personalization of digital experiences and the governance of social systems. As AI systems increasingly mediate intimate aspects of human existence—healthcare, education, emotional support, and decision-making—the ethical frameworks used to guide their development and deployment demand critical reconsideration. Among these frameworks, the ethics of care, rooted in feminist philosophy, offers a compelling, albeit underexplored, perspective on the evolving relationship between humans and intelligent machines.

The ethics of care, initially articulated by Carol Gilligan (1982) in contrast to traditional justice-based moral reasoning, emphasizes relationality, empathy, responsibility, and context-specific moral deliberation. This perspective challenges the often abstract, universalist, and rationalist approaches that dominate both AI development and mainstream ethical theory (Held, 2006). In feminist thought, care is not merely a moral sentiment but a political and epistemological stance that values the interdependence of individuals and critiques hierarchies of power and exclusion—dimensions that are crucial when evaluating the societal impacts of AI.

AI systems, developed largely within technocratic and capitalist frameworks, often reflect and reinforce existing gendered, racial, and socio-economic inequalities (Benjamin, 2019; Noble, 2018). Feminist theorists argue that these systems are not neutral tools but sociotechnical artifacts shaped by the values, assumptions, and interests of their creators. As such, the ethics of care demands a shift in focus from abstract notions of fairness or utility to the lived experiences of those most vulnerable to technological harms. It urges developers and policymakers

to attend to the specific contexts in which AI systems operate, to prioritize relational accountability, and to resist dehumanizing logics that reduce care to calculable outputs or efficiency metrics (Puig de la Bellacasa, 2017).

Moreover, the integration of care ethics into AI raises questions about the nature of agency, dependence, and affect in human-technology relations. Can machines care? What does it mean to build "caring" robots or algorithms, and who decides the parameters of such care? Scholars such as Coeckelbergh (2010) and Gunkel (2018) caution against anthropomorphizing machines while ignoring the structural and labor conditions that underpin their functionality. A feminist ethics of care thus calls for a holistic reevaluation of AI not only as a technical innovation but as a cultural and ethical phenomenon that shapes, and is shaped by, human values and social structures.

In this context, the feminist ethics of care emerges as both a critique and a constructive approach—one that challenges dominant paradigms of AI development while proposing alternative visions grounded in compassion, justice, and relational accountability. By foregrounding the ethics of care, this paper seeks to interrogate the moral and political implications of AI from a feminist standpoint, examining how technology might be reimagined to support, rather than undermine, human flourishing and social equity.

Carol Gilligan

Carol Gilligan's contributions to moral philosophy and feminist ethics represent a profound shift in how we conceptualize ethical behavior and moral development. In her seminal work *In a Different Voice* (1982), Gilligan critiqued the dominant paradigms of moral psychology, particularly the stage-based model developed by Lawrence Kohlberg. Kohlberg posited that moral development culminates in abstract reasoning about universal principles such as justice, autonomy, and rights. However, Gilligan observed that this framework marginalized and mischaracterized the moral reasoning of women, whose ethical perspectives often emerged through narratives of care, empathy, responsiveness, and relational interdependence.

Gilligan's alternative framework proposed that there exists a distinct “voice” in moral reasoning—an ethics of care—that is no less sophisticated than the ethics of justice but is grounded in contextual, relational thinking rather than impersonal rule-following. As she argued, “while an ethic of justice proceeds from the premise of equality—that everyone should be treated the same—an ethic of care rests on the premise of nonviolence—that no one should be hurt” (Gilligan, 1982, p. 174). This shift reframed ethics as not only a matter of logical deliberation but as an embodied, affective, and relational process. Importantly, this framework was not meant to essentialize women's moral reasoning but to highlight the biases in how moral knowledge had been traditionally understood and valued.

When applied to the field of artificial intelligence, Gilligan's ethics of care presents a transformative critique of how we design, implement, and evaluate technological systems. Mainstream AI ethics is largely influenced by utilitarian and deontological traditions, emphasizing principles like fairness, accountability, transparency, and non-maleficence (Jobin, Ienca, & Vayena, 2019). These approaches, while necessary, often abstract ethical problems from the concrete social contexts in which AI systems operate. They also tend to favor individual autonomy over collective well-being and algorithmic neutrality over emotional intelligence. From a Gilliganian perspective, this emphasis reflects a masculinist bias in moral reasoning that neglects the relational and emotional dimensions of ethical life—precisely the dimensions most impacted by emerging technologies.

Consider, for example, the integration of AI in caregiving environments, such as eldercare robotics or mental health chatbots. These systems are designed to simulate or supplement emotional support and caregiving functions, but they often reduce care to algorithmic responses or mechanistic efficiency (Sharkey & Sharkey, 2012; Sparrow & Sparrow, 2006). From a care ethics standpoint, this raises important concerns about authenticity, trust, responsibility, and vulnerability. Gilligan's work invites us to ask: Can machines truly engage in care, or do they merely replicate its surface features? What happens to human dignity when care is outsourced to non-sentient systems? And who bears the emotional and ethical labor when these systems fail?

Gilligan's influence also illuminates the structural power dynamics embedded in AI systems. Technologies are not neutral; they encode the values, assumptions, and priorities of their creators (Benjamin, 2019). The dominant voices in AI development—often male, Western, and technocratic—tend to privilege objectivity and abstraction, marginalizing the lived experiences of women, people of color, and those in caregiving roles. Gilligan's ethics of care challenges this epistemological bias by valuing situated knowledge and moral attention to others, particularly those who are vulnerable or excluded from decision-making processes. As such, her work supports the feminist call for participatory and inclusive design practices that prioritize community needs over corporate interests or technological novelty.

Furthermore, Gilligan's insights can reshape our understanding of moral agency in human-technology relations. Traditional approaches to AI ethics often frame machines as either neutral tools or potential agents with rights and responsibilities. Gilligan, however, reframes the ethical question: not “Can AI be moral?” but rather “How do AI systems affect the moral relationships between people?” This relational focus turns our attention to how AI mediates intimacy, caregiving, and social trust. For instance, in healthcare, AI diagnostic tools may improve efficiency but also risk eroding patient-provider relationships if they diminish human empathy or relational understanding.

In addition, Gilligan's care ethics speaks directly to the moral complexities of dependency, an often overlooked yet essential part of the human condition. Whereas liberal ethics tends to valorize independence and self-sufficiency, care ethics recognizes that all people are interdependent and that ethical maturity involves responding appropriately to others' needs. In the age of AI, where humans increasingly depend on machines for knowledge, support, and companionship, Gilligan's perspective urges us to ask how these new dependencies are formed and managed. Are they fostering mutual responsibility and attentiveness, or are they deepening alienation and inequality?

Importantly, Gilligan's work does not advocate for a rejection of technology, but rather for a reorientation of technological development toward values that prioritize care, connection, and justice. This means designing AI not only to perform tasks but to nurture ethical relationships, support caregiving roles, and resist the commodification of emotional labor. It also means ensuring that AI ethics itself is responsive to diverse moral voices and grounded in the messy realities of human life, not abstract ideals.

Ultimately, Carol Gilligan's ethics of care offers an urgently needed feminist lens through which to examine the profound ethical and social transformations brought about by AI. By centering relationality, empathy, and moral responsibility, her work provides a counter-narrative to dominant ethical paradigms and opens up possibilities for more humane and inclusive technological futures. As artificial intelligence continues to shape the contours of daily life, Gilligan's insights remind us that ethical development is not merely a question of correct algorithms, but of caring relationships—between people, and between people and the technologies they create.

Artificial Intelligence

The rapid development and integration of artificial intelligence (AI) technologies into everyday life have raised significant ethical questions about the nature of human-technology relations. From autonomous vehicles and predictive policing to eldercare robots and AI-powered mental health platforms, these systems increasingly mediate critical aspects of human decision-making, care, and communication. Yet, the ethical frameworks that guide AI development often rely on abstract, universalist principles that overlook the relational, emotional, and context-sensitive dimensions of ethical life—dimensions that are central to the feminist ethics of care.

Mainstream AI ethics has largely been dominated by rule-based and principle-driven approaches derived from utilitarianism and Kantian deontology (Moor, 2006). These paradigms focus on minimizing harm, ensuring fairness, and protecting individual autonomy—values that are essential but insufficient for addressing the complex interdependencies

and power asymmetries involved in AI systems. Feminist theorists have long argued that such approaches fail to recognize the embedded, embodied, and relational aspects of ethical experience, particularly for those marginalized by race, gender, and class (Held, 2006; Tronto, 1993). The ethics of care offers a powerful alternative, emphasizing responsiveness, attentiveness, and the nurturing of relationships, all of which are critically absent in dominant discourses surrounding AI.

A key critique from a care ethics perspective is that AI development often prioritizes efficiency and automation over human connection and well-being. For instance, in eldercare, AI-driven robots are increasingly deployed to assist with daily tasks or provide companionship. While these technologies may reduce caregiver burden, they also risk eroding the quality of human interaction and emotional support that is central to meaningful care (Sharkey & Sharkey, 2012). The ethics of care compels us to ask whether such machines can truly engage in relational practices or if they simply mimic care while reinforcing systems of neglect and institutional convenience. This concern resonates with Gilligan's (1982) insights into the moral significance of care and responsibility, which cannot be fully captured by impersonal algorithms.

Moreover, AI technologies often reflect the social and political biases of their developers. As Safiya Umoja Noble (2018) and Ruha Benjamin (2019) have shown, AI systems trained on biased datasets can reproduce and exacerbate racial and gender inequalities. For example, facial recognition algorithms have demonstrated significantly higher error rates when identifying people of color, especially women (Buolamwini & Gebru, 2018). From a care ethics perspective, these failures are not just technical glitches but moral lapses in attentiveness—a failure to see and respond to the full humanity of those affected. In this sense, AI ethics must move beyond abstract principles and incorporate practices of moral attention, accountability, and care for marginalized communities.

The ethics of care also offers a critical lens through which to examine the labor dynamics underlying AI systems. Much of the data labeling, content moderation, and algorithmic refinement that support AI technologies is performed by low-paid, precarious workers, often women

and people of color in the Global South (Gray & Suri, 2019). These invisible forms of care labor sustain the apparent autonomy of intelligent machines, yet they remain unrecognized in dominant narratives about innovation and progress. Care ethics challenges this erasure by emphasizing the moral significance of all forms of labor that sustain life and well-being (Tronto, 1993). It calls for the acknowledgment and fair treatment of those whose work is essential but hidden.

Another ethical challenge concerns the relational disconnections introduced by AI technologies in human social environments. In domains like healthcare, education, and emotional support, AI systems are increasingly positioned as intermediaries between people. While they may offer efficiencies or expand access, they also risk diminishing the relational richness and mutual understanding that arise from human-to-human interaction. Feminist care ethics insists that ethical relations are not reducible to functional transactions or data exchanges; they are grounded in presence, empathy, and moral responsiveness (Held, 2006). When AI displaces or flattens these dynamics, it fundamentally alters the moral landscape in which people live and relate.

In addition, the dominant narratives in AI development tend to celebrate technological autonomy and progress while neglecting the relational dependencies that make these innovations possible. This mirrors a broader cultural tendency to valorize independence and control, which feminist care theorists critique as illusory and gendered (Gilligan, 1982; Tronto, 1993). The ethics of care, by contrast, emphasizes that all people are interdependent and vulnerable, and that moral life consists not in abstract rationality but in situated, affective, and ongoing engagement with others. This reframing has profound implications for AI: rather than designing systems to replace or dominate human relationships, we should develop technologies that enhance, support, and respect our relational lives.

Finally, a care-based approach to AI ethics encourages inclusive, participatory, and context-sensitive design processes. Rather than developing ethical guidelines in isolation, care ethics advocates for involving the communities most affected by AI—from caregivers and educators to patients and underrepresented groups—in shaping the

technologies that impact their lives. This aligns with recent calls for value-sensitive design and feminist participatory technology development, which aim to align technical innovation with social justice and human flourishing (Costanza-Chock, 2020). In this view, AI ethics is not just about compliance or harm reduction—it is about co-creating technologies that are embedded in and responsive to the moral fabric of everyday life.

Technology

Technology has long been a central driver of social transformation, shaping not only the material conditions of life but also the contours of human relationships, knowledge systems, and moral frameworks. Yet, despite its profound societal impact, technology is often treated in public discourse as neutral, objective, and detached from social and political values. Feminist scholarship, particularly through the lens of care ethics, has challenged this assumption by asserting that technology is not value-free, but is imbued with the interests, priorities, and worldviews of its creators (Wajcman, 1991; Suchman, 2007). From this perspective, understanding technology requires examining how it structures power, mediates human interactions, and reconfigures ethical obligations—especially in relation to gendered and caregiving roles.

Historically, the design and deployment of technology have privileged efficiency, autonomy, and control—values traditionally associated with masculinist ideals of rationality and independence (Cockburn & Ormrod, 1993). These values often marginalize or devalue forms of labor and knowledge associated with care, interdependence, and emotional intelligence—domains typically coded as feminine. In this context, feminist theorists argue that technological development has not merely overlooked care but actively displaced or automated it, often in ways that exacerbate social inequalities. Technologies that claim to "free" individuals from the burdens of care frequently obscure who takes on those responsibilities instead, and under what conditions (Tronto, 1993; Dombrowski, 1999).

A feminist ethics of care offers a radically different orientation to technology, one that prioritizes relationality, responsiveness, and the maintenance of human well-being. This approach insists that

technologies should not only perform tasks efficiently but should also support and sustain caring relationships. In doing so, it reframes questions about innovation to include ethical concerns such as: Who benefits from this technology? Whose labor sustains it? Whose needs are centered, and whose are ignored? These questions are especially critical in a digital era where technologies increasingly mediate care practices—whether through telemedicine, virtual education, or AI-enhanced caregiving systems.

For example, consider the growing use of surveillance technologies in public and private spaces. While often justified in terms of security or productivity, such technologies can compromise trust, privacy, and human dignity, particularly for vulnerable populations. Feminist scholars argue that care ethics exposes the moral costs of surveillance, particularly when it replaces human attentiveness and mutual respect with impersonal monitoring (Monahan, 2009). Rather than fostering care, these systems may instill fear, inhibit autonomy, and reinforce control—undermining the very social fabric they purport to protect.

Similarly, the rise of “smart” technologies—such as home assistants, wearables, and health-monitoring devices—presents complex ethical implications. These systems collect intimate data, often in opaque ways, and shift the locus of care from interpersonal relationships to algorithmic processes. While such devices may offer convenience, a care ethics perspective raises critical questions about data sovereignty, consent, and emotional alienation (Lupton, 2016). Technologies that promise to assist in caregiving tasks may also inadvertently reinforce gendered expectations, assuming that women will continue to perform the majority of emotional labor, now mediated by digital platforms.

Moreover, feminist critiques of technology emphasize the structural inequalities embedded in technological infrastructures. As scholars like Ruha Benjamin (2019) and Sasha Costanza-Chock (2020) have argued, technologies often reinforce existing systems of oppression—racism, sexism, ableism—through design processes that exclude marginalized voices. Technologies are thus not merely tools, but political artifacts that shape access to care, representation, and agency. An ethics of care pushes

back against technocratic neutrality by demanding inclusive and participatory design, where those most affected by technology are actively involved in shaping it.

Importantly, the ethics of care reframes the relationship between humans and technology not as one of mastery or dependency, but of co-responsibility. Technologies, when ethically designed, can become partners in care, augmenting human capacities rather than replacing them. This requires a shift in priorities—from speed and scalability to attentiveness and sustainability. It also involves acknowledging that care is not a private or sentimental concern, but a political and technological issue central to how societies are organized and how justice is distributed (Held, 2006).

Furthermore, feminist engagements with technology encourage a reflexive ethics, one that constantly interrogates how technologies change what it means to be human, to relate, and to care. Rather than accepting technological “progress” as inevitable or inherently good, care ethics invites a slow, deliberate, and responsive approach to innovation, grounded in the lived realities of those most impacted. This includes not only technical users but also informal caregivers, domestic workers, disabled people, and others whose perspectives are often left out of technological imaginaries.

In sum, technology is not a neutral backdrop to ethical life—it is a constitutive force in shaping what care means, how it is practiced, and who gets to participate in it. A feminist ethics of care challenges us to rethink technology not as a replacement for human relationships, but as a site of moral responsibility and social transformation. By centering care, feminist theorists advocate for a technological future that supports interdependence, justice, and collective well-being, rather than undermining them in the name of abstraction, control, or profit.

Feminism

Feminism, as both a political movement and an intellectual tradition, has long sought to critique and transform the structures of power that shape gendered experiences. One of its key contributions to social theory is the development of an ethics of care, a framework that prioritizes

relationality, interdependence, and the moral significance of caregiving roles—values often marginalized in traditional philosophical systems. As feminism intersects with the rapidly advancing fields of technology and artificial intelligence (AI), it offers a powerful lens through which to critique the ways in which technology shapes, and is shaped by, gendered power dynamics.

At the heart of feminist ethics of care is the understanding that care is not a private, individualized concern, but a deeply political and collective process (Held, 2006; Tronto, 1993). The development and implementation of AI and other emerging technologies are rarely neutral; they are embedded in historical, social, and political contexts that reflect the values, priorities, and power relations of their creators. Feminist theorists, particularly in the realms of technology and ethics, have argued that AI development often replicates existing inequalities—especially those related to gender, race, and class—by reinforcing dominant power structures that exclude marginalized voices from decision-making processes (Benjamin, 2019; Noble, 2018).

One of the key feminist critiques of AI is that it tends to reflect a masculinist bias, privileging traits like rationality, objectivity, and individualism over the relational, affective, and interdependent aspects of human experience. These masculine-coded values are central to the engineering and design of AI systems, which prioritize efficiency, autonomy, and control—often at the expense of care, empathy, and social responsibility (Wajcman, 1991). As feminist scholars like Judy Wajcman (1991) have noted, the gendered politics of technology are evident in how technologies are designed, implemented, and used, and in how they define the roles of those involved in their creation. AI technologies, therefore, are not merely neutral tools but social artifacts that reflect the power dynamics of their creators and users.

From a feminist perspective, the development of AI technologies is inherently gendered because it reflects and reinforces specific ideologies about who can produce knowledge, who deserves care, and who holds power. For instance, AI systems that automate traditionally “feminized” tasks, such as caregiving, often devalue the emotional labor that goes into these roles. The replacement of human caregivers by robots or AI-driven systems, while ostensibly increasing efficiency, may disrupt the deeply

human aspects of caregiving—such as empathy, trust, and connection (Sharkey & Sharkey, 2012). Care ethics, which centralizes the moral value of relational care, challenges these reductions by arguing that care cannot be easily captured by technology, nor should it be divorced from its social context (Gilligan, 1982; Tronto, 1993).

Feminist theorists also critique the invisibility of women in the design and development of AI technologies. The field of AI remains overwhelmingly male-dominated, with women representing a disproportionately small percentage of AI researchers, engineers, and policymakers (West et al., 2019). This lack of gender diversity in AI development has significant implications for the technologies produced. As Ruha Benjamin (2019) highlights, AI systems trained on biased datasets can reproduce racial and gendered inequalities, perpetuating discrimination against marginalized groups. Feminist scholars advocate for more inclusive design processes that incorporate the perspectives and needs of diverse groups, including women, people of color, and the economically disadvantaged, who are often excluded from the technological conversations that directly impact their lives (Costanza-Chock, 2020).

The ethics of care, as developed by feminist thinkers, offers a framework for reimagining AI development that moves beyond instrumental and utilitarian concerns to center on moral responsibility, mutual care, and social justice. A feminist care ethics approach to AI development would prioritize the well-being and dignity of individuals—especially those most vulnerable or marginalized—by ensuring that technology is responsive to human needs rather than just efficient at solving problems. It would also demand that AI technologies be designed to enhance, rather than undermine, relational connections by fostering human agency, empathy, and collaborative decision-making (Held, 2006).

Moreover, the feminist ethics of care challenges the individualistic assumptions that underlie much of AI ethics. Instead of viewing AI as an autonomous agent or a tool for individual empowerment, this approach asks us to consider how AI mediates and structures relationships between individuals and communities. In a world increasingly shaped by technology, the feminist ethics of care calls for a reorientation of

technology—from a tool that serves individualistic goals to one that fosters collective well-being, emotional support, and social cooperation. This includes addressing the emotional labor required in caring for others, whether through human caregivers or AI systems (Lupton, 2016).

Furthermore, feminism, as a political movement, brings a critical perspective on power to the development of AI. Feminist critiques of AI emphasize that technologies are not just shaped by their design but by the power structures in which they are embedded. As feminist scholars have shown, technologies often reflect the interests of those in positions of power—typically white, male, Western elites—and marginalize the needs, voices, and experiences of those without such power (Benjamin, 2019; Noble, 2018). A feminist perspective insists that AI cannot be ethically developed without considering the historical and social contexts of power and inequality.

Ultimately, feminism offers an essential critique of the development of AI that moves beyond traditional ethical frameworks that prioritize objectivity and neutrality. A feminist approach to AI development embraces a situated ethics of care, which acknowledges the ways in which technologies shape our relationships with each other and the world around us. This ethical perspective urges us to create technologies that are not only technically advanced but also ethically responsible, socially just, and deeply attuned to the needs of vulnerable populations (Costanza-Chock, 2020). By centering care, empathy, and relational responsibility, feminist thought provides a powerful framework for reimagining the ways in which we engage with technology in a world increasingly dominated by AI.

The Ethics of Care

The ethics of care, a critical framework that has emerged primarily from feminist theory, offers an essential critique of traditional moral philosophies that prioritize abstract notions of justice, autonomy, and individual rights. Rooted in the lived experiences of caregiving, particularly those involving women, this ethical perspective centers interdependence, relationality, and the moral significance of caring relationships (Held, 2006; Tronto, 1993). As AI and technology play increasingly significant roles in shaping human lives, the ethics of care

provides a compelling lens through which to assess not only how technologies are designed but also their social implications, particularly in relation to gendered dynamics of caregiving, emotional labor, and relational care.

In contrast to traditional ethical theories that focus on justice, autonomy, and individual rights, the ethics of care emphasizes the moral importance of attending to the needs of others—particularly the vulnerable or dependent individuals who require care. This framework asserts that moral responsibility is not solely an individual concern but a collective one, shaped by relational dynamics and the social context of caregiving (Tronto, 1993). From a feminist perspective, the ethics of care challenges the notion that care is a private, feminine task, urging a reconceptualization of caregiving as a public, socially valued responsibility. In the context of AI and technology, this rethinking calls for a shift away from the idea that technology should replace human care and toward an understanding of how care can be integrated into technological practices in ways that support and enhance human relationships.

AI, Technology, and Care Ethics: Feminist Critique of Technological Norms

One of the central critiques that the ethics of care offers to AI development is its critique of instrumental rationality—the assumption that technological development should be driven solely by efficiency, productivity, and control. Feminist scholars such as Sharon Wajcman (1991) and Lucy Suchman (2007) argue that such an approach not only devalues care but also perpetuates systems of gendered labor and inequality. For example, in the context of caregiving, AI technologies that are designed to automate tasks such as monitoring the elderly or assisting with household chores may be framed as advances in efficiency. However, the ethics of care raises the crucial question: Does this automation enhance the well-being of those being cared for? Often, the answer is no, as these technologies may lack the empathy, relationality, and emotional connection that are intrinsic to caregiving. The impersonal nature of these technologies can diminish the quality of care by reducing human contact and emotional labor, both of which are essential for nurturing trust and genuine human connection (Sharkey & Sharkey, 2012).

Moreover, feminist critiques of AI in the context of the ethics of care highlight the gendered implications of technology. Care work—whether in the home, in healthcare, or in education—is predominantly performed by women, and historically, this labor has been undervalued and invisible. By automating caregiving tasks or reducing them to mere processes of efficiency, AI systems often reinforce the devaluation of women's labor. Technologies that substitute for care can displace emotional and relational work, often assuming that women will continue to provide the emotional labor necessary to maintain these systems. For instance, while AI-powered care robots may assist the elderly, they do not replace the intangible aspects of care, such as companionship and emotional support, which are crucial for fostering a sense of security and well-being (Noble, 2018). The ethics of care demands that these concerns be central to the design and implementation of AI systems, advocating for a more human-centered approach to technological innovation.

Interdependence, Relationality, and AI Development

A core tenet of the ethics of care is interdependence, the recognition that all humans rely on one another for survival, growth, and well-being. This idea directly challenges the individualistic ideologies that dominate much of technological discourse. In contrast to the ideal of the autonomous individual, care ethics emphasizes mutual dependence and the necessity of collective responsibility. AI technologies that reinforce autonomy and independence—such as systems designed to promote individual decision-making and self-sufficiency—can often ignore the interdependent nature of human existence. By privileging autonomy over relational connection, these technologies risk undermining the moral significance of interdependent relationships and the social obligations that arise from them (Lupton, 2016).

Feminist thinkers who embrace the ethics of care argue that AI development should acknowledge and reinforce interdependence, rather than seeking to diminish it. This would mean designing AI technologies that support the interdependent nature of human relationships, rather than replacing or undermining them. For example, in the healthcare sector, AI tools that assist doctors in diagnosing conditions or managing patient

data can help reduce workloads, but they should not replace the essential human element of care. The ethics of care insists that the human aspect of caregiving cannot be replaced by algorithms; rather, AI should augment human care, making it more responsive, personalized, and accessible (Noble, 2018; Tronto, 1993).

Inclusivity and Justice: Care Ethics in Technology Design

From a feminist perspective, the ethics of care also calls for inclusive design in AI development. One of the central critiques of contemporary AI technologies is that they often reflect racial, gendered, and ableist biases, as the design processes are frequently dominated by a narrow set of voices. The lack of diversity in the tech industry has serious consequences, as it results in technologies that fail to account for the needs and experiences of marginalized communities (Benjamin, 2019). For example, AI systems that are not designed with care or empathy in mind may reinforce existing inequalities by perpetuating biased assumptions about gender, race, or ability. Feminist care ethics, therefore, calls for the inclusion of diverse voices—especially those of women, people of color, and disabled individuals—in the design process. This inclusive approach would ensure that AI technologies are developed in ways that address the needs of all communities, rather than replicating systemic injustices (Costanza-Chock, 2020).

The ethics of care also requires us to consider the social and ethical implications of AI technologies, not just their technical functionality. This means engaging with questions of justice, equity, and accessibility in the development of AI systems, ensuring that technology serves the common good and supports the well-being of all, particularly the most vulnerable. A feminist care approach to AI would advocate for technologies that are designed to promote social justice, redistribute power, and create opportunities for collaboration and mutual support (Held, 2006; Costanza-Chock, 2020).

Recommendations

1. **Inclusive Design and Diverse Voices in AI Development:**
A critical recommendation is that AI and technology development should be more inclusive and democratic in its

processes. To ensure that AI systems are sensitive to the diverse needs of society, there must be an active effort to include marginalized voices—especially women, people of color, and individuals from underrepresented communities—in the design and implementation phases. This can help mitigate the risk of creating biased AI systems and contribute to the social justice goals central to the feminist ethics of care. Efforts to diversify the tech workforce should be made a priority, as the inclusion of diverse perspectives in AI development can contribute to more equitable and human-centered technologies.

2. Ethical Frameworks for AI Integration:

Future AI systems should be designed with frameworks that explicitly incorporate care ethics into their operations. This means that AI systems, particularly those in healthcare, education, or elderly care, should prioritize empathy, emotional intelligence, and social connection alongside technical efficiency. For example, AI systems should augment human caregivers, providing tools and assistance that enhance caregiving rather than replacing it. Designing AI with a focus on care requires an ethical commitment to human dignity, especially for vulnerable populations, ensuring that AI technologies do not replace, but rather support and complement human relationships.

3. Reconceptualizing Technology as a Tool for Collective Well-Being:

AI technologies should be developed with the broader goal of contributing to collective well-being, rather than solely focusing on individual empowerment or profit maximization. This includes addressing the emotional labor required in caregiving roles and ensuring that technologies do not simply automate or commodify care but also foster environments that value interdependence. Developers, policymakers, and ethicists must collaborate to create a vision for AI that prioritizes social responsibility and human connection, emphasizing the role of technology in enhancing, rather than diminishing, our social fabric.

4. **Regulation and Accountability in AI:**
Governments and international bodies should implement stronger regulations and accountability measures to ensure that AI systems are developed in accordance with ethical standards that respect human rights, dignity, and interdependence. This includes monitoring the impact of AI on caregiving sectors and ensuring that technologies align with equitable practices and do not perpetuate or exacerbate gendered, racial, or class-based disparities. Ethical AI frameworks should be grounded in care ethics principles that hold companies and developers accountable for the societal consequences of their innovations.

5. **Ongoing Dialogue Between Technology and Feminist Theories:**
Finally, it is crucial that ongoing dialogue between technology developers and feminist theorists continue to evolve. Feminist scholars, particularly those focused on the ethics of care, offer critical insights into the social implications of technology, advocating for human-centered approaches to AI development. By fostering conversations between these fields, we can ensure that future technological developments do not perpetuate systems of oppression but instead contribute to a more just, equitable, and caring society.

Conclusion

The intersection of artificial intelligence (AI) development and the ethics of care, particularly through a feminist lens, offers a powerful critique of the current trajectory of technological innovation. As AI technologies continue to influence all aspects of life, from healthcare to labor, it is essential to recognize that these developments are not neutral; they reflect and reinforce existing social structures of power—including gender, race, and class. Feminist theory, especially the ethics of care, brings to the forefront the importance of human relationships, interdependence, and empathy in the face of increasingly automated systems. AI, with its focus on efficiency and autonomy, risks overshadowing the relational and emotional dimensions of human experience, which are essential to caregiving and caregiving professions, traditionally associated with women and marginalized groups.

By critically analyzing AI development through the lens of care ethics, it becomes evident that care cannot simply be outsourced to machines. While AI has the potential to assist in tasks that require efficiency and automation, it cannot replace the deep emotional labor and relational responsibilities integral to the caregiving process. Thus, reconciling AI development with the ethics of care involves shifting the focus from instrumental rationality to a more human-centered approach—one that emphasizes the well-being of vulnerable individuals and nurtures the interdependent nature of human relationships.

The feminist critique of AI highlights the gendered implications of technological development, arguing that women and marginalized groups have often been excluded from the design processes. This exclusion not only leads to the creation of biased technologies but also perpetuates inequalities in who gets to shape technological futures. A feminist ethics of care, therefore, offers a framework for inclusive technological development, ensuring that AI systems are designed with care, empathy, and social responsibility in mind.

In conclusion, the ethics of care offers a critical feminist framework for evaluating the role of AI and technology in shaping human relationships. By challenging the masculinist, individualistic values that dominate much of technological development, the ethics of care emphasizes interdependence, relationality, and social justice. It urges us to reconsider the goals of AI development—not merely efficiency and autonomy but the enhancement of human dignity, empathy, and social responsibility. Ultimately, the ethics of care invites us to reimagine AI and technology as tools that not only optimize tasks but also enrich relationships, foster community well-being, and address the moral obligations we have to one another in an increasingly technological world.

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