AI and Women: between Automation and Meaningful Work

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This paper conducts a qualitative, interdisciplinary literature review to investigate the concept of meaningful work in the context of Artificial Intelligence (AI) and its intersection with gender dynamics. It draws on insights from economics, philosophy, social studies, and gender studies to analyze how AI could deepen existing gender inequalities in the workforce, particularly through job displacement and the undervaluation of roles traditionally held by women. A significant concern is the increasing role of private sector interests in AI development, where a focus on profit may overshadow the societal importance of care work. The analysis emphasizes the importance of recognizing the limitations of current AI technologies while advocating for a human-centered approach that values meaningful work. By promoting the development of AI that enhances human well-being, the paper advocates for a recognition of the intrinsic value of care work and ensures its responsibility is shared across all genders.

Keywords: Women; AI; Automation; Meaningful Work; Care Work

Introduction

What is wrong with the machines taking over human work? On the surface, the prospect of AI and automation liberating us from drudgery seems appealing. Yet, beneath this utopian vision lies a complex web of anxieties and potential pitfalls. As machines and AI increasingly encroach upon human domains, concerns inevitably arise about its impact on the workforce, particularly regarding job displacement and the very meaning we derive from our work. The concept of what it means to be human has long been intertwined with work and creative expression. Historically, human labor and artistic endeavors have been fundamental aspects of human identity and self-fulfillment[1]. For many, their professions define who they are, providing a sense of purpose and worth. The prospect of machines assuming these roles challenges our understanding of human identity and raises profound questions about the significance of human labor and creativity in an increasingly technologically driven society.

In both popular commentary and more expert analysis, it is often said that paid work is not only a source of income but also a source of meaning[2] – an inconsistently defined and used term, designed to capture the way in which work provides some with, for example, a sense of purpose, an opportunity for self-fulfillment, and a sense of direction in life.

Providing opportunities for meaningful work supports positive outcomes for workers[3] and is ethically important as a basis for human well-being and flourishing[4].

David Ricardo, a towering figure in classical economics, initially believed that technological advancements would invariably lead to increased employment and widespread prosperity. Yet, the Luddites, smashing looms in the textile mills of 19th-century England, offered a stark counterpoint to this optimistic vision. Their resistance wasn't mere technophobia; it was a desperate response to the very real threat of job displacement and economic hardship as machines began to replace human labor. The realities faced in the weaving sector, where labor was displaced without corresponding new opportunities elsewhere, demonstrate the potential for

1 - S. Bankins - P. Formosa*, The ethical implications of artificial intelligence (AI) for meaningful work*, in « Journal of Business Ethics», 185 (2023), n. 4, pp. 725-740.

2 - E. Lysova - B. Allan - B. Dik - R. Duffy - M. Steger, *Fostering meaningful work in organizations: A multi-level review and integration*, in «Journal of Vocational Behavior», 110 (2019), pp. 374-389.

3 - D. Blustein - E. Lysova - R. Duffy, *Understanding decent work and meaningful work*, in «Annual Review of Organizational Psychology and Organizational Behavior», 10 (2023/1), pp. 289-314.

4 - C. Bailey - A. Madden - K. Alfes - A. Shantz - E. Soane, *The mismanaged soul: Existential labor and the erosion of meaningful work*, in «Human Resource Management Review», 27 (2017/3), pp. 416-430.

technology to adversely affect livelihoods, particularly in the context of increased inequality – not only in job loss but also in the loss of job significance[5].

The traditional economic literature has almost exclusively focused on the economic impact of AI (and other Emerging Technologies or ETs) on the labor market: in particular, the implications of job displacement for employment and earnings. Significantly, the latest research, with its revised conception of machine capabilities, has challenged the relatively benign view of automation that has dominated the profession of economics until now[6]. Optimistic accounts suggest that AI will expand the range of meaningful higher-order human work tasks[7], whereas more pessimistic accounts suggest that AI will degrade and even eliminate human work[8]. These differing perspectives highlight a lack of clarity regarding the impacts of AI on meaningful work, leading to calls for more research in this area[9].

This paper investigates the potential effects of Artificial Intelligence (AI) on women's work, specifically addressing job displacement and the decline of meaningful work. To investigate these issues, I employ a qualitative, interdisciplinary literature review that specifically examines how fields such as economics, philosophy, social studies, and gender studies contribute to understanding the implications of AI on women's work. This method focuses on synthesizing existing research to highlight themes related to job displacement, the value of meaningful work, and the intersection of gender and technology, thereby providing a comprehensive view of how AI may affect women's roles in the workforce. The review is complemented by an analysis of recent data regarding job displacement in female-dominated sectors. Ultimately, the study assesses the implications of these findings for policy and practice, emphasizing strategies to enhance women's meaningful participation in the evolving AI-driven economy.

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5 - D. Acemoglu - S. Johnson, *Learning from Ricardo and Thompson: Machinery and labor in the early industrial revolution and in the age of artificial intelligence, in* «Annual Review of Economics», 16 (1/2024), pp. 597-621.

6 - D. Acemoglu - P. Restrepo, *Artificial intelligence, automation, and work*, in A. Agrawal - J. Gans - A. Goldfarb (eds.), *The economics of artificial intelligence: An agenda*, in University of Chicago Press, Chicago 2018, pp. 197-236.

7 - World Economic Forum. *The future of jobs report 2018*, retrieved from https://www3.weforum.org/docs/WEF_Future_of_Jobs_2018.pdf, (2018).

8 - C. Frey - M. Osborne, *The future of employment: How susceptible are jobs to computerisation?, in* «Technological forecasting and social change», 114 (2017), pp. 254-280.

9 - E. Lysova - J. Tosti-Kharas - C. Michaelson - L. Fletcher - C. Bailey - P. McGhee, *Ethics and the future of meaningful work: Introduction to the special issue*, in «Journal of Business Ethics», 185 (4/2023), pp. 713-723.

Methodology

To understand the potential impact of technological shifts driven by Artificial Intelligence (AI) on women's work and their sense of fulfillment, this paper employs a qualitative, interdisciplinary literature review. This methodology is particularly utilized for exploring complex, multifaceted issues that require integrating diverse perspectives and existing knowledge[10]. By drawing upon research from economics, philosophy, and social studies, the analysis examines the intricate interplay between AI, gender, and the evolving nature of work. This interdisciplinary approach is justified by the need for a holistic, not exhaustive understanding, that transcends the boundaries of individual disciplines[11]. It further integrates research on gender studies to address the specific vulnerabilities and challenges faced by women, including gender disparities in the labor market, the underrepresentation of women in STEM fields (Science, Technology, Engineering and Mathematics), and the social and economic impacts of gender bias[12] including the role of private sector actors. Central to this research is the exploration of 'meaningful work.' By drawing upon historical perspectives and established frameworks from organizational studies, this analysis provides a nuanced understanding of its multifaceted dimensions and significance for individual well-being, identity, and societal engagement[13] in the AI era.

While this review aims to be comprehensive, it acknowledges the inherent limitations of any literature review in capturing the full complexity of this rapidly evolving field, particularly as it focuses on women's economic participation and the threats posed by job displacement, which is assumed in this study to be directly linked to a loss of meaningful work. Consequently, while the analysis does not explore the deeper psycho-emotional dimensions of well-being or address the extent to which individuals find genuine happiness and fulfillment outside of their economic roles, it aims to re-define what meaningful work can be in an era of unstoppable automation.

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10 - D. Finfgeld-Connett, *Introduction to theory-generating meta-synthesis research*, in Id., *A guide to qualitative meta-synthesis,* Routledge, New York 2018, pp. 1-12.

11 - J. Klein, *Interdisciplinary Needs: The Current Context, in* «Illinois», 45 (2/1996), pp. 134.

12 - M. Charles - K. Bradley, *Indulging our gendered selves? Sex segregation by field of study in 44 countries*, in «American Journal of Sociology», 114 (4/2009), pp. 924-976.

13 - B. Rosso - K. Dekas - A. Wrzesniewski, *On the meaning of work: A theoretical integration and review*, in «Research in Organizational Behavior», 30 (2010), pp. 91-127.

The Meaning of Meaningful Work

Meaningful work, a concept with historical roots in ancient philosophy, such as Aristotle's emphasis on 'eudaimonia' (Ancient Greek for 'human flourishing'), and the Protestant work ethic, popularized by[14], has become a focal point across disciplines. This reflects a growing recognition that work is more than a mere means to an end, but a fundamental aspect of human experience contributing to well-being, identity, and societal engagement. Several established academic frameworks illuminate the multifaceted nature of meaningful work, including Self-Determination Theory (SDT), which posits that autonomy, competence, and relatedness are key to intrinsic motivation[15]; the Job Characteristics Model (JCM), emphasizing skill variety, task identity, task significance, autonomy, and feedback[16]; social impact frameworks, highlighting contributions to the well-being of others and society[17]; and person-environment fit theory, suggesting that alignment between individual values and the work environment fosters meaningfulness[18]. Recent research expands on these frameworks by exploring the roles of leadership[19], organizational culture[20], and calling[21], while also acknowledging the potential downsides of meaningful work, such as exploitation and burnout[22]. For the purpose of this paper, meaningful work is defined as work perceived by the individual as purposeful, fulfilling, connected, and impactful, drawing on established frameworks to emphasize both individual and social dimensions, and serving as a guiding framework for analyzing the potential impacts of AI on women's work and for identifying strategies to promote meaningful work in our times.

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14 - M. Weber, *The Protestant ethic and the "spirit" of capitalism: and other writings*, Penguin, London 2002.

15 - R. Ryan - E. Deci, *Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being, in* «American Psychologist», 55 (1/2000), p. 68.

16 - J. Hackman - G. Oldham, *Motivation through the design of work: Test of a theory,* in «Organizational Behavior and Human Performance», 16 (2/1976), pp. 250-279.

17 - Rosso - K. Dekas - A. Wrzesniewski, *On the meaning of work*, cit.

18 - A. Kristof Brown - R. Zimmerman - E. Johnson, *Consequences of individuals' fit at work: A meta-analysis of person–job, person–organization, person–group, and person–supervisor fit,* in «Personnel Psychology», 58 (2/2005), pp. 281-342.

19 - M. Lips-Wiersma - S. Wright, *Measuring the meaning of meaningful work: Development and validation of the Comprehensive Meaningful Work Scale (CMWS), in* «Group & Organization Management», 37 (5/2012), pp. 655-685.

20 - D. Blustein - E. Lysova - R. Duffy, *Understanding decent work*, cit.

21 - R. Duffy - B. Dik, *Research on calling: What have we learned and where are we going?*, in «Journal of Vocational Behavior», 83 (3/2013), pp. 428-436.

22 - C. Bailey et al., *The mismanaged soul,* cit.

Data

The rapid proliferation of Artificial Intelligence (AI) presents both opportunities and challenges for the workforce, with emerging data suggesting a disproportionate impact on women due to pre-existing gender disparities. While AI promises increased efficiency and productivity, empirical analyses reveal potential risks of job displacement and the exacerbation of existing inequalities[23]. This section provides a data-driven overview of the current situation, focusing on job displacement in female-dominated sectors and the underrepresentation of women in STEM, biases and gender diversity on AI outcomes.

Job Displacement in Female-Dominated Occupations

Emerging research underscores the heightened vulnerability of female-dominated occupations to AI-driven automation. A 2019 study published in *Gender, Work & Organization* analyzed employment trends and found that administrative and clerical support roles, which have high female representation, face a disproportionately high risk of automation[24]. Specifically, the Bureau of Labor Statistics[25] projects a decline of 7.0% in employment for secretaries and administrative assistants from 2022 to 2032, which translates to approximately 457,700 job losses, a significant portion of whom are women[26]. Furthermore, a 2020 study by McKinsey Global Institute found that while automation will impact both men and women, women are more likely to need to acquire new skills and change occupations due to the types of jobs at risk[27].

23 - D. Acemoglu - P. Restrepo, *Artificial intelligence, automation, and work,* cit.

24 - A. Madgavkar - J. Manyika - J. Bughin - M. Chui - T. Allas - P. Dahlström - J. Woetzel, *The future of women at work: Transitions in the age of automation*, McKinsey Global Institute, retrieved from https://www.mckinsey.com/featured-insights/gender-equality/the-future-of-women-at-work-transitions-in-the-age-of-automation, (2019).

25 - Bureau of Labor Statistics, *Occupational Outlook Handbook, Secretaries and Administrative Assistants*, U.S. Department of Labor, retrieved from https://www.bls.gov/ooh/office-and-administrative-support/secretaries-and-administrative-assistants.htm (2023).

26 - *Ibidem.*

27 - McKinsey Global Institute, *COVID-19 and gender equality: Countering the regressive effects*, McKinsey & Company, retrieved from https://wwwmckinsey.com/featured-insights/future-of-work/covid-19-and-gender-equality-countering-the-regressive-effects, (2020).

Underrepresentation of Women in STEM and AI Development

Despite ongoing efforts to promote gender equality in STEM, data reveals a persistent underrepresentation of women in these critical fields. The Global Gender Gap Report 2023[28] indicates that women comprise only 29.2% of the global STEM workforce. This disparity is even more pronounced in AI-specific roles. We urgently need more women building AI technologies, and the fact that women make up less than a third[29] of AI professionals and only 18% of AI researchers globally is a crisis that demands attention. But this isn't just a pipeline problem; women everywhere need to start using AI tools in their daily lives and work. Despite the rapid progress, GenAI learning remains inequitable. Women, who traditionally represent half of all learners on Coursera[30], enroll in GenAI courses at only half the rate of men – making up just 32% of enrollments. Studies show women are 16 percentage points less likely[31] than men to use AI tools in the same job. This reluctance creates a dangerous cycle: as women hesitate to adopt these technologies, they fall further behind in both the workplace and a society increasingly shaped by AI.

Bias in AI Systems

Empirical evidence increasingly demonstrates that the underrepresentation of women in AI development contributes to biases in AI systems. A 2021 audit of AI-powered hiring tools by Reuters found that Amazon's recruiting engine exhibited bias against women, downgrading applications that contained words such as "women's"[32]. Furthermore, research on facial recognition technology continues to highlight disparities in accuracy rates across genders and racial groups. Buolam-

28 - World Economic Forum, *Global Gender Gap Report 2023*, retrieved from https://www3.weforum.org/docs/WEF_GGGR_2023.pdf p7 (2023).

29 - Randstad Data, *AI skills gap widens: 71% of AI talent are men, while only 22% of baby boomers receive training-reveals Randstad data, retrieved* from https://www.randstad.com/press/2024/ai-skills-gap-widens/ (2024).

30 - Coursera Report, *Coursera closing gender gap GenAI skills*, retrieved from https://d.newsweek.com/en/file/477468/coursera-closing-gender-gap-genai-skills.pdf (2025).

31 - A. Humlum - E. Vestergaard, *The unequal adoption of ChatGPT exacerbates existing inequalities among workers*, Proceedings of the National Academy of Sciences, 122 (1/2025).

32 - J. Dastin, *Amazon scraps secret AI recruiting tool that showed bias against women,* in K. Martin, *Ethics of Data and Analytics,* Auerbach Publications, New York 2022, pp. 296-299.

wini and Gebru[33] demonstrated that facial recognition systems have significantly higher error rates for women of color compared to white men, with error rates as high as 34.7% for darker-skinned women. A more recent study confirmed these findings, showing that even with improved algorithms, accuracy disparities persist across different demographic groups[34]. These biases can perpetuate and amplify existing gender inequalities in various domains, including hiring, lending, and criminal justice.

Impact of Gender Diversity on AI Outcomes

While directly quantifying the impact of gender diversity on AI outcomes remains a complex challenge, research suggests that diverse teams are more likely to identify and mitigate biases. A study at Harvard Business Review found that diverse teams are better at problem-solving and innovation[35]. Furthermore, anecdotal evidence from various AI companies suggests that diverse teams are more likely to consider a wider range of perspectives and identify potential biases in algorithms. For example, Microsoft[36] has emphasized the importance of diversity and inclusion in its AI development efforts, stating that diverse teams are crucial for identifying and mitigating potential biases in AI systems. While more research is needed to establish a direct causal link, these data underscore the importance of promoting gender diversity in AI development to ensure that AI technologies are beneficial for all members of society.

The data presented in this section indicates potential challenges for women in the evolving AI landscape. Trends in job displacement within female-dominated occupations, the documented underrepresentation of women in STEM and AI development, and the presence of bias in AI systems suggest a risk of exacerbating existing gender disparities. Further research and proactive strategies, including promoting diversity and inclusion in AI development and implementing policies to support women's economic participation, warranting further investigation into the so-

33 - J. Buolamwini - T. Gebru, *Gender shades: Intersectional accuracy disparities in commercial gender classification,* in S.A. Friedler - C. Wilson (eds.), *Conference on fairness, accountability and transparency,* New York 2018, pp. 77-91.

34 - S. Yucer - F. Tektas - N. Al Moubayed - T. Breckon, *Racial bias within face recognition: A survey*, in «ACM Computing Surveys», 57 (4/2024), pp. 1-39.

35 - D. Rock - H. Grant, *Why diverse teams are smarter*, in «Harvard Business Review», 4 (4/2016), pp. 2-5.

36 - B. Smith - H. Shum, *The future computed. Artificial Intelligence and its role in society*, Microsoft, 2018.

cio-technical factors that contribute to bias and inequality in AI systems, with the goal of informing the development of more inclusive algorithms and policies.

Women, AI and meaningful work

The potential displacement of women from female-dominated sectors, as discussed earlier, poses a significant threat to the meaningfulness of their work. This is particularly concerning for women employed in sectors like administrative support and customer service, which are highly susceptible to automation. Such displacement not only jeopardizes their economic security but also undermines their sense of purpose, fulfillment, and contribution to society.

Different economists have made yet stronger claims about the relationship between work and meaning. Daron Acemoglu emphasizes that the provision of 'good jobs' not redistribution, that provide people with purpose and meaning in life[37], that 'good jobs are also necessary for society to enable a meaningful, fulfilling life'[38] and unless we create 'meaningful employment' for most people they will lack a 'viable social purpose'[39]. Here, the implicit assumption is not only that work is a sufficient condition for meaning, but a necessary one: without it, people will lack purpose, fulfilment, and direction. Then there are researchers who have made even more significant demands: Robert Shiller[40], has argued that the traditional economic focus on GDP and productivity growth is insufficient. He contends that jobs provide more than just income; they contribute significantly to individual well-being and societal meaning. Therefore, he suggests that economic objectives should shift towards prioritizing measures that reflect the overall quality of life and the extent to which the economy supports meaningful human experiences.

This concern is particularly relevant for women, who have historically faced significant barriers to full and equal participation in the workforce. For many women, work has been a crucial pathway to economic independence and personal fulfillment. The potential displacement of women from their jobs due to AI automation could undermine these gains.

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37 - D. Acemoglu, *Where Do Good Jobs Come From?,* Project Syndicate, retrieved from https://www.project-syndicate.org/commentary/automation-vs-job-creation-by-daron-acemoglu-2019-04 (2019).

38 - D. Acemoglu, *It's Good Jobs, Stupid*, Economics for Inclusive Prosperity Research Brief, retrieved from https://econfip.org/wp-content/uploads/2019/06/Its-Good-Jobs-Stupid.pdf (2019).

39 - D. Acemoglu, *AI's Future Doesn't Have to Be Dystopian*, Boston Review*, retrieved from https://www.bostonreview.net/forum/ais-future-doesnt-have-to-be-dystopian/* (2021).

40 - R. Shiller, *Narratives about technology-induced job degradation then and now*, in «Journal of Policy Modeling», 41(3/2019), pp. 477-488.

Furthermore, the potential for AI to devalue and dehumanize certain types of work, particularly those traditionally performed by women, raises significant concerns. If AI is primarily used to automate tasks associated with caregiving, domestic work, and administrative support, it could reinforce the societal undervaluation of these essential yet often underpaid and underappreciated roles. These concerns regarding the potential impact of AI on women's employment and well-being are further amplified by the current realities of AI development, particularly the increasing influence of private sector actors.

AI Privatization

The concentration of AI development within a limited number of powerful corporations raises critical economic concerns regarding the reinforcement of existing gender disparities. This power dynamic may result in a disproportionate emphasis on profit-driven AI advancements that prioritize the automation of tasks typically associated with women's roles, such as caregiving, domestic labor, and administrative functions[41].

The focus on enhancing cost efficiency in a highly competitive private sector fosters the development of AI systems that often prioritize automation over societal welfare. Such a trend could sideline essential social needs, including affordable healthcare, quality education, and accessible social services, which tend to disproportionately affect women. For instance, a profit-oriented approach to AI in healthcare may overlook specific women's health requirements, resulting in biased or inadequate AI-driven diagnostic tools and treatment protocols[42].

Additionally, the concentration of power among a small number of private AI firms limits public oversight and accountability, which in turn reduces transparency. This lack of scrutiny can perpetuate biases and discrimination within AI systems, as these corporations may lack sufficient incentives to address the adverse impacts of their technologies on marginalized groups, particularly women. The absence of transparency also complicates efforts to mitigate the negative socio-economic effects of AI on women. Nonetheless, it is essential to recognize the potential for AI and human intelligence to serve as complementary forces in addressing these challenges.

41 - L. Floridi, *The ethics of artificial intelligence: Principles, challenges, and opportunities*, Oxford University Press, Oxford 2023.

42 - J. Buolamwini - T. Gebru, *Gender shades: Intersectional accuracy*, cit.

Ideally, Complementaries, Not Competitors

Rather than framing artificial intelligence and human intelligence as mutually exclusive adversaries, a more nuanced perspective recognizes their potential for synergistic complementarity. As this paper has established, AI excels at automating routine tasks, processing large datasets, and facilitating data-driven decision-making[43]. However, this analysis also underscores persistent gender disparities in the workforce, including the concentration of women in roles susceptible to automation and their underrepresentation in STEM and AI development. Therefore, it becomes crucial to envision a future where AI liberates both men and women from the drudgery of routine labor, enabling a collective refocus on activities that leverage uniquely human capabilities, particularly in the realm of care.

The core of care work, defined here as activities aimed at fostering the well-being and development of others, rests upon uniquely human capacities for emotional attunement, ethical judgment, and the ability to navigate complex social dynamics. This encompasses the recognition and interpretation of subtle affective cues, the comprehension of tacit needs, and the application of ethical frameworks to navigate unpredictable and often morally ambiguous situations – competencies that remain beyond the current capabilities of AI systems. Drawing upon the concept of "homines curans"[44], which stands in contrast to the rational actor model of "homo economicus," this perspective emphasizes the inherent human drive for care, empathy, and social connection, offering a necessary corrective to the limitations of neoliberalism. While AI systems appear to demonstrate empathy, they raise fundamental questions about the nature of human emotion and whether AI can truly replicate its essence[45]. This paper asserts that care work, with its inherent need for empathy and nuanced understanding, is best reserved for human intelligence.

Furthermore, a re-evaluation of human-centered care work presents a potential avenue for addressing persistent gender disparities in economic participation. As discussed in the introduction, the potential displacement of women from female-dominated sectors poses a significant threat to their economic security and sense of meaningful work. Traditionally, the burden of care responsibilities has disproportionately fallen on women, often within the context of unpaid or undervalued labor, hindering their full participation in the formal economy. By formally recognizing the

43 - C. Frey - M. Osborne, *The future of employment, cit.*

44 - J. Tronto, *There is an alternative: homines curans and the limits of neoliberalism*, in «International Journal of Care and Caring», 1 (1/2017), pp. 27-43.

45 - A. Chen - S. Kögel - O. Hannon - R. Ciriello, *Feels Like Empathy: How "Emotional" AI Challenges Human Essence*, in *Australasian Conference on Information Systems Proceedings*, Wellington 2023.

intrinsic value of care work and promoting a more equitable distribution of these responsibilities across genders, societies move towards greater economic parity and social justice. This necessitates a paradigm shift that prioritizes care work, acknowledges the inherent limitations of contemporary AI, and fosters the development of AI technologies that augment, rather than supplant, human well-being.

This aligns with the 'Part-Time for All' model proposed by Nedelsky and Malleson[46], which advocates for a fundamental restructuring of work, limiting paid employment to 30 hours per week to allow individuals to dedicate substantial time to unpaid care for family, friends, and communities. This shift would foster a more equitable distribution of care responsibilities and elevate the value of care within society. This concept resonates with research on the social value of care work, which underscores its critical contribution to social well-being and community health[47]. Moreover, with machines handling routine tasks, both women and men gain the opportunity to engage in more meaningful work that aligns with their values and contributes to their overall well-being.

By embracing a future where AI handles routine tasks, and where both men and women dedicate the *time freed up by automation* (reflecting a shift from today's full-time work hours to the proposed 30-hour work week) to more meaningful activities such as care work, traditionally done by only women, we revalue essential human skills and contribute to a more equitable distribution of labor and economic opportunity.

Discussion

This discussion highlights several key contributions to understanding the multifaceted impact of AI on women's work and societal well-being. First, the analysis identifies a significant threat to women's economic security and their ability to find meaningful work. The increasing automation of tasks within female-dominated occupations leads to job displacement, potentially exacerbating existing economic inequalities. This is further compounded by the underrepresentation of women in STEM fields and AI development, which limits the ability of AI systems to address women's specific needs and inadvertently perpetuates biases.

Second, the discussion reframes the narrative surrounding automation, presenting it not merely as a source of job losses, but as an opportunity for societal

46 - J. Nedelsky - T. Malleson, *Part-time for all: A care manifesto*, Oxford University Press, Oxford 2023.

47 - A. Hochschild, *The managed heart: Commercialization of human feeling*, University of California Press, Berkeley 2019.

advancement. By recognizing automation as an unstoppable force, the analysis proposes leveraging it to reduce working hours for all individuals, regardless of gender. This shift in perspective opens the door to a future where individuals have more time for personal pursuits, community engagement, and, crucially, unpaid care work.

Third, the research promotes a more comprehensive and inclusive definition of meaningful work. It argues that societal value should not be solely placed on paid labor, but also on the essential contributions of unpaid care work within families and communities. By recognizing caregiving as a vital component of a thriving society, the discussion challenges traditional notions of work and advocates for a more balanced approach that values both economic productivity and social well-being.

Fourth, the analysis addresses critical concerns regarding the concentration of power within the AI sector. The dominance of a few private corporations raises questions about transparency, accountability, and the potential for biased AI development driven by profit motives. This highlights the need for careful consideration of ethical implications and the implementation of safeguards to prevent discrimination against marginalized groups, including women.

Fifth, the discussion champions a human-centered approach to AI development. This approach emphasizes leveraging the strengths of both automation and human intelligence to create a future where technology serves humanity, rather than the other way around. By reducing formal work hours, individuals can invest more time in care work, fostering stronger communities and enriching lives.

Finally, the analysis acknowledges the limitations of the current research and emphasizes the need for further investigation. The reliance on existing literature and the scarcity of direct empirical evidence underscores the importance of future studies that delve deeper into the socio-technical factors contributing to bias and inequality in AI systems. Future research could focus on quantifying the socio-economic impacts of AI on women, identifying specific interventions to promote gender equity in AI-related fields, and developing robust metrics for evaluating the ethical and societal implications of AI technologies.

Conclusion

This analysis reveals a critical juncture for women in the face of rapid AI advancement. While AI holds immense potential for innovation and efficiency, it also carries the grave risk of aggravating existing gender inequalities. Key findings underscore the vulnerability of women in female-dominated sectors to job displacement due to AI automation, the potential for AI to devalue women's labor, and the significant underrepresentation of women in AI development. This underrepresentation not only limits the potential for AI to address women's specific needs but

also perpetuates bias within AI systems. Furthermore, the increasing influence of profit-driven private sector actors in AI development raises concerns about the prioritization of automation over social good, potentially neglecting critical areas like healthcare and education. Crucially, the primary threat to women in the workforce may not be immediate job displacement by machines, but rather the lack of AI-related skills among women.

To effectively address this complex landscape, a strategic and multi-faceted approach is required, encompassing three key domains: the promotion of skills development and empowerment among women, the systemic mitigation of potential harms through ethical frameworks and targeted policies, and the reorientation of societal values to prioritize care work and the development of AI technologies that enhance human well-being.

Governments play a pivotal role by investing in ethical and inclusive AI research and development, implementing regulations to ensure responsible AI development, and providing support for workers displaced by automation through robust social safety nets. Businesses have a responsibility to address bias in their AI systems, invest in employee training programs, and create inclusive workplaces where women are represented at all levels. Educational institutions can promote digital literacy and foster a culture of innovation and creativity among female students by integrating AI education into curricula at all levels.

It is crucial to recognize the multifaceted value of work, extending beyond purely economic considerations to encompass contributions to individual well-being and societal cohesion. Further investigation into the establishment of appropriate boundaries for AI autonomy is warranted, ensuring that human oversight and ethical considerations remain paramount. Going forward, it is urgent to recognize the irreplaceable societal contributions of human labor in the AI era while also setting limits for robots, as "Ctrl Z" may not be an option.

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