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Gendered Leadership Agency and Generative AI: A Conceptual Note from Academic perspective

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Abstract

This conceptual note examines how generative artificial intelligence (GenAI) shapes gendered leadership agency in academia. Drawing on interviews with eight female academic leaders from the Global North and South, the authors offer a bounded conceptual framework, not empirical generalizations. Two key findings emerge. First is redistributed agency: GenAI shifts where autonomy and initiative reside, as leaders negotiate boundaries between AI's convenience and their own thinking of sovereignty. Institutional gender bias remains nameable and contestable, but AI-embedded bias becomes diffuse and unattributable. Second, critical AI literacy emerges as a substantive leadership competency as ethic-relational judgment: discerning what must remain human like evaluation, final decisions while engaging with AI to recognize its structural biases.

The authors argue that academic leadership is increasingly a form of agency co-mediated by humans and machines, requiring critical engagement with AI's limitations. They highlight a paradox: relying on AI for cognitively demanding work risks eroding the judgment and interpretive capacities leadership requires. The article calls for further research into how gender and agency are co-constructed with AI, and cautions against normative gender binaries, given how little is known about women leaders' relationships with generative AI.

1 Introduction

Generative artificial intelligence (GenAI) has rapidly become embedded in knowledge-intensive work, including tasks central to academic leadership. Existing research on AI and leadership has largely focused on normative and future-oriented questions, for example, how leadership should be redesigned in response to algorithmic decision-making. However, research has been paying less attention to how generative AI is entangled with leadership as it is enacted in everyday academic practices [1].

Research on academic leadership has emphasized leadership as institutionally embedded, practice-based work like governance arrangements, and everyday decision-making [2, 3]. In contrast, AI-related leadership literature often treats leadership as an abstract set of functions that can be augmented through technology [4], with limited attention to leadership in academic contexts. Moreover, discussions often treat leadership agency as either fully human or displaced by technology, overlooking how it is mediated and negotiated in human–AI relations. This gap is also visible in what Zárate-Torres et al.'s [5] literature review which describes as a theoretical separation between studies on human intelligence, AI, and leadership.

Objective is to develop a pragmatic conceptual framework for analyzing how generative AI shapes gendered leadership agency in academia with a small interview-based data collected among eight (8) female academic leaders. Rather than proposing empirical generalizations or normative models, it offers a bounded conceptual contribution intended to support future empirical research.

2 Conceptual Bases

Academic leadership is not gender-neutral but embedded in historically shaped institutional structures and cultural norms [6]. Nordic countries continue to reproduce gendered hierarchies despite formal commitments to gender equality, particularly at senior leadership [7, 8]. A key mechanism sustaining these inequalities is the gendered division of academic labour. Women disproportionately engage in “academic housework,” including mentoring, administrative coordination, and care-oriented tasks [9]. At the same time, dominant leadership ideals remain aligned with masculine norms emphasizing individual authority and decisiveness [10, 11]. Thus, leadership should be understood as a socially distributed practice [3, 12], emerging through interactions between organizational structures, gendered expectations, and individual strategies [13].

Agency is conceptualized here as situated and relational, drawing on professional and transformative agency [14, 15] and feminist theory on performativity and power [16]. Eteläpelto et al. emphasize that professional agency can manifest as change, maintenance, or resistance. Butler's conceptualization of gender as performative acts in turn shows that agency is constituted in relation to social norms that define what is recognizable and legitimate as action. Sannino's concept of transformative agency extends this perspective by emphasizing collective processes of questioning and reshaping practices. This starting point remains, however, primarily human centered. Thus, what counts as agentic action in academic leadership is inseparable from gendered expectations and institutional norms.

Generative AI is approached here not as an autonomous actor or causal driver, but as part of the sociomaterial conditions under which gendered leadership agency is enacted [17]. In AI-mediated work, some forms of action continue to be recognized as leadership, while others, particularly relational, ethical, and precautionary work, remain less visible [18]. Gendered expectations intensify these dynamics. Women leaders are often positioned as responsible for maintaining collegiality, managing uncertainty, and mitigating risk [11].

In the context of generative AI, responsibilities related to ethics, compliance, and institutional safeguarding may become further personalized and moralized. At the same time, dominant AI discourses tend to valorize innovation, experimentation, and technological vision, often associated with masculinized notions of leadership [19]. Thus, generative AI interacts with existing gendered structures of expectation and legitimacy, shaping whose agency is recognized and under what conditions.

3 Reconceptualizing Leadership Agency: Gender, Generative AI, and Academic Practice

Empirically informed analysis as interpretivist approach [20] is feeding this conceptual note

for which the interview guide was developed (25). The respondents from the global North

(N = 4) and from global South (N = 4) were purposively selected female academics with

experience in academic leadership and in the everyday use of generative AI. Data was collected during the academic year 2025–2026. Ethics approval is deemed unnecessary for this study according to national regulations by the Finnish National Board on Research Integrity (24), based on, for example, General Data Protection Regulation in Europe (26) and national law on Freedom of Speech (27). According to these, adult participants were informed about the purpose of the study and provided informed consent prior to participation together with Privacy Notice. Respondents are referred to a code including N as North or S as South and the number in the following text when quotes from the interviews.

Redistributed Agency is one of the key findings. Generative AI is quietly redistributing the architecture of agency as autonomy and initiative shifting across human, institutional, and algorithmic actors. The theoretical gap we identified is that agency theories have not kept pace with the way agency is negotiated across humans and generative AI in everyday practice.

This negotiation becomes visible in how participants described their own use of AI. Even when AI is "faster than writing yourself, and the language is more polished," one still writes "a version myself first" to preserve "thinking sovereignty" (S-1). Similarly, AI might be used "selectively," never letting it "generate full texts" (N-1). What defines agency is this ongoing boundary negotiation between the convenience of AI and the sovereignty of thought. A second, related pattern as gendered structures of evaluation was not dissolved by generative AI. For example, S-1 had long been her team's lead, but her title remained "Deputy Director," the senior post being held to require someone steadier, "a judgment often based on male identity rather than capability." N-2 recounted how, before her position was known, others would bypass her and gesture toward her male subordinates, when she established her standing by formal means.

Bias encountered through generative AI tools took a different form. N-1 found generated images of professionals skewed "overwhelmingly toward white men"; S-2 traced a male default in AI language to "biases embedded in training corpora"; S-4 observed online data "fed by male binary sets of assumptions." Unlike the institutional bias above, these traces had no identifiable source and no party to contest, but the bias was distributed into the data itself rather than lodging in a person or a role. [22]

These two patterns show the shifts under generative AI where agency and responsibility can be located. The human boundary-work described by S-3 and N-1 shows agency being renegotiated at the human–algorithmic interface. The contrast between institutional and algorithmic bias shows a second, related displacement: institutional agency remains nameable and thus accountable, while algorithmic agency becomes diffuse and unattributable. A dislocation of accountability that echoes Widder and Nafus's [21]

notice of responsibility diffusing across AI development pipelines: this redistributed architecture of agency we observed.

As cognitive routines are partly offloaded into the system, the relational dimensions of leadership, such as trust, care, and collective responsibility do not diminish. If anything, they become more consequential. This distribution is not confined within a single organizational unit. However, our data suggests a shift toward networked, boundary-spanning leadership agency that extends beyond organizational units as a pattern.

The gendered conditions encountered by the academic leaders in our study operate on structural and institutional levels. For example, S-4 described the data underpinning online environments as still "fed by male binary sets of assumptions" as a logic in which male leadership remains the default. Such patterns are consistent with prior findings that gender-biased AI outputs in leadership and workplace contexts reinforce stereotypes and can lead to offline injustices [19]. Institutional level concerns the recognition of leadership itself. N-4 described how, in international settings, others would unconsciously avoid direct engagement with her and "gesture toward her male subordinates" until her position became known.

What our data further suggest is that the gendered bias does not simply persist under generative AI. GenAI relocates the bias to data itself, with no author and no party to hold accountable. This shift matters theoretically when bias can no longer be attached to a person or a decision, then contestation is no longer available, and recognition itself becomes the precondition for any response. This recognition was not uniform across our respondents: some reported noticing no bias in their own AI use, while others identified it readily, suggesting that the capacity to perceive structural, dataset-embedded bias is itself unevenly distributed. This constitutes a distinct and underexamined component of gendered leadership agency under generative AI.

The relational, ethical, and care-laden leadership work that surfaces in our interviews has historically been coded as feminine and undervalued — a gendered structure of expectation, not a property of women. In the AI era, this work appears increasingly central, yet its recognition as leadership remains far from automatic.

Critical AI Literacy as Agency is another key finding. Our study brings into view critical AI literacy as a new and substantive form of leadership agency, not a peripheral skill. The interviews reveal a need for AI literacy that moves beyond both mere caution and technical proficiency.

The academic leaders in our study were all highly accomplished researchers, but they approached AI with markedly different orientations and at different depths, differences that reflect several kinds of understandings of what leadership is meaning in the AI era. The distinction is best understood not as a difference in competence levels [23], but as a difference in commitment to a form of critical AI literacy grounded in judgment rather than fluency. That judgment operated in two registers simultaneously: on one side, discerning what must remain with the human like, for example, evaluation, final decision, interpretive responsibility as a view that was near-universal across our interviews. On the other, actively

developing the capacity to see what only genuine engagement can reveal. Caution without commitment is insufficient: as one participant put it, those who disengage from AI "are likely to develop stereotypes about it" (S-1), while another insisted that people need "first-hand experience to move beyond fear-based narratives" (N-1).

This is not, therefore, primarily a matter of technical skill. It is a matter of what we would call ethic-relational judgment, the capacity to weigh situations simultaneously through the lens of values and through reasoned analysis. It is not enough to ask "does this work?" One must also ask "is this right, and for whom?" Generative AI can produce content that is technically fluent and logically coherent while remaining ethically problematic as gendered, misleading, or reproductive of existing institutional power structures. Recognizing this is itself a leadership act.

4 Discussion and Conclusion

Our examples as findings show that generative AI supports the networked mode of academic leadership by enabling coordination, communication, and conceptual alignment across dispersed actors. AI usage spans interaction with people as trust, collaboration, negotiation and with AI systems as prompting, evaluating, refining.

This points to a broader shift: leadership can no longer be understood purely as a social and interpersonal phenomenon, but increasingly as human–machine co-mediated agency requiring continuous learning, including critical engagement with AI's own limitations and logics. Leadership research must therefore expand its conceptual repertoire to address technological mediation and gender as entangled, not separate, practices. How gender and agency are co-constructed with AI in everyday academic life remains an open empirical question for further studies.

Central to the shift is critical AI literacy, which we position as a core leadership competency: the capacity for ethical boundary-setting, responsible use, recognition of structural bias, and integration of AI into knowledge practices without ceding leadership autonomy.

This raises a genuine paradox: the more leaders rely on AI for cognitively demanding work, the more they risk eroding the very capacities, judgment, interpretation, learning, that leadership requires. Addressing this paradox empirically, across institutional and disciplinary contexts where AI reshapes leadership as an epistemic practice, is an urgent task for future research, that must also resist normative gender binaries, given how scarce studies remain on women academic leaders' relationships with generative AI.

Limitations

- small sample size of respondents
- small number of national cultures among respondents
- purposive selection of respondents focusing on those who use AI
- focusing only to females from the gender perspective

Declarations

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Author contribution

All authors (1,2,3) contributed to the study design and analysis; second (2) and third (3) authors made data collection. All authors conducted the initial analysis and drafted the initial version of the results section. The manuscript has been revised by the first author (1).

Competing Interests

No, I declare that the authors have no competing interests as defined by BMC, or other interests that might be perceived to influence the results and/or discussion reported in this paper.

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General Data Protection Regulation in Europe (26) and national law on Freedom

of Speech (27). According to these, adult participants were informed

about the purpose of the study and provided informed consent prior to participation together

with Privacy Notice.

Consent for publication

Not applicable, as the manuscript does not contain any individual person's identifiable data.

Availability of Data and materials

Yes, I have research data to declare.

All data supporting the findings of this study are available on this paper. Interview Guide has been submitted as a Supplementary file (25).

Code availability

Not applicable.

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