

The Human-AI Leadership Nexus: Integrating Emotional Intelligence and Artificial Intelligence in Organizations

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Abstract

Artificial intelligence (AI) is becoming embedded in organizational decision-making, managerial processes, and leadership practice, creating new opportunities for analytical augmentation while simultaneously raising questions about judgment, trust, accountability, and the human dimensions of leadership. Although research has examined Emotional Intelligence (EI) and AI-enabled management independently, limited theoretical attention has been given to how these forms of intelligence can be integrated within leadership practice. This conceptual paper introduces the Human-AI Leadership Nexus as a dynamic leadership capability through which leaders combine AI-enabled analytical intelligence with emotionally intelligent human judgment to interpret information, make decisions, allocate tasks, and manage the relational consequences of AI-mediated organizational action.

Drawing on literature from Emotional Intelligence, Leadership, Human-AI collaboration, Algorithmic Management, and AI Governance, this paper develops an integrative framework comprising four mechanisms: analytical augmentation, emotional-contextual sense-making, integrative judgment, and relational legitimation. Four theoretical propositions specify how these mechanisms may influence leadership effectiveness, decision quality, employee trust, and acceptance of AI-mediated decisions, while accounting for task, technological, emotional, ethical, and organizational boundary conditions. The paper further argues that the effectiveness of Human-AI complementarity depends on calibrated reliance, meaningful human accountability, and governance arrangements that preserve fairness, transparency, employee voice, and contestability. The framework contributes to emerging scholarship on AI-enabled leadership by shifting the focus from technological substitution to an integration of distinct but complementary forms of intelligence. It concludes with a research agenda for construct development, empirical testing, multilevel analysis and investigation of autonomous AI systems.

Keywords: artificial intelligence, emotional intelligence, ai-enabled leadership, algorithmic management

1. Introduction

1.1 Statement of the Problem

Artificial intelligence (AI) is becoming embedded in organizational decision-making, managerial control, knowledge work, and strategic activity. This development changes not only what leaders do, but also how managerial judgment is distributed between people and intelligent systems. Contemporary research now treats AI as more than a technical tool: humans now interact with algorithms that perform or support managerial tasks, creating new forms of human-AI collaboration and algorithmic management (Bankins et al., 2024; Hillebrand et al., 2025). AI can extend leaders' capacity to process information, identify patterns, generate alternatives, and make predictions at scale. At the same time, its growing role raises questions about when leaders should rely on algorithmic outputs, when human judgment should prevail, and how AI-mediated decisions and policies should be enacted within organizations.

These questions are important because technological augmentation does not automatically generate superior outcomes. Raisch & Krakowski (2021) conceptualize AI in management through an automation-augmentation paradox, arguing that substitution and collaboration between humans and machines are interdependent rather than mutually exclusive. More recently, Vaccaro et al. (2024), in a meta-analysis of 106 experimental studies, found that human-AI combinations generally performed better than humans alone or AI operating independently. The implication is that interdependency must be achieved through appropriate configuration of human and artificial capabilities rather than assumed from the mere presence of AI.

Leadership is particularly relevant because it extends beyond analytical processing. Leaders influence others, interpret ambiguous situations, manage conflict, build trust, communicate change, and respond to the emotional

consequences of organizational decisions. Emotional intelligence (EI), conceptualized as the ability or capacity to perceive, use, understand, and manage emotional information, provides a well-established theoretical basis for examining these relational capabilities (Mayer et al., 2016). Meta-analytic research also supports meaningful associations between EI and relational forms of leadership, including servant leadership (Miao et al., 2021). As AI assumes a larger role in analysis and decision support, the ability to understand and manage the human consequences of technologically informed decisions may therefore become increasingly significant.

1.2 Importance of the Problem

Research addressing these domains remains theoretically fragmented. The AI and management literature has concentrated primarily on automation, augmentation, algorithmic control, human-AI collaboration, and organizational adoption, whereas EI research has largely examined human interpersonal and leadership processes. Recent research has begun to identify emotional and social intelligence among the capabilities relevant to senior leaders navigating AI-intensive environments (Bevilacqua et al., 2025), but it does not yet provide a sufficiently integrated explanation of how emotionally intelligent human judgment and AI-enabled analytical capability should operate together within the leadership process. The key theoretical gap is therefore not whether EI and AI are individually relevant to leadership, but how their distinct capabilities can be combined, under what conditions they generate interdependency, and where tensions between them arise.

To address this gap, this paper introduces the *Human-AI Leadership Nexus*, defined as a dynamic leadership capability through which leaders combine AI-enabled analytical intelligence with emotionally intelligent human judgment in interpreting information, allocating decision responsibility, making decisions, and managing their relational consequences. This paper makes three contributions. First, it integrates the EI, leadership, and human-AI management literatures around a common theoretical problem. Second, it develops a conceptual framework explaining how human and artificial intelligence can become complementary through leadership processes while specifying relevant boundary conditions. Third, it advances testable propositions and a research agenda for examining the nexus empirically. In doing so, the paper shifts the debate away from whether AI will replace human leadership toward a more consequential question: *how leaders can orchestrate human and artificial intelligence responsibly and effectively*.

2. Literature Review and Propositions

2.1 Emotional Intelligence as a Leadership Capability

Emotional intelligence (EI) provides the human capability foundation of the proposed Human-AI Leadership Nexus. Although EI has been conceptualized in several ways, this paper adopts the ability model because it offers relatively clear construct boundaries and avoids treating EI as a broad collection of desirable personality characteristics. In this tradition, EI refers to abilities involved in perceiving, using, understanding, and managing emotion-related information (Mayer et al., 2016). These abilities are relevant to leadership because leadership is enacted through social relationships in which emotions shape attention, interpretation, motivation, trust, conflict, and responses to change.

For leaders, the value of EI lies less in being “emotional” than in treating affective information as a legitimate input into judgment. Leaders routinely encounter situations in which formal data do not fully capture how organizational actions are experienced by employees. A restructuring plan may appear efficient while generating uncertainty; a performance decision may be analytically defensible yet perceived as unfair; and technological change may produce enthusiasm among some employees but anxiety or resistance among others. The ability to recognize such reactions, understand their causes, regulate one's own responses, and communicate appropriately can therefore influence how decisions are interpreted and implemented.

Research supports the relevance of EI to leadership, while also cautioning against portraying it as a universal explanation of leadership effectiveness. Hsu et al. (2022), for example, reported a positive meta-analytic association between EI and transformational leadership. Such findings are consistent with the view that EI is particularly relevant where leadership involves interpersonal influence and relational responsiveness. In this paper, however, EI is not treated as a substitute for analytical reasoning or technical expertise. Its distinctive role is to help leaders process social and emotional information that may be difficult to represent adequately in quantitative or algorithmic outputs.

This distinction becomes especially important as AI mediates organizational decisions. Leaders may receive recommendations generated from large datasets, but they remain situated within relationships involving employees who interpret those recommendations in terms of fairness, dignity, security, and trust. EI therefore provides a capability for contextualizing the human meaning and consequences of AI-informed action.

2.2 Artificial Intelligence as a Leadership Capability

AI provides the technological capability foundation of the nexus. Organizational AI includes technologies capable

of performing or supporting tasks involving pattern recognition, prediction, classification, natural-language processing, content generation, and decision support (Bankins et al., 2024). As these systems become integrated into organizational processes, they increasingly affect activities traditionally associated with management, including decision-making, monitoring, resource allocation, and performance evaluation.

The managerial significance of AI is often captured through the distinction between automation and augmentation. Automation involves AI assuming tasks previously performed by humans, whereas augmentation involves humans and AI combining their capabilities. Raisch & Krakowski (2021) argue that these processes are interdependent rather than simple alternatives: automating some managerial activities can alter, rather than eliminate, the need for human contribution elsewhere. This is particularly relevant to leadership because greater computational capacity may shift the leader's role away from performing every analytical task toward evaluating recommendations, exercising discretion, managing exceptions, and addressing consequences for organizational members.

Recent research also shows that effective use of AI requires capabilities on the human side. Pinski et al. (2024) using data relating to 6,986 executives, found that top-management AI literacy was positively associated with organizations' AI orientation and implementation ability. AI literacy is therefore an important prerequisite for leaders who must understand the possibilities and limitations of AI sufficiently to use it responsibly. Yet technological literacy alone does not explain how leaders should reconcile algorithmic recommendations with social, emotional, and ethical considerations.

This limitation is visible in the broader management literature. Hillebrand et al. (2025) define “managing with AI” as human interaction with algorithms performing managerial tasks and integrate research on human-AI collaboration with research on algorithmic management. Their framework highlights that AI can operate both as a resource used by humans to manage and as a mechanism through which people are managed. Accordingly, AI changes not only the efficiency of managerial cognition but also relationships of agency, control, and responsibility within organizations.

The two capability domains therefore address different but increasingly interdependent aspects of leadership. AI can extend analytical reach, speed, consistency, and information-processing capacity; EI can strengthen interpretation of emotional and relational context. Neither capability guarantees effective leadership independently, and neither should be presumed universally superior. The unresolved theoretical issue is how leaders determine their appropriate relative contribution in different situations and integrate them without allowing computational efficiency to crowd out contextual human judgment. It is this problem of integration, not the simple coexistence of EI and AI that gives rise to the *Human-AI Leadership Nexus* developed in the next section.

2.3 The Human–AI Leadership Nexus

The preceding discussion establishes emotional intelligence (EI) and artificial intelligence (AI) as distinct but potentially complementary leadership capabilities. Their coexistence, however, does not itself create effective leadership. The central theoretical problem is how leaders combine them while preserving the analytical advantages of AI and the contextual and relational judgment required in human organizations. This paper defines the *Human-AI Leadership Nexus* as a dynamic leadership capability through which leaders combine AI-enabled analytical intelligence with emotionally intelligent human judgment to interpret information, allocate decision responsibility, make decisions, and manage their relational consequences.

The construct differs from *AI literacy*, *digital leadership*, and *generic human-AI collaboration*. AI literacy concerns competent engagement with AI. Digital leadership refers more broadly to leadership in technology-intensive environments. Human-AI collaboration concerns coordination of work between humans and intelligent systems. The Human-AI Leadership Nexus is more specific as it concerns the leader's capacity to decide how machine-generated analysis and human emotional judgment should be combined in leadership situations. Hillebrand et al. (2025) conceptualize managing with AI as interaction between humans and algorithms performing managerial tasks, while Lu & Yan (2026) argue that effective collaboration requires dynamic alignment between distinct human and machine capabilities. The nexus extends these insights by incorporating the emotional and relational demands of leadership.

Four (4) interdependent mechanisms constitute the nexus. These are *analytical augmentation*, *emotional-contextual sense making*, *integrative judgment*, and *relational legitimation*.

2.3.1 Analytical Augmentation

Analytical augmentation refers to the use of AI to extend the leader's capacity to process information, identify patterns, generate alternatives, and support prediction. In information-intensive settings, such augmentation can broaden the evidence available for managerial judgment. Yet analytical capability should not be confused with decision authority. Within the nexus, analytical augmentation is an input to leadership judgment rather than a substitute for it. Leaders must assess whether AI-generated information is relevant, reliable, and sufficiently representative of the problem being addressed.

2.3.2 Emotional-Contextual Sense-Making

Emotional-contextual sensemaking concerns the interpretation of social and affective information surrounding AI-informed decisions. Organizational decisions are rarely experienced by employees as purely analytical events. Recommendations concerning restructuring, performance, promotion, or resource allocation may have measurable benefits while simultaneously affecting perceptions of fairness, security, dignity, or trust. EI enables leaders to perceive and interpret such reactions and recognize contextual information that may be absent from the data used by an AI system.

Within the nexus, EI therefore does not compete with analytical evidence; it broadens the informational basis of judgment. The leader's task is to understand what an AI recommendation means within a particular human setting and whether important relational consequences have been overlooked. The following is therefore proposed:

Proposition 1. *Emotional intelligence will strengthen the positive relationship between AI-enabled analytical augmentation and leadership effectiveness by enabling leaders to incorporate relevant emotional and relational information into AI-supported judgment.*

2.3.3 Integrative Judgment

Integrative judgment is the leader's ability to determine the appropriate relative contribution of AI and human judgment in a particular situation. This requires calibrated reliance, rather than either automatic acceptance of AI outputs or routine preference for human intuition. Structured, data-rich, and repetitive problems may justify greater reliance on AI, whereas novel, ambiguous, emotionally consequential, or ethically contested situations may require greater human discretion.

This argument is consistent with the automation–augmentation paradox described by Raisch & Krakowski (2021) and with theorizing on hybrid cognitive alignment, which emphasizes dynamic allocation of tasks and roles as human and AI capabilities evolve (Lu & Yan, 2026). Effective AI-era leadership therefore involves deciding not only *what decision to make* but also *how the decision should be made and which form of intelligence should carry greater weight*. The following is therefore proposed:

Proposition 2. *Leadership effectiveness will be greater when leaders calibrate the relative contributions of AI and human judgment to the demands of the decision context than when they rely predominantly on either form of intelligence across situations.*

2.3.4 Relational Legitimation

Relational legitimation is the process through which leaders explain, communicate, and enact AI-informed decisions in ways that preserve appropriate trust, voice, and accountability. Trust in AI is influenced not only by technical performance but also by how people perceive the system and its role in decision-making (Glikson & Woolley, 2020). An analytically defensible recommendation may therefore fail organizationally when employees experience the process as opaque, dehumanizing, or procedurally unfair.

Emotionally intelligent leaders can act as a relational interface between AI systems and organizational members by recognizing concerns, explaining the role of AI, inviting relevant employee voice, and acknowledging uncertainty. Legitimation does not mean persuading employees to accept every algorithmic recommendation; it also requires leaders to question, modify, or reject AI outputs when contextual evidence or legitimate stakeholder concerns warrant doing so. The following is therefore proposed:

Proposition 3. *Higher-quality Human-AI integration will be positively related to employee trust and acceptance of AI-mediated leadership decisions, through greater perceived procedural fairness and relationally responsive communication.*

The value of these mechanisms should vary across contexts. Where decisions are routine and emotionally neutral, extensive emotional-contextual interpretation may add limited value. Where decisions involve conflict, organizational change, ethical ambiguity, or significant consequences for employees, relational and emotional considerations become more salient. The following is therefore proposed:

Proposition 4. *The positive relationship between the Human-AI Leadership Nexus and leadership effectiveness will be stronger when leadership situations are characterized by high emotional, relational, or ethical complexity.*

Altogether, the four mechanisms reposition AI-era leadership as an orchestration problem rather than a substitution problem. Effective leaders do not simply possess EI and use AI. Rather, they determine what should be computationally augmented, what requires emotional-contextual interpretation, how decision authority should be allocated, and how resulting decisions should be enacted within relationships. This conceptualization provides the foundation for the formal framework developed in the next section.

2.4 Conceptual Framework of the Human–AI Leadership Nexus

The Human-AI Leadership Nexus can be represented as a dynamic framework linking two capability domains:

AI-enabled analytical capability and emotionally intelligent human judgment, through four integration mechanisms that shape leadership outcomes. Rather than assuming that AI and EI independently improve leadership, the framework proposes that their value depends on how effectively leaders orchestrate them within specific decision contexts.

At the input level, AI contributes capabilities such as pattern recognition, prediction, information synthesis, and decision support, while EI contributes the ability to perceive, interpret, use, and regulate emotional information. These capability domains enter the leadership process through the four mechanisms developed in Section 2.3: *analytical augmentation, emotional-contextual sensemaking, integrative judgment, and relational legitimation*.

The framework is intentionally cyclical rather than strictly linear. AI-supported analysis generates information that leaders must interpret within a social and organizational context. Emotional-contextual sensemaking allows leaders to assess how proposed actions may affect employees, relationships, and perceptions of fairness. Integrative judgment then determines the relative weight that should be assigned to algorithmic evidence and human discretion. Finally, relational legitimation depicts how the resulting decision is communicated, explained, and enacted. Employee responses and organizational outcomes subsequently create new information that may influence future AI-supported leadership decisions. Thus, the proposed process can be summarized as shown in Figure 1.

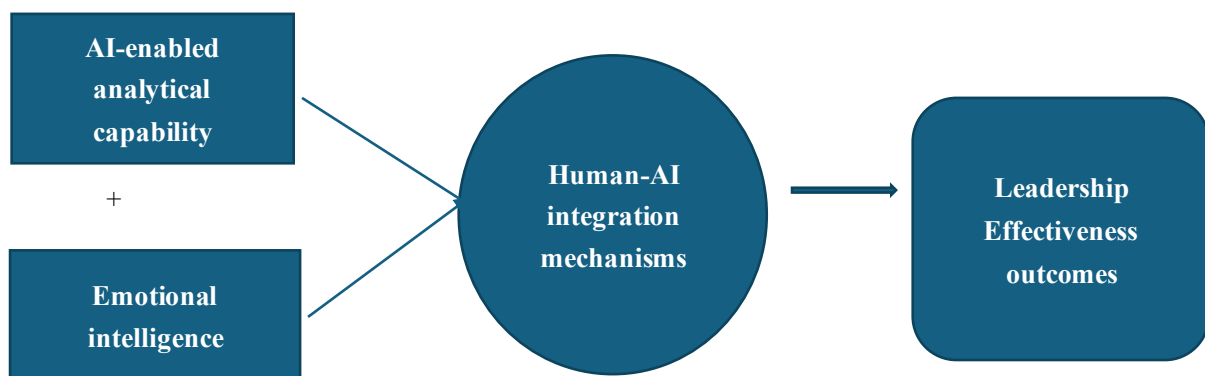


Figure 1. Conceptual framework of the Human-AI Leadership Nexus

3. Methods

This study adopted a conceptual theory-synthesis approach supported by an integrative review of the literature. Conceptual papers generate theoretical contributions by integrating previously developed concepts, theories, and empirical findings rather than by collecting new primary data (Jaakkola, 2020). An integrative approach was considered appropriate because literature relevant to the relationship between emotional intelligence (EI), artificial intelligence (AI), and leadership are distributed across several partially disconnected research streams, including leadership and EI, human-AI collaboration, algorithmic management, AI literacy, trust in AI, and responsible AI governance. Integrative reviews are particularly useful where the purpose is to synthesize diverse literatures and develop new conceptual understanding rather than estimate a pooled empirical effect (Snyder, 2019; Torraco, 2005).

3.1 Literature Identification and Selection

Relevant literature was identified through a purposive search of peer-reviewed scholarly sources, with searches updated through August 2026. Keyword combinations reflected the principal domains of the conceptual model and included terms such as “*emotional intelligence and leadership*”, “*artificial intelligence and leadership*”, “*AI and management*”, “*human-AI collaboration*”, “*algorithmic management*”, “*AI literacy and leadership*”, “*trust in AI*”, “*AI governance*”, and “*agentic AI*”. Priority was given to peer-reviewed journal articles that directly informed one or more elements of the proposed framework. These included theoretical and conceptual articles, systematic and integrative reviews, meta-analyses, and empirical studies. Recent literature published from 2020 onward was emphasized because of the rapid development of organizational AI, while earlier foundational sources were retained where necessary to establish core concepts, particularly the ability model of EI. Sources were excluded where they were primarily technical discussions of AI without clear organizational or leadership relevance, non-scholarly commentary, or duplicated theoretical arguments that did not add substantively to the synthesis.

3.2 Literature Synthesis and Theory Development

The selected literature was examined and organized around recurring conceptual themes of the two capability domains: *emotionally intelligent human judgment and AI-enabled analytical capability*. Literature addressing human-AI collaboration, trust, decision-making, algorithmic management, and leadership was then examined to identify mechanisms through which these capabilities could interact. Through iterative comparison and refinement, the four integrative mechanisms (mentioned in section 2.3) were identified. Evidence concerning task characteristics, AI reliability, ethical complexity, organizational governance, and employee responses was subsequently used to identify boundary conditions around these relationships. This synthesis informed the definition of the Human-AI Leadership Nexus, the development of the conceptual framework, and the formulation of the theoretical propositions. Table 1 shows the relevant literature that informed the nexus. Consistent with theory-synthesis approaches to conceptual research (Jaakkola, 2020), the objective was to connect previously fragmented theoretical insights in order to provide a more coherent explanation of how emotional intelligence and artificial intelligence may interact within leadership.

Table 1. Core literature informing the Human-AI Leadership Nexus

Author(s)/Year	Methodology	Research Theme	Relevance to the present framework
Mayer et al. (2016)	Conceptual/theoretical	Ability model of EI	Give the theoretical definition and dimensions of the human capability in EI
Miao et al. (2021)	Meta-analysis	EI and servant leadership	Supports the relationship between EI and relational leadership
Hsu et al. (2022)	Meta-analysis	EI and transformational leadership	Establishes empirical relevance of EI to leadership behavior
Raisch & Krakowski (2021)	Conceptual/theoretical	AI automation and augmentation	Provides the automation-augmentation paradox underlying human-AI complementarity
Glikson & Woolley (2020)	Review of empirical research	Human trust in AI	Supports trust and relational legitimation within AI-mediated leadership
Bankins et al. (2024)	Systematic multilevel review	AI in organizations	Establishes organizational, individual, and relational consequences of workplace AI
Pinski et al. (2024)	Empirical study	Top-management AI literacy	Shows the importance of leaders' AI capability for Organizational AI orientation and implementation
Vaccaro et al. (2024)	Systematic review and meta-analysis	Human-AI performance	Demonstrates that human-AI combinations do not automatically generate synergy
Cecil et al. (2024)	Five preregistered experiments	Reliance on AI advice	Provides evidence of overreliance on incorrect AI recommendations
Noponen et al. (2024)	Systematic review	Algorithmic	Identifies tensions between AI-

Author(s)/Year	Methodology	Research Theme	Relevance to the present framework
		management and autonomy	enabled control and employee autonomy
Bevilacqua et al. (2025)	Systematic literature review	AI and top-management leadership	Establishes emerging AI-related leadership capabilities and strategic roles
Batool et al. (2025)	Systematic literature review	AI governance	Supports governance, accountability, and multilevel organizational oversight
Hillebrand et al. (2025)	Integrative review/framework	Managing with AI	Provides the broader theoretical foundation for human interaction with algorithms performing managerial tasks
Lu & Yan (2026)	Conceptual/theoretical	Human–AI cognitive alignment	Supports dynamic allocation and coordination of human and AI capabilities
Stelmaszak et al. (2026)	Conceptual/theoretical	Human–algorithm relations	Visualizes AI capability as emerging through relationships between humans and algorithms
Islam et al. (2026)	Literature synthesis	Agentic AI	Extends the research agenda toward increasingly autonomous and agentic AI systems

4. Results and Discussion

The principal outcomes of an effective integration is expected to include leadership effectiveness, decision quality, employee trust, acceptance of AI-mediated decisions, and organizational adaptability. These outcomes are interconnected. A decision may be analytically strong yet fail in implementation if employees perceive the process as unfair or opaque. Conversely, relationally sensitive leadership cannot compensate indefinitely for inaccurate or poorly calibrated analytical judgment. Effective Human-AI leadership therefore requires performance across both analytical and relational dimensions.

The framework proposes that these relationships are shaped by several boundary conditions. The first concerns task characteristics. Human-AI collaboration research indicates that the benefits of combining humans and AI vary substantially according to the nature of the task (Vaccaro et al., 2024). Structured, repetitive, and data-intensive decisions may allow greater reliance on AI, whereas ambiguous or novel situations may require greater human discretion.

The second boundary condition is emotional and ethical salience. Decisions involving employee livelihoods, performance evaluation, promotion, disciplinary action, organizational restructuring, or conflict carry consequences that extend beyond computational optimization. In such settings, emotional-contextual sensemaking and relational legitimation become more consequential because stakeholders may judge not only the outcome of a decision but also the fairness and humanity of the process through which it was reached.

The third boundary condition is AI-system characteristics which influence the quality of integration. Reliability, transparency, explainability, and perceived competence affect the extent to which leaders and employees can

reasonably trust algorithmic outputs. Glikson & Woolley (2020) demonstrate that trust in AI is shaped by characteristics of both the system and the interaction surrounding it. Accordingly, the framework assumes that leaders should seek calibrated trust rather than unconditional trust in AI.

The fourth boundary condition which is organizational conditions, outline how leaders can enact the nexus effectively. Governance arrangements, organizational culture, access to AI expertise, accountability structures, and norms regarding employee participation may either support or constrain responsible Human-AI integration. Hillebrand et al. (2025) also posit that managing with AI extends beyond individual interactions toward broader organizational systems and configurations of human and algorithmic agency.

The framework therefore rests on the principle of contingent complementarity. AI and EI are most valuable not when both are maximized effectively especially, when their relative contributions are aligned with the demands of the situation. This distinguishes the Human-AI Leadership Nexus from technologically deterministic perspectives in which more advanced AI is presumed to generate better leadership automatically. It also rejects the opposite assumption that human judgment should always dominate merely because leadership is a social activity.

Figure 1, therefore depicts the Human-AI Leadership Nexus as an integrative process in which AI-enabled analytical capability and EI feed into the four mechanisms, which in turn influence leadership outcomes. Task characteristics, emotional and ethical salience, AI-system characteristics, and organizational conditions should be shown as moderators of these relationships.

Overall, the framework positions effective AI-era leadership as a capability for responsible orchestration. The defining leadership challenge is not simply whether AI should be used, but how leaders determine what should be computationally augmented, what requires human contextual judgment, and how both forms of intelligence should be combined under conditions of uncertainty, relational complexity, and organizational responsibility.

5. Practical, Ethical and Organizational Implications

The Human-AI Leadership Nexus has implications beyond individual leader behavior. If effective AI-enabled leadership depends on combining analytical capability with emotionally informed judgment, organizations must develop the competencies, decision structures, and governance arrangements that make such integration possible. At the same time, the nexus should not be treated as inherently beneficial or ethical. Human involvement does not automatically correct algorithmic limitations, and emotional intelligence can be used to facilitate persuasion as well as responsible leadership.

5.1 Developing Dual-Intelligence Leadership Capability

Leadership development should integrate AI literacy with emotional and relational capability rather than treating them as separate competencies. Senior leaders require sufficient AI literacy to understand what intelligent systems can and cannot reasonably contribute, interrogate outputs, and recognize circumstances in which algorithmic recommendations may be unreliable. Pinski et al. (2024) found that top-management AI literacy was positively associated with firms' AI orientation and implementation ability, illustrating the strategic importance of such knowledge.

Technical understanding, however, is only one component of the nexus. Leaders must also interpret employee reactions to AI-mediated decisions and recognize when efficiency-oriented recommendations conflict with contextual, relational, or ethical considerations. Development programs should therefore use realistic decision scenarios that require leaders to evaluate AI-generated recommendations alongside information concerning employee concerns, fairness, uncertainty, and organizational values. The aim is not simply greater AI use, but improved judgment about when and how AI should be used.

5.2 Designing Governance for Meaningful Human Judgment

Organizations also need decision structures that preserve meaningful rather than ceremonial human oversight. Merely requiring a manager to approve an AI recommendation offers limited protection if that manager routinely defers to the system. Cecil et al. (2024), across five preregistered experiments, found that participants often failed to reject incorrect AI advice in a personnel-selection task and that providing explanations did not eliminate overreliance. Human oversight therefore requires the capacity, authority, and expectation to contest AI outputs.

Governance arrangements should clarify where AI may automate decisions, where it should provide decision support, and where consequential decisions require stronger human discretion. They should also establish identifiable accountability, escalation procedures, opportunities for review, and mechanisms for challenging disputed outcomes. Batool et al. (2025) show that AI governance spans multiple levels and involves questions of who is responsible, what is governed, when governance occurs, and how oversight is implemented. From the perspective of the Human-AI Leadership Nexus, governance creates the organizational conditions under which calibrated reliance becomes possible.

5.3 Trust, Employee Voice, and the Experience Of AI-Mediated Leadership

The success of AI adoption also depends on how employees experience its use. Workers encounter AI through decisions about performance, work allocation, recruitment, communication, and monitoring, making leadership behaviour an important part of the technology's social meaning. Xu et al. (2024), in an experimental study of AI use in human resource management, found that trustworthy leadership increased employees' initial trust in AI and their intention to adopt it.

Leaders should therefore explain the role and limits of AI, clarify who retains responsibility, and create channels through which employees can question decisions that affect them. The objective should be calibrated trust rather than unquestioning acceptance. This is particularly important because algorithmic management may reshape autonomy and power. Noponen et al. (2024), reviewing 172 studies, found that algorithmic management can both enable and constrain worker autonomy, with many organizational applications emphasizing control. Emotionally responsive communication cannot substitute for structurally fair practices; employee concerns about surveillance, opacity, or loss of discretion may require changes to the underlying system rather than better messaging alone.

5.4 Ethical Limits of the Nexus

Finally, the framework requires a normative boundary. AI-supported leadership may reproduce bias, obscure responsibility, or encourage excessive dependence on technically authoritative outputs. Equally, EI should not be assumed to guarantee ethical behavior. Hyde et al. (2020) found evidence that emotional-intelligence-related capabilities can facilitate disingenuous emotional manipulation in workplace settings. A leader could therefore use AI to identify employee sentiment or resistance and then use emotional skill merely to secure acceptance of a questionable decision.

For this reason, relational legitimation must be distinguished from relational manipulation. The purpose of EI within the nexus should not be to make every AI-mediated decision more persuasive, but to help leaders recognize when decisions require explanation, reconsideration, modification, or rejection. Effective Human-AI leadership must consequently be anchored in fairness, transparency, employee voice, contestability, and non-delegable human accountability.

Altogether, these implications show that the Human-AI Leadership Nexus is not simply an individual competency model. It is an organizational capability requiring appropriately developed leaders, decision architectures that support calibrated human-AI involvement, trustworthy relationships, and governance mechanisms that constrain misuse. Without these conditions, the integration of EI and AI may increase the sophistication of leadership processes without improving their legitimacy or responsibility.

6. Future Research Agenda

The Human-AI Leadership Nexus creates several opportunities for empirical research. The immediate priority is to move beyond examining emotional intelligence (EI), AI literacy, and human-AI collaboration as separate phenomena and investigate how leaders integrate these capabilities within actual leadership processes. Four research priorities are particularly important.

First, researchers should operationalize and validate the Human-AI Leadership Nexus as a multidimensional construct. Measurement should capture the four proposed mechanisms: analytical augmentation, emotional-contextual sensemaking, integrative judgment, and relational legitimation: while demonstrating discriminant validity from EI, AI literacy, digital leadership, and general leadership effectiveness. Existing measurement research provides useful foundations. For example, Lintner's (2024) systematic review identified 16 validated AI-literacy scales but also revealed substantial variation in their conceptualization and measurement. The challenge for the "nexus" research is not merely to determine whether leaders understand AI, but whether they can integrate AI capabilities appropriately with emotionally informed judgment. Scenario-based measures involving AI-supported leadership decisions may therefore complement conventional self-report instruments.

Second, the propositions developed in this paper require causal and multilevel testing. Experiments could manipulate AI recommendation quality, emotional or ethical salience, and task structure to examine when emotionally intelligent leaders appropriately accept, modify, or reject algorithmic recommendations. Field and longitudinal studies could then investigate consequences for decision quality, employee trust, perceived fairness, team effectiveness, and organizational adaptability. Such multilevel research would respond to calls to examine managing with AI as an organizational system rather than as an isolated individual-algorithm interactions (Hillebrand et al., 2025).

Third, research should examine contextual boundary conditions. The value of the nexus is unlikely to be identical across industries, cultures, and decision environments. Comparative studies could investigate sectors such as healthcare, financial services, technology, education, and public administration, where the analytical, emotional, and ethical demands placed on leaders differ substantially. Cross-cultural research should likewise examine

whether expectations concerning emotional expression, managerial authority, employee voice, privacy, and trust in technology influence the appropriate balance between human and artificial judgment.

Finally, the framework must evolve alongside developments in generative and agentic AI. Agentic AI extends beyond conventional decision support by incorporating greater autonomy, adaptivity, proactiveness, and decision agency (Islam et al., 2026). This evolution raises new leadership questions concerning delegation, oversight, accountability, and the extent to which AI systems may assume quasi-managerial roles. At the same time, emerging organization theory increasingly conceptualizes AI as an organizing capability arising through relationships among human and algorithmic actors rather than as an isolated technological entity (Stelmaszak et al., 2026). Longitudinal research will therefore be especially important. As AI capabilities evolve, leaders may need to continually recalibrate what is delegated to machines and what remains subject to human judgment. The Human-AI Leadership Nexus should consequently be examined not as a fixed competency but as a dynamic leadership capability that develops through repeated human-AI interaction. These research directions can establish when the proposed nexus produces genuine complementarity, when it fails, and how its effectiveness changes as AI assumes more organizational roles.

7. Conclusion

Artificial intelligence is reshaping the informational and decision-making foundations of leadership, but its growing capability does not diminish the importance of human judgment. Instead, it changes where human capabilities distinctly create value. This paper has argued that the central leadership challenge in AI-enabled organizations is not whether humans or machines should dominate decision-making, but how their different strengths can be combined appropriately.

To address this challenge, the paper introduced the Human-AI Leadership Nexus, defined as a dynamic leadership capability through which leaders integrate AI-enabled analytical intelligence with emotionally intelligent human judgment. The framework identifies four mechanisms through which this integration occurs: analytical augmentation, emotional-contextual sensemaking, integrative judgment, and relational legitimation. Together, these mechanisms explain how leaders can use AI to expand analytical capacity while retaining the contextual interpretation, discretion, and relational responsiveness necessary for effective leadership.

The paper further argues that Human-AI complementarity is contingent rather than automatic. Its effectiveness depends on task characteristics, emotional and ethical salience, AI-system characteristics, and organizational conditions. The Human-AI Leadership Nexus therefore moves the leadership literature from a substitution debate to one of responsible orchestration. As AI systems become increasingly capable and autonomous, effective leadership may depend less on outperforming machines and more on knowing when to rely on them, when to question them, and when human emotional, contextual, and ethical judgment must prevail. The framework provides a foundation for future empirical research into how this emerging leadership capability develops, operates, and influences organizational outcomes.

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