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Leading the Algorithmic Workforce: A review of Human-Centric Leadership Requirements in Data Driven Organizations.

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Abstract:

The Data-driven organizations increasingly use algorithms for monitoring work, allocate tasks, evaluating the performance, and shape the terms under which the employees experience control. This paper examines how human-centered leaderships require when employees work under algorithm control in the conventional organizations. The literature primarily shows that the main issue is not simply whether artificial intelligence is adopted but how managerial authority is redistributed across softwares, managers, experts and workers Across the literature is has been highlighted that the employee outcomes are shaped by automation alone then by the way algorithm systems altering autonomy , transparency .,contextual judgement , conceptual judgement , voice and recourse . Studies from human resource management , information systems , organizational behavior converge on a clear patterns such as worker respond more positively when the algorithm remains open to interpretation , contestation and human override and more negatively when systems intensify surveillance, reduce discretion and hide the basis of judgement. Conventional organizations differ from the platform settings because human managers, engineers, internal governance structure remain present making leadership and organizational design more consequential. This review synthesizes the literature into a human centered leadership framework built around five requirements preserving the meaningful autonomy, maintaining procedural and interactional justice and organizing human recourse and accountability and also to building participatory socio-technical capability. This paper concludes that the leading algorithm workforce is best understood as a problem of socio-technical governance rather than technical adoption and the human centricity depends on whether organizations use algorithms to extend human judgment or to replace it.

Keywords: Algorithm management, human centric leadership, data driven organizations, AI governance, Employee wellbeing.

1. Introduction

The increase in the data-driven management has changed the practical meaning of Leadership. In many organizations , key managerial functions are now partly delegated to Algorithmic systems that monitor behaviour , rank performance , assign tasks , detect anomalies , recommend sanctions and structure rewards (Parent-Rocheleau & Parker, 2022) . These systems not only support managers with better information but also reallocate how control is exercised , how workers are seen and how organizational authority is defined and justified (Jarrahi et al., 2021; Kellogg et al., 2020). As anoutcome, the core question for leadership is no longer how to adopt artificial intelligence but to govern work when software performs functions once associated with supervision, evaluation and coordination.

This shift matters because the work under algorithm control changes the employee experience in ways that go beyond efficiency. Literature repeatedly links algorithmic management with lower autonomy , stronger surveillance , more opaques decision procedure and Heightened concerns about dignity , fairness and recourse (Giermindl et al., 2022; Lee, 2018; Newman et al., 2020) . Whereas at the same time literature also shows that algorithm systems can improve coordination , reduce uncertainty and support better decisions when they are designed as decision support rather than Design replacement (Alizadeh et al., 2026; Röttgen et al., 2024) . The leadership problem is hence not a simple choice between humans and algorithms. It is a design concerning how human and algorithm agency are combined in organizational settings.

This paper addresses the above listed problem via the lens of human-centric leadership.In thisContext, human centricity does not mean romantic rejection of analytics or unconditional trust in the managerial institutions. It mainly refers to the organizational capacity to use data and algorithms while preserving the worker agency , contextual judgement , legitimacy and humane work design (Chen, 2026; Herrmann & Pfeiffer, 2023) . This issue has become more urgent as a algorithmic management moves from the platform economy into more conventional settings such as logistics , manufacturing , people analytics and performance management (Kinowska & Sienkiewicz, 2023; Krzywdzinski et al., 2025) . In these environments the organizations cannot just rely on the platform model of distant digital control alone. They must decide what actually remains in the human hands, what becomes machine mediated and how workers can understand and influence the systems that shape their working lives.

This review synthesizes the literature around three basic questions that are as follows;Firstly, how does algorithmic control reshape work and employee outcomes in conventional organization? Secondly, what leadership practices and capabilities support a human-centric response? and thirdly,what forms of organizational governance are required if the algorithmic management is to be seen as legitimate rather than merely efficient? The argument developed here is that the human centred leadership in data-driven organizations rests on a shift from supervisory control to sociotechnical governance. Leaders must not only direct people , they must also design , interpret , audit and contest the systems through which the people are managed (Birkstedt et al., 2023; Mäntymäki et al., 2022) .

This paper majorly makes three contributions at first it integrates fragmented literatures on algorithm management , people analytics , fairness , legitimacy and AI governance into a single leadership centred account (Birkstedt et al., 2023; Robert et al., 2020). It then shows that the most important mediators of employee outcomes are autonomy , justice , transparency and recourse rather than technological sophistication alone (Martin & Waldman, 2023; Parent-Rocheleau & Parker, 2022) . Finally it argues that the unit of effective leadership in algorithmic organizations is not just the individual manager but the wider organizational arrangement that keeps humans , managers , experts and workers in the loop (Herrmann & Pfeiffer, 2023).

Figure 1: Pillars of Human Centric Governance

Source: generated by Author

2. Literature Review

The rapid integration of artificial intelligence, data analytics and algorithmic systems into organizational processes has transformed the nature of managerial control and workforce governance. Organizations increasingly on algorithmic systems to monitor employee

activities, allocate tasks, evaluate performance and support decision making processes. While these technologies offer opportunities for improved efficiency, coordination and data driven decision making, they also raise important concerns regarding employee autonomy, transparency, fairness, accountability and workplace wellbeing. Consequently, scholars from the fields of human renouncement management, organizational behaviour, information systems and AI governance have begun examining the implications of algorithmic management for both organizations and employees.

The present review synthesizes contemporary literature across multiple disciplines to examine the evolving relationship between algorithmic management and leadership. The review focuses on seven interconnected themes namely Algorithmic Management as a new regime of Organizational Control,From platform edge case to conventional organization, Human centric leadership as sociotechnical leadership, Justice, Legitimacy and the employee experience,Work Design, Autonomy and Wellbeing, People analytics and the Dehumanization risk and Governance as the missing Layer. Through this synthesis the review seeks to develop a comprehensive understanding of leadership capabilities and organizational practices necessary for managing the algorithmic workforce in human-centredmanner.

2. 1. Algorithmic Management as a new regime of Organizational Control

Algorithmic management refers to the use of data intensive digital systems to carry out coordination and control functions traditionally performed by managers (Benlian et al., 2022). Some papers define these functions as including monitoring , goal setting , performance management and scheduling , compensation and termination (Parent-Rocheleau & Parker, 2022). The concept emerged from studies of platform work , but later works show that it is spreads to more standard employment settings and should be treated as a broader sociotechnical form of organizing rather than a niche feature of gig labour (Jarrahi et al., 2021; Keegan & Meijerink, 2025) .

The literature treats algorithmic management more than just automation. It is a new regime of organizational control because it changes the architecture through which judgement is produced and exercised (Jarrahi et al., 2021; Kellogg et al., 2020) . In the older forms of bureaucratic or managerial control, workers could usually identify who set the rule, who evaluated them, and who might hear an appeal. Under the algorithmic control , those functions become distributed across data infrastructures , models , dashboards , interfaces and

expert teams that may be distant from point of work (Chen, 2026; Krzywdzinski et al., 2025) . The Algorithmic control becomes more continuous, granular and difficult to localize.

Noponen'ssystemstic review shows that the literature consistently frames this regime through three themes : the paradox of autonomy , digital Taylorism and shifting power structures (Noponen et al., 2024). Algorithmic systems can create flexibility at the surface while narrowing practical discretion beneath it. This may also move managerial power towards the designer, analysts and those who control data access. this is why algorithmic management must be studied not only as a technical system but as a political organizational arrangement (Alizadeh et al., 2026; Krzywdzinski et al., 2025).

2. 2. From platform edge case to conventional organization

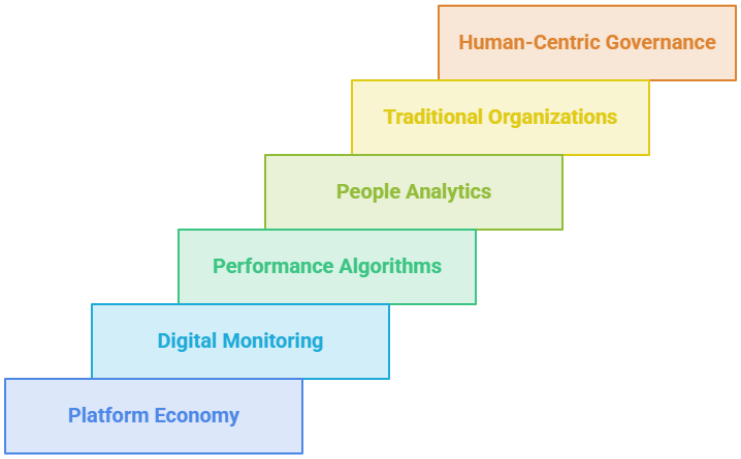
Early evidences on algorithmic management came mainly from platform settings , where algorithms often substitute or direct human supervision (Benlian et al., 2022; Keegan & Meijerink, 2025). This literature further remains important because it shows the outer limit of software-basedcontrol, but a direct transfer from platform work to conventional organizations is inadequate. Conventional workplaces contain pre-existing social structures formal contracts , internal hierarchies , labour regulation and face to face managerial relationships that can moderate or redirect the effects of algorithmic systems (Jarrahi et al., 2021; Krzywdzinski et al., 2025).

This distinction matters for leadership. In a platform setting , workers may have little access to supervisors , weak recourse and limited opportunities to reshape the system (Benlian et al., 2022; Keegan & Meijerink, 2025) . In conventional organizations , by contrast managers , process engineers , data scientists , works councils and HR units remain active participants in the production and use of algorithmic control (Krzywdzinski et al., 2025) .Human designers may become brokers , interpreters , buffers or designers of the systems rather than disappearing altogether (Schmid & Wiesche, 2026) . The practical question is therefore not whether leadership survives algorithmic management, but what kind of leadership becomes necessary once managerial wok is partially embedded in software.

Recent literature on traditional organizations supports this shift in emphasis.Kinowska and Sienkiewicz find that algorithmic management has measurable negative links with workplace wellbeing in a large sample of European organizations , especially through reduced job autonomy (Kinowska & Sienkiewicz, 2023) . Schmid and Wiesche show that the algorithmic management can also improve efficiency in Manufacturing when used within a hybrid

managerial setting that preserves human support and contextual intervention (Schmid & Wiesche, 2026) .Some of the authors also show that implementation in logistics is shaped by negotiations among mangers , engineers , data scientists and workers , with strong consequences for participation and knowledge distribution (Krzywdzinski et al., 2025). Together these studies suggest that conventional organizations are not secondary cases. They are rather the key arena in which human centric leadership can either be institutionalized or lost.

Figure 2: Evolution of Algorithm Management



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2. 3. Human centric leadership as sociotechnical leadership

The leadership literature on AI often emphasized digital capability, strategic foresight and openness to innovation. Those qualities matter but are too abstract for the realities of the algorithmic work , The more relevant insight from the emerging literature is that the leadership in AI-intensive settings is sociotechnical i.e it concerns the shaping of relations among workers , managers , data , models , workflows and governance processes (Herrmann & Pfeiffer, 2023; Santiago-Torner et al., 2026) .

This current view alters what actually counts as a leadership act. In algorithmic settings , leadership includes deciding which judgements may be automated , specifying when override is allowed , determining how explanations are given , choosing whether workers can access their own data and creating avenues for worker contestations (Alizadeh et al., 2026; Martin & Waldman, 2023; Robert et al., 2020) . Leaders are not only motivators or strategists. They are the architects of the conditions under which algorithmic authority becomes acceptable. Some

of the authors further shape this point by arguing that keeping humans in the loop is insufficient if the organization itself is not in the loop. Human-centric AI requires organizational practices that sustain evaluation , customization , contextual adaptation an accountable use over time (Herrmann & Pfeiffer, 2023) .This reframing is vital for the workforce management because employees experience algorithmic control not as a single decision event but as an ongoing pattern of scheduling , measurement , ranking and feedback .

Table 1: Impact of Algorithm Management on Employees

Positive Effects	Negative Effects
Better coordination	Reduced autonomy
Faster decisions	Surveillance
Efficiency	Stress
Data-based evaluation	Lack of transparency
Improved scheduling	Resistance

Source: generated by Author

2. 4. Justice, Legitimacy and the employee experience

A large share of the literature converges on justice and legitimacy as the decisive lenses for understanding employee reactions to algorithmic management. Lee's experiment shows that the proper respond more negatively when the algorithms make decisions requiring human judgement , social recognition or contextual interpretation (Lee, 2018) . Some authors similarly show that even when algorithms promise bias reduction , they can still be perceived as procedurally unfair if employees believe relevant qualitative context has been stripped away (Newman et al., 2020) .

The literature distinguishes several linked forms of justice. procedural justice concerns the fairness of Decision processes such as consistency , transparency and the possibility of voice and appeal (Newman et al., 2020; Robert et al., 2020) . Distributive justice concerns the fairness of outcomes , including rewards and sanctions (Robert et al., 2020) . Interactional justice concerns the quality of treatment and explanation employees receive (Robert et al., 2020) . These dimensions matter because algorithmic management often makes all three visible at once. A worker may not ask only whether the outcome was fair, but whether the

system saw the right data, whether anyone could explain the result, and whether anyone cared enough to hear an objection.

Legitimacy adds a broader organizational question: under what conditions are algorithmic decisions seen as proper and acceptable at the first place? Martin and Walman show that most common governance signals , such as notices or impact statements , do little to improve perceived legitimacy, whereas a real appeal process does (Martin & Waldman, 2023) . The same research also highlights that some data inputs are so arbitrary or morally suspect that procedural devices cannot repair the legitimacy damage. This is a crucial point for leadership. Trust in algorithmic management cannot be built through symbolic transparencyalone. It in turn requires substantive limits on what data are used , how decisions are framed and what recourse employees retain (Chen, 2026; Martin & Waldman, 2023) .

2. 5. Work Design, Autonomy and Well being

Research thinking algorithm management to work design provides the strongest account of why employee outcomes vary. Parent Rocheleau and parker argue that algorithmic management affects worker motivation and wellbeing by changing key job resources and demands , especially autonomy , complexity a, workload and human influence (Parent-Rocheleau & Parker, 2022) . Rottengen and Colleagues extend this by showing how the degree of algorithmic completeness influences the task design through reduced autonomy , lower transparency , weaker credibility and fewer opportunities for problem solving (Röttgen et al., 2024) . As per this author the key issue is not simply whether algorithms control work, but whether they allow workers to perform meaningful action plans and regulate their own tasks.

Some of the authors find that algorithmic management is negatively related to workplace wellbeing both directly and indirectly through reduced job autonomy and weaker rewards practices (Kinowska & Sienkiewicz, 2023) . Schlund and Zitek show that algorithmic surveillance lowers perceived autonomy and increases resistance compared with human surveillance , although developmental framing can soften these effects (Schlund & Zitek, 2024) . In a portion of literature it was identified that emotional , mental , bias and manipulation , privacy and social burdens in employee responses to AI-based performance evaluation (Park et al., 2021) . Taken together these studies suggest that workers don’t merely reach to surveillance intensity, in turn they react to wider loss of interpretive agency.

2. 6. People analytics and the Dehumanization risk

People analytics literature further adds an important caution.Giermindl argues that the use of analytics in people management carries a reductionist logic that treats complex human behaviour as if it were an object of optimization (Giermindl et al., 2022) . Their six perils include the illusion of control, self-fulfilling predictions, path dependencies, impaired transparency and accountability, reduced autonomy and the erosion of managerial competence. The central claim is not that analytics are useless but that efficiency logics become dangerous when imported into domains where context, dignity and development matter.

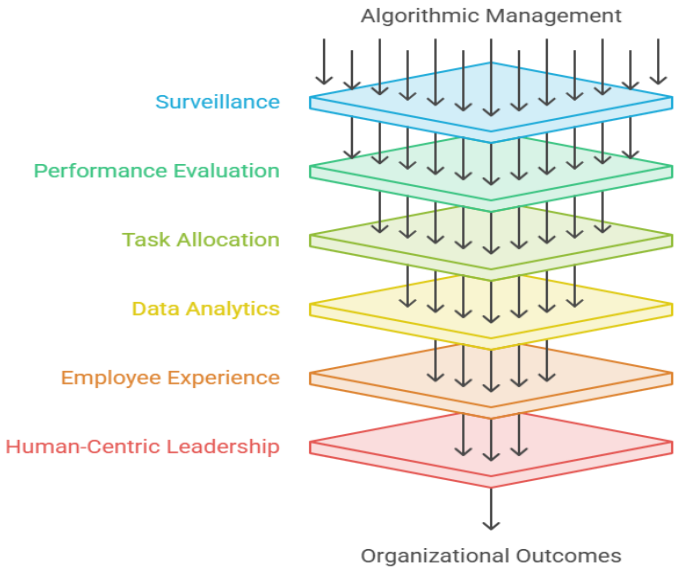
This literature is especially relevant for leadership because it shows how dehumanization can arise even without malicious intent. When leaders trust dashboards more than dialogue, when performance is reduced to proxies, or when managers cease exercising judgement because the system appears objective , the organization loses not only empathy but also competence (Chen, 2026; Giermindl et al., 2022) . Human centric leadership therefore requires more than worker protection, it requires protecting managerial judgement from Atrophy.

2. 7. Governance as the missing Layers

The final strand of literature argues that the main failure in algorithmic workplaces is not poor model design alone but weak organizational governance. Birkstedt defines AI governance as a system of Rules , practices , processes and tools that aligh AI use with Organizational values , strategy , legal demands and stakeholder expectations (Birkstedt et al., 2023) . Mantymaki operationalize this view through hour glass model , which links environmental requirements , organizational alignment and lifecycle level governance tasks for specific systems (Mäntymäki et al., 2022) .

This literature matters that most for workforce issues because employment decisions are rarely isolated technical events. They are embedded in value choices about productivity, fairness, privacy and acceptable risk. Governance determines whether algorithms remain auditable , whether workers can appeal , whether the managers are trained to use the systems critically and whether responsibility is assigned clearly (Birkstedt et al., 2023; Mäntymäki et al., 2022) .

Figure 3: Human Centered Framework for Algorithm Workforce Management



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3. Methodology

This research paper uses a qualitative review design suited to a field that is spread across human resource management, information systems, organizational studies, human-computer interaction and AI governance. The aim is not to estimate a pooled causal effect , but to synthesize how literature explains the conditions under which algorithmic control changes employee experience and what leadership and governance responses support more human centric outcomes (Herrmann & Pfeiffer, 2023; Noponen et al., 2024).

Paper selection criteria were dependent upon these three criteria. Papers were priotized when:

- They examined algorithmic management, people analytics, AI based evaluation or related forms of data driven control in work settings.
- Addressed employee outcomes such as autonomy, wellbeing, trust, fairness, resistance or legitimacy.
- Analyzed leadership, managerial brokerage, participatory design or governance mechanisms such as oversight, auditing, recourse and human override.

4. Results and Findings

The literature reviewed supports a broad but consistent finding : human centric leadership in Data driven organizations is defined by how algorithmic control is designed , interpreted and governed (Chen, 2026; Herrmann & Pfeiffer, 2023). Across the studies reviewed the main

divide is between systems that use algorithms to narrow worker agency and systems that use them to support human judgement (Noponen et al., 2024; Schmid & Wiesche, 2026) .

Table 2: Major Findings

Dimension	Dominant Risks	Human centered leadership response	References
Work Design	Reduced autonomy , predictability and problem Slving	Preserve discretion, task understanding and meaningful override.	(Kinowska & Sienkiewicz, 2023; Parent-Rocheleau & Parker, 2022; Röttgen et al., 2024)
Evaluation and fairness	Reductionism, opaque criteria, weak contextualization	Explain criteria , include context , combine AI with human review	(Lee, 2018; Newman et al., 2020; Robert et al., 2020)
Surveillance and Resistance	Stronger control , lower autonomy , higher resistance	Use developmental framing , narrow monitoring scope and maintain voice	(Park et al., 2021; Schmid & Wiesche, 2026)
Participation and power	Centralized knowledge , expertocracy , worker exclusion	Involve workers and local manages in design , design interpretation and redesign	(Herrmann & Pfeiffer, 2023, 2023)
Governance and legitimacy	Symbolic ethics, unclear accountability, weak appeal.	Build oversight,auditing, ownership and human recourse.	(Birkstedt et al., 2023; Mäntymäki et al., 2022; Martin & Waldman, 2023)

Source: generated by Author

These findings can be organised into five human centric leadership requirements.

4. 1. Preserve meaningful autonomy rather than Nominal flexibility

Autonomy is the strongest recurring mechanism linking algorithmic management to employee wellbeing and legitimacy (Kinowska & Sienkiewicz, 2023; Röttgen et al., 2024). Whereas some literature shows that autonomy should not be treated a simple yes or no property. Workers may retain surface freedom while losing practical control over pace,sequence, timing and judgement. This is the paradox of Autonomy described in the review (Noponen et al., 2024)

Human-centric leadership therefore requires preserving meaningful rather than nominal autonomy. Meaningful autonomy includes the ability to understand task logic , anticipate consequences , exercise discretion and influence how work is carried out(Röttgen et al., 2024). It also includes the ability to reject or revise algorithmic recommendations in high complexity or context-sensitive cases (Lee, 2018; Schmid & Wiesche, 2026).

Some studies show that the systems built around recommending rather than requiring actions and those that grant workers access to their own data , generate stronger legitimacy judgements(Alizadeh et al., 2026) . The opt-out options are likewise potential because they signal retained agency. The implication is that human centricity should be built into system architecture not left to manage good will after deployment.

This majorly reshapes the role of the manager. A human centric manager does not simply enforce algorithmic outputs. The manager protects the conditions under which workers can still act as knowledgeable agents. They may involve limiting algorithmic assertiveness , preserving space for exception handling or ensuring that workers receive information rather than rigid instruction(Röttgen et al., 2024; Schmid & Wiesche, 2026).

4.2. Treat Fairness as contextual Judgement not statistical appearance

A second finding is that fairness in algorithmic workplaces depends on whether employees believe the system can see enough of the person and the situation to judge properly. Workers often mistrust algorithms not because they reject consistency , but because they suspect reductionism (Lee, 2018; Newman et al., 2020) . A system that removes some interpersonal bias may still be seen as unfair if it ignores qualitative evidence, local constraints or human growth.

This helps explain why fairness has multiple layers. Distributive fairness asks whether the outcome is just procedural fairness asks whether the path to that outcome was consistent, transparent and open to challenge. Interactional fairness asks whether workers were treated with dignity and given a credible account of what happened (Robert et al., 2020) . The key leadership implication is that fairness cannot be outsourced to modeldevelopers. It is an ongoing organizational practice of contextualization, explanation and repair.

4.3. Build Recourse, accountability and human review into the employment relationship

The third finding concerns recourse. Across the literature , employees respond more positively when the algorithmic decisions remain contestable and when responsibility can be traced to identifiable actors (Birkstedt et al., 2023; Mäntymäki et al., 2022; Martin & Waldman, 2023). Symbolic transparency alone is weak. Notices , ethics statements and abstract impact claims to do little if workers cannot challenge the outcome or find someone answerable for it (Martin & Waldman, 2023) .

This finding has larger implications for leadership because algorithms often dissolve accountability by making outcomes appear system generated rather than chosen. It has been

warned by some of the Authors that opaque analytics can weaker both transparency and managerial competence (Giermindl et al., 2022) . Similarly it has been also argued that Algorithmic HRM often hides upstream design decisions from both workers and HR managers (Chen, 2026). Human centric leadership counters this by maintaining accountable ownership over the system.

Table 3: Summary of Governance Mechanisms

Governance Mechanism	Importance for Employees	Leadership Implication	Key Sources
Human Appeal Process	Improves legitimacy, especially after bad outcomes.	Formalize review channels and response rights.	(Martin & Waldman, 2023)
Clear system Ownership	Prevents diffusion of responsibility	Assign AI system and Algorithm Owners	(Mäntymäki et al., 2022)
Audit and Impact assessment	Makes design assumptions inspectable	Audit both data inputs and downstream effects	(Birkstedt et al., 2023; Robert et al., 2020)
Human Override	Preserves contextual correction	Require review for pivotal and ambiguous cases	(Chen, 2026; Park et al., 2021)
Data Access and Explanation	Reduces exploitation and opacity	Let workers inspect relevant data and Criteria	(Alizadeh et al., 2026; Park et al., 2021)

Source: generated by Author

A notable point here is that recourse is not only a legal safeguard. It is also a relational signal. It tells employees that they are still recognized as persons whose case may exceed what a model captured.

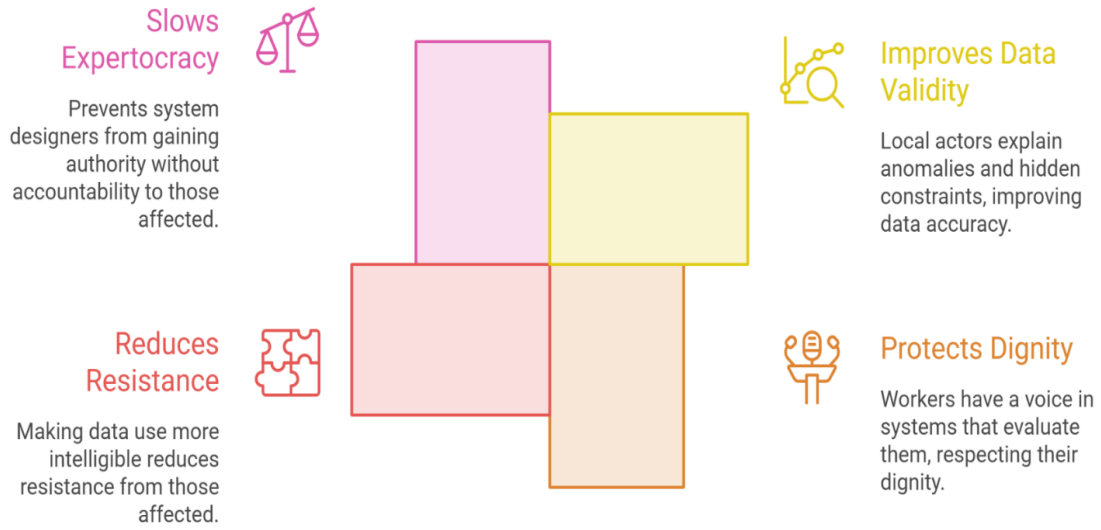
4.4. Replace one way control with participatory sociotechnical Leadership

The fourth finding is that participation matters not only for ethics but for system quality. krzywdzinski highlighted in his study that algorithmic management in conventional workplaces is shaped by multiple actors whose knowledge enters the system at different phases (Krzywdzinski et al., 2025) . Workers may hold crucial situational knowledge during data production, yet often become excluded when data are interpreted and optimization decisions are made. The result is a participation gap: workers are needed to generate the system's intelligence but not to govern its use.

Human-centric leadership closes that gap by treating implementation as a participatory process. This means involving workers , line managers , engineers and HR not just in

acceptance management but in goal definition , data interpretation , redesign and exeption handling (Herrmann & Pfeiffer, 2023) . Participation serves at least four functions:

Figure 4: Functions of Participation



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This is where the Ideaof Sociotechnical leadership becomes concrete. Leaders must orchestrate cross-functional translation across technical and work domains. They must ensure that data scientists understand lived work processes and that the workers can question the abstractions imposed on them. Leadership becomes a practice of medicated sensemaking rather than simple command.

4.5. Keep the Organization, not only the human, in the loop

The fifth and the most important finding is the human centric leadership depends on organization-level governance capacity. Many proposals responsible for AI focus on keeping a human in the loop , but that is too narrow for workplace systems that evolve over time and affect many people at once (Herrmann & Pfeiffer, 2023) . What matters is whether the organization remains capable of supervision, revising and contextualizing the system across its lifecycle.

Hermann offers a strong model through the idea of keeping the organization in the loop . The four loops of AI use , AI customization , original work tasks and contextual change show that governing AI requires continuous organizational work rather than one off oversight(Herrmann & Pfeiffer, 2023) . Some of the authors complement this with governance architecture that include oversight units , process ownership , training ,

stakeholder management and lifecycle controls (Birkstedt et al., 2023; Mäntymäki et al., 2022) .

The governance systems usually possess HR systems , line management , formal policy channels and organizational routines that can absorb and regulate algorithmic tools (Kinowska & Sienkiewicz, 2023; Krzywdzinski et al., 2025) But those same organizations can also reproduce the harms of platform control if they use internal hierarchy only to scale surveillance more efficiently (Giermindl et al., 2022; Schlund & Zitek, 2024).

4.6. An integrative framework for Human-centric leadership requirements

The literature can be synthesized into an integrative framework in which employee outcomes under algorithmic control are mediated by four proximate conditions and shaped by three organizational enablers.

Figure 5: Proximate Conditions

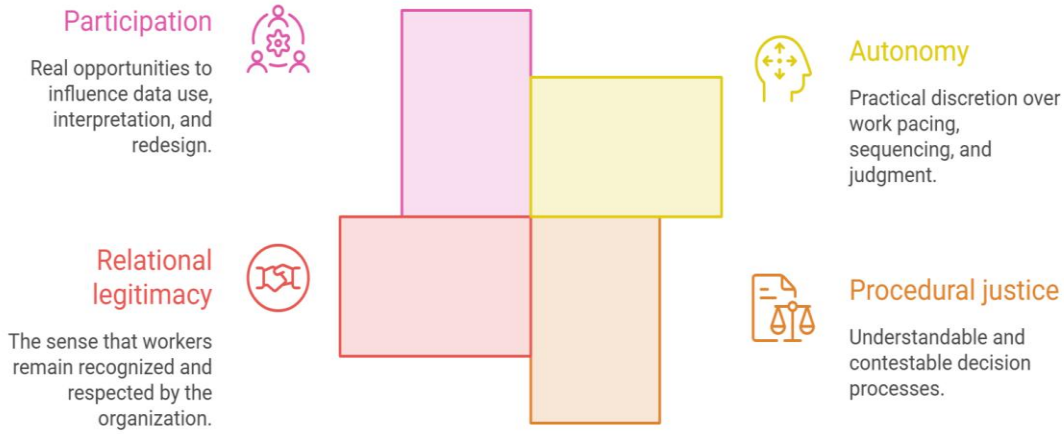

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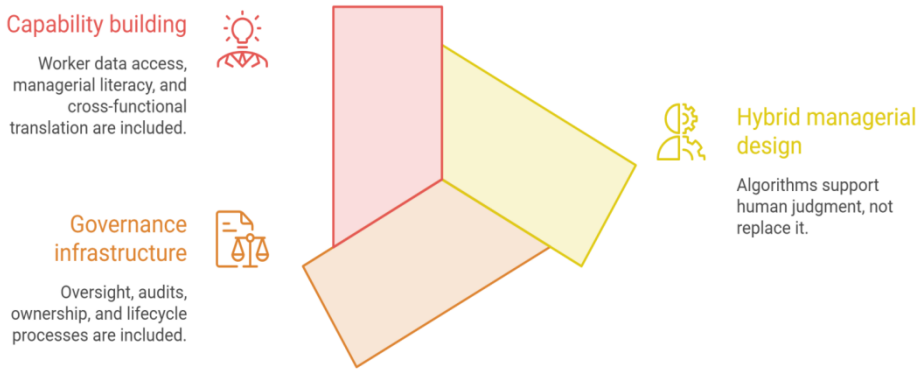
Figure 6: Organizational Enablers



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Under this framework, human centric leadership is strong when organizations combine low algorithmic assertiveness, high recourse, high data intelligibility and broad organizational oversight. It is weak when the control is one-way, critique isopaque, data rights are asymmetric and managers surrender judgement to system outputs

4.7. Contradictions in the Literature

Although the broad pattern of the literature is clear, still the literature also contains real tensions that matter for theory and practice.

The first contradiction concerns efficiency versus humanity. Some studies show that algorithmic systems can improve coordination and reduce errors (Schmid & Wiesche, 2026), whereas others emphasize Surveillance , dehumanization and loss of wellbeing (Giermindl et al., 2022; Kinowska & Sienkiewicz, 2023). These findings are not contradictory, they suggest that efficiency gains are often real, but their organizational value depends on whether they are achieved through supportive augmentation or through intensified unilateral control.

The second contradiction concerns transparency.Transparency is often presented as a cure, yet the literature is more cautious. Some authors show that transparency and interpretability can reduce burdens when they clarify criteria and authority (Park et al., 2021). Whereas some works suggest that explanation without recourse may fail and recent studies even point to transparency-resistance paradox in some settings. Transparency should hence be treated as a component of contestability, not a substitute for it.

The third contradiction is regarding the role of human managers. Some work implies that keeping a human in the loop is inherently beneficial (Lee, 2018; Park et al., 2021) . Yet some of authors find that in highly standard context the mere presence of human supervisors does not itself drive legitimacy judgements (Alizadeh et al., 2026) . What matters the most is whether the system preserves agency, data access and opt-out capacity. This means that the human centric leadership cannot be reduces to adding a manager back into an otherwise rigid control system.

The fourth contradiction concerns the transfer from platform to conventional settings. Platform studies remain influential because they reveal extreme forms of algorithmic control (Benlian et al., 2022; Kellogg et al., 2020) . But the review suggests that leadership requirements in conventional organizations differ in one key respect : they depend more heavily on the internal governance , managerial brokerage and institutional context

(Krzywdzinski et al., 2025; Schmid & Wiesche, 2026). The platform work provides warning signals, not a complete model.

5. Conclusion

Leading the algorithmic workforce is not mainly matter of helping managers become more digital. It is a matter of deciding how organizational authority should operate when algorithms participate in monitoring evaluation and coordination. The literature reviewed here shows that human centric leadership rests on a clear set of requirements :Preserving meaningful autonomy , maintain justice through contextual judgement , provide real recourse and accountable ownership , organize participation across the system lifecycle , and embed algorithmic work in robust organizational governance (Birkstedt et al., 2023; Parent-Rocheleau & Parker, 2022).

The central lesson is that the algorithms do not determine whether the workplaces become humane or dehumanizing. Data driven organizations can use algorithms to support learning, coordination and informed judgement, but they can also use them to intensify control while hiding the responsibility. The difference lies in whether leadership treats algorithmic management as a tool for replacing human discretion or as a sociotechnical system that must remain open to interpretation , contestation and redesign (Alizadeh et al., 2026; Chen, 2026; Noponen et al., 2024) .

A human centric review of the literature therefore points towards a broader redefinition of leadership. In the data-driven organizations, leaders must not influence people. They must govern the infrastructures that influence people. Where that governance is weak, algorithmic efficiency is likely to come at the cost of legitimacy, dignity and wellbeing. Where it is strong organizations have a better chance of building forms of algorithmic work that remain both productive and recognisable human (Santiago-Torner et al., 2026; Schmid & Wiesche, 2026) .

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