

E-ISSN: 3108-4192

APSSHS

Academic Publications of Social Sciences and Humanities Studies

2026, Volume 6, Issue 1, Page No: 38-46

Available online at: <https://apsshs.com/>

Journal of Applied Organizational Systems and Behavior

From Human Resources to Relational Work Systems and Hybrid Agency

Andreas Müller^{1*}, Stefan Weber¹, Julia Hoffmann², Lukas Schneider³, Tobias Klein⁴

1. Department of Human Resources and Relational Work, Faculty of Business, Heidelberg University, Heidelberg, Germany.
2. Department of Hybrid Agency and Work Systems, Faculty of Management, Technical University of Munich, Munich, Germany.
3. Department of Organizational Change, Faculty of Psychology, University of Freiburg, Freiburg, Germany.
4. Department of Work Innovation, Faculty of Psychology, University of Stuttgart, Stuttgart, Germany.

Abstract

Organizations increasingly coordinate work through relationships among employees, managers, teams, digital systems, and artificial intelligence, yet influential human-resource frameworks still often begin from the premise that people and their capabilities are resources possessed, configured, and deployed by firms. This original conceptual framework article argues that this vocabulary is increasingly incomplete for technology-mediated work because it under-specifies relational interdependence, distributed agency, contribution attribution, and digitally mediated control. The article develops the proposed Relational Work-System Framework, which connects four domains: relational infrastructure, hybrid human–technology agency, recognition and contribution, and control and governance. The framework treats these domains as mutually conditioning rather than independent design variables and explicitly distinguishes technological capability from legitimate authority, contribution visibility from performance, voice opportunity from consequential influence, and autonomy from responsibility transfer. Six proposed propositions translate the synthesis into testable questions concerning relational-system fit, agency–authority congruence, contribution traceability, contestable control, complementarity–learning tensions, and cross-level evaluation. The framework is intended to organize theory development and organizational inquiry, not to certify a universally superior work architecture. Its central limitations are the heterogeneous evidentiary bases underlying the four domains, incomplete evidence on temporal and cross-level mechanisms, and contextual dependence on task, occupation, technology, power, and institutional arrangements. Future research should test the proposed relationships with multilevel, longitudinal, qualitative-process, and field-experimental designs before treating them as validated organizational guidance.

Keywords: Limits of the human-resources metaphor, Foundations of relational work systems, Hybrid human–technology agency, Recognition and contribution, Design principles, Theoretical and practical implications

How to cite this article: Müller A, Weber S, Hoffmann J, Schneider L, Klein T. From Human Resources to Relational Work Systems and Hybrid Agency. *J Appl Organ Syst Behav*. 2026;6(1):38-46. <https://doi.org/10.51847/y67R116Ada>

Received: 13 January 2026; **Revised:** 28 March 2026; **Accepted:** 04 April 2026

Corresponding author: Andreas Müller

E-mail ✉ andreas.mueller@uni-heidelberg.de

Introduction

Human-resource management has long offered organizations a vocabulary for connecting people, capabilities, and competitive advantage. Yet a resource-centered vocabulary can become analytically restrictive when it emphasizes what organizations possess rather than how work is constituted through relationships, interdependencies, and distributed participation. Integrative work on strategic human resource management and human capital shows that stock-like treatments leave important process questions unresolved, including how capabilities are mobilized and converted into organizational value [1]. Multilevel theorizing likewise indicates that strategic human capital and HR systems cannot be adequately



© 2026 The Author(s).

Copyright CC BY-NC-SA 4.0

connected without specifying processes operating across individual and organizational levels [2]. These arguments do not invalidate resource theories. They expose a limit: possession is not enactment. A capability can be strategically valuable yet remain unusable when coordination is weak, authority is unclear, or relationships suppress information exchange.

That limitation becomes more visible when the HR function is examined as an organizational arrangement rather than a fixed administrative architecture. Comparative case evidence shows that HR functions are organized heterogeneously as organizations respond to paradox, variety, and dynamism [3]. A substantial relational-HRM literature also treats workplace relationships not merely as background conditions but as phenomena that HR practices can shape and through which work may be coordinated [4]. The conceptual problem is therefore not simply that “resource” language is normatively uncomfortable. It is that resource language can obscure the relational structures through which capabilities become usable, recognized, coordinated, contested, or constrained. Formal HR policy must therefore be distinguished from enacted work: nominal autonomy, voice, or developmental opportunity does not guarantee that employees can exercise them in practice. A relational perspective also avoids assuming that the employment relationship is exhausted by an employee–organization dyad. Teams, professions, customers, vendors, digital infrastructures, and algorithmic intermediaries can condition who depends on whom and whose judgment becomes consequential. This broader view becomes especially important when formal organizational boundaries no longer coincide neatly with the boundaries of coordinated work.

Relational analytics further shows that ties, networks, and patterns among actors reveal organizational properties that people-only analytics can miss [5]. Technology-mediated work intensifies this issue because action increasingly depends on configurations of humans, algorithms, platforms, and decision systems. This article therefore develops an original non-empirical conceptual framework that shifts the analytical question from “What human resources does the organization possess?” to “How are work relations, agency, contribution, and control configured across human and technological participants?” The proposed Relational Work-System Framework is not a validated causal model. Its contribution is to integrate separated literatures into a bounded architecture that generates falsifiable propositions and makes responsibility, authority, attribution, and contestability explicit.

Foundations of relational work systems

A relational work system is proposed here as a configuration of patterned workplace relationships, coordination structures, HR practices, work-design features, and cross-level interdependencies through which organizational work is enacted. A relational perspective on the HR function shows that strategic value can be created through relational activities and connections, not only through the accumulation of individual capabilities or formal HR resources [6]. The proposed term “relational work system” is broader because it extends beyond HR-function relationships to include technological participation, contribution attribution, and control. Its analytical unit is neither the isolated employee nor the technology artifact, but the configuration of relations through which tasks, discretion, information, and consequences are distributed.

Empirical evidence suggests that relational HR practices can operate through collective processes. In hospital units, relational HRM was associated with positive affective climate, with collective occupational calling conditioning the examined relationships [7]. Such findings illustrate a plausible multilevel pathway but should not be generalized beyond the occupation, setting, or measured mechanism. Measurement research further indicates that strategic relational HRM can be operationalized as a distinct construct [8]. Validation of that measure supports future empirical work, but it does not validate the broader framework proposed here. Nor should stronger workplace relationships automatically be interpreted as evidence of better organizational functioning. Dense relational ties can facilitate information exchange while also reinforcing conformity, exclusion, or dependence. The framework therefore treats relational quality, relational structure, and relational consequences as separate empirical questions rather than collapsing them into a single positive construct.

The digital-work literature adds another foundation: work design conditions how technologies enter organizational life. Automation and algorithms may alter demands, resources, autonomy, interdependence, and responsibility depending on how jobs are configured [9]. Accordingly, a relational work system is not defined merely by the presence of relationships or technology. It is defined by the arrangement through which actors depend on one another, obtain discretion, exchange information, exercise influence, and remain accountable. Alternative explanations remain important: apparent relational effects may reflect selection, leadership, occupation, pre-existing climate, or technology choice. The evidence supports treating relationships and work design as analytically consequential; it does not establish one optimal relational configuration.

Hybrid human–technology agency

Hybrid human–technology agency concerns how participation in organizational action is distributed across human and technological actors. The concept is narrower than claims that machines possess human-equivalent intentionality and broader than simple automation. Learning algorithms can reconfigure expertise, coordination, organizational boundaries, and control because they participate in classifications, recommendations, and action possibilities that shape subsequent human work [10]. Conjoined-agency theory distinguishes configurations in which human and technological contributions to intentionality and action selection are combined differently [11]. Here, hybrid agency refers to the organizational distribution of recommending,

choosing, deciding, executing, monitoring, and overriding. It does not imply that agency is evenly shared or that technological capability confers legitimate authority.

This definition also rejects a stable binary between substitution and assistance. Automation and augmentation can be interdependent tendencies: systems may automate some judgments while generating new human interpretive, supervisory, or exception-handling tasks [12]. What matters analytically is not whether technology “replaces” or “supports” people in the abstract, but how roles are recomposed over time. A system that reduces direct task execution may expand monitoring responsibility, while an ostensibly augmentative tool can narrow discretion if recommendations become difficult to contest. A system perspective further implies that collaboration with AI should not be evaluated solely through isolated task accuracy or user preference. Human-AI arrangements are embedded in work practices, roles, coordination routines, and dependencies that can redistribute authority and responsibility beyond the focal interaction [13]. The proposed framework therefore treats hybrid agency as relationally situated: work design and control shape agency allocation, while its consequences may appear in recognition, learning, status, and accountability. These cross-domain effects remain proposed and require direct empirical testing. The distinction also matters temporally. A configuration can begin as assistance and gradually become de facto delegation as routines, skill distributions, incentives, or expectations adapt around the technology. Empirical studies should therefore measure enacted authority and intervention capacity rather than infer them from system labels.

Table 1 clarifies the conceptual architecture of the relational work-system perspective by distinguishing its core domains, analytical questions, and limits of interpretation.

Table 1. Conceptual architecture of relational work systems and hybrid agency

Analytical Domain	Core Question	What the Domain Captures	What It Does Not Assume	Relational Significance	Key Uncertainty
Relational Infrastructure	Through what relations is work accomplished?	Workplace ties, coordination, work design, interdependence	Relationships are supportive or equal	Establishes conditions of collective work	Which configurations matter across contexts
Hybrid Agency	How is participation in action distributed?	Recommendation, judgment, execution, monitoring, override	Humans and technologies possess equivalent agency	Shows distribution of action capacity	When redistribution changes influence or accountability
Contribution	What inputs materially shape work?	Ideas, expertise, effort, system outputs, joint inputs	Visible activity equals substantive contribution	Identifies sources of value creation	How joint contributions can be reconstructed
Recognition	How are contributions noticed and valued?	Visibility, attribution, acknowledgement, evaluation, influence	Recognition objectively reflects performance	Connects participation with status and influence	When visibility informs or distorts evaluation
Control and Governance	Who can direct, constrain, evaluate, or revise action?	Monitoring, permissions, scheduling, evaluation, reward, review	Control resides only with managers	Reveals distributed authority	Whether formal control matches enacted control
Responsibility Alignment	Who remains answerable for consequential action?	Fit among authority, information, intervention capacity, accountability	Nominal human oversight guarantees accountability	Proposed bridge between agency and control	How responsibility should be distributed
Relational Work System	How do the domains operate together?	Configuration linking relations, agency, recognition, and control	One configuration is universally superior	Proposed integrative construct	Whether cross-domain relationships hold empirically

Table note. The relational work system and responsibility-alignment elements are proposed conceptual components. The table distinguishes analytical domains rather than validated dimensions, stages, or performance criteria.

Recognition and contribution

A relational work system must explain not only who or what performs work but also how contributions become visible, attributed, valued, and consequential. Employee-voice research demonstrates that speaking up can affect social status partly through observers’ attribution of agency [14]. This matters for hybrid work because technological mediation can alter who appears to originate an idea, recommendation, or decision. Yet recognition is not a neutral reflection of objective contribution. Evidence shows that the social consequences of voice vary by voice type and speaker gender, including downstream implications for status and leader emergence [15]. Recognition is therefore socially interpreted and context dependent.

Attribution can also be reshaped. Research on amplification shows that public endorsement accompanied by attribution can change how contributors and amplifiers are evaluated [16]. In hybrid systems, analogous processes may arise when dashboards, AI interfaces, workflow records, or managerial narratives make some contributions visible while obscuring others. Extending that evidence to human–technology settings is a proposed theoretical move, not an established empirical

finding. The framework therefore introduces contribution traceability as the degree to which consequential inputs can be credibly connected to their human, technological, or joint sources when attribution matters for evaluation or accountability. It does not imply that every micro-contribution should be recorded; excessive tracing may intensify surveillance or strategic self-presentation.

Recognition also requires distinguishing expression from influence. Managers do not value all employee voice equally; voice content and its relationship to managerial concerns and interdependencies shape whether it is appraised as useful [17]. Formal permission to speak cannot therefore be treated as evidence of substantive power. Similarly, making a contribution observable does not establish that it influenced a decision, and algorithmically captured activity does not establish performance. The framework separates contribution, visibility, attribution, recognition, and consequential influence as analytically distinct processes. Their relationships may be moderated by status, gender, role, task, interface design, and organizational power. This distinction is particularly important when technologies summarize, rank, rewrite, or synthesize human inputs, because a final visible output can obscure preparatory work or collective contribution. Conversely, complete attribution may be neither feasible nor desirable when privacy, experimentation, or professional discretion should be protected.

Organizational control in relational systems

A relational perspective changes control from a property exercised by one managerial actor into a configuration of observation, evaluation, restriction, recommendation, reward, and sanction distributed through organizational relationships. Research on algorithmic control identifies ways digital systems can restrict, recommend, record, rate, replace, and reward work, demonstrating that control is multidimensional rather than reducible to surveillance [18]. Platform research similarly shows that algorithmic matching can coordinate transactions while intensifying tensions around work execution, compensation, and belonging [19]. These findings support treating coordination and control as intertwined, while platform-specific contractual and informational conditions limit direct transferability.

Work-design analysis provides a second bridge. Algorithmic management can participate in monitoring, goal setting, performance management, scheduling, compensation, and termination, thereby changing job resources and demands [20]. The relevant question is therefore not whether an algorithm is present but which managerial functions it performs, what discretion remains elsewhere, and how consequences are distributed. Formal autonomy may coexist with intense behavioral steering, just as automated scheduling can reduce coordination burdens while shifting responsibility for exceptions.

Control is also enacted rather than simply imposed. Comparative qualitative evidence from platform work shows that worker resistance and managerial control can develop recursively across different work stages [21]. The proposed framework extends this insight by treating contestability as distinct from resistance: contestability concerns whether consequential classifications, recommendations, restrictions, or evaluations can be questioned through meaningful organizational procedures. It is a proposed governance criterion rather than an established outcome predictor. This distinction prevents the existence of resistance from being mistaken for effective governance. Employees may improvise workarounds precisely because formal review is weak, whereas a contestable system would make challenge, explanation, correction, and escalation part of the recognized organizational process.

Table 2 develops the relational logic of the framework by showing how changes in one domain may propagate across agency, recognition, coordination, and control without presuming fixed causal effects.

Table 2. Relational pathways linking agency, contribution, recognition, and control

Relational Pathway	Triggering Condition	Proposed Process	Possible Organizational Implication	Competing Interpretation	Boundary Requiring Examination
Infrastructure → Agency	Roles or interdependencies change	Discretion and participation are redistributed	Some actors gain or lose practical influence	Task redesign may drive the change	Task complexity, occupational authority, capability
Agency → Contribution Visibility	Humans and technologies jointly produce outputs	Some inputs become visible while others are embedded	Credit and accountability may shift	Interface design may create apparent visibility	Task decomposition and traceability
Contribution → Recognition	Inputs become attributable	Contributions are compared, amplified, discounted, or ignored	Status and influence may shift	Existing hierarchy may dominate	Prior status, role expectations, power
Control → Agency	Monitoring, permissions, or override rules change	Action possibilities are enabled or narrowed	Formal autonomy may diverge from discretion	Managerial policy may be the main driver	Review rights, information access, dependence
Control → Recognition	Evaluation systems define what becomes legible	Recorded signals enter appraisal	Measured activity may become disproportionately consequential	Recorded behavior may poorly represent performance	Measurement validity, opacity, incentives

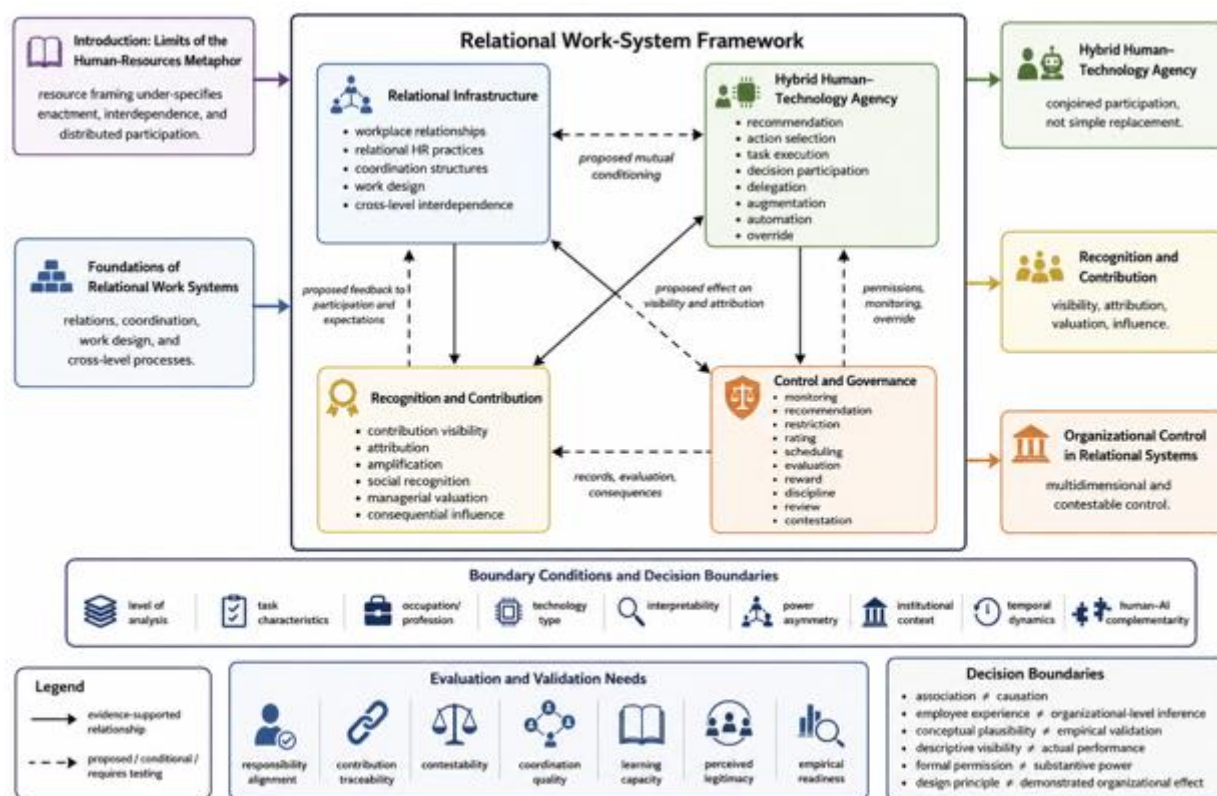
Recognition → Participation	Contributors experience acknowledgement or nonrecognition	Expectations about participation change	Voice, cooperation, or withholding may evolve	Workload or career incentives may explain behavior	Time, status, psychological safety
Agency ↔ Control	Technology performs consequential functions	Authority, monitoring, and intervention rights are configured together	Responsibility gaps may emerge	Formal governance may differ from enacted practice	Technology type, interpretability, override feasibility
Relational System → Learning	Human and technological roles stabilize	Some judgments remain practiced while others are delegated	Learning may expand, relocate, or narrow	Standardization or staffing may explain change	Time horizon, task variability, experience retention

Table note. These pathways are proposed relational mechanisms, not established causal sequences. Their direction, strength, temporal ordering, and consequences require empirical testing.

Proposed relational work-system framework

Recent organizational AI scholarship increasingly treats human-AI collaboration and algorithmic management as connected rather than isolated phenomena [22]. This integration still requires a clear account of authority because perceived AI agency can alter trust through different pathways rather than producing uniformly positive or negative responses [23]. Building on these literatures, the proposed Relational Work-System Framework organizes four domains: relational infrastructure, hybrid agency architecture, recognition and contribution, and control and governance. The framework is a theory-organizing device, not a validated causal sequence or universal organizational design.

Figure 1 presents the original conceptual synthesis for relational work-system framework, showing how the article's principal constructs, mechanisms, uncertainties, and decision boundaries are connected.



Note: This figure presents a conceptual framework. Relationships are schematic, not directional claims of magnitude, and require contextual specification and empirical testing.

Figure 1. Relational Work-System Framework.

The figure is an original conceptual synthesis developed for “From Human Resources to Relational Work Systems and Hybrid Agency.” Arrows and grouping indicate evidence-supported or proposed relationships rather than measured effect sizes. The figure does not represent a validated causal model, universal organizational prescription, regulatory determination, or deployment-ready system.

The framework proposes that relational infrastructure and hybrid agency mutually condition one another: work design and relationships shape where technological participation becomes feasible, while technological participation may reshape coordination and dependence. Hybrid agency is proposed to affect recognition by changing contribution visibility and

attribution. Control is proposed to configure hybrid agency through permissions, monitoring, and override rights and to influence recognition through the signals it records and evaluates. Recognition is in turn proposed to affect later participation as repeated attribution or nonrecognition changes expectations about whose contributions matter. These cross-domain arrows require direct empirical tests; the literature establishes their constituent domains more strongly than the complete pathways. Multilevel discipline is essential because individual responses to AI do not establish team- or organizational-level consequences [24]. Human-AI ensembles are also expected to be useful only under conditions such as complementarity rather than merely because human and machine judgments are combined [25]. A work-system account must therefore connect relational workplace structure, distributed human–technology agency, and control rather than treating each as an independent design choice [4, 11, 18]. The framework’s outer boundary includes task characteristics, occupation, technology type, interpretability, power asymmetry, institutional context, temporal dynamics, and level of analysis. These conditions are not residual controls added after the core theory. They determine whether the proposed links should be expected at all. For example, contribution traceability may matter greatly where outputs are jointly produced and individually evaluated, yet matter little where responsibility is intentionally collective. Likewise, override rights have different practical meaning when decisions unfold in milliseconds than when review can occur before consequences become irreversible.

A further proposed layer separates descriptive configuration from decision readiness. A system can be relationally coherent yet inappropriate because responsibility is misallocated, contribution cannot be reconstructed when necessary, or affected actors lack meaningful routes to contest consequential decisions. Responsibility alignment, contribution traceability, contestability, coordination quality, learning capacity, and perceived legitimacy are therefore treated as evaluative questions, not performance scores or certification thresholds.

Design principles

Design principles follow from the framework only as provisional decision criteria. First, organizations should make decision rights explicit. AI-era decision structures can distribute authority through delegation, sequential combinations, or aggregation under different task conditions [26]. Such structures should not be selected solely from technological accuracy because authority also determines who may override, escalate, or accept consequences. Second, trust should be calibrated rather than maximized. Research on human trust in AI shows substantial variation across system characteristics and study contexts [27]. High trust can therefore be inappropriate when capability is uncertain, while low trust can prevent useful reliance.

Third, hybrid work should be designed beyond the interface. Research on machines as teammates identifies artifact, collaboration, and institutional questions that extend beyond individual user acceptance [28]. Field experimentation with human-centered AI further indicates that outcomes can depend on work procedures, decision authority, training, incentives, and users’ cognitive preferences [29]. “Human-centered” should therefore not become a universal label detached from context. Work design, decision structure, and trust must be jointly specified rather than optimized independently [9, 26, 27].

The framework additionally proposes contribution traceability where attribution is consequential, contestability where algorithmic judgments materially affect work, responsibility alignment between action capacity and accountability, and learning preservation where automation reallocates human participation. These are questions for design and evaluation, not validated best practices. A design principle therefore becomes useful only when it identifies a decision that can be observed and challenged. “Keep humans involved,” for example, is too vague unless involvement specifies information access, timing, authority, competence, and consequences. The proposed principles are intended to force that specification while leaving open the possibility that different settings require different distributions of human and technological participation.

Table 3 translates the proposed framework into a set of falsifiable design questions that clarify organizational responsibility without presenting the framework as an implementation protocol.

Table 3. Design questions and evaluation boundaries for relational work systems

Design Challenge	Proposed Principle	Diagnostic Question	Organizational Responsibility	Evidence Needed	Condition That Would Challenge the Proposition	Readiness Boundary
Relational-System Fit	Configure technology with actual work interdependencies	Does the arrangement support dependencies required for the task?	Identify relevant relations before redesign	Multilevel comparison	Similar outcomes persist regardless of relational configuration	No universal configuration
Agency–Authority Congruence	Align action capacity with legitimate authority	Can the expected decision maker obtain information, intervene, and revise?	Make decision rights explicit	Comparative evidence across authority arrangements	Congruence adds no explanatory value	Capability alone is insufficient for authority
Contribution Traceability	Preserve attribution when it matters	Can consequential inputs be reconstructed without monitoring everything?	Define what must be attributable and why	Process evidence on attribution quality	Traceability produces no evaluative benefit	Avoid unnecessary surveillance

Contestable Control	Provide meaningful challenge routes	Can affected actors correct or escalate consequential outputs?	Ensure review has substantive power	Comparison of contestable and noncontestable arrangements	Review access does not alter correction or procedural quality	Nominal appeals do not establish contestability
Calibrated Reliance	Match reliance to demonstrated capability and uncertainty	Is reliance justified by evidence?	Communicate limits and preserve intervention capacity	Longitudinal evidence on reliance	Reliance remains unrelated to capability or uncertainty	High trust is not itself an objective
Learning Preservation	Evaluate what delegation changes in human practice	Which judgments cease to be practiced?	Monitor capability development with task outcomes	Longitudinal learning measures	Allocation produces no relevant learning change	Short-term efficiency is insufficient
Cross-Level Evaluation	Match evidence to the claimed level	Are individual responses being used for organizational conclusions?	Align measures with decision level	Individual, team, unit, and organizational evidence	Cross-level predictions fail when directly tested	Organization-level claims need organization-level evidence
Decision Readiness	Treat recommendations as conditional	What evidence would justify implementation, modification, or rejection?	Define success, failure, uncertainty, stopping conditions	Context-specific field evidence	Evidence contradicts the assumed mechanism	Plausibility alone does not establish readiness

Table note. Every principle and diagnostic question is proposed for empirical evaluation. The table establishes no validated threshold, universal best practice, causal effect, regulatory requirement, or deployment readiness.

Theoretical and practical implications

Theoretically, the framework moves analysis from resource possession toward relational configuration. This shift matters because substituting machine learning for human decision processes may alter the routines and experiential diversity through which organizations learn [30]. Hybrid agency therefore has a temporal dimension: an arrangement that appears efficient at one moment may change what humans practice, notice, or learn later. This possibility should be treated as a testable consequence rather than assumed deterioration. The framework also reframes recognition and control as constitutive of work-system design rather than downstream employee reactions.

Practically, organizations should treat implementation claims as hypotheses requiring bounded evaluation. Field research using explainable AI in semiconductor manufacturing illustrates how particular AI-supported processes can be examined in a defined operational setting [31]. Such evidence is valuable precisely because its scope is identifiable; it does not justify assuming equivalent effects in HR decisions, creative work, professional services, or other settings. Organizational responsibility therefore includes specifying the decision being supported, the relevant unit of analysis, alternatives, override procedures, attribution requirements, and outcomes that would count against the chosen configuration. This approach also changes how practical success should be interpreted. User satisfaction, task accuracy, adoption, perceived fairness, learning, coordination, and organizational performance are not interchangeable endpoints. Evidence for one outcome should not be silently converted into a claim about another, particularly when their time horizons and levels of analysis differ.

The automation-versus-augmentation question should remain conditional. Analytical work indicates that the preferred role of AI depends on complementarity and on how human capacity released by automation is reallocated [32]. Consequently, the framework rejects both automation-first and human-in-the-loop defaults. Testing its claims requires multilevel designs and field-based evaluation of human-AI configurations in bounded organizational settings [24, 29, 31]. Longitudinal research should examine whether agency allocations change learning and relationships; qualitative process studies should compare formal decision rights with enacted influence; and field experiments should manipulate bounded design components where feasible. These designs could support, refine, or reject the framework's propositions rather than treating conceptual coherence as validation.

Conclusion

This article proposes the Relational Work-System Framework as an alternative analytical lens for work that cannot be adequately understood through resource possession alone. Its central claim is not that human resources should disappear from organizational theory, but that contemporary work increasingly requires simultaneous attention to relational infrastructure,

hybrid human–technology agency, recognition and contribution, and control and governance. The framework makes these domains explicit and connects them through proposed, testable relationships.

Its contribution is conceptual and conditional. Relationality can enable coordination or reproduce hierarchy; technological participation can augment judgment or narrow discretion; visibility can support attribution or intensify surveillance; formal voice can coexist with limited influence; and human oversight can exist without meaningful authority. The proposed principles of agency–authority congruence, contribution traceability, contestability, relational-system fit, learning preservation, and cross-level evaluation are not validated prescriptions. They identify questions that empirical research should make observable. Progress depends on testing when these relationships hold, when rival explanations dominate, and when contextual boundaries reverse them. The framework is therefore most useful as a disciplined invitation to inquiry: it makes hidden allocations of dependence, influence, responsibility, and technological participation visible enough to be examined rather than presumed.

Acknowledgments: None

Conflict of interest: None

Financial support: None

Ethics statement: None

References

1. Delery JE, Roumpi D. Strategic human resource management, human capital and competitive advantage: Is the field going in circles? *Hum Resour Manag J.* 2017;27(1):1-21. doi:10.1111/1748-8583.12137
2. Boon C, Eckardt R, Lepak DP, Boselie P. Integrating strategic human capital and strategic human resource management. *Int J Hum Resour Manag.* 2018;29(1):34-67. doi:10.1080/09585192.2017.1380063
3. Keegan A, Bitterling I, Sylva H, Hoeksema L. Organizing the HRM function: Responses to paradoxes, variety, and dynamism. *Hum Resour Manage.* 2018;57(5):1111-26. doi:10.1002/hrm.21893
4. Bannya AR, Bainbridge HTJ, Chan-Serafin S. HR practices and work relationships: A 20 year review of relational HRM research. *Hum Resour Manage.* 2023;62(4):391-412. doi:10.1002/hrm.22151
5. Soltis SM, Methot JR, Gittell JH, Harris TB. Leveraging relational analytics in human resource research and practice. *Hum Resour Manage.* 2023;62(4):377-89. doi:10.1002/hrm.22172
6. Jo J, Chadwick C, Han JH. How the human resource (HR) function adds strategic value: A relational perspective of the HR function. *Hum Resour Manage.* 2024;63(1):5-23. doi:10.1002/hrm.22184
7. Li P, Qu Y, Li M, Downes PE, Wang G. The effects of relational human resource management: A moderated mediation model of positive affective climate and collective occupational calling. *Hum Resour Manage.* 2024;63(4):673-89. doi:10.1002/hrm.22222
8. Zhang Q, Gong H, Ouyang C, Han J, Saks AM. Building micro-foundations for positive workplace relationships: Validation of a strategic relational human resource management measure. *Hum Resour Manage.* 2025;64(3):793-810. doi:10.1002/hrm.22282
9. Parker SK, Grote G. Automation, algorithms, and beyond: Why work design matters more than ever in a digital world. *Appl Psychol.* 2022;71(4):1171-204. doi:10.1111/apps.12241
10. Faraj S, Pachidi S, Sayegh K. Working and organizing in the age of the learning algorithm. *Inf Organ.* 2018;28(1):62-70. doi:10.1016/j.infoandorg.2018.02.005
11. Murray A, Rhymer J, Sirmon DG. Humans and technology: Forms of conjoined agency in organizations. *Acad Manage Rev.* 2021;46(3):552-71. doi:10.5465/amr.2019.0186
12. Raisch S, Krakowski S. Artificial intelligence and management: The automation-augmentation paradox. *Acad Manage Rev.* 2021;46(1):192-210. doi:10.5465/amr.2018.0072
13. Anthony C, Bechky BA, Fayard AL. “Collaborating” with AI: Taking a system view to explore the future of work. *Organ Sci.* 2023;34(5):1672-94. doi:10.1287/orsc.2022.1651
14. Weiss M, Morrison EW. Speaking up and moving up: How voice can enhance employees’ social status. *J Organ Behav.* 2019;40(1):5-19. doi:10.1002/job.2262
15. McClean EJ, Martin SR, Emich KJ, Woodruff CT. The social consequences of voice: An examination of voice type and gender on status and subsequent leader emergence. *Acad Manage J.* 2018;61(5):1869-91. doi:10.5465/amj.2016.0148
16. Bain K, Kreps TA, Meikle NL, Tenney ER. Amplifying voice in organizations. *Acad Manage J.* 2021;64(4):1288-312. doi:10.5465/amj.2018.0621
17. Burris ER, Rockmann KW, Kimmons YS. The value of voice to managers: Employee identification and the content of voice. *Acad Manage J.* 2017;60(6):2099-125. doi:10.5465/amj.2014.0320

18. Kellogg KC, Valentine MA, Christin A. Algorithms at work: The new contested terrain of control. *Acad Manag Ann.* 2020;14(1):366-410. doi:10.5465/annals.2018.0174
19. Möhlmann M, Zalmanson L, Henfridsson O, Gregory RW. Algorithmic management of work on online labor platforms: When matching meets control. *MIS Q.* 2021;45(4):1999-2022. doi:10.25300/MISQ/2021/15333
20. Parent-Rochelleau X, Parker SK. Algorithms as work designers: How algorithmic management influences the design of jobs. *Hum Resour Manag Rev.* 2022;32(3):100838. doi:10.1016/j.hrmr.2021.100838
21. Cameron LD, Rahman H. Expanding the locus of resistance: Understanding the co-constitution of control and resistance in the gig economy. *Organ Sci.* 2022;33(1):38-58. doi:10.1287/orsc.2021.1557
22. Hillebrand L, Raisch S, Schad J. Managing with artificial intelligence: An integrative framework. *Acad Manag Ann.* 2025;19(1):343-75. doi:10.5465/annals.2022.0072
23. Vanneste BS, Puranam P. Artificial intelligence, trust, and perceptions of agency. *Acad Manage Rev.* 2025;50(4):726-44. doi:10.5465/amr.2022.0041
24. Bankins S, Ocampo AC, Marrone M, Restubog SLD, Woo SE. A multilevel review of artificial intelligence in organizations: Implications for organizational behavior research and practice. *J Organ Behav.* 2024;45(2):159-82. doi:10.1002/job.2735
25. Choudhary V, Marchetti A, Shrestha YR, Puranam P. Human-AI ensembles: When can they work? *J Manage.* 2025;51(2):536-69. doi:10.1177/01492063231194968
26. Shrestha YR, Ben-Menahem SM, von Krogh G. Organizational decision-making structures in the age of artificial intelligence. *Calif Manage Rev.* 2019;61(4):66-83. doi:10.1177/0008125619862257
27. Glikson E, Woolley AW. Human trust in artificial intelligence: Review of empirical research. *Acad Manag Ann.* 2020;14(2):627-60. doi:10.5465/annals.2018.0057
28. Seeber I, Bittner E, Briggs RO, de Vreede T, de Vreede GJ, Elkins A, et al. Machines as teammates: A research agenda on AI in team collaboration. *Inf Manag.* 2020;57(2):103174. doi:10.1016/j.im.2019.103174
29. Krakowski S, Haftor D, Luger J, Pashkevich N, Raisch S. Human-centered artificial intelligence: A field experiment. *Manage Sci.* 2025;72(1):57-72. doi:10.1287/mnsc.2022.03849
30. Balasubramanian N, Ye Y, Xu M. Substituting human decision-making with machine learning: Implications for organizational learning. *Acad Manage Rev.* 2022;47(3):448-65. doi:10.5465/amr.2019.0470
31. Senoner J, Netland T, Feuerriegel S. Using explainable artificial intelligence to improve process quality: Evidence from semiconductor manufacturing. *Manage Sci.* 2022;68(8):5704-23. doi:10.1287/mnsc.2021.4190
32. Fügner A, Walzner DD, Gupta A. Roles of artificial intelligence in collaboration with humans: Automation, augmentation, and the future of work. *Manage Sci.* 2025;72(1):538-57. doi:10.1287/mnsc.2024.05684