

ARTICLE

Human leadership in hybrid organizations: a theoretical framework for trust, communication, and belonging in AI-mediated environments

Liderança humana em organizações híbridas: um quadro teórico sobre confiança, comunicação e pertencimento em ambientes mediados por inteligência artificial

Liderazgo humano en organizaciones híbridas: un marco teórico sobre confianza, comunicación y pertenencia en entornos mediados por inteligencia artificial

Elaine Cristina de Oliveira Rocha¹

¹ Centro Universitário das Américas (FAM), São Paulo, SP, Brasil. ORCID: <https://orcid.org/0000-0003-2150-1931>

SUBMITTED	ACCEPTED	PUBLISHED	DOI
15/03/2025	28/10/2025	05/12/2025	in process

ABSTRACT

Hybrid organizations combine face-to-face interaction, remote work, and increasing mediation by intelligent systems, and this combination changes the processes through which workers build trust, identity, and belonging. This article develops a theoretical framework on the functions of human leadership in environments mediated by artificial intelligence. It adopts a theoretical-integrative approach that articulates relational leadership, organizational trust, social presence, organizational identification, and human-technology interaction, drawing on established literature from journals such as *The Leadership Quarterly*, *Journal of Applied Psychology*, and *Academy of Management Review*, alongside managerial contributions discussed in outlets such as *Harvard Business Review*. As a result, four central leadership functions are proposed: producing meaning in the face of technological change, preserving spaces for listening and recognition, calibrating trust in intelligent systems, and rebuilding bonds among dispersed workers. The model indicates that excessive automation of communication tends to reduce perceived authenticity, attributed

benevolence, and psychological safety, whereas transparency, dialogue, and participation foster trust and belonging. The article also discusses the organizational conditions that sustain or limit these functions, including coherence between institutional discourse and practice, governance of artificial intelligence, and people management policies. It concludes that contemporary leadership should not compete with artificial intelligence, but should clearly define which relationships, judgments, and responsibilities must remain substantively human, lest organizations convert technological efficiency into social fragmentation.

Keywords: leadership; hybrid work; trust; belonging; artificial intelligence.

RESUMEN

Las organizaciones híbridas combinan interacción presencial, trabajo remoto y una mediación creciente mediante sistemas inteligentes, y esa combinación modifica los procesos por los cuales los trabajadores construyen confianza, identidad y pertenencia. Este artículo desarrolla un marco teórico sobre las funciones del liderazgo humano en entornos mediados por inteligencia artificial. Se adopta un enfoque teórico-integrador que articula liderazgo relacional, confianza organizacional, presencia social, identificación organizacional e interacción entre personas y tecnología, con apoyo en literatura consolidada de revistas como *The Leadership Quarterly*, *Journal of Applied Psychology* y *Academy of Management Review*. Como resultado, se proponen cuatro funciones centrales del liderazgo: producir sentido ante el cambio tecnológico, preservar espacios de escucha y reconocimiento, calibrar la confianza en los sistemas inteligentes y reconstruir vínculos entre trabajadores dispersos. El modelo indica que la automatización excesiva de la comunicación tiende a reducir la autenticidad percibida, la benevolencia atribuida al liderazgo y la seguridad psicológica, mientras que la transparencia, el diálogo y la participación favorecen la confianza y la pertenencia. Se discuten además las condiciones organizacionales que sostienen o limitan estas funciones, entre ellas la coherencia entre el discurso institucional y la práctica, la gobernanza de la inteligencia artificial y las políticas de gestión de personas. Se concluye que el liderazgo contemporáneo no debe competir con la inteligencia artificial, sino definir con claridad qué relaciones, juicios y responsabilidades deben permanecer sustancialmente humanos, so pena de que las organizaciones conviertan la eficiencia tecnológica en fragmentación social.

Palabras clave: liderazgo; trabajo híbrido; confianza; pertenencia; inteligencia artificial.

INTRODUCTION

Contemporary work is undergoing a transformation that goes well beyond the adoption of new tools. It involves the reorganization of the very spaces in which people meet, decide, evaluate, and are evaluated. Two changes converge to produce this picture. The first is the consolidation of hybrid arrangements, in which part of working time takes place in physical offices and part takes place remotely, with varying degrees of synchrony among members of the same team (Gajendran & Harrison, 2007; Wang, Liu, Qian, & Parker, 2021). The second is the increasingly broad incorporation of artificial intelligence systems into people-management processes, from résumé screening to task distribution, including productivity measurement and the automated generation of internal communications (Jarrahi, 2018; Parent-Rocheleau & Parker, 2022).

These two transformations do not advance independently. They combine to produce a type of organization in which physical proximity is no longer guaranteed and, at the same time, part of communication and evaluation comes to be mediated by automated systems. We call this configuration a hybrid organization mediated by artificial intelligence: an environment in which face-to-face interaction, remote work, and the algorithmic automation of managerial routines coexist and overlap (Cascio & Montealegre, 2016).

Even before the acceleration brought about by the covid-19 pandemic, the literature on remote work already indicated that physical distance imposes relational costs that are not fully offset by gains in flexibility and autonomy (Bailey & Kurland, 2002; Golden, Veiga, & Dino, 2008). Gajendran and Harrison (2007), in a widely cited meta-analysis, showed that telework is associated with greater perceived autonomy and lower work-family conflict, but also with lower-quality relationships with colleagues when the intensity of remote work exceeds a certain threshold. This finding is relevant because it suggests that the effects of distance on relational quality are not linear: there is a point beyond which the costs of coordination and social connection outweigh the benefits of flexibility.

Physical dispersion is now compounded by algorithmic mediation. Artificial intelligence systems not only store information about workers' performance; they also produce recommendations, classifications, and, in some cases, automated decisions about task allocation, variable pay, and dismissal (Kellogg, Valentine, & Christin, 2020). Kellogg, Valentine, and Christin (2020) describe this phenomenon as algorithmic control, a set of mechanisms of restriction, reward, surveillance, and discipline exercised through software platforms, often without workers fully understanding the criteria that guide the decisions affecting them. When this control overlaps

with the physical distance typical of hybrid work, the experience of working can become simultaneously less face-to-face and less legible, in the sense that the rules determining rewards and punishments lose transparency.

Given this scenario, it is worth asking what is left for human leadership. If algorithms can schedule shifts, calculate targets, flag productivity deviations, and even draft feedback messages, what specific contribution can a flesh-and-blood leader make? The answer proposed in this article is that human leadership does not compete with artificial intelligence in performing information-processing tasks, in which systems tend to be faster and more consistent. Leadership's contribution lies on a different plane: that of producing meaning, sustaining trust, preserving psychological safety, and maintaining belonging — dimensions that depend on contextual judgment, emotional reciprocity, and accountability, attributes that current artificial intelligence systems do not satisfactorily replicate (Edmondson, 1999; Mayer, Davis, & Schoorman, 1995; Kahn, 1990).

The question guiding this investigation can be formulated as follows: what are the essential functions of human leadership in mediating hybrid environments affected by artificial intelligence, so as to preserve trust, authentic communication, and organizational belonging? The general objective of the article is to develop an integrative theoretical framework that articulates relational leadership, organizational trust, social presence, organizational identification, and human-technology interaction, and that translates this articulation into leadership functions capable of guiding both managerial practice and future empirical research.

Three specific objectives follow from this purpose. The first is to systematize, drawing on established literature, the mechanisms by which the automation of communication and performance evaluation affects workers' trust, psychological safety, and belonging. The second is to propose a set of leadership functions that respond to these mechanisms, avoiding both generic discourse about the importance of leadership and indiscriminate rejection of technology. The third is to discuss the organizational conditions, beyond the leader's individual competencies, that make these functions feasible or hollow them out in practice.

The relevance of this theme stems from an observable gap in the management literature. Much of the research on artificial intelligence at work focuses on its effects on productivity, employment, and technical skills (Brynjolfsson & McAfee, 2014; Frank et al., 2019), while the literature on relational leadership and organizational trust, although robust, was largely

developed before the widespread diffusion of large-scale algorithmic management systems (Uhl-Bien, 2006; Mayer et al., 1995). There is, therefore, room for a synthesis that brings these two traditions closer together and that specifically examines the role of leadership when part of people management comes to be exercised, even if only partially, by automated systems. This article seeks to fill that gap through a theoretical-integrative review, rather than original empirical research, which imposes limits that will be discussed in the concluding remarks.

The text is organized into five sections beyond this introduction. The second section presents the theoretical framework, structured around five axes: relational leadership and social presence; organizational trust and psychological safety; identification and belonging in distributed networks; automation of communication and algorithmic control; and procedural justice in decisions mediated by artificial intelligence. The third section describes the methodological path adopted in constructing the theoretical framework. The fourth section presents the results, organized around four central functions of human leadership, followed by a discussion of the organizational conditions that sustain these functions and of the implications for people-management policies. The fifth section offers the concluding remarks, including limitations and a research agenda.

THEORETICAL FRAMEWORK

Relational leadership and social presence in hybrid environments

The relational perspective on leadership shifts the focus of analysis away from the leader's individual traits and toward the social processes through which leadership is constructed in day-to-day interaction between people (Uhl-Bien, 2006). In this tradition, leadership is not the property of an individual but an emergent outcome of shared practices, the negotiation of meaning, and mutual coordination between leaders and followers. This view contrasts with approaches focused exclusively on styles or traits, and it helps explain why the quality of leadership in hybrid contexts depends both on individual competencies and on structural conditions that enable or constrain interaction.

A related construct, and one equally relevant to this article, is authentic leadership and servant leadership, which emphasize coherence between discourse and action, self-awareness, and orientation toward the development of followers (Avolio & Gardner, 2005; Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008). Avolio and Gardner (2005) describe

authentic leadership in terms of four components: self-awareness, balanced processing of information, relational transparency, and an internalized moral perspective. In technology-mediated environments, these components gain importance because a considerable share of the cues that normally sustain the perception of authenticity, such as facial expression, tone of voice, and body posture, is attenuated or eliminated when interaction takes place via text or through automated systems.

The concept of social presence offers a complementary analytical lens. Short, Williams, and Christie (1976) defined social presence as the degree to which a communication medium allows interlocutors to perceive one another as real people, and not merely as sources of information. Later studies, such as Gunawardena and Zittle (1997), associated greater social presence with greater satisfaction in computer-mediated communication environments. The hypothesis underlying this article is that social presence tends to decline as the proportion of interactions replaced by automated reports, dashboards, and messages generated by artificial intelligence systems increases, even if the amount of information exchanged remains constant or even grows. Quantity of information and quality of relational presence are not the same thing, and this distinction is central to the argument of this article: hybrid work mediated by artificial intelligence can increase the volume of data available about a team while simultaneously reducing the degree to which members of that team feel recognized as people.

Organizational trust and psychological safety

Mayer, Davis, and Schoorman (1995) proposed an integrative model of trust that has become a reference point in the organizational behavior literature. According to these authors, one person's trust in another depends on three perceived dimensions: ability (recognized technical competence), benevolence (the belief that the other party cares about the trustor's well-being, beyond its own interests), and integrity (adherence to principles the trustor considers acceptable). In this model, trust is always relational and situated: one trusts someone for a given domain, not in a generic and absolute sense.

This model is useful for understanding why the introduction of intensive monitoring systems tends to erode trust, even when it increases the organization's perceived ability in terms of efficiency. When performance tracking comes to rely on digital activity metrics, such as keystroke logging, active screen time, or message frequency, perceived benevolence tends to decline, because these indicators communicate that the worker is treated

primarily as a source of productivity data rather than as a person whose well-being matters to the organization (Ravid, Tomczak, White, & Behrend, 2020). Integrity, too, can be called into question when evaluation criteria are not explained or when they change without notice.

Psychological safety, a concept developed by Edmondson (1999), refers to the shared belief, at the team level, that it is safe to take interpersonal risks, such as voicing doubts, admitting mistakes, or disagreeing with a decision, without fear of punishment or humiliation. Edmondson showed that teams with higher psychological safety report more errors, which may seem counterintuitive but in fact indicates a greater willingness to identify and correct problems before they worsen. In hybrid environments, psychological safety depends crucially on interactions of sufficient quality for team members to test, over time, whether it is safe to expose themselves. Automating communication channels and replacing conversations with standardized notifications reduce the opportunities for this kind of social testing, which can keep psychological safety at a low level simply for lack of accumulated evidence that the environment is safe.

Organizational identification and belonging in distributed networks

Organizational identification refers to the degree to which an individual defines themselves in terms of their membership in an organization, incorporating that organization's fate into their own sense of identity (Ashforth & Mael, 1989). This identification is related to, but not identical with, the need to belong described by Baumeister and Leary (1995) as a fundamental human motivation, characterized by the pursuit of frequent, positive, and stable interpersonal relationships. Kahn (1990), in an influential qualitative study of work engagement, showed that a worker's willingness to express themselves and invest energy in their tasks depends on three psychological conditions: meaningfulness, safety, and availability. Kahn's condition of safety is close to the concept later formalized by Edmondson, and both depend on relationships sustained over time.

In hybrid structures, the absence of continuous physical coexistence reduces the frequency of informal socialization rituals, such as hallway conversations, shared lunches, and non-verbal signs of recognition, which historically sustained part of organizational identification (Nardi & Whittaker, 2002). This does not mean that belonging is impossible in hybrid environments, but it indicates that it ceases to be an automatic byproduct of physical co-presence and comes to depend on deliberate practices of connection. The introduction of task-allocation and evaluation systems based

on standardized metrics can aggravate this situation when it treats workers as interchangeable units of productive capacity, without regard for individual trajectories, which is incompatible with the logic of personal recognition that underpins identification (Colbert, Yee, & George, 2016).

Automation of communication and algorithmic control

The literature on human-computer interaction and the sociology of digital work documents how the automation of communication flows, through corporate chatbots, HR assistants, and automated feedback-generation systems, reduces operational costs while eliminating spontaneous micro-interactions relevant to social cohesion (Jarrahi, 2018; Dourish, 2004). Kellogg, Valentine, and Christin (2020) describe six mechanisms of algorithmic control in platform work, which can be adapted to the context of more traditional hybrid organizations: restricting choices through interfaces that limit available options, recommending actions deemed optimal by the system, continuous performance evaluation, automated discipline through penalties, reward conditioned on metrics, and, finally, the replacement of tasks previously performed by human supervisors.

When performance feedback is delivered directly by an automated system, without qualified human mediation, workers tend to experience a sense of depersonalization, a state in which they feel treated as an object of measurement rather than as a subject in a work relationship (Newman, Fast, & Harmon, 2020). Newman, Fast, and Harmon (2020) showed, in experimental studies, that people-management decisions attributed to algorithms, even when identical in content to decisions attributed to humans, tend to be perceived as less fair when they involve dimensions considered more subjective or dependent on human judgment, such as dismissals or qualitative performance evaluations. This finding suggests that resistance to algorithmic decisions does not stem solely from the technical quality of the system, but from a normative expectation about which kinds of decisions should remain under human responsibility.

Procedural justice and the legitimacy of decisions mediated by artificial intelligence

Colquitt (2001) systematized the construct of organizational justice into four dimensions: distributive, procedural, interpersonal, and informational. Procedural justice refers to the perception that the processes used to reach a decision are consistent, unbiased, accurate, and correctable. This dimension is particularly sensitive to the introduction of artificial intelligence systems into people-management decisions, because many of

these systems operate as black boxes, in the sense described by Pasquale (2015): their internal criteria are not fully accessible even to the managers who use them.

Lee and See (2004) developed the concept of trust calibration in automated systems, arguing that the central problem is not trusting a system more or less, but adjusting the degree of trust to the system's actual capability in each context of use. Excessive trust leads to the uncritical acceptance of erroneous recommendations; insufficient trust leads to the rejection of correct recommendations and wastes the tool's potential. This distinction is central to the theoretical framework proposed in this article, because it shifts the debate away from a binary choice between accepting or rejecting artificial intelligence and toward an ongoing practice of verification and adjustment, one that requires human judgment situated in context.

Finally, the literature on technostress contributes to understanding the psychological costs of the digital intensification of work. Tarafdar, Tu, Ragu-Nathan, and Ragu-Nathan (2007) define technostress as the stress experienced by end users of information technologies, associated with overload, invasion of personal life, complexity, and job insecurity in the face of automation. In hybrid organizations, constant notifications, successive virtual meetings, and the expectation of immediate response reduce the capacity for concentration and heighten the risk of burnout. Leadership that ignores this psychosocial dimension tends to normalize patterns of hyperconnectivity that, in the medium term, undermine both well-being and team performance (Harms, Credé, Tynan, Leon, & Jeung, 2017).

METHODOLOGICAL APPROACH

This study is characterized as theoretical research of an integrative nature, following the criteria described by Torraco (2016) for reviews that seek to synthesize literatures from distinct disciplinary fields around a common problem. Unlike a systematic review aimed at exhaustively summarizing empirical evidence on a narrow question, an integrative review admits the critical articulation of concepts drawn from diverse theoretical traditions, with the explicit purpose of generating a new conceptual framework (Torraco, 2016; Snyder, 2019).

The development of the theoretical framework followed four sequential stages. In the first stage, gap mapping, we identified, within the literature on leadership, remote work, and artificial intelligence at work, points of overlap between these three areas that remain underexplored, with special

attention to studies published between 2015 and 2024 in journals indexed in the Web of Science, Scopus, and SciELO databases, complemented by seminal works predating that period when foundational to the constructs used, such as Mayer et al. (1995), Edmondson (1999), Ashforth and Mael (1989), and Baumeister and Leary (1995).

In the second stage, construction of the matrix of analytical axes, the central constructs were systematically cross-referenced: relational leadership (Uhl-Bien, 2006), organizational trust (Mayer et al., 1995), psychological safety (Edmondson, 1999), social presence (Short et al., 1976), organizational identification (Ashforth & Mael, 1989), and algorithmic control (Kellogg et al., 2020). This cross-referencing made it possible to identify conceptual convergences, for example between Mayer et al.'s notion of benevolence and the active listening emphasized by dialogic leadership, as well as tensions, such as that between algorithmic efficiency and perceived procedural justice.

In the third stage, critical analysis and conceptual synthesis, we assessed how replacing human interactions with technological mediation simultaneously affects authenticity, trust, and belonging, which made it possible to formulate integrated constructs, among them this article's central proposition that the differential contribution of human leadership in hybrid environments mediated by artificial intelligence lies in functions that depend on contextual judgment and emotional reciprocity, rather than on information-processing tasks.

In the fourth stage, formulation of the propositional theoretical framework, the four central leadership functions were structured on the basis of the synthesis from the previous stages, seeking a level of abstraction sufficient to guide both theoretical interpretation and the formulation of empirically testable propositions, presented in the fourth section of this article.

As a methodological limitation, it is important to note that the selection of literature, although it prioritized peer-reviewed sources and high-impact journals in the field of organizational behavior, did not follow a systematic search protocol with pre-registered inclusion and exclusion criteria, as a systematic review in the strict sense would require. This choice is consistent with the integrative and propositional nature of the study, but it implies that the theoretical framework presented here should be read as a proposal to be tested, not as an exhaustive synthesis of all available evidence on the topic.

RESULTS AND DISCUSSION: THE FOUR CENTRAL FUNCTIONS OF HUMAN LEADERSHIP

The articulation of relational leadership, the sociology of work, and studies of artificial intelligence in organizational settings makes it possible to structure a model composed of four central functions of human leadership in technology-mediated hybrid organizations. These functions are neither sequential steps nor isolated competencies; they operate simultaneously and reinforce one another, even though, for the sake of expository clarity, they are presented separately below.

Function 1: producing meaning in the face of technological change

The first function is the production of meaning, or sensemaking, a concept developed by Weick (1995) to describe the process by which individuals and groups retrospectively interpret ambiguous events, assigning them coherent meaning that guides future action. During periods of accelerated introduction of intelligent systems, workers frequently face ambiguity about the future of their roles, about the criteria that will come to guide their evaluation, and about the extent to which technology will replace or support their work. When left unaddressed, this ambiguity tends to be filled by informal interpretations, often more anxious than the actual situation would warrant.

In this context, leadership acts as an institutional interpreter. This means translating strategic directives on automation into concrete explanations of what changes, what stays the same, and why. Weick, Sutcliffe, and Obstfeld (2005) argue that organizational sensemaking is fundamentally social: it occurs through conversations, shared narratives, and negotiated interpretations among team members, not only through formal top-down communications. This implies that the sensemaking function is not fulfilled by a single announcement about the adoption of a particular artificial intelligence tool; it requires ongoing space for questions, adjustments to understanding, and revision of expectations as implementation proceeds and real problems emerge.

A common error observed in digital transformation processes is excessively generic communication, which announces efficiency gains without specifying concrete consequences for roles, routines, and evaluation criteria. Vague communication tends to amplify uncertainty rather than reduce it, because it leaves people to imagine scenarios, often without sufficient information. Effective sensemaking is specific: it explains which tasks will be supported

by automated systems, which decisions remain under human responsibility, and which criteria guide that division.

Function 2: preserving spaces for listening, empathy, and recognition

The second function consists of deliberately preserving relational spaces devoted to listening and individualized recognition. While algorithmic systems evaluate employees through quantitative performance metrics, it falls to human leadership to perceive each person's biographical, emotional, and social context, something no dashboard captures satisfactorily. This function connects directly to Mayer et al.'s (1995) concept of benevolence: when a leader demonstrates, through regular one-on-one conversations, that they care about the person beyond their immediate productivity, perceived benevolence tends to increase, which strengthens trust in the relationship.

The practice of structured individual conversations, of the one-on-one type, is supported by research on continuous performance management, which shows an association between frequent, informal feedback and greater engagement, in contrast to infrequent annual evaluation systems perceived as bureaucratic (Pulakos, Mueller-Hanson, & Arad, 2019). These conversations fulfil a function that automation does not replace: they allow workers to tell their own version of events, contextualize difficulties, and receive specific recognition for contributions that standardized metrics do not capture, such as supporting colleagues or willingness to take on unplanned tasks.

Preserving these spaces, however, requires more than an individual manager's good will. It depends on protected time in the calendar, on an organizational culture that does not penalize time devoted to conversations without an immediately measurable output, and on training so that leaders conduct these conversations effectively rather than merely ritualistically. Without these conditions, the listening function risks becoming performative — a meeting marked on the calendar with no substantive relational content.

Function 3: critical calibration of trust in intelligent systems

The third function concerns trust calibration, a concept from Lee and See (2004), applied to the everyday use of artificial intelligence systems in managerial routines. Workers and managers tend to oscillate between two problematic extremes: generalized distrust, which discards potentially useful tools, and excessive trust, which accepts algorithmic recommendations without verification, even when the results are implausible or biased.

Here, leadership plays a role of critical mediation. This involves guiding the team to treat the outputs of artificial intelligence systems as analytical inputs subject to verification, not as definitive verdicts. It also involves developing what recent literature calls algorithmic literacy, that is, the capacity to understand, in general terms, how a system arrives at a given result, which data feed it, and in which situations it tends to err (Long & Magerko, 2020). This does not require the leader to be a technical expert in machine learning, but it does require sufficient familiarity to ask the right questions: what data were used to train the system, how often the outputs are audited, and what mechanism exists for challenging a recommendation considered mistaken.

Trust calibration also has a dimension of team protection. When a task-allocation or performance-evaluation system systematically produces results unfavorable to a particular type of worker, for example people whose schedules are fragmented by caregiving responsibilities, it falls to leadership to identify this pattern and question the tool, rather than automatically applying its recommendations (Eubanks, 2018; Raghavan, Barocas, Kleinberg, & Levy, 2020). This vigilance requires time, institutional authority, and formal channels for contestation, elements that will be revisited in the discussion of organizational conditions.

Function 4: rebuilding social bonds among dispersed workers

The fourth function encompasses the active rebuilding of social bonds in teams fragmented by the hybrid modality. The spontaneity of daily face-to-face encounters, which historically sustained much of team cohesion without requiring deliberate effort, is not available with the same intensity when part of the team works remotely. This does not mean that cohesion becomes impossible, but that it comes to depend on intentional design (Nardi & Whittaker, 2002; Kniffin et al., 2021).

Connection rituals, such as regular meetings without a strictly operational agenda, planned in-person gatherings with a clear social purpose, and informal practices of sharing experiences, fulfil a function equivalent to that once performed by spontaneous hallway interactions. Research on virtual teams shows that the quality of coordination and trust among dispersed members depends on initial investment in mutual knowledge and on its continuous maintenance over time, not merely on efficient communication tools (Gilson, Maynard, Jones Young, Vartiainen, & Hakonen, 2015).

An important point of attention, also discussed in section 4.9, is that rebuilding bonds must not turn into an overload of meetings. Excessive

mandatory socialization events tend to produce fatigue, especially when added to an already intense schedule of operational meetings. The bond-rebuilding function is effective when practices have a clear purpose, adequate frequency, and respect participants' autonomy over how to engage.

Taken together, these four functions indicate that leadership in hybrid organizations mediated by artificial intelligence cannot be exercised through purely instrumental commands. Managerial effectiveness depends on the capacity to balance the efficiency gains afforded by technology with the preservation of relationships that sustain trust, psychological safety, and belonging.

Practical implications for people management and organizational design

The four functions described have direct implications for the design of leadership-development programs. A recurring mistake in digital transformation processes is to assume that technology replaces relational managerial competencies, when in fact it makes them more necessary, even if exercised differently. Leadership training programs need to incorporate, in balanced fashion, relational competencies, such as active listening and emotional intelligence, and technical competencies, such as a basic understanding of how the artificial intelligence systems used in the organization work. The traditional divide between "soft skills" training and technical training no longer adequately reflects the demands of leadership roles in hybrid environments.

Organizational conditions for human leadership in hybrid environments

The four proposed functions depend on organizational conditions that go beyond the leader's individual competencies. Communication policies, work design, evaluation criteria, and the degree of managerial autonomy either favor or limit relational engagement. When an organization demands constant availability, measures performance mainly through digital presence, and uses metrics whose criteria are not explained, the leader finds little room to protect the team or contextualize unfavorable results. Responsibility for humanizing work, therefore, cannot rest exclusively on the immediate supervisor; it is shared with senior management, which sets the rules of the game within which the leader operates.

Coherence between discourse and practice is decisive for trust. Institutional communications about well-being lose credibility when they coexist with intensive digital surveillance, targets incompatible with actual working

hours, or the absence of channels for contestation. A leader can explain unpopular decisions and still retain a certain degree of team trust, but cannot indefinitely compensate for organizational structures perceived as unjust. Trust, in this sense, results from the combination of interpersonal relationships and organizational procedures, not from either one alone.

The design of hybrid work also influences belonging. Teams need clear criteria regarding expected presence, availability, meeting conduct, and the recording of decisions. When left unregulated, informality tends to benefit workers physically closer to leadership and to exclude those participating remotely, a phenomenon sometimes called proximity bias (Choudhury, 2020). Practices such as written records of decisions made in meetings, alternating schedules to accommodate different time zones and routines, deliberate facilitation of hybrid meetings, and equal access to information reduce these asymmetries.

The use of artificial intelligence must be accompanied by adequate governance. Systems for evaluation, recruitment, or task allocation need identifiable owners, must undergo bias testing, must offer understandable explanations of their criteria, and must be subject to formal review mechanisms. The leader acts as a critical user and mediator of these tools, but the effectiveness of that mediation depends on the organization ensuring access to sufficient information and real authority to challenge results deemed inadequate.

Organizational justice and the legitimacy of decisions mediated by artificial intelligence

Trust in hybrid environments does not depend solely on the quality of the relationship between leader and follower; it is also shaped by the perception that the procedures adopted by the organization as a whole are consistent, unbiased, and open to review (Colquitt, 2001). When intelligent systems participate in performance evaluation, task distribution, or the selection of career opportunities, leadership needs to explain how these outcomes are produced and what limits govern their use. The absence of such explanation favors the interpretation that automated metrics have entirely replaced professional criteria and relationships of recognition, which tends to erode both trust and engagement.

Procedural justice involves the concrete possibility of presenting arguments, correcting inaccurate data, and requesting the reassessment of a decision. A worker may regard an unfavorable decision as legitimate when they understand the criteria used and perceive that they had a genuine

opportunity to be heard before or after the decision. In contrast, technically efficient decisions tend to be rejected when communicated as indisputable determinations of a system, with no room for questioning (Newman et al., 2020). In this context, human leadership functions as a guarantee that the decision-making process does not end with the algorithmic recommendation, and that relevant contextual factors remain visible and open to consideration.

This function requires real institutional autonomy. A leader cannot correct injustices when they are unfamiliar with how the tools in use work, or when organizational policy discourages questioning systems presented as neutral and infallible. Governance policies must ensure access to sufficient information about the systems in use, formal recording of the human interventions carried out, and explicit authority to halt uses deemed inappropriate. The legitimacy of leadership in this domain depends on the correspondence between the responsibility assigned to it and the resources actually available for exercising it.

Communicating sensitive decisions must also preserve the dignity of those involved. Information about performance, promotion, or dismissal should not be delivered exclusively by automated systems, even when those systems generated part of the underlying analysis. Human mediation makes it possible to explain reasons with nuance, acknowledge the trajectory of the person involved, and discuss future possibilities in ways that a standardized text cannot achieve. This practice does not eliminate the conflict inherent in unfavorable decisions, but it reduces the sense of institutional abandonment and demonstrates that the organization takes responsibility for the consequences of its choices.

Belonging, inclusion, and inequalities in hybrid work

Hybrid work broadens flexibility for many workers, but it can also create or deepen inequalities. People who attend the physical workplace more frequently tend to take part more in informal interactions, to receive information earlier, and to become more visible to leadership. Meanwhile, people who work remotely for reasons of family, health, mobility, or geographic location may be mistakenly perceived as less engaged, even when their performance is equivalent or superior (Choudhury, Foroughi, & Larson, 2021). Leadership needs to recognize this proximity bias and build deliberate mechanisms that distribute opportunities more evenly between those who are physically present and those who are not.

Hybrid meetings illustrate this challenge well. In-person participants share non-verbal cues and side conversations before and after the formal meeting, while remote participants depend entirely on audio quality, the facilitator's attention, and equitable access to the materials discussed. Without deliberate design, the hybrid format reproduces an implicit hierarchy between those who are in the room and those who appear only on screen. Practices such as alternating facilitators between in-person and remote settings, keeping written records of decisions accessible to everyone, and explicitly inviting remote participants to speak reduce this asymmetry, although they require conscious and ongoing effort on the part of whoever leads the meeting.

Inclusion in hybrid environments also involves differences in digital literacy, accessibility, and home working conditions. Organizations cannot assume that all workers have a quiet environment, a stable internet connection, or equivalent familiarity with the tools in use. Leaders need to identify these barriers without turning structural difficulties into moral judgments about a person's commitment. Technical support, flexible scheduling, and alternative modes of participation broaden the real possibility of belonging for workers in diverse situations.

Monitoring systems can worsen these inequalities when they treat digital activity indicators as valid substitutes for actual contribution. Time spent connected, response speed to messages, and communication frequency vary according to the role performed, individual cognitive style, and each worker's personal context, without this variation necessarily corresponding to differences in commitment or delivered results. A responsible evaluation practice combines quantitative evidence of activity with qualitative assessment of outcomes, collaboration, and the quality of work delivered, resisting the temptation to treat constant digital visibility as synonymous with dedication.

Developing leaders for technology-mediated environments

Traditional managerial-training programs tend to emphasize communication, delegation, and conflict management, but rarely address, in a systematic way, how the intelligent systems used within the organization itself function and what impact they have. Leadership in hybrid organizations requires a kind of critical technological literacy that does not mean mastering programming or data science, but understanding, in terms sufficient for managerial practice, how data, metrics, and models influence decisions,

recognizing the limitations of these systems, and asking the right questions when something seems wrong.

Leadership development should deliberately integrate relational and digital competencies, rather than treating them as separate development tracks. Case studies that expose real situations in which artificial intelligence systems produced results that seemed plausible at first glance but were inadequate for the specific context help develop the productive skepticism needed for the trust-calibration function. Simulations that exercise the communication of organizational change, responses to workers' contestations, and the review of automated decisions help transform abstract principles into a practical repertoire of action.

Leadership development also needs to consider self-care and the limits of the leadership role itself. Managers who operate under constant digital overload tend to reproduce, even involuntarily, patterns of permanent urgency and fragmented communication with their teams. Organizations must protect time for reflection, planning, and individual conversations in leaders' schedules, recognizing that relational leadership requires sustained attention, and that this attention is systematically diminished when work is organized around continuous interruptions.

Evaluating leaders can include indicators related to team psychological safety, perceived communication quality, equity in distributed opportunities, and the development of team members. These measures, however, should not become new punitive metrics applied mechanically. Their purpose is to offer constructive feedback and identify structural conditions that hinder the exercise of relational leadership. Below-expected results may reflect a lack of autonomy, resources, or institutional coherence, rather than necessarily a personal deficiency on the part of the evaluated leader.

Theoretical propositions and research agenda

The theoretical framework developed in this article allows for the formulation of propositions open to future empirical investigation. The first proposition holds that sensemaking reduces uncertainty and resistance to change when communication about the introduction of technology is frequent, specific about practical consequences, and consistent with the practices actually observed within the organization. The second proposition indicates that practices of listening and individualized recognition strengthen psychological safety, particularly in teams with high geographic dispersion and heavy reliance on digital communication channels.

The third proposition relates trust calibration to the quality of decisions made with the support of intelligent systems. Teams that understand the limits, sources of error, and review procedures available for a given tool tend to use it as support for human judgment, avoiding both indiscriminate rejection and uncritical dependence. The fourth proposition indicates that intentional practices of connection and collaboration foster belonging when they have a clear purpose, respect individual differences in style and availability, and do not themselves become an additional source of meeting overload.

A fifth, moderating proposition suggests that the effects of the four leadership functions on trust and belonging are conditioned by broader organizational coherence. Relationally competent leaders show a reduced capacity to produce sustainable trust when evaluation, monitoring, and institutional communication policies systematically contradict their individual efforts. Future research should therefore carefully distinguish effects attributable to immediate leadership from those attributable to the institutional structures within which that leadership operates, something multilevel studies, with data on individuals, teams, and organizations alike, are particularly well positioned to examine.

Empirical validation of these propositions can combine quantitative and qualitative methods. Already-validated scales of organizational trust, belonging, psychological safety, procedural justice, and technostress can be related to in-depth interviews, structured observation of hybrid meetings, and documentary analysis of organizational people-management policies. Longitudinal studies are particularly relevant, because initial reactions to the introduction of artificial intelligence systems tend to change over time, as failures are corrected, routines become established, and trust, where it exists, accumulates gradually through repeated experiences of successful use.

Comparisons across sectors may also reveal differences relevant to the applicability of the model. Creative, operational, educational, and customer-facing activities have distinct needs in terms of physical presence, decision-making autonomy, and the intensity of automation. Future empirical analysis should take into account team size, the frequency of interaction among members, the nature of decisions supported by automated systems, and the real possibility of contesting those decisions. The model proposed here offers a common conceptual foundation, but its concrete manifestation certainly depends on the organizational and sectoral context in which it is applied.

Implications for people-management policies

The implications of this theoretical framework also extend to broader people-management policies, beyond the individual actions of each leader. Recruitment, onboarding, evaluation, and professional-development processes need to be revisited when a substantial share of interactions takes place at a distance and when intelligent systems support relevant decisions about workers' trajectories. Organizations should make explicit which data are used in each decision-making process, which decisions remain under human responsibility, and how workers can request correction of inaccurate information. This clarity reduces the perception of indiscriminate surveillance and fosters a more balanced relationship between workers and technology.

The onboarding of new workers deserves special attention in this context. In hybrid environments, informal learning through everyday observation, historically responsible for much of organizational socialization, is diminished. Leadership needs to create structured onboarding pathways that combine technical guidance on tasks and tools, explicit presentation of organizational culture, and the intentional formation of bonds with colleagues. Mentoring, small-group gatherings, and regular follow-up during the first months help prevent a new worker from knowing only the tasks they must perform and the platforms they must use, without understanding the broader social network of the organization they have joined.

Recognition policies also need to account for contributions that are less visible to automated measurement systems. Supporting colleagues, voluntarily sharing knowledge, and maintaining team cohesion rarely show up in individual productivity metrics, although they are essential to the functioning of any collective work. Leadership must find ways to make these contributions observable and valued, without in turn converting them into mechanical scores that would reproduce the very problem one seeks to avoid. Recognition retains its relational value when it is specific, contextualized, and aligned with the goals shared by the team, and it loses that value when it becomes just another standardized indicator.

Finally, the governance of hybrid work should be revised with the genuine participation of workers themselves, rather than being defined unilaterally by senior management alone. Rules about expected presence, availability, monitoring, and the use of artificial intelligence systems directly affect routines and power relations within the organization. Listening to workers beforehand makes it possible to identify unanticipated impacts and to build

solutions better suited to actual working conditions. In this sense, human leadership functions as a bridge between teams' everyday experience and institutional decision-making, but this mediating function needs to be explicitly recognized and supported by senior management so that it does not become mere rhetoric with no practical counterpart.

CONCLUDING REMARKS

The rise of hybrid organizations, combined with the spread of artificial intelligence systems in people-management processes, constitutes a significant restructuring of the social architecture of contemporary organizations. This theoretical study has argued that, although this technological mediation brings real gains in efficiency and scale, it carries significant risks of eroding trust, impoverishing communication, and weakening workers' sense of belonging when it is not accompanied by deliberate attention to the relational dimension of work.

The theoretical framework developed here shows that human leadership plays a role that automation, at least at the current stage of available technologies, does not replace. The four proposed functions — producing meaning in the face of technological change, preserving spaces for listening and recognition, critically calibrating trust in intelligent systems, and rebuilding social bonds among dispersed workers — offer a conceptual framework designed both to guide managerial practice and to inform future empirical research on work in the digital age. It bears repeating that these functions do not depend solely on the leader's individual competence; they are sustained or hollowed out by the organizational conditions within which that leader operates, including coherence between institutional discourse and practice, adequate governance of the artificial intelligence systems in use, and people-management policies attentive to inclusion and procedural justice.

The main contribution of this article is to shift the debate on artificial intelligence and leadership away from a comparison of capabilities, one that asks whether machines will replace leaders, and toward a different kind of question, about which relationships, judgments, and responsibilities must remain substantively human in organizations that are increasingly mediated by automated systems. This distinction has concrete practical consequences for the design of leadership-development programs, for algorithmic governance policies, and for the way organizations communicate technological change to their teams.

As a central limitation, this research acknowledges its strictly theoretical nature, which lacks quantitative and qualitative empirical validation across different sectors of the economy and different cultural and institutional contexts. The proposed framework was built from literature produced predominantly within high-income-country organizational contexts, which calls for caution regarding its direct applicability to different realities, including the Brazilian context, where the intensity of adoption of artificial intelligence systems in people-management processes, current labor regulations, and cultural norms regarding hierarchy and communication differ to a meaningful degree from those predominant in the literature consulted.

It is therefore suggested that future studies conduct field research, preferably longitudinal and using mixed methodological approaches, to examine the effectiveness of the proposed model in real organizations, assessing how the exercise of the four leadership functions described here relates to team performance, workers' emotional well-being, and talent-retention rates across different modalities of hybrid work. Comparative investigations across sectors of activity, organizational sizes, and cultural contexts would help clarify the limits of the model's generalizability and identify the conditions under which each of the four functions produces more or less pronounced effects. Finally, it would be valuable for future research to directly examine workers' own perspectives on what they consider legitimate to delegate to automated systems and what they believe should remain under human responsibility, since this boundary, rather than being defined a priori by theory, is also continuously negotiated in the everyday practice of organizations.

REFERENCES

- Ashforth, B. E., & Mael, F. (1989). Social identity theory and the organization. *Academy of Management Review*, 14(1), 20-39. <https://doi.org/10.5465/amr.1989.4278999>
- Avolio, B. J., & Gardner, W. L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly*, 16(3), 315-338. <https://doi.org/10.1016/j.leaqua.2005.03.001>
- Bailey, D. E., & Kurland, N. B. (2002). A review of telework research: Findings, new directions, and lessons for the study of modern work. *Journal of Organizational Behavior*, 23(4), 383-400. <https://doi.org/10.1002/job.144>
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497-529. <https://doi.org/10.1037/0033-2909.117.3.497>

Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. W. W. Norton & Company.

Cascio, W. F., & Montealegre, R. (2016). How technology is changing work and organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, 3, 349-375. <https://doi.org/10.1146/annurev-orgpsych-041015-062352>

Choudhury, P. (2020, novembro-dezembro). Our work-from-anywhere future. *Harvard Business Review*, 98(6), 58-67.

Choudhury, P., Foroughi, C., & Larson, B. (2021). Work-from-anywhere: The productivity effects of geographic flexibility. *Strategic Management Journal*, 42(4), 655-683. <https://doi.org/10.1002/smj.3251>

Colbert, A., Yee, N., & George, G. (2016). The digital workforce and the workplace of the future. *Academy of Management Journal*, 59(3), 731-739. <https://doi.org/10.5465/amj.2016.4003>

Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology*, 86(3), 386-400. <https://doi.org/10.1037/0021-9010.86.3.386>

Deetz, S. (2001). Conceptualizing organization-stakeholder communication: The notions of interpenetration, communicative undistortedness, and dialogic practice. *Management Communication Quarterly*, 15(1), 51-60. <https://doi.org/10.1177/0893318901151003>

Dourish, P. (2004). *Where the action is: The foundations of embodied interaction*. MIT Press. <https://doi.org/10.7551/mitpress/7221.001.0001>

Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44(2), 350-383. <https://doi.org/10.2307/2666999>

Eubanks, V. (2018). *Automating inequality: How high-tech tools profile, police, and punish the poor*. St. Martin's Press.

Frank, M. R., Autor, D., Bessen, J. E., Brynjolfsson, E., Cebrian, M., Deming, D. J., Feldman, M., Groh, M., Lobo, J., Moro, E., Wang, D., Youn, H., & Rahwan, I. (2019). Toward understanding the impact of artificial intelligence on labor. *Proceedings of the National Academy of Sciences*, 116(14), 6531-6539. <https://doi.org/10.1073/pnas.1900949116>

Gajendran, R. S., & Harrison, D. A. (2007). The good, the bad, and the unknown about telecommuting: Meta-analysis of psychological mediators and individual consequences. *Journal of Applied Psychology*, 92(6), 1524-1541. <https://doi.org/10.1037/0021-9010.92.6.1524>

Gilson, L. L., Maynard, M. T., Jones Young, N. C., Vartiainen, M., & Hakonen, M. (2015). Virtual teams research: 10 years, 10 themes, and 10 opportunities. *Journal of Management*, 41(5), 1313-1337. <https://doi.org/10.1177/0149206314559946>

Golden, T. D., Veiga, J. F., & Dino, R. N. (2008). The impact of professional isolation on teleworker job performance and turnover intentions: Does time spent teleworking, interacting

- face-to-face, or having access to communication-enhancing technology matter? *Journal of Applied Psychology*, 93(6), 1412-1421. <https://doi.org/10.1037/a0012722>
- Gronn, P. (2002). Distributed leadership as a unit of analysis. *The Leadership Quarterly*, 13(4), 423-451. [https://doi.org/10.1016/S1048-9843\(02\)00120-0](https://doi.org/10.1016/S1048-9843(02)00120-0)
- Gunawardena, C. N., & Zittle, F. J. (1997). Social presence as a predictor of satisfaction within a computer-mediated conferencing environment. *American Journal of Distance Education*, 11(3), 8-26. <https://doi.org/10.1080/08923649709526970>
- Harms, P. D., Credé, M., Tynan, M., Leon, M., & Jeung, W. (2017). Leadership and stress: A meta-analytic review. *The Leadership Quarterly*, 28(1), 178-194. <https://doi.org/10.1016/j.leaqua.2016.10.006>
- Jarrahi, M. H. (2018). Artificial intelligence and the future of work: Human-AI symbiosis in organizational decision making. *Business Horizons*, 61(4), 577-586. <https://doi.org/10.1016/j.bushor.2018.03.007>
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692-724. <https://doi.org/10.2307/256287>
- Kellogg, K. C., Valentine, M. A., & Christin, A. (2020). Algorithms at work: The new contested terrain of control. *Academy of Management Annals*, 14(1), 366-410. <https://doi.org/10.5465/annals.2018.0174>
- Kniffin, K. M., Narayanan, J., Anseel, F., Antonakis, J., Ashford, S. P., Bakker, A. B., Bamberger, P., Bapuji, H., Bhawe, D. P., Choi, V. K., Creary, S. J., Demerouti, E., Flynn, F. J., Gelfand, M. J., Greer, L. L., Johns, G., Keesbir, S., Klein, P. G., Lee, S. Y., ... Vugt, M. van (2021). COVID-19 and the workplace: Implications, issues, and insights for future research and action. *American Psychologist*, 76(1), 63-77. <https://doi.org/10.1037/amp0000716>
- Lee, J. D., & See, K. A. (2004). Trust in automation: Designing for appropriate reliance. *Human Factors*, 46(1), 50-80. https://doi.org/10.1518/hfes.46.1.50_30392
- Long, D., & Magerko, B. (2020). What is AI literacy? Competencies and design considerations. *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*, 1-16. <https://doi.org/10.1145/3313831.3376727>
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review*, 20(3), 709-734. <https://doi.org/10.5465/amr.1995.9508080335>
- Nardi, B. A., & Whittaker, S. (2002). The place of face-to-face communication in distributed work. In P. Hinds & S. Kiesler (Eds.), *Distributed work* (pp. 83-110). MIT Press.
- Newman, D. T., Fast, N. J., & Harmon, D. J. (2020). When eliminating bias isn't fair: Algorithmic reductionism and procedural justice in human resource decisions. *Organizational Behavior and Human Decision Processes*, 160, 149-167. <https://doi.org/10.1016/j.obhdp.2020.03.008>

- Parent-Rocheleau, X., & Parker, S. K. (2022). Algorithms as work designers: How algorithmic management influences the design of jobs. *Human Resource Management Review*, 32(3), 100838. <https://doi.org/10.1016/j.hrmr.2021.100838>
- Pasquale, F. (2015). *The black box society: The secret algorithms that control money and information*. Harvard University Press.
- Pulakos, E. D., Mueller-Hanson, R., & Arad, S. (2019). The evolution of performance management: Searching for value. *Annual Review of Organizational Psychology and Organizational Behavior*, 6, 249-271. <https://doi.org/10.1146/annurev-orgpsych-012218-015009>
- Raghavan, M., Barocas, S., Kleinberg, J., & Levy, K. (2020). Mitigating bias in algorithmic hiring: Evaluating claims and practices. *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency*, 469-481. <https://doi.org/10.1145/3351095.3372828>
- Ravid, D. M., Tomczak, D. L., White, J. C., & Behrend, T. S. (2020). EPM 20/20: A review, framework, and research agenda for electronic performance monitoring. *Journal of Management*, 46(1), 100-126. <https://doi.org/10.1177/0149206319869435>
- Short, J., Williams, E., & Christie, B. (1976). *The social psychology of telecommunications*. Wiley.
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333-339. <https://doi.org/10.1016/j.jbusres.2019.07.039>
- Spillane, J. P. (2006). *Distributed leadership*. Jossey-Bass.
- Tarafdar, M., Tu, Q., Ragu-Nathan, B. S., & Ragu-Nathan, T. S. (2007). The impact of technostress on role stress and productivity. *Journal of Management Information Systems*, 24(1), 301-328. <https://doi.org/10.2753/MIS0742-1222240109>
- Torraco, R. J. (2016). Writing integrative literature reviews: Using the past and present to explore the future. *Human Resource Development Review*, 15(4), 404-428. <https://doi.org/10.1177/1534484316671606>
- Uhl-Bien, M. (2006). Relational leadership theory: Exploring the social processes of leadership and organizing. *The Leadership Quarterly*, 17(6), 654-676. <https://doi.org/10.1016/j.leaqua.2006.10.007>
- Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic leadership: Development and validation of a theory-based measure. *Journal of Management*, 34(1), 89-126. <https://doi.org/10.1177/0149206307308913>
- Wang, B., Liu, Y., Qian, J., & Parker, S. K. (2021). Achieving effective remote working during the COVID-19 pandemic: A work design perspective. *Applied Psychology*, 70(1), 16-59. <https://doi.org/10.1111/apps.12290>
- Weick, K. E. (1995). *Sensemaking in organizations*. Sage.

Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science*, 16(4), 409-421. <https://doi.org/10.1287/orsc.1050.0133>

Zuboff, S. (2019). *The age of surveillance capitalism*. PublicAffairs.

AUTHOR CONTRIBUTION

Elaine Cristina de Oliveira Rocha: conceptualization, methodology, investigation, formal analysis, writing of the original manuscript, and review and editing.

EDITORIAL DECLARATIONS

Funding: the study received no external funding.

Conflict of interest: the author declares no conflict of interest.

Use of artificial intelligence: not declared by the author.