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Opinion

GenAI and the psychology of work

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Work is a central source of identity and meaning. The rapid and widespread adoption of generative artificial intelligence (GenAI) is reshaping workplaces. Unlike previous technologies, GenAI can demonstrate cognitive, creative, and interpersonal capabilities that challenge traditional human–machine boundaries and redefine the knowledge, task, and social characteristics of work. GenAI can benefit workers by enhancing their productivity and performance. It can also psychologically threaten workers' needs for competence, autonomy, and relatedness, which can initiate five coping strategies to mitigate these threats. We unpack the effects of GenAI on work and workers, show the importance of addressing its potential psychological threats, and explain how to foster human-centered workplaces that balance the benefits and risks of GenAI.

How GenAI changes work

Work is an economic activity. Work is also a source of identity, meaning, and social reward. **GenAI** (see Glossary) is being rapidly adopted – faster than the internet and personal computers (PCs) were at their introduction – and is rapidly reshaping workplaces [1,2] by enhancing or replacing worker capabilities [3–5] (Figure 1, Key figure). Technological innovations have transformed work for centuries [3,6,7], but GenAI does not solely automate routine or physical tasks. It can demonstrate cognitive, creative, and interpersonal capabilities considered inherently human [2,8,9]. GenAI challenges the human–machine boundary through its anthropomorphic affordances, human-like conversational interaction, and persuasion abilities, which collectively foster the perceptions of agency and its role and participation as a social actor [10–12]. People are more likely to attribute intentions and mental states to virtual assistants that schedule events than tools that perform similar functions such as a calendar application, are more likely to follow social norms when interacting with AI systems than similar tools, and are more likely to perceive AI systems than similar tools through the dimensions of warmth and **competence** that people use to judge the intentions of other social agents [13].

GenAI has the potential to profoundly change work characteristics including: (i) **knowledge characteristics**; (ii) **task characteristics**; and (iii) **social characteristics** [14–16] (Table 1). Growing empirical evidence exists for the functional and productivity gains from GenAI [17,18] across a variety of tasks, roles, and functions[i]. By contrast, the **psychological threats** and challenges it evokes for self-perceptions and judgments are less understood. Understanding these challenges and threats is important given the friction between the rate and potential of GenAI workplace integration and the countervailing psychological resistance to and fear of 'traditional' AI in professional and personal life [19–21]. When workers feel that they are not being enhanced or feel they are being replaced by human-like social agents, these fears and reactance may be amplified. In response to a perceived existential threat posed by GenAI, for instance, Hollywood writers organized a 148-day unionized strike to preserve their **professional identity**, negotiate agency over AI use, and secure future career viability[ii]. We explore the psychological impact of GenAI use and engagement on the self-perception and professional identity of workers to understand how GenAI makes workers feel about themselves and their roles [22–24]. We explain how

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GenAI (i) perceived as a humanized or socialized agent that (ii) changes or replaces core aspects of work and workplace roles can induce psychological threats in workers by undermining fundamental psychological needs for competence, **autonomy**, and **relatedness**.

GenAI's influence on workers and how they experience work is diverse and context dependent [3,25]. Here, we offer a conceptual perspective on how GenAI reshapes the psychological experience of work and describe how workers (will) experience different psychological benefits and threats from GenAI depending on their roles, their skill levels, and the integration of GenAI into their work. We integrate interdisciplinary findings in a novel framework that predicts when and why GenAI will threaten (and support) core psychological needs at work and explains how workers may cope with these threats and challenges. We show that the psychological impacts of GenAI on workers range from inducing excitement, curiosity, and empowerment to threatening the meaning of work and evoking identity change and fears of replacement [3,25–27]. We locate the origin of these psychological threats in the frustrated needs for autonomy, competence, and connectedness that undermine worker well-being, productivity, and acceptance of the technology. We unpack why neglecting these psychological threats potentiates resistance, dissatisfaction, and adverse organizational outcomes that hamper GenAI's contribution to human-centered and equitable workplaces. Finally, we explain how psychologically informed design, development, and deployment of GenAI can empower workers, reduce psychological threats, and improve individual and social well-being.

How workers can benefit psychologically from GenAI

We base our predictions of the circumstances in which GenAI will either benefit workers or evoke psychological threats on two psychological theories. Self-determination theory (SDT) and basic psychological needs theory (BPNT) posit that employee motivation, satisfaction, well-being, and performance are contingent on the ability to satisfy three basic psychological needs: competence, autonomy, and relatedness [28–31]. Meta-analytical evidence corroborates these claims [32,33]. Conversely, frustrating these needs results in reduced well-being and impoverished functioning [31]. Generally, need satisfaction is more strongly associated with positive outcomes. The frustration of the three basic psychological needs is associated with negative outcomes [32,33].

GenAI has at least four major general and targeted benefits for the quantity, quality, and meaningfulness of work and for human relationships in the workplace that can help to satisfy competence, autonomy, and relatedness needs. GenAI can increase worker competence by augmenting capabilities and skills needed for work, enhancing their creativity, decision-making, and complex problem-solving and the quality of their work [18,34–39]. A sales associate connected via text or voice to a conversational chatbot, for example, can answer customer questions about the location and features of all products in a large store, make expert recommendations, and constrain their recommendations to items in stock. GenAI can also create new capabilities and skills [3,40,41]. Employees without programming experience can use GenAI to perform text analysis of consumer reviews that reveal trends and desirable features for new products, generate images of the products on fictional models, or create a website, a pitch for retailers, or a business plan. These augmentations and enhancements can empower and motivate workers, increase their satisfaction and well-being, and facilitate personal and professional growth [17,26,27].

Competence gains from GenAI integration include an increase in average worker productivity and performance (Table 2), but these increases are not uniformly distributed. Less skilled workers benefit more from GenAI use for customer support services [17], writing tasks [18,35], software development [42], and consulting tasks [34]. Higher-skilled workers benefit more in complex tasks such as investment decisions [43], entrepreneurial decision-making [37], and new scientific

discoveries [38]. The unique benefits for higher-skill workers are explained by their greater domain-specific knowledge. It allows them to better assess the quality of GenAI outputs and advice and effectively implement both.

GenAI boosts worker autonomy by performing repetitive, routine, potentially unfulfilling tasks on their behalf. Offloading these tasks to GenAI increases worker autonomy by reducing cognitive load, boredom, and task monotony. It allows workers to focus on tasks and roles with greater value to employees and organizations (e.g., creativity, critical thinking) [44]. For instance, GenAI can help user experience designers automate repetitive processes like classifying user activities, forecasting future behaviors, and gaining insights from massive amounts of user data, freeing up time for fine-tuning products and focusing on the strategic and creative aspects of their work [45]. In addition to boosting productivity, this offloading increases worker enjoyment and the meaningfulness of work [3,25,26].

GenAI satisfies relatedness needs by shifting worker focus toward social and relational aspects of tasks and enhancing their social skills, which benefits their professional relationships inside and outside the organization [17,45,46]. GenAI can personalize onboarding processes to preserve engagement among new employees and lower turnover[iii]. GenAI's human-like conversational abilities foster positive emotional experiences (e.g., increased enthusiasm, engagement), reduce frustration, and mirror the motivational benefits of human collaboration. Professionals working with GenAI report emotional responses comparable with, or even exceeding, those experienced in human teams, suggesting that GenAI can serve as a 'cybernetic teammate' that contributes to fulfilling workers' need for social connection and belonging [47].

How GenAI frustrates psychological needs and creates psychological threats

Based on the predictions of SDT and BPNT, we suggest that integrating GenAI into workplaces can frustrate basic psychological needs for competence, autonomy, and relatedness. This stokes psychological threats in the form of actual and perceived self-discrepancies between actual and ideal capabilities and skills, control, and social connectedness at work. In particular, we shed light on how **human enhancement** and **human replacement** by GenAI affect knowledge, task, and social characteristics of work and affect the three psychological needs (Figure 1).

accomplished, including autonomy, task variety, and task significance.

Key figure

Generative artificial intelligence (GenAI)'s impact on work and workers

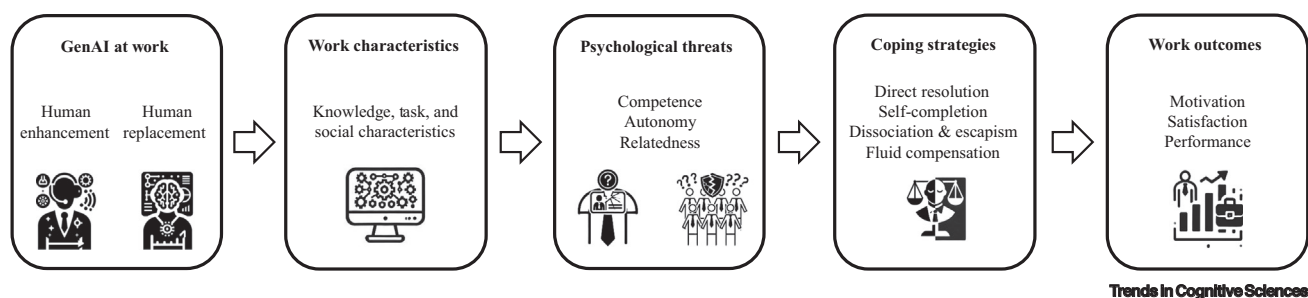**Figure 1.** GenAI can enhance and replace human capabilities, changing the knowledge, task, and social characteristics of work. This can frustrate workers' basic psychological needs for competence, autonomy, and relatedness, creating psychological threats in actual and perceived self-discrepancies. Workers use five coping strategies to mitigate these self-discrepancies, which affect their motivation, satisfaction, and performance.

Table 1. GenAI's influence on work characteristics

Work characteristic	Influence	Refs
Knowledge characteristics	Job complexity and information processing • Supports advanced cognitive and more complex tasks and large-scale (multimodal) data/information processing • Requires adaptation to GenAI functionalities/interfaces and interpretation of GenAI outputs Skill variety and specialization • New GenAI-specific skills and roles (both technical and complementary) like prompt engineering, output interpretation/checking, and GenAI system integration and oversight • Shifts from traditional routine skills to specialized competencies	[1–4,23,40,41,96–100][v]
Task characteristics	Task variety and task significance • Automation of repetitive/routine/non-core tasks • Increasing emphasis and focus on core and/or higher-value tasks (e.g., strategic, creative) Autonomy • More flexibility in structuring workflows and prioritizing tasks through automation/outsourcing of routine tasks • Decision support and recommendations through data-driven, real-time insights	
Social characteristics	Social support and feedback • Instant and real-time feedback and learning opportunities and productivity-enhancing resources Interdependence and collaboration • GenAI as assistant, collaborator/coworker, and co-creator for both individual workers and within teams/teamwork	

Competence

GenAI adoption and utilization can frustrate the psychological need for competence when it replaces and redefines capabilities and skills workers already possess or creates expectations and requirements for new capabilities and skills to be developed or acquired in the future. Workers may need to develop greater digital literacy, for instance, or deepen their domain expertise so they can catch GenAI hallucinations. GenAI's creative, analytical, and communicative affordances can foster a sense of professional inadequacy and make workers feel less competent [48]. Automating routine tasks and supporting more complex tasks can reduce opportunities for workers to use and advance their capabilities and skills, leading to perceptions of deskilling and stagnation in professional growth [15,23,26,49].

For low-skilled workers, GenAI can enhance productivity by enhancing their capabilities while threatening their need for competence. Increased reliance on GenAI for the completion of tasks can encourage cognitive offloading [50] that degrades or prevents the development of task-related skills and domain knowledge [23,51]. Consultants without data science training who were given access to ChatGPT and a brief training session outperformed peers given basic data science training on technical data science problems, for instance, and they performed as well as data scientists on coding and statistics problems. When their access to the large language model (LLM) was removed, however, they were unable to perform the tasks, suggesting that the consultants had offloaded the task to the AI rather than used it to learn the requisite skills [52]. The more workers outsource tasks to GenAI without fully understanding or mastering those tasks, the more GenAI could undermine their foundational skills (e.g., critical problem-solving) and

Table 2. Productivity effects of GenAI

Focus	Effect	Refs
Information worker productivity	• 10% more documents, 11% fewer emails (4% less time spent on email), with variations depending on task and organizational context	i
Writing tasks (short story, creative, occupation specific)	• Enhanced individual creativity, story quality, and enjoyment, particularly among less creative writers	[35]
	• 36% reduction in completion time, higher output quality, and user satisfaction, but lower content diversity through human–GenAI collaboration	[36]
	• 37% reduction in completion time and output quality increase; higher benefits for lower-skilled workers	[18]
Digital artwork creation	• 25% artist productivity increase and 50% artwork favorability (peer evaluation) increase; reduction in average novelty	[101]
Ad creation	• 60–73% increase in individual ad output in human–GenAI vs human–human teams; no difference in total team output • Higher text quality but lower image quality from human–GenAI teams • Human–GenAI collaboration increases content/process-oriented communication (45% more messages) while reducing social/emotional communication	[102]
Consulting tasks	• 2.2% more tasks completed, 25.1% increase in task completion speed, 40% quality increase, with 43% (17%) output increase among lower-performing (higher-performing) consultants	[34]
Software development and coding	• 26.08% more tasks completed, with higher productivity gains among less experienced developers	[42]
	• Small perceived productivity (effort, quality, and speed) improvements, with 57.4% of developers feeling that GenAI made them more effective	[39]
Customer support assistance	• 14% productivity increases, with 34% increase for novice/low-skilled workers and minimal increase for experienced workers	[17]
Product innovation	• 0.37 standard deviation increase in solution quality for individual workers using GenAI, comparable with teams without GenAI (i.e., match of output quality of traditional teams) • 16.4% reduction in completion time for individual workers using GenAI • Teams using GenAI are ~3 times more likely to generate top 10% solutions	[48]
Entrepreneurial decision-making	• 15% profit improvement for high-performing entrepreneurs and 8% decline for low performers; no overall/average effect	[37]
Materials discovery in R&D laboratory	• 44% more materials discovered, resulting in 39% increase in patent filings and 17% increase in downstream product innovation, with bottom third of scientists seeing little benefit while top scientists' output nearly doubles	[38]
Investment decisions	• Better processing of financial information and investment decisions; people with higher financial expertise benefit more	[43]

professional growth. If unexpected errors or problems arise that fall outside GenAI capabilities, low-skilled workers may then struggle to resolve the issues effectively, leading to feelings of incompetence or frustration. At the same time, automating tasks workers previously performed can stoke fears of replacement [53] and threaten their professional identity [54,55] because workers perceive their roles to be redundant.

For high-skilled workers, GenAI integration in workplaces induces different challenges and threats. High-skilled workers invest heavily in skill development. GenAI's increasing capabilities to perform more complex tasks that require domain-specific knowledge and advanced skills (e.g., scientific research, strategic decision-making) [34,38,56] can devalue their existing skills,

frustrating their need for competence and threatening their professional identity [54–56]. High-skilled, high-performing workers can perceive powerful GenAI tools as a threat to their comparative advantage in their area of expertise, leading to concerns about their status and social standing [57]. Furthermore, high-skilled workers tend to overestimate their own expertise [58] and might consider GenAI as unsuitable for enhancing their capabilities and work [23], creating a 'paradox of expertise'. Experts disregard and do not adopt and use GenAI due to their self-perceived deep domain knowledge and high skill level [58,59]. There is often a misalignment between their current identity-defining skill sets, however, and new skills required to effectively use and collaborate with GenAI [3,41]. GenAI integration can also disrupt established workflows and routines, which in turn frustrates workers' sense of competence and undermines the structures that support high performance [17]. Competence and professional identity threats then emerge because high-skilled workers do not develop the new GenAI-related skills needed for their redefined roles [3,41,55]. This stagnates their professional development and slows the integration of GenAI into their workflows, which paradoxically marginalizes established experts in a GenAI-driven work environment.

Autonomy

When GenAI-driven systems make decisions autonomously, a loss of control over tasks and power at work can frustrate worker autonomy needs [21,49]. Workers may feel they are losing control and power and exhibit reactance [19,60], particularly if workers value manual labor [61] or strongly identify with their work [62]. When creating content with GenAI tools, for instance, autonomy needs can be undermined: (i) if workers perceive their contributions are less than GenAI's contributions [63]; (ii) if workers see themselves as editors and not co-creators [64]; and (iii) if workers see outputs more as machine-generated than due to their human creativity and inputs [65]. These perceptions can reduce psychological ownership of work outcomes [66]. Perceived exclusion from work, decision-making processes, and the devaluation of their contributions can threaten workers' professional identity [23].

Autonomy needs can be further frustrated when GenAI integration is mandatory and not voluntary [67], and GenAI systems become an 'algorithmic cage' [68]. GenAI-imposed workflows that standardize procedures and prioritize efficiency over flexibility and adaptability hamper the ability to tailor work to personal or situational needs[i] [3,50]. In extreme cases, these systems can cause direct harm to workers by instantiating unsafe labor practices. Productivity systems were employed by Amazon, for instance, despite having been found to increase workplace injuries[iv]. If workers perceive they are unable to shape GenAI workflows or how tasks are performed, this can further erode their sense of control, induce psychological threats [58], and alienate workers from processes they once found meaningful [19]. In other cases, accountability and agency are decoupled, creating situations where workers are responsible for GenAI-driven outputs even when their personal contributions and control over those outputs are limited. The most serious autonomy-related psychological threats are likely to emerge when GenAI is used for monitoring and surveillance [28,50,69]. Keystroke surveillance tracking active and idle time via keystrokes and mouse movements is already used by many employers to monitor employees. GenAI tools that place employees under constant surveillance may further increase worker stress and anxiety and reduce their job satisfaction [70].

Relatedness

GenAI can challenge relatedness needs by threatening the social fabric and dynamics of work, whether it enhances human capabilities or replaces workers. GenAI integration can negatively affect meaningful connections and a sense of unity with other workers on the one hand and create differences across workers that undermine cohesion on the other hand [26]. When GenAI-

mediated interactions replace direct human-to-human interactions, workers have fewer opportunities to build meaningful workplace relationships and can become isolated [15,49,71]. By automating tasks that previously required interpersonal collaboration (e.g., GenAI provides information previously provided by human colleagues) or replacing human workers, GenAI limits opportunities for human interactions and teamwork, evoking feelings of social isolation [26,50].

Working with GenAI can erode social norms in ways that deteriorate interactions with other humans and impressions of human work [72]. If GenAI integration is widespread and salient it can increase the **objectification** of other workers. If perceptions of workers are assimilated toward the GenAI systems on which they rely, coworkers can be dehumanized [73,74]. That is, perceptions of human coworkers can be assimilated toward perceptions of GenAI, leading coworkers to be perceived as possessing fewer human qualities like warmth, empathy, or intentionality. This can engender negative attitudes and behaviors toward human coworkers [11]. **Dehumanization** induces negative emotions in the targets of dehumanization and reduces relationship quality [75]. It frustrates targets' relatedness needs and reduces their **prosocial motivation** to help other employees [76]. Prosocial motivation can also be inhibited if workers perceive GenAI decisions as unfair [77]. Finally, human–GenAI collaboration can negatively affect team cohesion and work due to conflicts when GenAI systems that workers rely on do not work properly [45].

GenAI integration at work can intensify divisions among workers, further frustrating needs and inducing psychological threats. First, inequalities can emerge from different access, use, and training opportunities [78,79] that undermine social cohesion. Among workers using GenAI, some might rely more on GenAI or scrutinize its outputs and processes less than others [78], worsening team performance and cohesion. Divisions among workers and negative social dynamics can arise from differing perceptions of how coworkers use GenAI. Workers consider GenAI use to be more acceptable for themselves than for their colleagues [63]. More generally, higher-skilled, more experienced workers perceive that less-skilled, younger workers use GenAI in meaningless and unintended ways, whereas lower-skilled, younger workers perceive that higher-skilled workers adhere to pre-GenAI practices and routines [23]. The differential productivity and performance effects illustrated in the preceding text can make workers view GenAI as disproportionately and unfairly benefiting certain roles and workers, breeding resentment or envy, and threatening the cohesion necessary for effective collaboration, mutual support, and meaningful relationships at work.

How workers cope with psychological threats

Workers use a range of coping strategies aimed at mitigating self-discrepancies and preserving their professional identity and well-being in response to GenAI's impact on the knowledge, tasks, and social characteristics of work and the psychological threats it induces. Prior research on how workers cope with adverse effects and threats of AI and GenAI at work is scarce. It examines anecdotal evidence [23] or single interventions like self-affirmation [80]. Psychological and consumer research has shown that self-discrepancies related to intelligence, sense of power, and belongingness – which are linked to the three psychological needs of competence, autonomy, and relatedness – trigger motivations to offset and reduce these discrepancies. Five such compensatory strategies have been identified: **direct resolution**, **symbolic self-completion**, **dissociation**, **escapism**, and **fluid compensation** [81]. We suggest these strategies provide a framework for understanding how workers respond to GenAI-induced threats resulting from the frustration of their basic psychological needs (Table 3). People can directly resolve the source of GenAI-driven threats by taking advantage of skill-building tools such as training programs or performance-enhancing resources when facing discrepancies between their actual selves and ideal selves or between their current and required skills and abilities [82]. Symbolic self-completion has been observed in organizational contexts where professionals with fewer objective indicators of success are more likely to emphasize

Table 3. Workers' coping strategies

Coping strategy	Needs-related psychological threats		
	Competence	Autonomy	Relatedness
Direct resolution	Skill enhancement (i.e., learning how to use GenAI effectively) or workflow adaptation to regain feeling of efficacy and mastery in tasks	Adjustment of workflows/tasks with GenAI to maintain sense of control over work processes and to preserve (final) decision-making authority	Collaboration with colleagues to collectively learn, implement, and refine GenAI solutions
Symbolic self-completion	Emphasis on human expertise and domain knowledge that complements GenAI outputs but cannot be replicated/imitated by it	Emphasis of ownership of tasks or responsibilities to maintain control by taking leadership or decider roles in GenAI-related tasks	Emphasis on human-driven achievements and contributions to the team or organization to strengthen social recognition and connections
Dissociation	Avoidance of GenAI-dependent tasks that might expose skill gaps to protect feelings of efficacy and mastery	Avoidance of GenAI-automated tasks that remove human decision-making to resist control imposed by GenAI	Preference for human–human teamwork and communication over work and communication involving GenAI
Escapism	Mental withdrawal and disengagement from tasks that challenge skills by reducing effort or delegating GenAI-related tasks and responsibilities to others	Retreating from situations, tasks, or responsibilities where workers feel out of control by taking extended breaks or requesting reassignments	Isolation from teamwork and settings where GenAI is prominent by preferring independent projects over teamwork involving GenAI
Fluid compensation	Focus shifts to tasks and domains where skills are unaffected or uniquely human (e.g., creativity, empathy)	Focus shifts to roles or tasks where decision-making and control remain human-driven (e.g., strategic or advisory tasks)	Focus shifts to tasks or domains where human interactions and collaboration are paramount (e.g., customer-facing roles)

titles or credentials in digital communications [83]. Workers may dissociate when identity threats are triggered by situational cues such as underrepresentation, which leads them to withdraw psychologically or reduce their identification with domains in which they are threatened [84]. Escapism can arise in response to work environments with persistent stressors and limited support – often with negative effects on workers [85]. When workers are emotionally exhausted, escapism may lead them to care less about their workplace performance or disengage from clients and coworkers. At the extreme, workers may completely disengage from work and consume social media or pursue other non-related work activities during working hours. Fluid compensation can mitigate the effects of identity threats by reinforcing alternative, unthreatened aspects of the self, potentially restoring performance and reducing stress responses in threatening contexts [86]. Marketers might shift their identification, for instance, from the content created for marketing campaigns to guiding campaign strategy.

Symbolic self-completion may be the least costly strategy for workers, as it involves relatively low effort and resources to regain a sense of competence, autonomy, and relatedness. Direct resolution and fluid compensation, however, may require workers to expend more time and personal resources to address the sources of the threat. These strategies may require organizational support such as training or resources to be fully effective. In contrast, dissociation and escapism can help workers immediately distance themselves from the source of threat, but these strategies may come at the cost of reduced engagement, missed opportunities for personal growth, and a diminished sense of connection to their work.

Understanding and identifying these strategies is crucial in managing worker productivity, motivation, and morale. By recognizing their triggers, costs, and benefits, organizations can better design interventions that channel workers toward productive compensatory strategies.

The psychological impacts of GenAI on workers are not black and white; neither are worker coping strategies. Different threats can motivate workers toward positive outcomes and enacting changes that address the source of threats (e.g., by direct resolution) or toward avoiding negative

outcomes and regulating emotional responses evoked by threats (e.g., by escapism) [81,87]. Threats related to intelligence make people focus on positive outcomes, for example, whereas threats related to loss of personal control and social rejection make people avoid negative outcomes. Being outperformed by GenAI tools on analytical tasks can make workers feel that their intelligence is being questioned, motivating them to enroll in analytics courses to upskill themselves to regain competence. By contrast, an employee feeling excluded from strategic discussions when GenAI tools become central to decision-making may withdraw, avoid meetings, and spend work hours browsing unrelated online content to distract themselves from stress and perceived self-discrepancies. Research is needed to identify which variables predict how workers choose compensatory strategies in response to psychological threats (e.g., perceived control, intensity; see Outstanding questions).

What the future of work could look like

'The story of humanity is one of evolution and replacement' [58]. Many skills and jobs will be replaced by GenAI. Organizations and workers will adapt, as they have in response to earlier technological innovations, creating demand for and developing new skills and roles [7,41,88]. As GenAI begins to redefine the world and psychology of work, organizations can mold its relationship with workers. Organizations can empower their workers [27], mitigate threats, and improve individual and social well-being in the workplace through psychologically informed design, development, and deployment of GenAI [89]. Training and skill development programs focusing on GenAI literacy, technical, and interpersonal skills can increase worker competence and enable them to effectively and efficiently collaborate with GenAI and to create human–GenAI synergies [41,78,79,90]. Explaining how GenAI makes decisions and generates outputs could increase worker interest and performance in collaborations with GenAI [91]. Complementarities between workers and GenAI are greatest when workers accurately assess their abilities [92]. Pretraining assessments of worker skills and abilities and GenAI personalized training programs could facilitate tailored learning paths and feedback [93]. Organizations can enhance autonomy by allowing workers to shape how GenAI tools are integrated into their work and tasks (i.e., job crafting) [14,65] and to feel psychological ownership and control over their work. GenAI–human collaborations can strengthen relatedness and social connections at work by increasing opportunities for socialization [94] and improving communication [46].

Supportive behaviors within interpersonal relationships at work (e.g., providing feedback, sharing knowledge, showing empathy and authentic interest, encouraging collaboration) for all three psychological needs aids their fulfillment, enhancing worker well-being and performance [95]. Supportive managers and leaders with interpersonal communication skills, empathy, and emotional intelligence [45], and collaborative organizational cultures (compared with more authoritarian organizational cultures) where GenAI becomes a colleague rather than an 'algorithmic cage' [3], should empower workers and soften psychological risks of integrating GenAI in the workplace.

Concluding remarks

GenAI is reshaping how work is done and how work is experienced. Beyond automating routine tasks, GenAI performs cognitive, creative, and interpersonal functions previously considered uniquely human. GenAI capabilities redefine work roles and required skill sets, challenging the expertise, agency, and social connectedness of workers. GenAI enhances worker productivity, creativity, and collaboration, while evoking psychological threats that undermine their basic psychological needs for competence, autonomy, and relatedness. Worker threat responses adhere to five compensatory strategies (i.e., direct resolution, symbolic self-completion, dissociation, escapism, and fluid compensation). Each strategy has different implications for worker motivation, performance, and long-term growth. Understanding and addressing these psychological risks and responses is

Outstanding questions

How does GenAI's impact differ across occupations, tasks, roles, and industries?

What will future general and GenAI-specific skills look like and how can workers acquire and develop them?

(How) Will GenAI adoption and use increase or decrease workers' knowledge and skill levels?

(How) Do workers use different coping strategies in response to different psychological threats?

How will workers respond to and collaborate with GenAI when it becomes a human-like coworker?

How can organizations effectively mitigate psychological threats while maximizing the benefits of GenAI?

How can organizations create a balance between GenAI-driven human enhancement and replacement?

What factors contribute to resistance versus acceptance of GenAI in the workplace?

How can organizations address and reduce workers' resistance to GenAI use?

What are the long-term effects of GenAI integration at workplaces on workers, the nature of work, and organizations?

critical for the creation of ethical workplaces that realize the full potential of GenAI. Scientists, organizations, and policymakers need to collaboratively identify, design, and implement systems and structures that support psychological need fulfillment and promote adaptive responses, to steer GenAI toward being a complement rather than a threat to meaningful, fulfilling work.

Declaration of interests

No interests are declared.

Resources

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