The Impact of Generative AI-Driven Job Reshaping on Creativity Sustainability

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Abstract: *Amid the wave of digital transformation, generative AI is profoundly reshaping work patterns across industries. This study focuses on the dual impact of generative AI-driven job reshaping on the sustainability of employee creativity. The paper first elucidates the essence of generative AI and job reshaping, analyzing how generative AI alters work content, relationships, and cognition through functional restructuring, communication restructuring, and value restructuring. The core research lies in dialectically examining its mechanisms: On one hand, generative AI catalyzes creative generation, optimizes cognitive resources, empowers higher-order thinking, and expands creative networks—providing new momentum for sustained creativity. On the other hand, it may lead to the atrophy of foundational creative skills, exacerbate risks of homogenization in innovation ecosystems, and erode intrinsic motivation for creation, posing potential threats to creativity's long-term sustainability. This study aims to uncover this double-edged sword effect, ultimately proposing systematic recommendations at the organizational level. These recommendations seek to steer the work transformation driven by generative AI toward a future that enhances rather than suppresses human creativity, providing theoretical references and practical guidance for organizations to build sustainable innovation ecosystems.*

Keywords: Generative AI, Job Reshaping, Creativity

1. Introduction

Amid the wave of digital transformation, generative AI is evolving as an emerging technology. With continuous iterations and upgrades in generative AI technology, the barriers to client usage are steadily lowering, enabling this technology to permeate various industries and domains. The "AI+work" production model is now widely adopted across enterprises [1]. Generative AI not only efficiently processes and analyzes massive datasets but also generates new content based on user needs, unlocking boundless possibilities for work redesign. Redefining work to optimize relationships and cognition for environmental adaptation is a crucial pathway for enhancing individual and organizational adaptability. However, the impact of AI-driven work redesign on employee creativity is ambivalent—it may either stimulate or suppress it. Consequently, exploring the effects of generative AI on creativity within work redesign is particularly significant. Creativity is not only a manifestation of individual core competencies but also a vital engine for organizational innovation and competitive advantage.

2. Generative AI and job reshaping

2.1 Generative AI

Generative AI represents a significant branch within the field of AI. Its core lies in leveraging algorithms, models, and rules to enable machines to recognize and learn the inherent distribution patterns within raw data through deep training on massive datasets. Building upon this foundation, generative AI can autonomously create logically coherent content such as text, images, videos, and code based on user-provided instructions or prompts. Unlike traditional analytical AI focused on analysis and decision-making, generative AI's defining characteristics lie in its creativity and self-generated content capabilities. It employs advanced multimodal model architectures such as Transformers and GANs to simulate intrinsic relationships between entities, generating original content similar to training data while achieving a "from nothing to something" creative process.

Training data, algorithms, and computing power are the three core elements of gen-AI [2]. Large-scale, high-quality training data forms the foundation of generative AI, with data volume and

quality directly impacting generation outcomes; robust algorithms serve as the critical backbone, primarily used to understand data correlations and predict probability distributions; while high-performance computing power acts as the engine enabling large-scale complex computations. Furthermore, generative AI's dynamic iteration and closed-loop learning capabilities enable continuous refinement and optimization of generated content through user feedback. This iterative process steadily enhances model performance, resulting in more accurate and adaptable outputs.

2.2 Job reshaping

Job crafting refers to the process whereby employees proactively optimize the alignment between their work content and personal characteristics by adjusting tasks, interpersonal relationships, or cognitive perspectives, thereby enhancing their sense of fulfillment, happiness, and performance at work [3]. "Crafting" involves driving organizational innovation through profound systemic transformation by fundamentally reforming the components and concepts of the system [4]. Job crafting not only stimulates employees' creativity and initiative but also enhances the organization's overall effectiveness. Through job crafting, employees can better adapt to their work environment, improve work efficiency and satisfaction, while also aiding the organization in achieving its strategic goals [5].

2.3 The impact of generative AI on the job reshaping

The widespread adoption of generative AI technology has enabled its gradual integration into diverse professional domains, profoundly reshaping employees' work processes [6]. Regarding job responsibilities, generative AI influences workflows and priorities through functional restructuring. By automating certain tasks, it empowers employees to adjust their approaches and focus areas, thereby optimizing operational efficiency [7]. Regarding work relationships, generative AI reshapes communication patterns between employees and others. This communication restructuring systematically optimizes information exchange channels and procedures, enhancing work efficiency and team collaboration outcomes. Regarding work value, generative AI reshapes employees' perceptions of their work's significance. By automating tedious and repetitive tasks, it frees up employees' time and energy, allowing them to focus on work that feels valuable and meaningful. This value transformation not only improves work quality but also enhances job satisfaction and a sense of accomplishment.

3. The dual nature of generative AI's creativity

3.1 Mechanisms through which generative AI enhances creativity

Amid the digital revolution, the rapid advancement of generative AI unlocks new possibilities for enhancing employee creativity. The core mechanism through which generative AI fosters creativity lies in its three-dimensional framework of "cognitive enhancement-knowledge integration-collaborative evolution," enabling human-machine symbiotic innovation. At the cognitive level, AI stimulates divergent thinking by associating distant concepts, shifts low-level cognitive load to liberate human high-level creativity, and drives critical thinking training through "generation-evaluation-iteration." At the knowledge integration level, AI synthesizes cross-disciplinary data to generate solutions, transforming tacit knowledge into reusable models. This creates a dual-loop knowledge co-creation cycle: "human input → AI training → human feedback" [8]. At the collaborative evolution level, AI optimizes human-machine interaction by handling standardized tasks and providing real-time decision support. It also leverages tools to stimulate collective intelligence, enabling focus on core innovation activities during the three stages of idea generation, development, and evaluation.

3.2 The risk of generative AI suppressing creativity

While generative AI enhances efficiency, attention must also be paid to its potential risks of stifling creativity [9]. The risk of collective originality decline arises because generative AI relies on historical data for training, leading to homogenized outputs. Overreliance on generative AI for creative production may result in significantly increased similarity among outputs, with repeated training on homogeneous data causing generational degradation. The risk of individual creativity erosion arises when overreliance on generative AI substantially weakens users' critical thinking, transforming them from creative agents into mere command input providers [10]. Furthermore, the apparent perfection of AI-generated works can induce self-doubt in users, thereby suppressing their own creativity. Risk of High-Level Innovation

Barriers: Generative AI can only achieve low-level creativity like combination and rule-based fine-tuning. It lacks transformative creativity involving interdisciplinary reflection, intentional breakthroughs, and embodied experience, thus failing to deliver fundamental innovation. Risk of Educational System Alienation: AI misuse causes students to neglect knowledge internalization. Standardized AI lesson plans also weaken teachers' ability to tailor instruction, squeezing out space for critical thinking and personalized innovation.

4. The positive impact of generative AI-driven job reshaping on the sustainability of creativity

Generative AI is reshaping workflows while simultaneously unlocking new possibilities for the sustained emergence and elevation of human creativity. Far from replacing creativity, generative AI can, under ideal conditions, serve as a catalyst for it.

4.1 Catalyzing creative generation mechanisms and optimizing cognitive resources

Generative AI reshapes work by catalyzing creative generation mechanisms and optimizing cognitive resources. Through its powerful cross-domain information integration capabilities, generative AI empowers individuals to transcend the boundaries of their knowledge repositories and professional cognitive frameworks [11]. By mining long-tail information and integrating heterogeneous data, the reshaped work boundaries expand significantly, offering individuals unprecedented access to diverse information inputs and cross-disciplinary fusion possibilities. Its capabilities in automated information processing and deep mining enable high levels of automation in tasks like information gathering, preliminary analysis, pattern recognition, and document summarization, freeing workers from low-cognitive-value "search-filter-organize" processes [12]. This cognitive offloading reshapes task structures, allowing workers to strategically focus scarce, high-quality cognitive resources on creative ideation, strategy formulation, and deep problem-solving for complex issues. Moreover, generative AI's ability to rapidly produce text drafts, visual concept maps, code snippets, and even preliminary business models enables "concept instant materialization." This "instant conceptual materialization" reshapes creative workflows, accelerating the core creative cycle of "ideation → prototyping → feedback → re-ideation." The time from concept inception to tangible validation is drastically compressed, enabling multiple rounds of optimization attempts within the same timeframe. This significantly boosts the speed of idea formation and the efficiency of adapting "novelty → practicality," supporting continuous creative refinement.

4.2 Empowering higher-order thinking and complexity management

Higher-order thinking and complexity mastery are essential safeguards for sustainable creativity. Through deep collaboration with generative AI, workers shift their cognitive framework from seeking certainty to embracing complexity and ambiguity. This cognitive restructuring demands and cultivates higher-order systemic thinking, critical scrutiny, and integrative reasoning among workers. It equips them to comprehend and navigate increasingly complex problems, laying the cognitive foundation for adapting to environmental shifts and devising systemic solutions—thereby enhancing creativity's resilience in intricate contexts. Generative AI is not an autonomous entity but a cognitive extension tool operating under precise user guidance and iterative feedback. High-quality job reshaping demands that practitioners continually deepen their understanding of problem essence, target states, constraints, and the boundaries of AI capabilities. This "meaning negotiation" and instruction optimization process within interaction constitutes profound cognitive training, continuously enhancing practitioners' structured understanding of their professional domains and their problem-modeling abilities. This process effectively fosters the strengthening of professional metacognitive capabilities. Generative AI may also present options containing latent biases or non-obvious risks. Effectively leveraging these outputs for creative decision-making requires practitioners to possess keen risk identification and assessment capabilities. This work redesign—involving critical scrutiny of AI outputs to detect potential logical pitfalls or adverse impacts—transfers part of the responsibility for explicit risk evaluation to the practitioner. This assumption of responsibility compels workers to continually strengthen their systematic consideration of value ethics, social impact, and long-term consequences. The enhancement of this capability transfers to the overall decision-making and conceptualization process, making creativity more robust and forward-looking, thereby reinforcing the sustainable foundation of creativity at a deeper level.

4.3 Expanding creative networks and empowering virtual collaboration

Facing inherent challenges in distributed collaboration—such as knowledge silos, experience loss, and high communication costs—generative AI is emerging as a novel tool that pioneers new pathways for virtual creative synergy. It primarily achieves empowerment through the following three dimensions.

Seamless access to distributed creative resources: Generative AI serves as a powerful, round-the-clock virtual expert repository. It reshapes the relationship model through which workers access creative support, breaking through physical and organizational boundaries. Individuals can now obtain cross-disciplinary knowledge inspiration, alternative perspectives for review, and simulated collaborative feedback "on-demand, instantly." This ability to efficiently and frictionlessly engage with diverse intellectual resources has become a vital external support system for maintaining creative flexibility and fluidity while working independently. Distributed creative resources seamlessly accessible: Generative AI functions as a powerful, round-the-clock virtual expert pool. It redefines the relationship between workers and creative support, transcending physical and organizational constraints. Individuals gain "instant-on-demand" access to cross-disciplinary knowledge inspiration, alternative perspectives for review, and simulated collaborative feedback. This high-efficiency, low-friction access to diverse intellectual resources has become a vital external support system enabling individuals to sustain creative flexibility and flow while working independently.

Knowledge assetization and collective intelligence Accumulation: Generative AI possesses learning and memory capabilities. Through continuous refinement of prompts, annotation of high-quality outputs, and training of specific fine-tuned models, individuals and teams essentially standardize their high-value experiences, core methodologies, and techniques for solving specific challenges. These standardized AI models or toolchains themselves become collective intelligence assets that can be continuously invoked and refined. Far from being depleted, they gain value through sharing and iteration. This assetization reshapes the sustainable foundation of knowledge creation—shifting from the random inheritance reliant on individual experience to the dynamic accumulation and transmission of organized intellectual capital. It provides a perpetual source of energy for the continuous renewal and scaled growth of organizational creativity.

The potential for deep virtual collaborative dialogue: Generative AI possesses the capability to comprehend and respond to complex conversations, opening new avenues for profound virtual collaboration. It can simulate specific roles, facilitate structured brainstorming sessions, or instantly distill consensus and disagreements within dialogues. This mechanism transforms the depth and efficiency of cross-temporal creative discussions. In scenarios lacking face-to-face interaction, it significantly reduces collaboration costs and enhances the knowledge-gain efficiency of virtual interactions. It serves as a vital connecting link for sustaining the continuous collaborative output of creativity within long-term partnerships of distributed creative teams.

5. The negative impact of generative AI-driven job reshaping on the sustainability of creativity

Generative AI-driven job reshaping boosts short-term efficiency while posing profound challenges to the sustainability of creativity. By causing the atrophy of foundational creative skills, exacerbating the risk of homogenization within the innovation ecosystem, and eroding creative agency, it may inadvertently erode long-term innovation capabilities and disrupt the equilibrium of creative sustainability.

5.1 Atrophy of foundational creative skills

The core operational model of generative AI involves receiving instructions and producing content. This paradigm is shifting the focus of many creative tasks from "zero-to-one" original conception to "one-to-many" filtering, editing, and optimization. This transformation profoundly impacts creators' fundamental creative skills. The generative AI-driven reshaping of work leads to the "use it or lose it" phenomenon in creators' foundational creative abilities [13]. When generative AI can instantly produce multiple creative proposals, practitioners' opportunities for foundational training—such as brainstorming, sketching drafts, and writing initial drafts—will drastically diminish. Over the long term, critical skills for creative professionals—including problem-solving abilities, resilience through trial-and-error iteration, and intuition gained through hands-on practice—face the risk of atrophy. Creativity does not emerge from thin air; it builds upon extensive training in foundational skills. The instant gratification offered by generative AI may cause a new generation of creators to bypass this essential, arduous

accumulation phase, resulting in unstable creative foundations. Moreover, generative AI outputs are fundamentally probabilistic combinations based on existing data patterns. It excels at imitation and rearrangement but lacks genuine understanding, intent, and critical perspective. When workers grow accustomed to accepting AI-generated drafts, their focus unconsciously shifts from relentless deep thinking to evaluating superficial results. This may trap them in a cycle of surface optimization, eroding their capacity for profound questioning of problems' essence and challenging established assumptions—the very wellspring of breakthrough innovation.

5.2 Heightened risk of homogenization in the innovation ecosystem

The training data of generative AI models defines the boundaries of their capabilities and perspectives. Relying on AI for creative generation inevitably introduces its embedded biases and limitations into the innovation process, significantly restricting the scope of job reshaping within the innovation ecosystem. Algorithmic bias stifles diversity. If training data is inherently incomplete or historically biased, AI-generated content amplifies these biases, creating a cultural echo chamber effect. When countless creators uncritically adopt these outputs, it leads to macro-level homogenization of cultural products and creativity. This stifles niche, marginal, or emerging cultural expressions, undermining the diversity of cultural evolution—a direct contradiction to core sustainability principles. The risk of stylistic convergence toward "mediocrity." Generative AI optimizes its outputs by learning the most prevalent patterns within vast datasets. This makes it adept at producing standard-level work but struggles to generate truly unique, eccentric, or ahead-of-its-time masterpieces. Overreliance on AI may foster a phenomenon of "stylistic convergence," where works across creators exhibit unsettling similarities in aesthetics, narrative structure, and linguistic style. The vitality of creative industries thrives on diversity and mutation. Yet AI-driven optimization logic may inadvertently penalize deviations from the "mainstream," thereby stifling the breadth of artistic and intellectual experimentation.

5.3 Dissolving creative agency

Creative acts are not merely about producing works; they are processes of defining the self and exploring the meaning of the world. While generative AI has accelerated the short-term transformation of work, it poses a challenge to the agency inherent in creation. Intrinsic motivation is being replaced by instrumental rationality. Psychologists emphasize that genuine creativity is often driven by intrinsic motivations such as curiosity, pleasure, and the need for self-expression. Yet in professional settings, AI's introduction significantly amplifies instrumental rationality. When faster, cheaper content generation becomes the core KPI, the space for trial-and-error, experimentation, and contemplation inherent in the creative process is compressed. Workers may shift from "creating for creation's sake" to becoming "tools for task completion," with intrinsic motivation replaced by external pressures. Over time, this leads to creative burnout and inspiration depletion. Blurred authorship and lost sense of value [14]. When an AI handles the core concept and most execution of a work, where does the human creator's contribution lie? This triggers a profound crisis of authorship. Creators may struggle to develop the same deep emotional connection and sense of accomplishment toward AI-generated works as they do toward their own "biological" creations. This loss of value diminishes individuals' identification with and sense of mission toward creative work, undermining the psychological foundation for sustained creative engagement. Sustainable creativity requires positive emotional feedback and meaningful support, and the blurring of authorship poses a direct threat to this.

6. Conclusions and prospects

6.1 Conclusions

This study delves into the complex impact of generative AI-driven job reshaping on the sustainability of creativity. Findings reveal that its influence is far from a simple promotion or suppression, but rather a dialectical unity filled with tension.

Through job reshaping, generative AI has pioneered new pathways for sustaining creativity. By enhancing cognition, optimizing processes, and expanding creative ecosystems, it significantly boosts the efficiency and diversity of idea generation. This enables workers to focus more intently on higher-order, strategic innovation activities, thereby paving the way for sustained creative outbursts. However, this technology-driven transformation carries significant structural risks. Overreliance or

misapplication of AI may lead to the "use-it-or-lose-it" degradation of individual creative skills, the 'homogenization' of collective creative outputs, and the "instrumentalization" of intrinsic creative motivation. Generative AI's learning model, based on historical data, carries inherent risks of reinforcing biases and stifling diversity. Its "fast-food" output characteristics may erode creators' habits of deep thinking and their resilience for trial-and-error exploration, ultimately depleting the deep foundations upon which creativity thrives.

Therefore, the sustainable future of creativity depends not on the technology itself, but on how we design, manage, and guide it. The core lies in shifting from "replacing humans" to "enhancing humans," building a new paradigm of human-centered human-machine symbiosis.

6.2 Management Insights

In organizational management practices, the application of generative AI has become a vital tool for enhancing work efficiency and creativity. However, the adoption of generative AI suggestions has a double-edged effect on creativity, potentially both fostering and inhibiting its development. Therefore, to maximize the positive impact of generative AI while minimizing its potential negative effects, organizations need to implement a series of management strategies.

Organizations should gain a deep understanding of the essence and structure of generative AI suggestion adoption, clearly defining its role within organizational management. Generative AI suggestions undergo three stages: solicitation, evaluation, and adoption. During solicitation, organizations should encourage employees to articulate needs clearly so the AI system can generate more relevant recommendations. In the evaluation stage, employees must screen and refine AI-generated content to ensure accuracy and feasibility. Finally, during adoption, employees decide whether to implement AI suggestions based on evaluation outcomes.

Organizations should explore the impact mechanisms of generative AI suggestion adoption on individual and team creativity from the perspectives of social cognitive theory and goal orientation theory. For individuals, generative AI suggestion adoption may enhance the dynamic equilibrium between their sense of efficacy and dependency. Organizations should enhance employees' understanding and application of generative AI technology through training and education, while cultivating critical thinking to prevent overreliance on generative AI. For teams, adopting generative AI suggestions may influence goal orientation, promoting the formation of either learning-oriented or performance-oriented goals. Organizations should encourage teams to engage in in-depth discussions and practical validation around generative AI suggestions to strengthen learning motivation and innovation capabilities.

Organizations should monitor how adopting generative AI suggestions impacts team creativity. Such adoption may indirectly influence creativity through sequential mediators: team learning goal orientation and novel information seeking. Organizations should encourage in-depth discussions and collaboration around AI suggestions to strengthen learning goal orientation, thereby fostering knowledge growth and skill enhancement among team members. Simultaneously, organizations should monitor the effects of team performance goal orientation and deep information processing, preventing team members from overemphasizing short-term objectives at the expense of thorough information processing.

When introducing generative AI technologies, organizations must understand the underlying mechanisms and boundary conditions, implementing effective management strategies to foster sustainable creativity. Through rigorous research and practical application, organizations can better leverage generative AI to enhance operational efficiency and innovation capabilities, ultimately achieving long-term organizational development goals.

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