

Creativity and its Management driven by Generative Artificial Intelligence

Special Issue Guest Editors

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Purpose

Creativity and Innovation Management is delighted to announce a special issue on "Creativity and its Management driven by Generative Artificial Intelligence." This special issue aims to explore the relationship between creativity, its management and the transformative power of generative artificial intelligence (GenAI). In recent years, computer science development led to a set of tools such as ChatGPT, GitHub Copilot, Midjourney, Bard, DeepMind and DALL-E, which are all examples of GenAI. They form "a class of machine learning technologies that can generate new content - such as text, images, music, or video – by analyzing patterns in existing data" (Brynjolfsson et al. 2023). Furthermore, in addition to the named tools, "there are also applications closer to R&D in science and design. Autodesk has, for many years, incorporated features into its design software that use goals and constraints set by users to generate and test physical designs. Some of the tests include strength testing and modelling of thermal flows" (Euchner 2023).

Creativity and innovation lie at the heart of organizational success, requiring a delicate balance of resources, techniques and motivation (Amabile, 1988 and 2020) as well as the interplay between fostering imaginative thinking and executing results-oriented projects (Verganti et al, 2020). The impact of AI on companies and the way innovation management is structured has been transformative (Haefner et al., 2021). While the theory and research around AI in creativity and its management have been explored to some extent, there remains a significant gap in terms of GenAI. This special issue aims to address this gap by inviting researchers to contribute qualitative research, case studies, theoretical frameworks, and theory-testing research to deepen our understanding of the relationship between GenAI and creativity as well as its management, and their sociotechnical dynamics.

Recently research has already shed some light on the relationship between (Gen)AI and creativity. Some examples: Mejia et al. (2021) highlight the role of AI and computational methods in advancing our understanding of creativity. Haase and Hanel (2023) challenge assumptions by demonstrating no qualitative distinction between creativity generated by AI and humans. Doshi and Hauser (2023) present evidence of how GenAI enhances creativity by offering new creative possibilities. Amabile (2020) highlights the potential for AI and computer-assisted human intelligence to achieve creative advancements. Girotra et al. (2023) provide insights into the

ideation capabilities of large language models like ChatGPT-4, surpassing human students, and offering implications for innovation management.

Haefner et al. (2021) emphasize the transformative impact of AI on innovation management, presenting a framework that outlines the degree to which AI can replace human involvement and the considerations for transitioning to a digitally driven innovation organization. Noy and Zhang (2023) give experimental evidence on the productivity effects of GenAI leading to output quality improvement of professional writing tasks. Girotra et al. (2023) provide insights into the ideation capabilities of large language models, surpassing human students, and offering implications for innovation management. Botega and da Silva (2020) present an AI-based system for selecting creativity and innovation techniques. Additionally, Bouschery et al. (2023) explore how transformer-based language models can assist and augment human innovation teams, while Christensen et al. (2018) investigate the use of automatic idea detection systems to identify user-contributed ideas in online communities, highlighting the potential for AI to assist in the ideation process.

Research focus

We invite researchers to delve into the multifaceted intersection of GenAI, creativity and innovation, exploring not only the impact of AI on individual and organizational innovative behaviour, but also the intricate dynamics of motivation, and evolving work environments. Submissions exploring the deliberate development of creative and innovative skills through AI-based tools, such as design thinking (Johansson-Sköldberg et al., 2013; Hölzle & Rhinow, 2019), TRIZ (Möhrle, 2005), or Creative Problem Solving (Isaksen, 1985; Treffinger, 1995, Buijs et al., 2009), are encouraged.

We anticipate that the insights generated from this special issue will advance academic knowledge and offer practical implications for organizations seeking to unlock the full potential of GenAI in managing and nurturing creativity as well as its management. Topics of interest for this special issue include, but are not limited to:

Theory Development in GenAI-Driven Creativity and its Management

Theoretical frameworks for GenAI's impact on creativity

Theoretical frameworks for GenAI's role in creative thinking and idea generation.

Conceptual models of GenAI-enhanced creative processes.

Conceptual models for the integration of GenAI in the creative process.

GenAI in the Creative Process

Role of GenAI in fostering creative thinking and idea generation

Integration of GENAI technologies in the creative process

AI-driven design thinking and prototyping

AI-based prediction of future trends and opportunities for innovation

Impact of GenAI on Individuals

Cognitive and psychological aspects of GenAI-driven creativity management

Human-GenAI collaboration in creative endeavors

Impact of GenAI on Organizations

Impact of GenAI on creative team dynamics and collaboration

AI-supported creativity workshops and training programs

AI for fostering cross-disciplinary collaboration and creativity

GenAI in Creative Professions and Industries

GenAI-enabled creative entrepreneurship and startups

GenAI in the creative arts, music, and literature

GenAI in the gaming and interactive media industry

Ethical and Societal Implications of GenAI in Creativity

Ethical considerations in GenAI-enabled creativity management

Legal and intellectual property challenges in AI-generated creative outputs

GenAI and its societal impact in fostering creativity and innovation

Effects of GenAI on Innovation Strategy and Creativity Performance

Strategic opportunities created by GenAI

Effects of GenAI on creativity performance

GenAI-driven creativity assessment and evaluation methods

Exploring risks and risk management in GenAI-driven innovation

Investigating cybersecurity considerations in GenAI-enabled creativity and innovation

Manuscripts submitted to this special issue will undergo a rigorous double-blind peer-review process. Authors should adhere to the submission guidelines provided by *Creativity and Innovation Management*.

Submission Deadline & Review process

Submission deadline for first submission: **March 31, 2024**.

The submission must be made on CIM website. All submissions will undergo the regular double-blind peer-review process at CIM, which will be handled by the guest editors. Please refer to the author guidelines provided at:

<https://onlinelibrary.wiley.com/page/journal/14678691/homepage/forauthors.html>

Workshop with authors: June 2024 (at the R&D Management Conference in Stockholm) or in September 2024

If you have any questions, please feel free to contact one of the guest editors.

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