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Generative AI Adoption and Its Impact on Knowledge Creation and Human Creativity

Karthik Subramanian [a*], Nandhini Ravi [b]

[a*] *South Asia Institute for Rural Innovation Studies, Coimbatore, Tamil Nadu, India.*
[b] *South Asia Institute for Rural Innovation Studies, Coimbatore, Tamil Nadu, India.*

Abstract

This research investigated the use of generative artificial intelligence technology and its effects on knowledge creation and human creativity. Specifically, this research looked at how the integration of generative AI systems into knowledge-intensive processes like idea generation, content creation, problem-solving, information synthesis, and creative decision making had taken place. The study used conceptual and qualitative methods to analyze the link between generative AI use and knowledge creation/human creativity performance. Generative AI technology was examined in terms of its role in facilitating faster information processing, provision of alternative points of view, knowledge availability, and concept formation. The results showed that generative AI improved knowledge creation by speeding up information synthesis and collaborative learning, while allowing users to generate more ideas in less time. Moreover, it had helped in boosting human creativity through brainstorming, drafting, experimenting, and refining. Nevertheless, the use of AI outputs to an exaggerated extent had created certain fears about the aspects of originality, critical thinking, intellectual property, bias, and even the reduction of any creative effort performed independently. The study also found that the usefulness of generative AI depended not on the tool itself but on how the user worked with it. In turn, human reasoning, expertise, ethics, and reflection had continued to play an important role in evaluating and perfecting AI outputs. Overall, it was found that the best performance of generative AI as a cognitive and creative aid had relied on its complementarity with human knowledge and imagination rather than substitution of these features.

Keywords: Generative Artificial Intelligence, Knowledge Creation, Human Creativity, Digital Innovation, Human–AI Collaboration, Critical Thinking, Responsible AI.

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Introduction

Emergence of Generative Artificial Intelligence

The advent of Generative Artificial Intelligence (GenAI) was a landmark in the evolution of artificial intelligence since it facilitated the creation of novel text, images, code, sound, and many other types of digital content through computational systems based on learned patterns from massive data sets. In contrast to conventional AI use cases, which were mainly for classification, prediction, and recommendation, the generative AI helped facilitate interactions in the creation of digital content by letting users engage in the process of learning and creation interactively.

The quick adoption of generative AI altered the way people as well as enterprises treated the task of processing information and conducting intellectual labor. The use of transformer language models in innovation groups in order to conduct ideation, concept development, and problem solving became more popular, proving the ability of GenAI to be used not only for automation but also for augmentation of human labor (Bouschery et al., 2023). Likewise, there were new possibilities for businesses to rethink the process of their operation, value creation, customer interaction, and innovation (Kanbach et al., 2024).

Moreover, the development of generative artificial intelligence technology has also brought about a major change in the interaction of computational tools and intellectual tasks of humans. While traditional information-processing systems were one-directional in their interactions with humans, generative models allow for interactive communication in which people may modify instructions and assess machine-generated outcomes while also finding other ways out. Thus, the field of application of such systems has been broadened to include research, education, business innovations, and creative industries. Nevertheless, the efficiency of these systems depends not only on the quality of the generated information but also on the level of contextual comprehension and critical assessment of the machine-generated output by the user.

Generative AI in Knowledge-Intensive Activities

Knowledge-based operations include gathering, processing, synthesizing, manipulating, and using information in problem-solving and knowledge-creation processes. Generative AI's role in these operations is growing, as it helps summarize complex information, draft ideas, suggest options, explain concepts, structure thoughts, and support output creation. This not only made the cognitive operations faster but also enabled users to focus on interpretation and evaluation.

Research findings show that generative AI can boost professional writers' productivity by helping users' complete tasks quickly while improving the quality of their work (Noy & Zhang, 2023). These productivity gains made it clear that GenAI could act as a cognitive aid for tasks associated with information gathering and knowledge creation. However, increased use of AI-generated content raised issues related to accuracy, accountability, intellectual property, misinformation, and the appropriate use of AI tools.

Moreover, generative AI has the potential to aid in the completion of knowledge-related activities through making it possible for information to be integrated from diverse sources and for people to consider complicated issues from various angles. The fact that generative AI is capable of generating explanations and organizing ideas and alternative viewpoints could make knowledge-related tasks more efficient. In professional and educational settings, this could help people identify useful information, create initial interpretations, and communicate their knowledge better. However, the information generated by AI cannot be viewed as independently verified knowledge due to the possibility of inaccuracies and lack of context.

Changing Nature of Human Creativity in the AI Era

Historically, people's creativity was based on imagination, experience, domain knowledge, experimentation, and the capacity to recombine previously known ideas. Generative AI shifted the creative process by giving people immediate access to ideas, drafts, visions, and potential solutions. Instead of creating something from scratch, people could collaborate with AI systems to generate initial ideas and then critique, revise, combine, or discard them.

Studies found that generative AI could improve individuals' creative performance, but it also raised fears that many people using similar AI-generated ideas could produce less diverse output (Doshi & Hauser, 2024). Moreover, studies comparing generative language models with humans found AI performed exceptionally well on divergent thinking tasks, suggesting that this technology can produce highly creative output under certain conditions (Hubert et al., 2024). Nonetheless, the machine-generated novelty did not diminish the role of human interpretation, context understanding, emotional comprehension, and intentionality.

As a result, AI collaboration with creativity became more prominent than mere competition. AI could act as an ideation partner, allowing people to explore more opportunities, but humans would still choose what is relevant and valuable in terms of meaning and significance. In this sense, AI is a tool that supports creativity, and its effectiveness depends on how well a person integrates AI-generated outputs into the overall creative process (Ivcevic & Grandinetti, 2024). On the other hand, theoretical discussions of LLM creativity have raised concerns about the difficulty of equating computational novelty with human creativity (Franceschelli & Musolesi, 2025).

In addition to the changing relationship between generative AI and human creativity, there arise other issues regarding the question of creative ownership, originality, and human intentionality in the emergence of innovations. The fact is that the existence of various AI-suggested ideas can widen the scope of creativity opportunities and help people try something new and different. At the same time, the existence of many different ideas does not automatically mean that there will be some creativity or originality in the process of working on something new. In other words, the participation of humans is required to choose relevant ideas, add personal experience, and ensure the contextuality of the output of creativity.

Research Problem and Study Objectives

Although generative AI has been implemented rapidly, its effect on knowledge creation and human creativity is complex. The ongoing debate usually focuses on generative AI's potential to improve productivity versus the risks of technology dependence, reduced originality, and decreased human participation. Nevertheless, knowledge creation and human creativity include more aspects, including information synthesis, learning, experimentation, critical thinking, decision-making, and collaboration.

The core issue this research focused on was the lack of integrated understanding of how generative AI adoption affects knowledge creation and human creativity. The study aimed to examine the use of generative AI for knowledge creation, identify its impact on the generation and development of ideas, analyze collaboration between humans and AI in knowledge creation, and assess risks in the generated knowledge.

In addition, this research is also intended to overcome the theoretical problems related to the issue of the relationship between technological assistance and the independent intellectual effort of humans. While it may help in synthesizing information, generating ideas, and solving problems, the impact that the use of generative AI has on critical thinking, creativity, and knowledge validation needs to be studied. In this way, the research highlights the necessity of considering the enablers and limitations of using AI-based technologies. By merging the concepts of knowledge acquisition, creative engagement, and responsible technology usage, this research intends to develop a holistic view of the changing role of generative AI.

Significance of the Study

This study is significant because it analyzes technology adoption, knowledge generation, and human creativity together. The focus is not only on using generative AI as a productivity tool but also on its overall cognitive and creative potential. This aspect is relevant because generative AI technologies are beginning to affect people's information search, idea generation, reasoning, problem-solving, and creativity.

Furthermore, the current study is significant for organizations, academics, researchers, and professionals because the value of generative AI technologies depends on their contribution to human capabilities. Critical thinking has gained importance recently as the results of using AI technology begin to appear in learning and decision-making. Evidence from higher education suggests that AI text generators may affect critical thinking processes (Essien et al., 2024). Therefore, this research offers an opportunity to analyze the benefits and drawbacks of adopting generative AI technologies and provides a basis for knowledge development.

Moreover, the relevance of this research lies in gaining insight into the potential ways of embedding the technology of generative AI into professional and academic settings without infringing on the intellectual autonomy and responsibility of people. The results might serve as conceptual grounds for developing an appropriate strategy for knowledge activities that is based on AI for educators, researchers, organizational leaders, and policymakers. In terms of exploring both the potential and constraints associated with interaction between humans and artificial intelligence, the study emphasizes the role of digital literacy, critical thinking, and ethical consciousness in technology usage.

Literature Review

AI-Assisted Information Synthesis

One of the biggest benefits of generative AI in knowledge formation is its ability to process, organize, and deliver vast amounts of information conveniently. The ability to condense long texts, compare concepts, identify topics, rephrase complex statements, and construct explanations lies at the core of generative AI. They can reduce information overload and help people interact with large, diverse sources of knowledge more efficiently.

Nevertheless, successfully synthesizing information requires the ability to assess the reliability, relevance, and completeness of answers generated by AI systems. Generative AI systems may support reasoning only when prompts are designed for analysis, not just for getting an answer. For instance, ChatGPT was recognized as a tool for developing critical-thinking skills in problem-based writing assignments. As a result, AI-assisted knowledge creation depends heavily on how users interact with the system (Janse van Rensburg, 2024).

In addition to these benefits, AI-assisted synthesis of information can also contribute to knowledge development because it makes it possible for the user to find relations between concepts, compare opposing perspectives, and structure complicated information. This approach is especially useful when one needs to analyze vast amounts of information within short periods of time during academic research or when making professional decisions. AI technology can help create initial summaries and structures for analysis of the information. However, it is important to carefully verify information sources, consistency of facts, and completeness of explanations. Human verification is still needed to be able to distinguish credible interpretations from those that are misleading or incorrect.

Idea Generation and Knowledge Expansion

Using generative AI to generate alternative viewpoints, connections, insights, and solutions may help expand knowledge, as users can consider possibilities and solutions that might otherwise go unnoticed. For brainstorming and discovery, AI-based recommendations help users explore a variety of possibilities, stimulating further exploration. This is particularly relevant in research, innovation, learning, design, and other knowledge-intensive fields.

In light of such observations, human-AI co-creativity has become a subject of much interest. Research indicates that engaging with ChatGPT may affect an individual's creative performance by helping them generate and develop ideas (Medeiros et al., 2025). The creative impact of generative AI, however, varies from person to person and depends upon how the technology has been integrated into the creative process. Field research has also found that the impact of generative AI on creativity may differ across users, suggesting that AI assistance may offer individually unique creative advantages (Sun et al., 2025).

Furthermore, generative AI may assist in expanding knowledge by inspiring users to make connections between different fields and find new ways of understanding previously existing information. With the help of interactive processes, people can formulate initial ideas, challenge commonly held beliefs and find possible avenues for future exploration. This is especially relevant to research and innovation that demand the synthesis of various notions and viewpoints. However, the utility of such ideas generated by the machine will always depend on one's ability to evaluate their relevancy, novelty and feasibility. Therefore, any knowledge expansion via generative AI needs to be supplemented with constant human evaluation and experimentation.

Human–AI Interaction in Knowledge Development

The creation of knowledge using generative AI should be viewed as an interactive process that relies on complementary skills of humans and AI systems. While generative AI can quickly recognize patterns, generate alternatives, restructure text, and suggest connections, people bring contextual skills, experience, intentions, ethics, and the ability to judge whether the result makes sense.

Comparing the human and large language model creativity research showed both the similarity and the difference in the way creative language is created, thus confirming the need for analysis of the interaction between the two parties in terms of creativity (Orwig et al., 2024). Hence, the interaction process between human and AI systems consists of cycles of prompting, interpretation, verification, revision, and refinement.

Human–AI interaction in knowledge creation may be enhanced through effective communication between the user and the intelligent system. Properly phrased instructions, contextual knowledge, and feedback may enhance the relevancy and appropriateness of answers generated by artificial intelligence systems. Meaningful collaboration may require human beings to actively participate in questioning assumptions and limitations, analyzing alternative outputs and other important aspects of interaction. This kind of interaction may assist people to engage in reflective learning since they

may be able to compare what is suggested by the machine with what they know from experience. Human–AI interaction should, therefore, be seen as a knowledge creation process.

Collaborative and Organizational Knowledge Creation

Generative AI is also an important factor influencing the development of collective knowledge creation within organizations. The organization needs to share explicit and tacit knowledge among its employees, teams, divisions, and digital systems. Generative AI can help the organization in the process through summarization of documents, assistance in coding and documentation, creation of reusable knowledge resources, and helping employees find dispersed knowledge within the organization.

Software development processes show that generative AI has become a relevant technology for knowledge management due to the ability to generate knowledge, to share it, retrieve it, and apply it to new cases (Kirchner et al., 2025). Still, the effective use of generative AI within organizations cannot be achieved only with the use of technology. It requires that the employees have sufficient AI literacy which will help them understand the abilities and limits of the system, prompting, verification, and ethical issues. The research conducted among university students also shows that generative AI literacy develops through interactions with technology and moves from mere use of tools to process awareness (Yan et al., 2025).

In addition, the use of generative AI in organizational knowledge management is likely to help organizations collaborate through improved accessibility, organization, and exchange of information among the organization's personnel and departments. Intelligent systems could play a role in determining the relevant knowledge in an organization, recording the experience gained from professional activities, and helping communicate across functional areas. This would help the organization learn and reuse existing knowledge in different situations. However, the success of such a strategy would require proper governance of information, training of employees, and validation of AI-generated information. Organizations have to be careful of issues related to confidentiality and intellectual property when using AI in knowledge sharing.

Risks of AI-Generated Knowledge

Even though AI-generated knowledge provides certain benefits, there are numerous risks associated with reliability, originality, bias, dependency, and intellectual responsibility. Generative AI is able to create reliable-looking but false information, repeat biases inherent in the training data, and create outputs that lack any transparent proof of how those conclusions were reached. By accepting this information as true without verifying it, users may make mistakes in research, education, decision-making, and professional work.

The sphere of creativity faces similar challenges with authorship, originality, artistic merit, and defining the boundary between the involvement of human and computer intelligence. It has been shown that the application of generative AI in art proves that algorithmic systems can affect the process of creating and evaluating creative outputs and raise wider questions on how human creativity can be defined in such conditions (Zhou & Lee, 2024). Therefore, AI-generated knowledge cannot be considered as a completely independent creator of authoritative information. The results produced by it need critical analysis, source verification, contextual interpretation, and human accountability. Thus, the responsible use of this technology must necessarily involve AI literacy, transparency, ethics, and maintaining the independence of thought along with productivity and creativity.

Moreover, the growing dependence on knowledge created by AI creates several issues regarding information validity, intellectual responsibility, and independence of thought. The users may become too confident in the explanations provided by the algorithmic tools, especially those that seem well-formulated and professional. This may lead to the acceptance of claims without proper evidence, ignorance of other explanations, or propagation of incorrect information. In the academic, scientific, or professional spheres where the reliability of the knowledge is directly linked to making decisions, such issues should be considered very carefully. To mitigate them, the following strategies should be applied: transparent use of AI technologies, systematic verification of sources, and acquiring AI literacy.

Human Creativity in AI-Augmented Environments

Generative AI and Creative Idea Formation

AI has been contributing to the initial phases of creativity by helping to generate ideas, exploring concepts and creating alternatives. In the traditional creative process, people tend to rely on their existing knowledge base, experience and associations in order to come up with new ideas. AI-based systems, in addition to these tools, help to generate multiple

alternatives based on a particular prompt in a very short period of time. The ability to do so is especially beneficial for those who face the problem of idea fixation or lack of creativity.

Nevertheless, even with the assistance of AI, the process of idea generation is still inseparable from human creativity. The ideas generated by AI are to be interpreted, chosen, changed and adapted to a particular context. The human user decides whether the idea is good, unique and relevant to the desired purpose.

Additionally, generative AI has the potential to affect the creation of new ideas through prompting the testing of different ideas and aiding in the discovery of various ways to solve the problem. One could use AI-created suggestions as initial material for creating novel ideas, merging different concepts, and looking at different creative directions. This approach might help people overcome initial creative obstacles and expand their conceptual perspective on a certain task. At the same time, generation of many different ideas does not necessarily mean that useful results will be achieved. Selection, alteration, and implementation of the ideas are still contingent upon human imagination, experience, and evaluation.

AI-Supported Brainstorming and Content Development

Generative AI can help with brainstorming through providing prompts, ideas, examples, alternative perspectives, and suggested content. Users can collaborate with AI iteratively to work on refining ideas and creating content at different stages when working on writing, design, research, marketing, education, and innovations. The collaboration may lead to reduced time spent on drafting and more time devoted to organizing and improving quality of the content.

The content development through collaboration with AI may be accomplished through outlining, rephrasing, summarizing, expanding, comparing and adapting content for various audiences. The creative potential of such assistance is dependent on active involvement of the users. If people start working with generated content, AI may serve as a collaborative partner. Otherwise, the collaboration will turn into passive activity leading to less reflection and creativity.

In addition to that, the brainstorming process with the help of AI can help develop a collaborative creation of content, as it will create a flexible setting to try out ideas, shape arguments, and experiment with various forms of presentations. Generative tools can help the user arrange initial ideas, construct an outline of the material, and adjust it based on certain goals and targets. This may increase productivity in working on the material while focusing more on the actual idea development. At the same time, an over-reliance on automatic ideas and suggestions might result in less room for individual exploration and creativity.

Originality, Novelty, and Creative Independence

Originality is one of the main issues in creativity using AI. The generative models generate their output through detection and combination of certain patterns from the previously learned data, and it makes one question the actual originality of the generated output or its being just an advanced version of previously existing data. While AI is able to create new combinations and different styles, the originality will always depend on how the output will be assessed and modified by the user.

Creative independence can be compromised because of dependence on the machine-generated recommendations. Being exposed to the same patterns from the machine over time can affect a person's own thinking processes and result in a lack of variety of creative approaches. Consequently, maintaining the originality becomes possible only if the user treats the machine-generated output as the input, and not the final product.

Furthermore, the maintenance of originality during AI-enabled creative work calls for a strict separation of AI recommendations from genuine human contributions. Indeed, while generative AI technologies are capable of coming up with different combinations of existing patterns, any creative significance of these results depends on their subsequent interpretation, reimagining, and implementation in a specific context. It is therefore necessary for humans to independently assess, experiment with, and critically reflect upon their results in order to achieve the creative outcomes that would reflect individual comprehension and intentionality. The encouragement of the modification of AI results rather than their direct usage may serve to foster creativity and prevent standardization of output.

Human Judgment and Reflective Thinking

Human judgment still plays a vital role in determining whether generated concepts are relevant, accurate, unique, and ethically appropriate. Generative AI can come up with many pieces of content; however, this AI tool alone cannot establish whether an output is suitable for a certain social, cultural, academic, and professional context. People need to engage in reflective thinking through the whole creative process.

Reflection includes questioning assumptions, making comparisons between different alternatives, recognizing the limitations, checking the evidence, and examining the implications of utilizing certain outputs. Reflective thinking is particularly important when the output of AI-generated content is polished and convincing because polished output may mislead people and give an impression of reliability despite the fact that the content itself is faulty or incomplete. Human judgment plays the role of quality control in turning machine-generated options into reliable creative outputs.

Moreover, reflective thinking is crucial in guaranteeing that knowledge and creative works created through the assistance of AI technologies are accurate and appropriate from an ethical point of view. People have to critically examine the assumptions embedded in the produced answers, compare other views, and decide if the obtained information corresponds to existing facts and criteria. As a result, reflective thinking helps people actively engage in the work rather than follow suggestions provided by the computer unthinkingly. Moreover, people help detect the hidden biases and contradictions which might be included in AI products. Consequently, it is important to promote critical thinking and reflective evaluation in order to maintain intellectual independence and use generative AI as a helper.

Creativity Risks from Excessive AI Dependence

Too much dependency on generative AI could limit the prospects for independent generation of ideas, experimentation, and mental effort. With constant use of AI for brainstorming, composing and problem-solving tasks, individuals will develop a sense of reduced confidence in their own creative skills. In addition, dependence on AI technology could lead to a standardization of products when a large number of users work with the same model and prompt.

There is also a risk that people will accept the product created with the help of generative AI without thinking since it will look professional and well-composed. The excessive use of AI technology could cause confusion as to the issue of authorship and responsibility. Thus, there should be a balance between human creative skills and AI tools.

Moreover, overusing AI tools can slowly change the way people engage in processes such as independent thinking, creative exploration, and solving problems. Constantly using automatically provided suggestions may demotivate users to generate and test any unique ideas, as well as develop solutions based on their personal reflections and experience. In addition, using similar AI-based patterns and suggestions can be among the factors contributing to creative products' resemblance created by various users. In order to avoid such challenges, users should ensure that they still have time for independent thinking, original product creation, and analysis before starting to work with the help of AI. Therefore, the use of generative AI must be balanced so that the intellect of humans is increased rather than independent thinking, originality, and creativity being replaced.

Generative AI Adoption Framework

Research Design and Conceptual Approach

For this study, the research design used was qualitative and conceptual, exploring how adoption of generative artificial intelligence impacted knowledge and creativity. Primary survey, experimentation, or hypothesis testing techniques have not been used in this research process. The study has been conducted by integrating pertinent academic research in the area under study and organizing the concepts recurrently seen into an integrated methodological framework. Conceptual design has been selected for the study since it involves multiple aspects of technology usage of generative AI, namely, cognitive, creative, organizational, technological, and ethical.

The analysis was conducted around how generative AI facilitates synthesis of information, ideation, development of content, expanding of knowledge, human-AI collaboration, critical thinking, and creative performance. Furthermore, the study has taken into account the aspects encouraging or discouraging generative AI adoption in terms of its usefulness, ease of use, trust, accuracy, digital literacy, ethical considerations, and organizational support.

It is through this approach that the research was able to establish the connection between the different dimensions without using empirical data. The conceptual approach also enabled an effective structure of linking technology aspects with human brain power. This led to the formation of an effective research design that helped create a comprehensive model of Generative AI adoption.

Literature and Secondary Data Sources

The study relied on secondary academic literature related to generative artificial intelligence, knowledge management, creativity, innovation, critical thinking, productivity, human–AI collaboration, and responsible AI. Journal articles were selected according to their relevance to the study objectives and their contribution to explaining the adoption, use, benefits, and risks of generative AI in knowledge-intensive and creative environments.

The literature was reviewed to identify how generative AI had been applied to idea generation, writing, information processing, learning, decision support, and collaborative knowledge creation. Particular attention was given to studies addressing the effects of AI on creativity, originality, productivity, critical thinking, and user interaction. The secondary sources therefore provided the conceptual foundation for developing the proposed Human–AI Knowledge and Creativity Framework.

The existing literature was also instrumental in establishing consistent relationships and concerns that have been noted with the adoption of generative AI technology. Differences in results obtained through various studies were taken into account when structuring the dimensions in the framework. Through this process, the framework developed has been based on established academic discourse.

Identification of Generative AI Adoption Factors

The initial analysis phase aimed at identifying the major determinants of adoption of generative AI technology. These determinants were classified into technological, individual and organizational categories. Technological determinants comprised of perceived usefulness, ease of use, availability, accuracy, response time, and capability of AI systems to enable knowledge intensive work. Individual determinants comprised of digital literacy, experience, AI system usage readiness, innovation openness and relevancy perception. Organizational determinants comprised of technical infrastructure, institutional support, learning opportunities, management endorsement, clear guidelines for usage and governance.

Trust was also regarded as a determinant of adoption since the end-user's required assurance that the generated information was dependable, relevant and proper. It was therefore evident that the adoption of generative AI was a multi-dimensional process that was influenced by system attributes and user readiness.

Such elements were thought to be interrelated rather than isolated predictors of adoption. It was understood that having technological capability may not lead to effective adoption if the users do not have necessary skills and confidence. Thus, the identified elements became an essential component of the input part of the suggested Human–AI Knowledge and Creativity Framework.

Perceived Usefulness, Ease of Use, and User Confidence

The perceived usefulness of generative AI was evaluated based on how users felt about whether such a technology could enhance productivity, learning, creation of knowledge, creative process, and decision-making. Generative AI was viewed as being useful when it helped to save time needed to complete routine cognitive tasks, synthesize information, generate alternative options or create content.

The ease of use was measured against the level of natural-language interaction availability as well as how easy it was for users to get something meaningful from this technology without having advanced technological skills. Nonetheless, it should be stressed that ease of use was separated from effective use, which was possible only with properly formulated prompts and their appropriate interpretation, verification and modification.

The user's confidence in generative AI was evaluated on the basis of accuracy, reliability, transparency, and verifiability of its output. The importance of the above dimensions lay in their ability to determine if users can incorporate generative AI in their knowledge-based and creative activities. Perceived usefulness and ease of use would motivate engagement, while perceived reliability of results might determine further use. This is why user confidence became an important factor bridging the gap between adoption and collaboration with the machine.

Ethical Awareness and Responsible AI Use

In addition, ethical issues were incorporated in the methodology due to the need for responsible use as a prerequisite for sustainable adoption of generative AI. Ethical issues considered were privacy, transparency, responsibility, biases, intellectual property, fairness, data protection, and proper disclosure of AI contribution. Such ethical issues became highly significant when AI output is expected to have any impact within an academic, professional, organizational or creative context.

The users had to be held responsible for evaluating any AI output before using it. Human evaluation was thus deemed necessary as a control mechanism within the framework. Confidential information, unsubstantiated claims, fictitious references, and biased output should always be evaluated carefully.

Consequently, the issue of responsible AI use became part of the methodological approach rather than a stand-alone result. Thus, ethical awareness became one of the essential elements of proper generative AI implementation. Human control over this process became especially important in order to check AI-generated products before integrating them

into knowledge or creative process. It also highlighted the idea that generative AI was to assist human judgment and not substitute it.

Thematic Identification and Analysis

This study utilized the thematic analysis technique to arrange the selected literature around conceptual categories. The key themes that emerged from the analysis include: adoption of generative AI, usefulness, ease of use, information synthesis, knowledge creation, ideation, creative output, cooperation between human and AI, trust, critical thinking, originality, ethical considerations, and vulnerability.

The themes were compared and categorized based on the connections of each of the themes within the overall process of knowledge creation supported by AI technology. Themes did not appear as the statistically tested variables but rather as conceptual constructs through which the interplay of technical capacity and cognitive/creative abilities of people was studied. Thematic structuring allowed for linking the recurring themes in the literature within an analysis framework. It also helped differentiate between the abilities of generative AI and the skills of humans necessary to assess and use it. Thematic structure thus formed a basis for incorporating the aspects of adoption, interaction, assessment, and results into the proposed framework.

Development of the Human–AI Knowledge and Creativity Framework

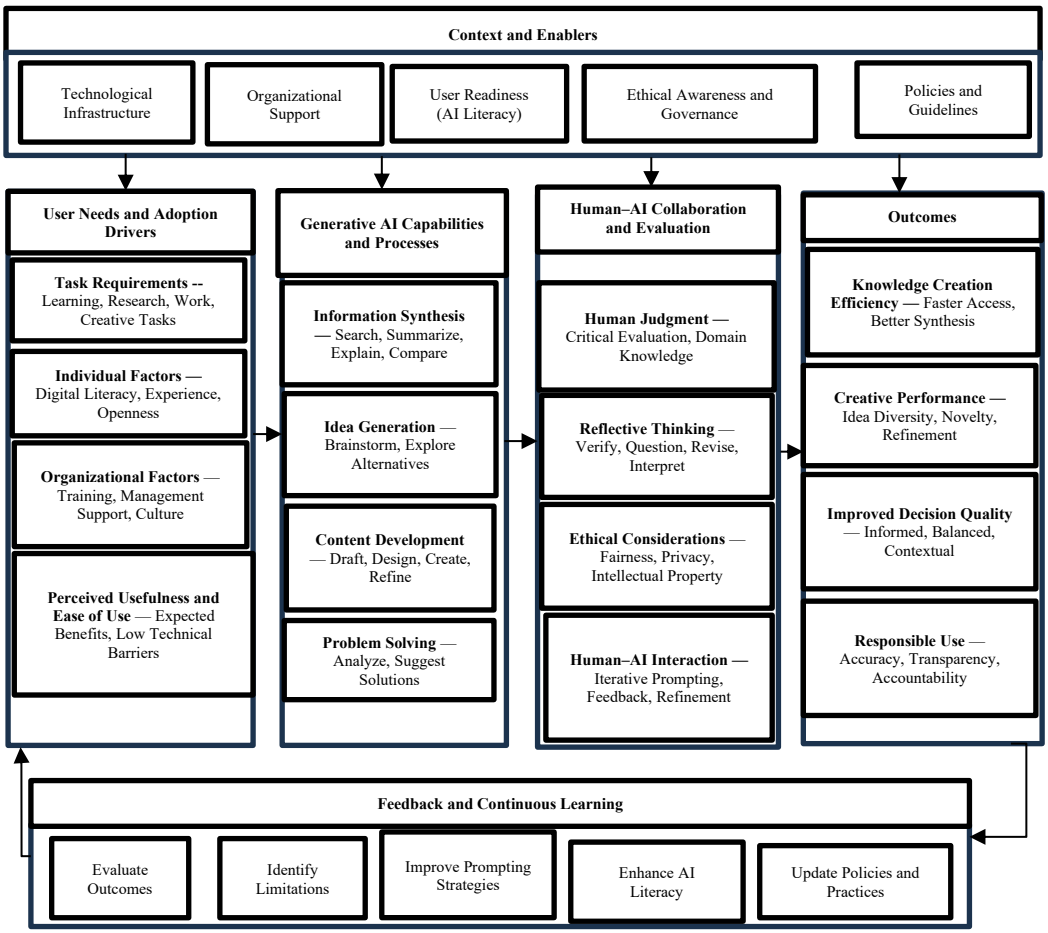


Fig. 1: Conceptual Architecture of Generative AI Adoption for Knowledge Creation and Human Creativity

The suggested model has been created using sequential synthesis of concepts. The first level has involved user needs, task requirements, and adoption factors such as usefulness, usability, digital literacy, trust, and organizational support. The second level has involved the utilization of generative AI, including information synthesis, idea generation, brainstorming, writing, problem-solving, and knowledge development.

The third level has included human evaluation of the results from the perspective of cognitive abilities, such as domain knowledge, critical thinking, reflective judgment, originality evaluation, and ethical consideration. It is at this level that

the output from AI tools can be approved, changed, combined with human ideas, or even rejected by users. The fourth level has been focused on knowledge and creative outcomes in terms of better knowledge creation, performance in the creative process, productivity, cooperation, and decision-making quality.

In other words, the framework viewed generative AI adoption as a process of continuous interaction between humans and AI rather than a one-way technological adoption process. Feedback from human evaluation and results assessment could be employed to enhance future AI employment, prompting, and decision-making processes. On the whole, the framework served as an integrated conceptual framework encompassing all these elements.

The fig. 1 below shows the architecture that combines the user needs and drivers for adoption of generative AI technologies, including information synthesis, ideation, content creation, and problem-solving. Human intuition, reflection, ethics, and collaborative human-AI work enable assessment and improvement of the outputs generated by the AI technologies. The result is enhanced knowledge creation, innovation, decision-making, productivity, and ethical practice.

Conceptual Evaluation Dimensions

This proposed framework has been assessed based on five dimensions: knowledge creation effectiveness, creative enhancement, human–AI cooperation, responsible use of AI, and cognitive independence. In terms of knowledge creation effectiveness, it was investigated whether the use of generative AI helps acquire, combine, structure, and develop knowledge. As for creative enhancement, the aspects that were under investigation were idea generation, originality, brainstorming, experimenting, and developing contents.

The dimension of human–AI cooperation was related to the possibility of both AI and humans applying complementary competencies to knowledge-intensive and creative processes. Responsible use of AI implied investigation of the issues such as trust, transparency, ethics, accountability, privacy, and fairness. Cognitive independence referred to the issue whether users kept their ability of critical thinking, reflection, originality, and independent problem solving.

These five dimensions have been used not for empirical assessment but for evaluation of the conceptual coherence and practical relevance of the proposed framework.

Table 1: Key Dimensions of Generative AI Adoption and Conceptual Evaluation

Dimension	Main Elements	Role in the Study
Knowledge Creation Effectiveness	Information access, synthesis, organization, knowledge expansion	Examines how GenAI supports efficient and structured knowledge development
Creative Enhancement	Idea generation, brainstorming, novelty, experimentation	Assesses the contribution of GenAI to creative exploration and refinement
Human–AI Collaboration	Prompting, feedback, interaction, human oversight	Evaluates how users and AI contribute complementary capabilities
Responsible AI Use	Trust, transparency, privacy, fairness, accountability	Examines whether AI is used ethically and with appropriate safeguards
Cognitive Independence	Critical thinking, reflective judgment, originality, independent problem solving	Assesses whether users preserve human reasoning and creative autonomy

The following table 1 highlights the key concepts of evaluation of adoption of generative AI. It correlates knowledge generation and creative enhancement with human-AI collaboration, responsible use, and cognitive autonomy. It clearly shows that successful adoption of AI technology requires not only advanced technology but also human involvement.

Findings and Discussion

Generative AI and Knowledge Creation Efficiency

The conceptual results revealed that the advent of generative AI dramatically transformed the way information-based processes were performed due to a decrease in the time needed for data searching, summarizing, reorganizing, initial drafts, and analysis. It allowed to obtain explanations, comparisons, alternative representations, and organized information in a timely manner which contributed to studying, making decisions, researching, and working with knowledge in an organization. Such efficiency became especially important in cases where huge amounts of information should have been analyzed in limited time frames.

Still, increased speed did not necessarily lead to improved knowledge quality. AI-created information may contain insufficient explanations, unjustified statements, out-of-date information or irrelevant representations. As a result, the process of knowledge creation still depended on the source validation, domain expertise, contextual knowledge, and

evaluation by a person. The results demonstrated that the most efficient use of generative AI was achieved when it helped to unload cognitive processing and devote more attention to interpretation and analysis.

Generative AI may also make the process of knowledge generation more accessible through the simplification of complicated technical terms, translation of difficult concepts, and structuring the information. However, such an approach may prevent users from reading the original text and developing their own understanding of the information presented. Therefore, the utility of AI in generating knowledge depends on whether it is used as a tool to facilitate learning or as the final authority in the process of knowledge generation.

Moreover, the theoretical results imply that the effectiveness of generative AI in the process of knowledge creation needs to be measured not only in terms of time saved but also in terms of accuracy, relevance, and applicability of the information generated. The use of AI in knowledge processes is able to help users learn from different fields, organize information better, and find connections between complicated concepts. Yet, to make sustainable progress in knowledge productivity, it is important to have verification systems in place and involve people actively in the process of developing information. Thus, educational organizations should promote responsible incorporation of AI technologies in their research, learning, and professional practices.

Idea Generation, Diversity, and Human Creative Performance

In terms of enhancing the early stages of the creative process, generative AI had good potential in coming up with many different ideas, perspectives, examples, and solutions to a problem posed with just one prompt. Such capabilities can assist people in overcoming creative blockage, considering various possibilities, and exploring areas that would not come into mind without an AI. AI ideation in writing, designing, innovating, marketing, researching, and communication can speed up the brainstorming process and provide for iterative ideation.

The results have shown that AI could help people perform better in terms of creativity by making it easier to start doing something. They could use the initial draft, concept, outline or anything else, and then adjust it according to their goals. The opportunity for quick comparison and experimentation with various creative ideas was provided. Consequently, generative AI could function as a means of stimulating creativity.

While there were several benefits, diversity of ideas had to be maintained with care. In case a large number of users depended on certain models, prompts, or defaults, the generated content might turn out to be similar in structure or conceptual terms. This similarity could decrease originality of the group as a whole even though individual users felt like having more ideas. In this respect, the maintenance of diversity required from users questioning, interpreting, combining, and modifying AI-generated suggestions rather than simply following them.

The human creative performance was still dependent on intentionality, experience, context knowledge, emotions, and judgment. The generated novelty did not imply any meaningful creativity. Hence, the results confirmed the augmentative approach where AI broadened the creative search space but humans-maintained control over originality and creativity.

Moreover, the research highlights that the creative potential of generative AI relies on the degree of active engagement of individuals with the machine-produced content, rather than the adoption of the content without any modifications. Ideation aided by technology can promote innovation, cross-disciplinary approach, and exploration of different creative paths, especially during the early stage of problem solving and content generation. However, maintaining creative diversity is contingent upon the use of personal experience, context awareness, and an independent creative perspective in the process of improvement of the machine's output. The use of diverse approaches to prompting, critical evaluation of generated variations, and creative assessment performed by humans can help minimize the chances of repetitive or uniform outputs. As a result, generative AI can contribute to creative performance if it complements the individual's creativity and reflective skills.

Human–AI Collaboration, Critical Thinking, and Decision Quality

Results showed that cooperation between humans and AI was a way for enhancing decision quality in case of appropriate integration of human and technical abilities. Generative AI was capable of processing information quickly, recognizing patterns, providing summaries of alternatives, and formulating hypotheses. Human users provided context-awareness, domain expertise, ethical deliberation, experience in their field, and an understanding of uncertainties or social implications.

This type of cooperation led to the emergence of a human-in-the-loop model of AI usage. This model implied that AI acted as a tool that assisted in the decision-making process, but not as a decision maker itself. Users had the opportunity to use AI for widening the number of alternatives, filling the information gap, and testing different approaches.

Critical thinking became necessary in order to collaborate successfully. It was important for users to critically assess whether the information provided by machines was correct, whether assumptions were valid, whether other possibilities were considered, and whether the output was suitable for the given task. Otherwise, users might gain false confidence in machine-generated content.

The results have also indicated that the quality of interaction hinged upon the user's proficiency. People with higher domain knowledge and AI literacy skills were more likely to spot inadequate outputs and develop better prompts. Thus, the quality of human-AI interaction was affected not only by system capabilities but also by user skills.

Also, the conceptual framework emphasizes the significance of designing systematic approaches to human-AI collaboration that will ensure that decision-making is based on sound reasoning and critical analysis. Generative AI can assist the process of decision-making in the presentation of various interpretations, considerations, and arrangement of complex data into comprehensible format. Yet, the final evaluation of all these products needs to be carried out by humans to ensure their contextual relevance, ethical nature, and adequacy to certain goals. The development of skills associated with AI literacy, reasoning, and verification will help users to detect fake information and assess credibility of AI recommendations. Consequently, an efficient human-AI collaboration is based on a balanced combination of computational effectiveness and human proficiency, independence, and responsibility.

Originality, Dependency, Trust, and Responsible Adoption

Originality, dependence, and trust were the three issues highlighted by the conceptual analysis. The regular application of generative AI in creating prompts can affect the way people conceptualize their issues, build their arguments, and create new ideas. Dependence on artificial intelligence at the initial stage of thinking can reduce chances of generating new independent ideas and deep engagement with the tasks.

Dependence is an especially critical issue in academic and professional settings, where the development of cognitive skills is one of the goals. If the user regularly uses AI for creating texts, analysis, problem-solving, and other activities, he/she deprives himself/herself of the possibility of developing his/her skills.

Trust also needed to be finely balanced. The users would be tempted to accept the outputs of the artificial intelligence because of the fluency, structure, and confidence of presentation. Yet, the output quality would not be an indication of correctness and validity. Hence, appropriate trust was contingent upon verification, transparency, and recognition of the limitations of the system.

Responsible usage would involve combining the elements of AI literacy, ethics, privacy, verification of the sources, disclosure, and accountability. The outputs of generative AI should be seen as tentative and reviewed by a human user. There should also be guidelines in organizations and education establishments for confidentiality, intellectual property, attribution, bias, fairness, and acceptable use.

Table 2: Summary of Major Findings on Generative AI, Knowledge Creation, and Human Creativity

Findings Area	Positive Contribution	Main Concern	Required Human Role
Knowledge Creation	Faster synthesis, summarization, explanation, and access to information	Inaccurate or incomplete outputs	Verification and contextual interpretation
Idea Generation	More alternatives, broader brainstorming, reduced creative blockage	Similar AI outputs may reduce collective diversity	Modification and independent exploration
Creative Performance	Faster drafting, experimentation, and refinement	AI novelty may lack contextual meaning	Original contribution and creative judgment
Human–AI Collaboration	Better option generation and decision support	Overconfidence in fluent AI responses	Critical thinking and expert evaluation
Responsible Adoption	Improved productivity and structured AI-supported work	Dependency, privacy, bias, authorship, and trust issues	Ethical awareness, accountability, and oversight

The table 2 depicts the way AI can help in knowledge generation and creativity, but it also brings forward issues that need human intervention. In summary, the conclusions drawn here are that the human element of judgment, critical thinking, ethics, and supervision is necessary for any AI-assisted creativity to be valid.

Managerial, Educational, and Broader Implications

The research results had far-reaching implications for organizations, schools, research organizations, and professionals. Generative AI adoption in the case of management should be facilitated through policy, employee training, and the development of governance structures. An organization can benefit from AI's help in doing knowledge work, ideation, writing, and decision making, but that depended on proper governance.

Employees have to be taught not only how to use tools, but also how to properly compose prompts, verify sources, think about biases, and deal with privacy and intellectual property issues. It is necessary for organizations to figure out what tasks they want the AI to help with, and what tasks require more human oversight.

Educational institutions need to adopt AI in such a manner that facilitates learning rather than replaces intellectual work altogether. Students can employ AI technology for the purpose of brainstorming, explaining, evaluating, revising, and comparing but need to continue engaging in critical thinking, use of evidence, and interpretation. Assessment systems, on the other hand, may need to put more emphasis on process, reflection, oral explanation, and understanding.

In general, it is clear from the findings that the effects of generative AI do not necessarily depend on whether it is available or not but on how people interact with it. Reflective application of generative AI can make people more efficient, creative, and knowledgeable. On the other hand, passive use of it may make people dependent and less original.

Conclusion

Major Findings, Contributions, and Practical Implications

The current study explored the impact of generative AI usage on knowledge production and human creativity. Based on the conceptual analysis, generative AI would be able to enhance information processing, idea generation, creation of content, brainstorming, efficiency, and collaborative knowledge creation. In addition, it would enable people to explore creativity as the set of options available would increase and help in the efficient elaboration of concepts. On the other hand, there were several issues associated with originality, dependence, critical thinking, trust, reliability, ethical implications, and ownership which needed to be addressed. It became clear that just technological capacity was not enough for achieving the positive result.

The primary contribution of this research was a conceptual model that integrated adoption factors, AI-enabled activities, human cognition, creativity, and responsible use practices. The model viewed generative AI as augmenting capability as opposed to substituting human reasoning and creativity. The model also pointed out the need for AI literacy, balanced trust, cognitive autonomy, ethics, and human oversight. Moreover, it stressed that the usefulness of generative AI was determined by the balance between automation and human involvement. Critical evaluation of the output, incorporating the knowledge of the domain, and independent improvement of the idea made by humans enabled the augmentation of knowledge and creativity with the help of generative AI. Conversely, passive reliance on generated content may harm creativity and reflection skills.

On a practical level, organizations could apply this framework to integrate AI responsibly with the help of policies, training of employees, verification measures, and ethics. Educational institutions would also be able to encourage the utilization of AI for experimentation, critique, brainstorming, and improvements while ensuring the accountability of students for critical thinking, originality, and reasoning. In addition, managers and educators should encourage literacy programs in AI that concentrate on prompt development, sources verification, bias detection, and responsible decision making. All in all, the conclusions drawn from the findings were that generative AI was most valuable when combined with human knowledge, creativity, and judgment.

Limitations and Future Research

There were limitations in terms of conceptual nature of the study as well as its dependence on secondary sources of information. No empirical testing of the suggested relations was performed with actual users, organizations, educational institutions, or generative AI platforms. The results of the research should therefore be regarded as conceptual and not causal evidence.

For further research, validation of the suggested framework can be done using surveying, experimentation, longitudinal research, and case studies of organizations. Comparative research may explore the differences between students, professionals, scientists, creative people, managers, and workers of knowledge-intensive organizations. For future studies, it is possible to explore the impact of digital literacy, professional skills, complexity of tasks, frequency of usage of AI tools, and organizational support on the outcomes of knowledge creation and creativity.

Further research is necessary regarding the effects of generative AI on creativity, critical thinking, originality, retention of knowledge, decision quality, and sharing of organizational knowledge. There should be research comparing AI-aided and completely human-generated works regarding their novelty, utility, diversity, and authenticity. Empirical work on responsible use techniques, literacy programs for AI, human-machine co-creation processes, transparency methods, and governance models will help to understand how generative AI can assist in innovating while maintaining the cognitive and creative autonomy of humans.

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