The Integration of Generative AI in the Creative Industry of Visual Communication Design: An Analysis of Its Impacts, Ethical Challenges, and Work Originality

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ABSTRACT

The emergence of Artificial Intelligence (AI) technology, particularly Generative AI, has brought significant changes across various sectors, including the creative industry—especially in the field of Visual Communication Design (VCD), which integrates technology, aesthetics, and communication. This study aims to analyze how Generative AI is integrated into the workflow of creative industry professionals, its impact on productivity and the creative process, as well as the challenges encountered. A qualitative research method was employed using a case study approach and in-depth interviews with creative practitioners in graphic design, photography, and multimedia production. The findings show that Generative AI helps accelerate production processes and opens new spaces for idea exploration yet also raises concerns regarding the originality of works and potential threats to certain creative professions. This study provides recommendations for optimizing the use of AI while maintaining ethical considerations and the essential role of humans in the creative process.

Keywords: artificial intelligence, creative industry workers, generative ai

INTRODUCTION

The development of Artificial Intelligence (AI) has had a significant impact on the creative industry, particularly in the field of Visual Communication Design (VCD), which integrates technology, aesthetics, and communication. The emergence of Generative AI not only accelerates the production process but also challenges traditional paradigms of creativity, originality, and human visual expression.

In this era, technology no longer functions merely as a technical tool but has become a conceptual partner that actively participates in shaping visual form and meaning. In the context of VCD, the design process is not only oriented toward aesthetically appealing visual outcomes but also toward communicative effectiveness and message relevance.

Visual communication design plays a crucial role in organizing information and creating socially meaningful experiences. Therefore, the adoption of Generative AI presents new challenges: how designers can maintain aesthetic integrity, communicative responsibility, and cultural context amid the automation of visual processes.

Contemporary visual aesthetic theory highlights that the perception of form and color has a direct influence on users' sensory and emotional experiences. Bahrin et al., (2015) developed a model of visual aesthetic attributes that emphasizes the importance of simplicity, harmony, balance, and contrast in creating a sensorially satisfying user experience. These findings affirm that aesthetic elements are not merely about visual beauty, but also about how humans perceive and interpret form.

Longstreet et al., (2021) expand this concept through a digital composition perspective that emphasizes the relationship between classical design elements—such as line, space, color, and texture—and modern digital design principles. They demonstrate that balance, emphasis, and unity remain the foundation of visual aesthetics, even as communication media undergo digital transformation. Meanwhile, Merkulova, (2023) argues that in digital media, color harmony, contrast, and the use of visual metaphors serve as essential strategies for creating visual appeal and communicative meaning.

In addition, the aesthetic approach in visual communication now also encompasses narrative and psychological aspects. Widyastuti, (2024) demonstrates that visual aesthetics and storytelling play a role in triggering emotional responses and impulsive decisions among audiences on social media.

These findings emphasize that aesthetics are not merely a passive visual aspect but function as a tool of persuasion and a constructor of social meaning. In a similar context, Migotuwio, (2023) highlights the importance of interactive aesthetics in augmented reality–based design, where the visual experience depends on user engagement as well as the surrounding cultural and social context.

Through these various perspectives, it is evident that the study of Generative AI within the creative industry must be understood from two dimensions: the technological and the aesthetic communicative. AI has now become an entity that helps shape the direction of visual development and communication styles in design. For visual communication designers, the challenge lies not only in mastering technology but also in developing sensitivity toward the evolving aesthetics and visual meanings generated by machines. Therefore, this research seeks to analyze how Generative AI is integrated into the workflow of creative professionals, its impact on creative processes and aesthetic values, and how it reconstructs the human role in visual communication design practice.

The creative industry is a sector that relies heavily on innovation, imagination, and individual expression. In recent years, the emergence of digital technology has accelerated the transformation of how creative industry practitioners work—from product design and media production to content distribution. Generative AI technology enables production processes to become faster and more efficient, opening up spaces for visual and verbal exploration that were previously difficult to achieve within a short time. This technology functions not only as an assistant but also takes over certain roles once performed solely by humans, such as brainstorming, creating visual elements, scriptwriting, and automated editing.

According to a report by the McKinsey Global Institute (Chui et al., 2023), the creative sector is among those most directly affected by the adoption of generative AI technology. It is estimated that 15–20% of creative work activities can now be automated using AI. In Indonesia, the use of AI technology among creative industry practitioners has become increasingly evident through the growing use of AI-based tools in social media content, digital campaigns, logo creation, product

design, and even conceptual art. However, alongside this progress, new challenges have emerged. Concerns regarding the originality of works, intellectual property rights, and the shifting role of humans in the creative process have become subjects of ethical and professional debate. Creative workers face a dilemma between utilizing AI as a creative aid or avoiding it in order to preserve artistic authenticity and integrity.

On the other hand, unequal access to and understanding of technology have also created skill gaps among industry players. Traditionally, originality has required a creative contribution that reflects the creator's personality. AI-generated works, though visually impressive, are essentially algorithmic reconfigurations of existing data without the human element of personal expression. This raises the question of whether such works can be considered "original" or merely derivative compositions repackaged by machines (Jamilah et al., 2024) .

The use of AI has shifted the human role in the creative process. Many production stages that previously required technical skills can now be performed instantly by AI, transforming the human role from "maker" to "director" or "curator" of creative output. This shift opens opportunities for efficiency and idea exploration but also raises concerns about the diminishing space for manual skills, personal expression, and the intrinsic value of human creative labor. While these changes foster human–machine collaboration and efficiency, they also demand that creative workers strengthen skills that cannot easily be replicated by AI—such as cultural contextual understanding, originality of ideas, and visual narratives with emotional resonance (Anwar et al., 2024).

This study also aims to map the extent to which Generative AI is transforming the dynamics of creative work, as well as how creative workers respond, adapt, and even develop new strategies to preserve creative values amid this technological revolution. The research particularly focuses on how this technology is integrated into the workflows of creative professionals, especially in the fields of graphic design, photography, and multimedia production.

RESEARCH PROBLEM STATEMENT

The rapid development of Generative Artificial Intelligence (AI) technology has significantly transformed the way creative industry professionals work and think. On one hand, this technology accelerates production processes and opens up opportunities for new visual idea explorations; on the other hand, concerns have arisen regarding the loss of originality, the homogenization of works, and the shifting role of humans in the creative process. In the context of Visual Communication Design, this issue becomes even more complex, as design practice is not only oriented toward aesthetic outcomes but also involves meaning, cultural context, and ethical responsibility toward the audience. Therefore, a deeper understanding is needed of how Generative AI is integrated into the workflows of creative industry workers, how it affects ideation and production processes, and how creative professionals negotiate their roles amid this technological disruption.

RESEARCH METHOD

This study employs a qualitative research method, specifically by conducting interviews with respondents. Qualitative research focuses on exploring qualitative phenomena, such as investigating human behavior to uncover the underlying motives behind such actions (Adhi Kusumastuti, 2019). The qualitative approach in this study is used to gain an in-depth understanding of the disruptions caused by Generative AI within the creative industry ecosystem, rather than merely measuring its impact quantitatively. Through this method, the research focuses on the experiences, perceptions, and personal narratives of creative workers—graphic designers, photographers, and multimedia producers—in responding to the changes brought about by this technology. The qualitative method was chosen because it is better suited to capturing the complexity of human experiences in their interaction with AI, whereas quantitative approaches tend to measure only the frequency or degree of use without understanding the meaning behind the experience (Susandi et al., 2025).

The criteria for respondents in this study were individuals working in the creative industry who had used Generative AI features to complete their daily tasks. The study employed a purposive sampling technique to select three respondents representing different subfields within Indonesia's creative industry, with the main criteria being: having significant professional experience and having utilized Generative AI features in their daily work. The first respondent was a professional photographer who has been active since 2015 and has experience integrating AI to support post-production processes.

The second respondent was the owner of a branding agency established in 2017, focusing on brand strategy and visual design that incorporates AI in creative concept development. The third respondent was a culinary business owner who also serves as head of the digital marketing division, utilizing Generative AI for promotional content creation and online campaign strategies.

The selection of three respondents in this study was based on the principle of purposive sampling, which focuses on selecting informants most likely to provide relevant and in-depth data in accordance with the research objectives. As explained by Campbell et al., (2020), the sample size in qualitative research is not determined by quantity but by the depth and relevance of the data to the research context. In this study, each respondent represents a different subfield within the creative industry photography, graphic design, and digital marketing thus providing the contextual variety needed to achieve a comprehensive understanding of the integration of Generative AI in creative workflows. Therefore, the selection of three respondents is considered sufficient to achieve information-rich cases that represent the complexity of creative practices across disciplines and allow for an in-depth exploration of creative workers' adaptation patterns and ethical perceptions in the use of Generative AI.

RESULT AND DISCUSSION

The definition of Artificial Intelligence (AI) is a field of computer science aimed at creating computer-based systems capable of mimicking human abilities to think, learn, and solve problems through knowledge acquisition and the application of reasoning (Nasution, 2020). According to Luger and Stubblefield, artificial intelligence is a branch of computer science concerned with the automation of intelligent behavior. Meanwhile, Haag and Keen as cited in Amrizal & Aini, (2013) define artificial intelligence as a field of study related to the acquisition, modeling, and storage of human intelligence within an information technology system, enabling the system to facilitate decision-making processes that are typically carried out by humans.

Artificial intelligence began to be developed in 1956 when leading scientists, including Allen Newell, Herbert Simon, Marvin Minsky, Oliver Selfridge, and John McCarthy, gathered at Dartmouth College to explore the potential of computers to mimic human thinking abilities. Since then, AI has evolved from laboratory research to real-world applications (Amrizal & Aini, 2013).

Originally intended for the automation of cognition, Artificial Intelligence now plays a major role in daily life, influencing choices, behaviors, and imagination—such as recommending content, suggesting social media connections, enhancing photos, and controlling characters in games (Manovich, 2022). Advances in AI now enable the creation of images from text prompts, as seen in DALL·E, which can generate high-quality images. This trend has given rise to a new design field at the intersection of AI and art, where practitioners share models, works, and techniques on online platforms. Recent research has examined prompt strategies and parameter tuning, revealing that formats such as "<Subject> in the style of <Style>" are effective for producing high-quality images (Qiao et al., 2022).

Generative AI

Generative AI, or Gen AI, is a branch of artificial intelligence capable of creating new content such as text, images, music, and synthetic data by mimicking patterns from training datasets (Ramdurai & Adhithya, 2023). According to Gupta, Generative AI refers to AI systems that can generate new content by learning and replicating data patterns, and the understanding of its definition and scope is enriched through topic modeling analysis, which highlights how Gen AI research has evolved, been directed, and perceived by the academic community (Gupta et al., 2024).

Gen AI opens opportunities for innovation, enhances efficiency, and expands creativity; however, it also presents ethical challenges related to misinformation, data bias, content ownership, and potential misuse. Although Gen AI has the potential to revolutionize multiple fields, clear regulations, ethical guidelines, and governance frameworks are necessary to ensure its use remains responsible and sustainable (Mayahi & Vidrih, 2022).

Interviews

Based on the interview with the first respondent, **Leonard Wijaya**, in professional photography practice, the use of Artificial Intelligence (AI) has become an increasingly common part of the workflow, although its use remains functional and selective. Leonard stated that he primarily uses AI for simple tasks such as removing unwanted objects or extending backgrounds for the purpose of reconstructing visual compositions. He emphasized that excessive use of AI could, in fact, reduce the authenticity of photographic works themselves. Beyond the editing process, AI is also utilized to support early decision-making processes such as planning photo concepts, selecting color palettes, and recommending shooting locations. According to Leonard, AI is quite helpful for information searches, though he noted a potential margin of error of about 20%, particularly regarding technical details such as location permits or specific addresses. In image editing, features such as Generative Fill were considered very useful, especially for refining small details such as filling gaps in sets or decorative elements of photos. However, this process still requires several attempts to achieve optimal results. Leonard also

mentioned that AI is quite efficient for object removal and searching for stock images that match visual needs. Nevertheless, he believes that AI cannot fully replace the human role in the creative industry. Ideas and visual styles, he said, still originate from humans who possess their own unique perspectives and creativity. Leonard concluded that AI currently serves as an assisting tool that accelerates processes but cannot yet substitute the creative capacity and human intuition in artistic creation.

The second respondent, **Nicolas Hendrawan**, a practitioner in the field of graphic design, explained that he uses AI for technical and efficiency-related needs, such as searching for visual references, creating initial mascot drafts based on client requests, upscaling low-resolution images, and converting complex JPEG logos into vector format automatically. For Nicolas, AI is highly beneficial during the initial exploration stage and helps accelerate the design process. However, the use of AI is not without challenges. One of the main difficulties he faces is formulating the right prompts or commands to produce results that match his expectations. Often, the output generated by AI is irrelevant, forcing Nicolas to manually redo the design. A similar issue arises during image upscaling—although it sometimes succeeds, many cases still require manual retouching. Based on his experience, Nicolas concluded that AI in graphic design has not yet been able to fully replace the role of humans. Creativity, visual intuition, and the problem-solving skills unique to designers remain elements that cannot be replicated by artificial intelligence. Thus, AI is best positioned as a supporting tool rather than a replacement for the human creative role in the design process.

The third respondent, **Yonathan Heberon**, owner of Baker Recipe and head of the company's digital marketing division, utilizes Artificial Intelligence as part of his digital marketing strategy, particularly in social media content production. In his daily work, Yonathan uses AI mainly to help draft captions and generate promotional content ideas relevant to his brand's identity. AI is considered useful in the initial stages of content development, especially when the team needs quick inspiration to fill the publication schedule.

However, the use of AI in practice is not entirely without obstacles. One major challenge often encountered is the quality of the language generated. Captions produced by AI often need to be edited to sound more natural and aligned with the brand's communication style. Additionally, the responses or suggestions provided are sometimes irrelevant or too generic, making them unsuitable for direct application. Regarding the potential of AI to replace human roles in the creative industry, Yonathan believes that AI is not yet capable of doing so fully. In his view, although AI can provide ideas and speed up processes, user understanding and expertise are still required to ensure that the results are meaningful and contextually appropriate. "If the person using it doesn't know anything, it's still difficult," he said. He also pointed out AI's limitation in creative thinking, noting that the ideas generated tend to be repetitive and lack novelty. Therefore, the human role as a creative director remains crucial, while AI is better positioned as a tool that enhances productivity rather than replaces creativity.

Aspect	Leonard Wijaya (Photography)	Nicolas Hendrawan (Graphic Design)	Yonathan Heberon (Digital Marketing)
Main Function of Generative AI	Photo retouching, object removal, background extension, concept and location recommendations	Visual reference search, initial mascot design, logo format conversion, image upscaling	Caption writing, promotional content ideas, initial publication inspiration
Usage Approach	Selective, limited to supporting technical aspects	Technical and efficiency-focused at the initial stage	Early ideation, aligned with branding
Perceived Benefits	Speeds up detailed photo editing, assists in planning	Accelerates idea exploration, simplifies technical conversion	Speeds up idea and content creation
Challenges / Limitations	Risk of losing authenticity, potential information errors of approximately 20%	Difficulty in formulating accurate prompts, results sometimes irrelevant, requires manual editing	Language quality is not natural, ideas are too generic
View on the Role of AI	Loss of work originality, excessive visual manipulation	A supporting tool that does not replace the designer's creativity and problem-solving skills	A productivity tool, not a replacement for creativity
Ethical Concerns	Loss of work originality, excessive visual manipulation	Design homogenization, diminished human touch	Generic content that undermines brand differentiation

Skill Gap	Requires technical understanding of editing and visual composition	Needs expertise in formulating prompts and directing outcomes	Requires creative literacy and brand awareness to produce relevant results
Observed Pattern	AI is accepted as technical support, yet the creative role remains human-driven; ethical awareness and originality are shared concerns	AI is positioned as a partner, not a replacement, across all fields	AI is used for quick inspiration, but idea filtering and contextual adaptation remain under human control; concerns about idea homogenization also emerge

Table 1 Summary of interview results
Source: author's documentation

Interviews with the three practitioners reveal that the application of AI in the creative field is generally functional, selective, and serves as a supportive tool rather than a replacement for the human creative role. All three use AI to speed up technical tasks, facilitate initial idea exploration, and improve production efficiency. However, they consistently emphasize that the core of creativity, originality, and aesthetic direction remains in human hands.

From a critical perspective, their cautious attitudes can be understood as a response to ethical and professional concerns. Leonard highlighted the potential loss of authenticity in photography if AI is overused—a reflection of the ethical dilemma in which a work may lose the human touch and its personal visual narrative. Nicolas underscored that the quality of AI outputs depends heavily on accurate prompt formulation; this implies a skill gap between practitioners who are proficient and those who are not. Yonathan viewed AI as useful in the ideation stage but emphasized that brand language and communication style still require human intervention.

The general pattern across the three interviews shows a combination of pragmatic acceptance and creative caution: they are willing to use AI to support technical efficiency but consciously limit its intervention to non-essential aspects of the creative process. Concerns about the loss of originality emerge as a recurring theme, along with an awareness that overreliance on AI could lead to aesthetic homogenization. This aligns with concerns within the global creative community,

where the unfiltered use of AI risks producing uniform, saturated content that lacks innovation.

The implications for each field of work are significant. In photography, AI has the potential to accelerate retouching and visual manipulation but also challenges the concept of authenticity in creative work. In graphic design, AI can simplify technical conversions and initial visualization but requires strong prompt formulation skills to avoid creative barriers. Meanwhile, in digital marketing, AI can accelerate idea and content production but demands creative literacy and brand awareness to prevent the creation of generic material.

Overall, the findings indicate that the current position of AI in the creative industry is that of a technical partner that enhances productivity rather than a replacement for human intuition and sensitivity. Ethical use including maintaining originality, ensuring process transparency, and acknowledging human contribution forms a crucial foundation to prevent this technology from reducing the value of creative works to mere algorithmic output.

This aligns with the study conducted by Hanifa et al., (2023) which states that Generative AI supports content personalization and opens new opportunities for collaboration between humans and machines. Its impact can be seen in the increased productivity, quality of creative works, and global competitiveness. However, the adoption of AI still faces challenges, such as low technological literacy, ethical and copyright issues, and unequal access to digital infrastructure. From the perspective of visual communication design education, this phenomenon calls for curriculum updates that emphasize AI literacy, visual ethics, and critical thinking toward algorithmic outputs. Visual Communication Design (VCD) students need to understand the fundamental principles of human–machine interaction, the mechanisms of generative models, and their impacts on originality and social responsibility in visual communication. Thus, VCD should not only be a field that utilizes AI for technical efficiency but also a reflective space that examines how technology influences visual perception, message meaning, and cultural representation.

From the perspective of professional practice, designers are challenged to balance the speed of production offered by AI with aesthetic integrity and human values in their work. AI can assist in instantly generating visual alternatives, moodboards, or typographic explorations, but contextual, cultural, and narrative sensitivity remains the domain of humans. By positioning AI as a collaborative tool rather than a substitute, Visual Communication Design has the potential to strengthen its role as a discipline that is both adaptive and reflective toward socio-technological transformations.

CONCLUSION

Main Findings

The results of interviews with three creative practitioners a photographer, a graphic designer, and a digital marketer show that the use of Artificial Intelligence (AI) in the creative industry workflow in Indonesia tends to be functional and selective. AI is primarily utilized to support work efficiency in technical stages, such as object removal and background expansion in photography, file conversion and image upscaling in graphic design, and content ideation and caption writing for social media in digital marketing. These findings indicate that AI's role is positioned more as a supporting tool rather than a replacement, with creative ideas, visual style, and final touches still relying on human intuition, experience, and expertise.

The challenges identified include difficulties in composing effective prompts, limitations in contextual understanding within AI-generated outputs, and inaccuracies in the information produced. This reflects a broader situation in Indonesia's creative industry, where AI adoption remains in a transitional phase technology is used to accelerate production but is not yet fully relied upon to generate works independently. The implication of these findings is the need to enhance AI literacy among creative practitioners so they can maximize the potential of technology while maintaining the quality and cultural relevance of their works.

Further research could broaden the scope of study to include other creative disciplines such as animation, game design, and performing arts, to understand how AI utilization patterns, challenges, and adaptation strategies differ across sectors, as well as how this technology reshapes the roles and identities of creators in the future.

Overall, the findings of this study show that the adoption of Generative AI in Indonesia's creative industry presents both opportunities and disruptions. Industry practitioners acknowledge AI's potential to improve efficiency and expand visual exploration, but also highlight concerns about the loss of originality, authorship, and emotional depth in design works. Across subfields such as graphic design, photography, and digital marketing, AI is still primarily used to accelerate production rather than to transform creative concepts. This suggests that the stage of AI adoption in Indonesia is currently instrumental rather than transformational.

However, the study also reveals an emerging paradigm shift in the role of designers—from visual creators to curators, editors, and creative strategists who manage the visual logic of AI. This shift reflects a global trend in which human designers act as critical decision-makers, ensuring contextual relevance, ethical consideration, and cultural meaning. Thus, these findings not only reflect the adaptability of Indonesia's creative industry to technological change but also emphasize the need for design education that prepares future designers to collaborate critically with machines within the creative ecosystem.

Implications

The main implication of these findings is that Generative AI is beginning to redefine the creative workflow within the field of Visual Communication Design. This technology challenges the traditional notion of the designer as the sole creative agent and introduces a collaborative paradigm between human intuition and generative algorithms. It underscores the shift in the designer's role from a *"maker"* to a *"curator"* focusing on conceptual direction, ethical considerations, and contextual understanding. Furthermore, the results imply that visual literacy

and aesthetic sensitivity remain irreplaceable human competencies that must be integrated into both design education and AI-based design practices.

Recommendations

Based on the findings of this study, it is recommended that educators and creative industry practitioners develop critical literacy toward AI within curricula and professional training programs. Designers should be encouraged to adopt Generative AI as a collaborative tool rather than a replacement for human creativity.

Future research is advised to expand the number of respondents and involve other creative disciplines to gain a broader understanding of cross-disciplinary applications of AI in design. Additionally, further studies could examine the long-term impact of AI on aesthetic evaluation, authorship, and the ethics of originality in visual communication.

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