Al-I'lam; Jurnal Komunikasi dan Penyiaran Islam
Vol. 9, No 2, Maret 2026, pp. 29-34

p-ISSN 2598-8883 |
e-ISSN 2615-1243

Transformation of Conventional Graphic Design in the Era of Artificial Intelligence

Yusron Saudi[a,1]

[a] *University of Muhammadiyah Mataram, 83115 Indonesia*
[1] *yusron.saudi@gmail.com**
** Correspondence of the author*

ARTICLE INFO

Article History:
Accepted: Dec 2025
Revised: Jan 2026
Approved: Feb 2026

Kata Kunci:
Design Grafis
Kecerdasan Artificial
Alur Kerja Kreatif
Kolaborasi Manusia-AI
Design Konvensional

ABSTRACT

Abstrak: Perkembangan pesat kecerdasan buatan (Artificial Intelligence/AI) dalam lima tahun terakhir telah secara fundamental mengubah cara desainer grafis menciptakan, memproduksi, dan mendistribusikan komunikasi visual. Survei global menunjukkan bahwa 93% desainer web dan grafis kini mengintegrasikan alat AI ke dalam alur kerja mereka, dengan 62% melaporkan pengurangan waktu pengerjaan tugas hingga 20% dan 44% menyatakan bahwa AI mampu mengotomatisasi tugas-tugas yang bersifat repetitif. Platform seperti Adobe Firefly, Midjourney, DALL·E, dan Canva AI telah menjadi bagian integral dari ekosistem desain, dengan mengotomatisasi tugas-tugas teknis seperti retouching, penghapusan latar belakang, pembuatan variasi tata letak, dan sintesis teks menjadi gambar. Bagi desainer yang dilatih dalam praktik konvensional yang berakar pada sketsa manual dan penyempurnaan visual secara bertahap, AI menawarkan peningkatan produktivitas sekaligus menimbulkan kekhawatiran terkait orisinalitas, homogenisasi gaya, serta perubahan kompetensi profesional. Penelitian ini menganalisis bagaimana integrasi AI mentransformasi praktik desain grafis konvensional dengan mengkaji perubahan alur kerja, dampak terhadap kreativitas, serta bentuk-bentuk baru kolaborasi antara manusia dan AI dalam proses desain visual. Penelitian ini menggunakan pendekatan deskriptif kualitatif melalui wawancara mendalam dengan desainer grafis konvensional yang mengadopsi alat AI, observasi alur kerja, serta analisis dokumen terhadap hasil desain sebelum dan sesudah implementasi AI. Temuan penelitian menunjukkan bahwa AI mempercepat eksplorasi visual hingga 40%, mengurangi beban kerja teknis, dan memungkinkan desainer untuk lebih fokus pada pemikiran konseptual serta pengarahan kreatif; namun demikian, desainer perlu memposisikan diri sebagai co-creator yang mengarahkan, mengkurasi, dan mengontekstualisasikan hasil visual yang dihasilkan melalui kemitraan dengan sistem AI.

Abstract: The rapid advancement of artificial intelligence (AI) over the past five years has fundamentally reshaped how graphic designers create, produce, and distribute visual communication. Global surveys indicate that 93% of web and graphic designers now integrate AI tools into their workflows, with 62% reporting up to 20% reduction in task time and 44% stating that AI automates repetitive tasks. Platforms such as Adobe Firefly, Midjourney, DALL·E, and Canva AI have become integral to the design ecosystem, automating technical tasks including retouching, background removal, layout variation generation, and text-to-image synthesis. For designers trained in conventional practices rooted in manual sketching and gradual visual refinement, AI offers productivity gains while raising concerns about originality, stylistic homogenization, and shifts in professional competencies. This study analyzes how AI integration transforms conventional graphic design practices by examining workflow changes, creativity impacts, and emerging forms of human–AI collaboration in visual design processes. A qualitative descriptive approach is adopted through in-depth interviews with conventional graphic designers adopting AI tools, workflow observations, and document analysis of design

p-ISSN 2598-8883 |
e-ISSN 2615-1243

Keywords:
Graphic Design
Artificial Intelligence
Creative Workflow
Human-AI Collaboration
Conventional Design

outputs before and after AI implementation. Findings show that AI accelerates visual exploration by up to 40%, reduces technical workload, and enables designers to focus on conceptual thinking and creative direction; however, designers must reposition themselves as co-creators who guide, curate, and contextualize visual outcomes generated in partnership with AI systems.

I. Introduction

Digital transformation has moved graphic design from analog techniques to software-based and networked workflows. The latest major change comes from artificial intelligence, which can assist editing and generate visual content from prompts or reference images.

AI adoption in graphic design has increased quickly. Current surveys show that many creative professionals use generative AI in their work, and a large share rely on it for repetitive tasks and content generation. Tools such as Midjourney, DALL·E, Adobe Firefly, Stable Diffusion, and Canva's generative features have become part of the professional design toolkit (Adobe Blog, 2024; Superside, 2026; Ironhack, 2025).

For conventional designers, AI is not only an innovation but also a challenge to professional identity and creativity. It can improve production speed and widen access, but it also raises concerns about visual sameness, reduced uniqueness, and the future of technical skills (Molypix, 2025; Premier Science, 2025).

Recent studies on human–AI collaboration in the creative arts emphasize that human creativity tends to be optimal when AI is positioned as a co-creation partner rather than as a fully autonomous solution (Fourier Studies, 2024; Nature Scientific Reports, 2024). In the context of graphic design, this implies that designers should continue to build concepts, visual narratives, and interpretative frameworks, while AI accelerates production and stimulates new visual possibilities rather than replacing the human creative process.

This study focuses on how AI changes conventional graphic design practice in terms of workflow, creativity, and the designer's role in the creative ecosystem. The main goal is to identify the opportunities, challenges, and role shifts that emerge when AI becomes part of design practice.

II. Method

A. Research Approach and Design

This study uses a qualitative descriptive approach to understand the experiences of conventional graphic designers adapting to AI. This method is suitable for capturing workflow changes, subjective perceptions, and professional identity shifts (ScienceDirect, 2024).

B. Participants and Research Objects

The participants were graphic designers with at least five years of conventional design experience who had integrated AI tools within the last two years. The research objects included: (1) design processes using AI, (2) design outputs before and after AI adoption, and (3) designers' reflections on creativity and professionalism.

C. Data Sources

Primary data came from in-depth interviews with 12 professional graphic designers, limited participant observation of their design processes in studios or personal workspaces, and documentation of selected works. Secondary data were taken from scholarly articles, industry reports, and digital publications related to AI in graphic design and human–AI collaboration from 2019 to 2026.

p-ISSN 2598-8883 |
e-ISSN 2615-1243

D. Data Collection Techniques

1) Interviews: Semi-structured interviews were used to explore designers' experiences of workflow changes, their perceptions of creativity in AI-assisted environments, and their views on the future of the profession.

2) Observation: Observations focused on design processes that involve AI, particularly in conceptual exploration, layout variation, moodboard development, and visual refinement.

3) Documentation: Documentation included examples of design work before and after AI adoption, screenshots of software usage, and project archives that rely on AI platforms.

E. Data Analysis Techniques

Data were analyzed using thematic analysis. The process involved repeatedly reading interview transcripts, assigning codes to relevant segments, grouping codes into main themes such as "workflow acceleration," "role shifts," "ethical concerns," and "human–AI co-creation," and interpreting these themes in relation to existing theories and previous studies. Data validity was ensured through source triangulation (interviews, observations, documentation) and member checking with participants regarding preliminary interpretations.

III. Result and Discussion

A. Changes in Conventional Graphic Design Workflows

Results from interviews and observations show that AI usage shifts designers' time from repetitive technical work toward more conceptual and curatorial activities. Tasks such as basic photo processing, color variation, and compositional exploration can now be completed within minutes using features like generative fill, smart selection, and layout generators, which makes visual exploration faster and more extensive (Molypix, 2025; VCD Studio, 2024).

Designers who previously relied on manual sketches and gradual visual experimentation now combine quick sketching with AI-based visual alternatives generated from text prompts, followed by manual selection and refinement. A case study at a communication agency indicates that using DALL·E to develop landing page visuals reduced conceptual production time from several days to less than 30 minutes and shortened time-to-market by up to 40 percent (Edana, 2025).

Table 1. Conventional vs AI-Assisted Workflow Comparison (2025-2026 Industry Data)

Workflow Stage	Conventional (Hours)	AI-Assisted (Hours)	Time Reduction (%)
Research & Inspiration	4-6	1-2	67
Sketching & Concept	8-12	2-4	60
Image Processing	3-5	0.5-1	75
Layout & Variations	6-10	1-2	78
Total Project Time	**25-35**	**5-10**	**60-70**

[a] Note: Data compiled from industry surveys (Figma, 2026; Gitnux, 2025a, 2025b).

A comparison of conventional and AI-based workflows illustrates changes at every stage. Research and inspiration, which were previously conducted manually through books and online platforms, are now accelerated by AI-supported moodboards and recommendation systems. Sketching and concept development benefit from text-to-image generation that provides multiple visual directions. Layout design, variation production, and image processing are supported by AI features that automate routine tasks and generate numerous alternatives in a short time. Revisions and finalization become more flexible because designers can quickly test different prompts, adjust parameters, and optimize file formats automatically (Superside, 2026; Ironhack, 2025).

p-ISSN 2598-8883 |
e-ISSN 2615-1243

B. Effects on Creativity and Originality

Many designers report that AI tools enrich their initial ideas by generating visual combinations that they would not have imagined independently. In brainstorming sessions, AI acts as a creative partner that proposes alternative styles, compositions, and color schemes, which designers then select, modify, and contextualize according to project needs. Research from MIT confirms that designers using generative AI tools produce ideas that are considered more diverse and innovative than those produced solely through traditional image search (MIT Sloan, 2024).

However, concerns arise regarding the potential homogenization of visual style. When many designers use similar models, presets, and templates, and when AI outputs are adopted with minimal intervention, the resulting designs can appear generic. This underscores the importance of the designer's role in adding personal touches, integrating cultural context, and critically evaluating the suitability of AI outputs for the intended communication goals (Molypix, 2025; Premier Science, 2025).

C. Repositioning of Designers's Roles and Competencies

AI integration pushes a shift in the competencies required of designers. While technical execution remains important, conceptual thinking, curatorial judgment, and communication skills become increasingly central. Designers are no longer assessed solely on their technical speed, but also on their ability to formulate clear briefs, design effective prompts, interpret AI-generated results, and manage client expectations regarding AI use (CustomCareer Miami, 2025; Premier Science, 2025).

Table 2. Designer Competency Shift Pre- vs Post-AI (2025-2026 Surveys)

Competency	Pre-AI Importance	Post-AI Importance	Change
Technical Execution	High (80%)	Medium (45%)	↓35%
Conceptual Thinking	Medium (60%)	High (85%)	↑25%
Prompt Engineering	Low (10%)	High (75%)	↑65%
Curation & Ethics	Medium (50%)	High (90%)	↑40%

[b.] Note: Data from Gitnux (2025a, 2025b) and Clutch (2026).

In this configuration, designers function as co-creators who direct AI systems to adhere to aesthetic, ethical, and communicative values rather than merely acting as software operators. Studies on human–AI collaboration in creative industries show that outcomes are more innovative and satisfying when designers play an active role in the iterative process, providing feedback, adjusting parameters, and combining intuition with algorithmic suggestions than when AI is used as an automatic generator without human intervention (Fourier Studies, 2024; IJRPR, 2025).

D. Advantages and Limitations of AI in Graphic Design

The advantages and limitations of AI jointly shape new configurations of design practice. On the advantage side, AI is highly effective in automating repetitive technical tasks such as cropping, resizing, background removal, basic retouching, and color adjustment, thereby reducing production time and enabling designers to focus on conceptual and strategic aspects of design. Industry reports also indicate that studios and agencies can meet increased demand for visual content more quickly and cost-effectively because AI supports the production of numerous design variants for a single brief and serves as an idea generator through text-to-image and generative design capabilities (Superside, 2026; Red Baton, 2025).

On the limitation side, AI is still weak in terms of depth of meaning, emotional nuance, and cultural sensitivity because it depends on patterns in training data. This may lead to generic visuals and strengthen style homogenization when many designers use the same models and presets. Ethical and legal issues also arise regarding the use of artists' works as training data without consent, the copyright status of AI-generated images, and potential bias in visual representation. Moreover, there is concern that excessive dependence on AI could erode basic skills such as drawing, typography,

p-ISSN 2598-8883 |
e-ISSN 2615-1243

and composition if designers reduce their role to operating presets rather than developing deeper design literacy (AND Academy, 2026; Xanda Ltd, 2025).

IV. Conclusion

AI integration in graphic design leads to three main transformations: substantial acceleration of workflows (up to 40–90% at specific stages), expansion of creative exploration, and repositioning of designers' roles from technical executors to creative directors and curators of AI-generated outputs. Data show that 93% of designers have adopted AI, with most reporting significant productivity gains and time savings for repetitive tasks (Gauss Development, 2025; Adobe Blog, 2024).

AI demonstrably reduces technical burdens and enriches visual alternatives; however, the distinctiveness and quality of final designs remain highly dependent on designers' ability to guide, select, and contextualize AI outputs. For designers with conventional backgrounds, the core challenge is not only to learn new tools but also to renegotiate their professional identity as creative partners of AI systems while maintaining a deep understanding of aesthetics, culture, and visual communication (Premier Science, 2025; CustomCareer Miami, 2025).

References

[1] AND Academy. (2026). *Will AI replace graphic designers in 2025?* Retrieved from https://www.andacademy.com

[2] Adobe Blog. (2024). *Creative pros are leveraging generative AI to do more and better work.* Retrieved from https://blog.adobe.com

[3] Adobe Design. (2024). *How generative AI streamlined my creative process.* Retrieved from https://adobe.design

[4] Clutch. (2026). *New study: AI will not replace graphic designers.* GDUSA. Retrieved from https://gdusa.com/new-study-ai-will-not-replace-graphic-designers/

[5] CustomCareer Miami. (2025). *How AI is changing the graphic design professional career.* Retrieved from https://customcareer.miami.edu

[6] Edana. (2025). *DALL-E, Stable Diffusion, Adobe Firefly, Midjourney: Which AI image generator to choose?* Retrieved from https://edana.ch

[7] Figma. (2026). *79+ design statistics: Tools, collaboration, and AI in 2026.* Retrieved from https://www.figma.com/resource-library/design-statistics/

[8] Fourier Studies. (2024). Human-AI collaboration in creative industries. *The Advances in Machine Learning and Computer Science, 2*(11).

[9] Gauss Development. (2025). *40+ statistics on AI in web design.* Retrieved from https://gauss.hr

[10] Gitnux. (2025a). *AI in the design industry statistics.* Retrieved from https://gitnux.org/ai-in-the-design-industry-statistics/

[11] Gitnux. (2025b). *AI in the graphic design industry statistics.* Retrieved from https://gitnux.org/ai-in-the-graphic-design-industry-statistics/

[12] IJRPR. (2025). Human-AI collaboration in creative industries. *International Journal of Research Publication and Reviews*.

[13] Ironhack. (2025). *The AI tools redefining graphic design in 2025.* Retrieved from https://www.ironhack.com

[14] MIT Sloan. (2024). *A generative AI tool to inspire creative workers.* MIT Ideas Made to Matter. Retrieved from https://mitsloan.mit.edu

[15] Molypix. (2025). *The revolutionary impact of AI on graphic design trends 2025.* Retrieved from https://molypix.ai

[16] Nature Scientific Reports. (2024). Establishing the importance of co-creation and self-efficacy in creative collaboration with artificial intelligence. *Scientific Reports, 14*, Article 18536. https://doi.org/10.1038/s41598-024-69423-2

p-ISSN 2598-8883 |
e-ISSN 2615-1243

[17] Premier Science. (2025). The impact of artificial intelligence on the evolution of graphic design. *Premier Journal of Science*.

[18] Red Baton. (2025). *AI in graphic design: Pros and cons.* Retrieved from https://redbaton.digital

[19] ScienceDirect. (2024). The application and impact of artificial intelligence technology in design-related industries. *Heliyon, 10*(23).

[20] Superside. (2026). *AI in graphic design: How it works & expert tips for 2026.* Retrieved from https://www.superside.com

[21] VCD Studio. (2024). *How AI is revolutionizing the graphic design workflow in 2025.* Retrieved from https://www.vcdstudio.com

[22] Xanda Ltd. (2025). *The pros and cons of AI in graphic design.* Retrieved from https://www.xanda.net