

The Impact of AI on Design and Creativity

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Abstract

The rapid advancement of Artificial Intelligence (AI) has significantly reshaped graphic design, offering both exciting opportunities and challenges alongside automated workflows. This research examines the effect of AI on design efficiency and creative output, arguing that while AI excels in automation, it lacks the human designer's essential creativity and emotional intelligence. The study uses thematic analysis to identify key discussions surrounding AI's influence on design. A case study revolves around the use of Freepik and Photoroom AI at Rafik Hariri University (RHU), focusing on its impact on promotional material, event branding, and student-based communication. Preliminary findings, derived from design workflow data and user feedback, reveal significant time reductions and increased content production. However, they highlight the need for human oversight to maintain RHU's unique visual identity. This study demonstrates that AI is a powerful tool that accelerates design and increases efficiency but is devoid of the intrinsic creativity, intuition, contextual awareness, and cultural significance inherent to human designers since it operates through algorithmic mimicry that limits original concept and creativity. Consequently, while AI produces visually compelling images, it will lack the heart and complexity of emotions that human designers integrate to solve problems. Effective AI integration in design pedagogy requires recognizing it as a tool to expand, not as a tool to replace human creativity, therefore ensuring refined outcomes while preserving human ingenuity.

Keywords: artificial intelligence (AI), graphic design, technology, AI tools

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Introduction

You don't have to look far to see how artificial intelligence is affecting almost every aspect of our life, whether it is in business and healthcare or education and art studios. Interestingly, it's happening in graphic design as well, but in ways that are more than just faster workflows. Designers are using AI not just to speed up repetitive tasks but to create new ideas, test unexpected visuals, and even explore styles they hadn't thought of before. Tools like Freepik, Photoroom, Adobe Sensei, and Dall.e assist in removing backgrounds, generating images, or create layout alternatives, things that used to take days now happen in minutes.

Still, we find ourselves wondering: Can AI really replace what we do as humans? Could it create true original work, originality, authorship, or emotional depth? When the tool starts tweaking design decisions, how much control are we giving up?

At Rafik Hariri University, we worked with students and professional in observing precisely what they did when they used these AI tools in real projects. We chose Freepik and Photoroom because they're practical and accessible. We examined their work, asked questions, and witnessed how they creatively applied these tools.

The approach was hands on and messy in the best possible way. We combined surveys, project reviews, and we compared designs made with AI with those made without it. But most importantly, we listened to what designers felt: the ideas that sparked joy, the problems that caused frustration, the moments when a concept landed differently with a little AI nudge.

This isn't about AI stealing our jobs. It isn't some future threat. It's about discovering what changes when creativity gets a digital boost, when human insight meets machine logic, and how that intersection might reshape what design means in the coming years.

AI in Design: Uses and Impact on Creativity

Artificial Intelligence (AI) refers to computer systems capable of learning through experience and making decision without being explicitly programmed for every step. These systems can solve problems, recognize pictures, and execute tasks that usually require human intelligence. "Early application of AI in graphic designing was mainly used to only automate simple jobs like the resize, the matching of colors and adjustments for the layout" (Mirzaei, 2025, p. 494). Today, it plays a broader role, as a quiet co-pilot that speeding up production, generating variations, and handling repetitive works, freeing designers to focus more on creative direction, storytelling, and originality (Alimardani & Hasheminejad, 2024).

This case study focuses on designers' everyday work using tools like Freepik and Photoroom, two platforms that lean heavily on AI. Freepik taps into massive image libraries to suggest photos and vectors based on your prompts or past choices. It saves hours you'd normally spend searching. Photoroom is built for product imagery: with one click, it removes backgrounds, cleans up images, and even resizes or retouches without needing Photoshop skills. This kind of accessibility shifts the workflow entirely. Instead of getting stuck in technical steps, designers can focus on clarity, emotion, and visual impact. (Besold et al., 2015).

What's shifting is not design's essence, but the path to it. These tools streamline production and make space for reflection, risk, imagination. Yet, they don't interpret meaning or create

with purpose. They identify patterns and suggest what's likely, not what's meaningful. It's useful, even powerful, but it's still the designer who must create the vision with purpose and originality.

Creativity remains central to the design process, especially when solving ambiguous problems that don't have clear solution. The question is whether AI can facilitate that kind of thinking. When used intentionally, it can. It helps expand how we approach, explore, and refine ideas. (Alimardani & Hasheminejad, 2024).

Could AI potentially enhance creativity in users unfamiliar with AI tools, broadening their creative thinking abilities. Like any other tool, it's controversial, but fundamentally technical. What sets it apart is its potential to promote both aspects of creative process: open-ended exploration and selected decision-making (Figoli et al., 2022). When integrated well, AI encourages experimentation, speeds up iteration, and helps designers step outside the usual formula. It's not about shortcuts, it's about unlocking new possibilities.

For designers, AI becomes a silent collaborator who makes suggestions, provides inspiration, and points in new directions. At the same time, reliance on AI comes with caution. Rely too much on it, and the work can start sounding similar: clean, polished, but shallow. If everything is guided by suggestions, where's the personal voice? What gives design its value isn't how fast it's made, but the instinct, emotion, and perspective behind it. That's something AI can't reach.

Yes, AI is reshaping how we design. It brings speed, efficiency, and possibility. But its true power lies in how it expands creative possibilities, not replace them. The challenge isn't whether to use AI, but how to use it without losing what makes the design feel human.

Redefining the Designer's Role: Ethical and Creative Implications

The Shift From Creator to Curator

AI in design isn't just changing how we do things it's redefining what it means to be a designer. Designers are no longer just makers or producers, shifting towards becoming strategists, conceptualizers, and, more importantly, curators of creative output. In this new era, a designer is like a director of an orchestra, setting the tone and guiding AI to play the right notes to produce a harmonious symphony that resonates with human intent. The essence of the role remains the same, but the level of responsibility is new and different (Colton & Wiggins, 2012).

AI is our silent partner, quick, indefatigable, and extremely efficient. It can generate endless variations, but at the end of the day, AI still can't feel or imagine in the way that we do. It doesn't understand context the same way, so while we are no longer just making, as designers, we are now more than ever the critics and the questioners (McCormack et al., 2019). Sure, the tools can create anything you can dream up, but someone still has to give the dream. Someone still has to prompt it, and that someone is us.

Ethical Considerations

With great power comes great responsibility. With AI, the more ethical aspects can't be left behind. One core issue is authorship: you give AI a prompt and the outcome is a compelling

graphic. But who owns it? Can we really call that design original when the algorithms work with datasets of web content scraped together? These questions raise serious concerns around intellectual property, ownership, and even plagiarism (Marcus, 2020).

Another significant issue is bias. AI systems learn from data, and data is a reflection of the world we live in. If not checked, these systems can reinforce harmful stereotypes, marginalize voices, or lock us into narrow aesthetic norms. Buolamwini and Gebru (2018) found that designers need to examine not only the output, but the systems themselves: how it's trained, who's included, and who's left out.

AI will not take your job but it will change it. Jobs will evolve. Certain aspects of design will be automated, but that's just a small part of the process. Design's essence; empathy, creativity, emotional intelligence, is human. As Goleman (2011) highlights, a strong emotional foundation is key to meaningful creative work. These qualities become more valuable, and AI will enhance, not replace, those aspects of design (Amabile, 1996). Designers who embrace AI as a tool that complements their unique human perspective will find themselves more relevant.

Transparency is important. If AI contributed in some way to a project, audiences have every right to know. It's not about diminishing the work; it's about honesty. That transparency fosters trust and helps us all understand how creativity is evolving.

AI is definitely changing how we work, but it doesn't have to suppress the creative spirit. The challenge today isn't just mastering these tools; but also using the tools with intention, conscience, and humanity. Because at the end of the day, great design isn't just about the output, it's about the meaning behind it, and that part is still ours.

AI in Practice: Rafik Hariri University Case Study

The case study at Rafik Hariri University (RHU) aimed to explore the impact of AI on graphic design by examining how AI tools, specifically Freepik and PhotoRoom, are being integrated into the design process by graphic designers to produce creative social media content, posters and various design work related to RHU publications and visual content. The case study explores the benefits and challenges faced by the designers while using AI to produce design work.

Automated Task Benefits for Designers

Design Efficiency through AI Automation: At RHU, designers integrated AI tools like Photoreum and Freepik into daily workflows. These tools proved highly efficient for automating routine design tasks. Photoreum was utilized for background removal, delivering instant, clean-cut images of students while capturing fine details such as hair strands. This AI-powered automated process is both rapid and highly precise, eliminating the need for manual editing. As a result, it significantly reduced the time required to prepare visuals for social media posts and posters (see Figures 1 [A] and [B]). Using AI reduced the time required to create the post by over 50%, eliminated repetitive technical labor and allowed greater time for visual direction and creativity.

Figure 1*Social Media Post (A)**(B)***Figure 2***Electrical Engineering Poster*

AI tools also enhanced low-resolution images. Designers upscale existing photos making them suitable for high quality large-format poster printouts displayed during the university's Open House event, using AI-powered enhancement tools. This enabled the creation of high-quality posters without the cost or time of new photoshoots or stock image licensing, as seen in Figure 2. As a result, the workflow became significantly more efficient, conserving both time and resources while ensuring a professional visual standard.

Another major time-saver was AI-generated design assets. Freepik's AI-suggested icons, illustrations, and templates helped speed up production and expanded creative options.

For example, in Figure 3 (A), a post promoting the Adobe National Championship was created using AI-generated vector icons and background removal, allowing more time for layout development and visual storytelling.

Figure 3 (B) shows a promotional design for RHU's AI in Education workshop. Here, AI-suggested visuals, including the illustrated robot and user interface elements, guided the creative direction early in the process. These tools helped overcome creative blocks and enabled the designer to focus on composition and messaging, enhancing both speed and quality.

Figure 3

Social Media Post (A)

(B)



AI-Generated Visuals: Speed, Style, and Customization

Beyond automation, AI empowered designers to create custom visuals aligned with specific project themes and aesthetics. By generating images directly from text prompts, AI replaced generic stock imagery, enhancing originality and adaptability.

Figure 4A features RHU's Graphic Design Open House poster, showcasing a Freepik-generated image prompted with:

“Create an upper-view image of graphic design students working on their laptops in a design studio.”

The result authentically captured the spirit of the program and eliminated the need for scheduling photoshoots or lengthy production processes, saving time while maintaining relevance and creative precision.

Figure 4B presents RHU's Open House poster, which features a fully AI-generated background illustration using Freepik. The illustration was created in seconds through a targeted text prompt, eliminating the need for time-intensive manual illustration or costly custom photoshoots. This demonstrates a key benefit of AI in design workflows: the ability to rapidly produce high-quality, context-specific visuals that would otherwise require extensive production time.

Figure 4

(A) Graphic Design Program Poster



(B) Language & Liberal Arts Unit Poster

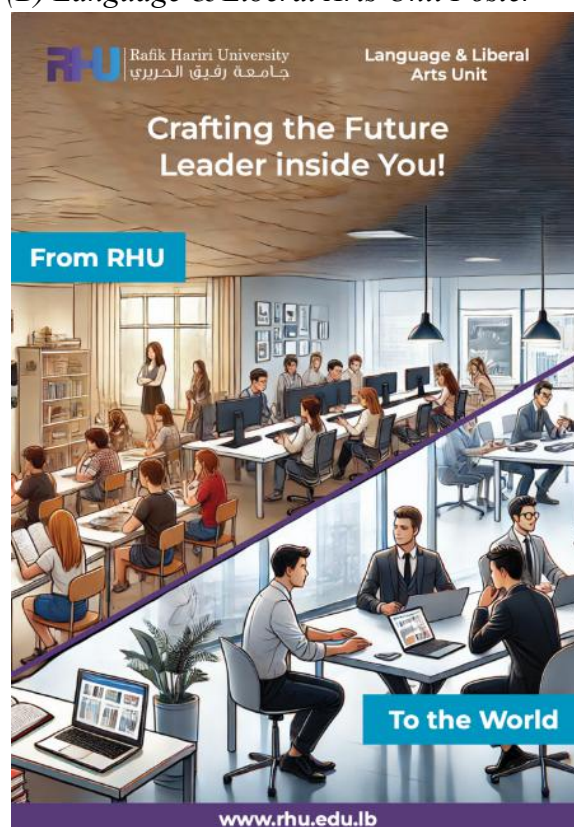
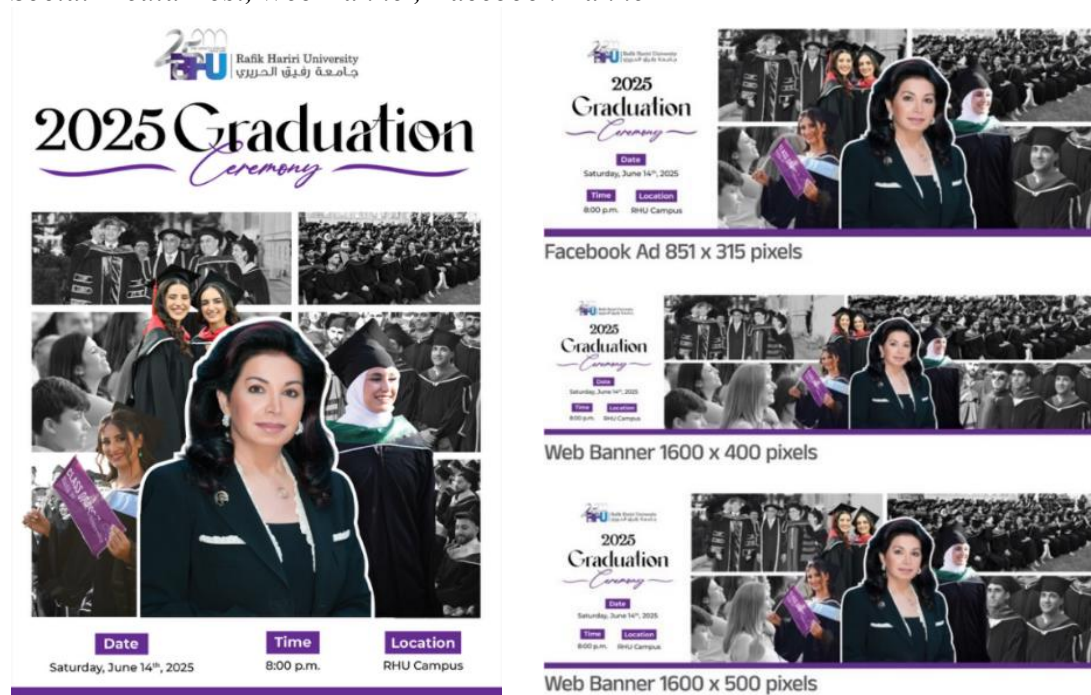


Figure 5 (A) illustrates a social media postcard promoting RHU's Open House, featuring a Ghibli-style campus illustration created using Freepik AI. Generated in seconds, the image eliminated the need for time-intensive illustration while maintaining high visual quality. By leveraging a recognizable and trend-based aesthetic, the design helped increase RHU's Instagram followers from 5,680 to 6,594 in under a month—demonstrating AI's impact on engagement.

Figure 5 (B), a poster for RHU's photo competition, combines an AI-generated Ghibli-style background of the RHU library with a foreground image (a hand holding a tablet), edited using Potoroom's background removal tool. This workflow enabled rapid production with strong visual cohesion aligned to the campaign's tone. These examples underscore how AI tools reduce design time and support creative flexibility, allowing academic marketing materials to stay visually relevant and stylistically current.

Figure 5*(A) Open House Social Media Postcard**(B) Photo Competition Poster*

Scaling for Multi-Platform Campaigns. Another major advantage was AI-driven image adaptability across platforms—Instagram, web banners, and Facebook covers—allowed for consistent campaign identity with minimal manual resizing (see Figure 6). This was particularly effective during RHU’s graduation campaign, where Freepik’s scaling tools preserved design integrity across formats. The result: faster delivery, less repetition, and cleaner adaptation to different channels.

Figure 6*Social Media Post, Web Banner, Facebook Banner*

Rapid Prototyping in the Classroom. AI played a similar role in design education at RHU. As part of Branding and Advertising, students worked with AI programs in order to

quickly visualize hypothetical product designs of supermarket launches. Ideas that would've taken hours or days, took minutes, allowing students to iterate and experiment more freely, an outcome previously unattainable with traditional methods.

AI tools offer significant benefits for designers by streamlining and enhancing the creative process. Freepik's AI-based features enable content personalization by adapting assets to specific project styles or brand identities, achieving more relevant and diverse design results. The ability to generate layout and composition variations from text prompts allows designers to explore multiple visual hierarchies and improve message clarity, effectively overcoming creative blocks by providing a wide range of alternatives.

Creative Boundaries and Limitations of AI Tools

Despite these advantages, AI continues to struggle in areas requiring human emotion, cultural awareness, and storytelling. These limitations, ranging from emotional disconnect to cultural misrepresentation, are clearly demonstrated in RHU's case studies and are explored in the sections that follow.

Technical Challenges in AI Design Tools

Technically, the AI tools used at RHU revealed several recurring flaws, especially in tasks requiring brand accuracy, detail retention, and layout variety.

Logo Distortion and Brand Inconsistency

Figure 7 highlights the limitations of AI-powered design tools through the RHU bus design case study, using Freepik's AI features. Despite providing the official logo as an image within the prompt, the AI consistently failed to preserve essential brand elements. In Figure 7A, the Arabic portion of the logo was completely removed, compromising brand identity and readability. Figure 7B shows the Arabic text rendered incorrectly and illegibly, transforming it into unrecognizable characters. In Figures 7C and 7D, the AI went further by completely altering the logo's visual structure and linguistic elements, introducing unauthorized changes to font styles, color schemes, and layout. These failures underscore the current limitations of AI in handling bilingual logos and respecting established visual identities, particularly in culturally and linguistically specific contexts like RHU's branding.

Figure 7
RHU AI Bus Design



Flawed Content-Aware Generation. AI-powered content-aware tools struggle with visual coherence, often misaligning generated areas with the original, resulting in off-perspective elements, mismatched lighting, and awkward repetition.

Figure 8 illustrates these issues using RHU campus images extended through Freepik, each demonstrating failures in visual coherence and realism. In Figure 8 (A), the AI repeats the same student and bookshelf within the RHU library, creating an unnatural and duplicated scene. In 8B the AI distort anatomy, including a warped hand and repeated bracelet, reflecting the AI's difficulty with fine details and human form. And in 8C, the tool generates an awkward repetition of a bush, resulting in an artificial, patterned landscape lacking organic variation. Figure 8D shows a significant deformation of the RHU Engineering Building, where the structure becomes blurred and distorted, compromising architectural accuracy.

These examples highlight the tool's core limitations: lack of contextual awareness, weak spatial logic, and a tendency toward visual shortcuts. Content-aware AI is not yet ready to handle the demands of real-world, detail-sensitive visual design. It's fast, yes—but fast doesn't mean finished.

Figure 8

Freepik Content Aware Tool Used for Extending RHU Campus Images to Be Used in RHU's Promotional Marketing Designs



Generic Layouts and Low-Resolution Output. A key limitation of AI in layout design is its tendency to produce generic outcomes, often lacking in creative structure, visual hierarchy, and contextual sensitivity. For instance, when designing a flyer for an Automated Smart Parking System, the AI repeatedly produced similar layouts, despite prompt adjustments, demonstrating a lack of design diversity (Figure 9A & B). Even with provided text, it was either inaccurate or unreadable. Additionally, the low resolution made the designs unsuitable for print. These issues reflect AI's current limitations in producing professional, high-quality, and distinctive layout designs.

While Figure 9 (C) showcases the final outcome created by the human designer, demonstrating a significant leap in creativity, clarity, and visual sophistication compared to the AI-generated versions. Unlike the repetitive and generic layouts produced by AI, the designer's work reflects thoughtful composition, effective use of hierarchy, and tailored visual elements that align with the theme of the Automated Smart Parking System. The design resolves previous readability issues, integrates the content meaningfully, and meets professional print standards. This stark contrast highlights the value of human creativity and design intuition in producing compelling and contextually relevant visual communication.

Figure 9*(A) AI Flyer Design**(B) AI Flyer Design**(C) Designer's Flyer*

Lack of Cultural Understanding, Stereotypes and Language Barriers. AI's inability to empathize or understand lived experience means it cannot craft emotionally resonant visuals or culturally rooted narratives. In RHU's case, attempts to depict Lebanese students often resulted in stereotypical or Westernized imagery, ignoring local architectural and cultural cues (Figure 10). Despite detailed prompts and links to RHU's website, outputs often featured Malaysian or American-looking individuals against backgrounds resembling Gulf architecture. This disconnect not only erased RHU's identity but also failed to represent its student body authentically, highlighting AI's current limitations in cultural sensitivity and contextual localization.

Bilingual text posed additional challenges. Arabic was frequently distorted, misaligned, or unreadable, especially in right-to-left formats, making professional output impossible.

Figure 10*Image Generation*

AI is fast and visually polished, but it isn't intuitive. It can remix, but it cannot feel. Good design begins not with graphics, but with meaning. Runco and Acar (2012) emphasis on divergent thinking, originality, and the role of personal experience suggests that creativity

remains deeply human. And meaning comes from lived experience, something machines cannot replicate.

Original Concepts Still Matter because originality is not a decision, it's required. AI works on the basis of what has come before, so it's necessarily derivative. It can refine, not revolutionize. Great ideas still originate from human heads working against data trends (Boden, 2004). We must protect visual identity; an authentic visual identity isn't just about appearing attractive, it's about representing who you are. Over-sustenance on AI tools usually leads to homogeneity. Prompt engineers and designers must ensure the brand doesn't get lost along the way (Shneiderman, 2020).

Designers remain the ones who direct the creative vision. AI can help, but only if we guide it with intent. Prompt engineering closes that gap. It keeps AI rooted in human values, creativity, and visual storytelling. And as we continue deeper into a digitally networked design world, that guidance will be more important than ever.

These examples make one thing clear: AI may generate fast, but it doesn't generate meaning. That still belongs to the designer.

AI as a Creative Tool: The Critical Role of the Designer

The Human Element in Creative Design

Even as AI tools continue to advance, the core of design remains fundamentally human. Good design is not only visual, it communicates, evokes emotion, and builds connection. This emotional intelligence is shaped by lived experience, empathy, and intuition, which AI lacks. As Goleman (1995) emphasizes, emotional intelligence is more central to excellence than technical skill alone. He found that “emotional intelligence, not technical expertise or book learning, to be what mattered most for excellence” (p.5).

Designers draw from memory, instinct, and cultural context—elements that shape the visual language in ways that AI cannot predict or replicate. AI can guess what someone might respond to, based on patterns, but it doesn't understand why, because it doesn't feel and it doesn't care. That's why it can't truly create design with emotional depth (Norman, 2004).

While AI systems remix existing data to generate outputs, they do not experience meaning, nor do they create with purpose. Creativity is the inclination to create numerous original ideas through the imagination, and the initiative to realize those ideas (Pearson, 2020).

Csikszentmihalyi (1996) argued about that idea of creative flow, when you lose track of time because you're so immersed in the process. That state of flow, of intuitive making, doesn't come from algorithms, it comes from us, from emotion and from meaning. Boden (2004) wrote about how real creativity pushes against the known it doesn't just remix ideas, it reshapes the boundaries entirely.

Prompt Engineering and the Limits of AI

Prompt engineering is becoming a critical design skill. Designers are learning to use language strategically to guide AI systems. However, even well-crafted prompts don't always yield reliable results. AI interprets commands based on probability, not intention. In practice, this

means outputs often require iterative adjustments, human filtering, and creative judgment (Carlson, 2023).

Prompt engineers play an essential role in bridging the gap between machine logic and design sensibility. They don't just write prompts, but they write how the system responds (Bansal, 2024). Their tasks include refining prompts, ensuring ethical outputs, curating results, and aligning AI-generated visuals with the project's context and goals. This process reflects not just technical fluency, but also the ability to translate human emotion into machine-readable input. Prompt engineering is quickly becoming a core skill of design. It's not about being dishonest; it's about asking better questions. Sometimes one word changes everything. Other times, it takes five iterations. Detective work in design is what makes the effortless seem possible; designers must consider clarity, nuance, and emotion to create effective solutions (Zhang & Yang, 2022).

Ultimately, AI can support design workflows but only when guided by designers who understand its limitations and know how to ask the right questions.

Key Findings: Workflow Transformation Through AI

The case study at RHU shows how AI has not only accelerated workflows, reducing time by 40–50%, but also reshaped how designers engage with their process. Faster revisions allowed for more variations without compromising quality, offering a real advantage on tight deadlines. Beyond speed, AI brought greater precision: background removals were cleaner, image enlargements retained clarity, and layout alignments improved.

AI boosted creativity by suggesting fresh ideas when designers felt stuck. It didn't replace their thinking, it expanded their tools and perspectives. In addition, AI freed designers from repetitive work so they could focus more on typography, composition, and storytelling, key elements for meaningful design.

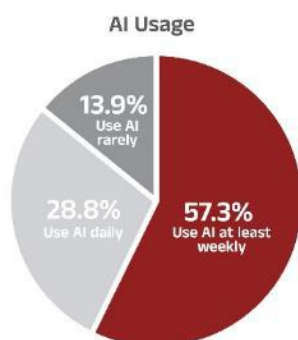
Survey Analysis: AI's Role in Creative Design Workflows

To back up the case study, a survey was done from May to June 2025 with 111 people, graphic design students, freelancers, professors, and professionals. The goal was to see how AI tools fit into their design process.

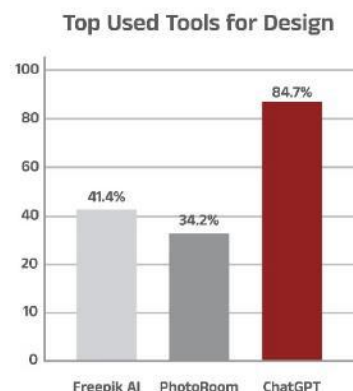
This study examined how AI tools are being incorporated into the design process. The findings show that 76.1% of respondents currently use AI in their work. In fact, 57.3% of them say they use these tools every week, with 28.8% using them every day.

The most popular tools were ChatGPT 84.7% for brainstorming and writing, Freepik AI 41.4% for graphics, and PhotoRoom 34% for editing backgrounds. Most respondents used AI to generate images 65% and remove backgrounds 57%. Many also said it boosted productivity 62.2% said it allowed more focus on strategic work, while 55.9% said it freed time for complex creative tasks.

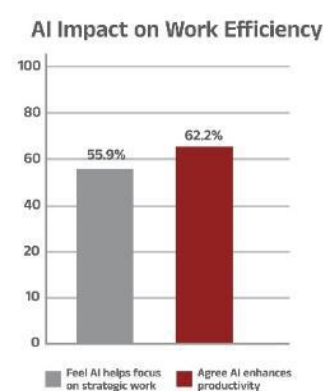
Figure 11
AI Usage



Top Used Tools for Design

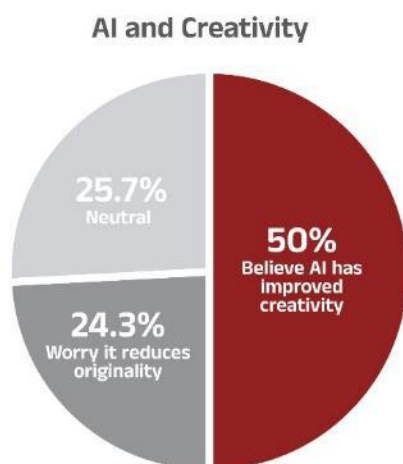


AI Impact on Work Efficiency

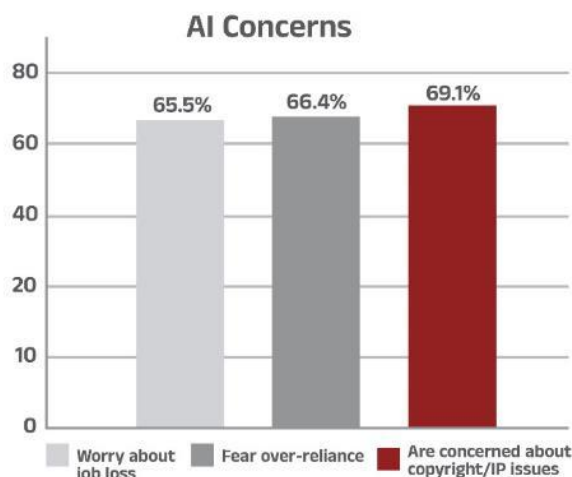


When it comes to creativity, half the respondents felt AI enhanced their creativity. But almost a quarter worried it might hurt originality. This matches what we saw in the case study, AI serves as a facilitator, not a replacement, for human creativity.

Figure 12
AI and Creativity



AI Concerns



Shifting focus to humans, the survey results suggested that 66.7% of respondents asserted that human supervision is very important. While AI can perform efficiently, it does not have the emotional perspective or cultural acumen that a human designer possesses. This resonates with the other 77.5% of respondents who pointed out that although AI has abilities, it lacks the delicate subtleties of human elements that are critical in actual design work.

There were ethical concerns too. About 68% said AI made them rethink what originality and authorship mean. Nearly 70% worried about copyright and intellectual property. Around two-thirds feared over-reliance on AI, potential social inequality, and job losses due to automation.

These results support our case-study findings from RHU, where AI was meaningful, but it was complementary and collaborative, not a replacement for human vision or creativity.

While AI can be transformative, it cannot replace the human touch—the feelings, context, and intuition that make design truly meaningful.

Conclusion

The future of graphic design isn't about humans versus AI, it's about collaboration. Designers won't just use tools; they'll help shape them. The next generation of creatives will harness AI's capabilities while retaining authorship, emotional depth, and originality. This balance will distinguish the designers of the future.

Looking closely at the case study at Rafik Hariri University, we're not just seeing a technological shift, we're witnessing a deeper transformation in the creative process. Tools like Freepik and Potoroom allow faster production, explore more freely, and make new creative options for themselves. Designers are gaining the freedom to iterate visually and test ideas with unprecedented speed.

Our findings show that AI boosts productivity, accelerates prototyping, and expands creative possibilities. This isn't just about working faster; while AI can generate outputs quickly, it doesn't always understand nuance, particularly with cultural or emotional context, areas where it still has limitations, especially in contexts like Arabic typography or region-specific identity. AI may produce visuals, but it can't interpret meaning or emotion. These are areas where human insight remains essential.

Ultimately, AI can support the work, but not replace the designer's voice, vision, or creativity. The heart of great design lies in storytelling, emotional resonance, and a sense of place and identity. While AI may enhance the process, it cannot replicate the intuition and originality that make design meaningful.

Future Outlook: The Long-Term Impact of AI on Graphic Design

AI isn't standing still and neither is design. We are already starting to see the change: tools move beyond automation to intelligent assistance: suggesting layouts, refining style choices, and offering revision ideas. Where do we go next? Smarter, more context-aware design assistants that collaborate with designers rather than simply follow instructions (Elgammal, 2019).

Designers may provide a few keywords and receive complete designed proposals within minutes. That speeds up early-stage exploration, but it also raises questions about authorship and creative ownership.

We're moving toward real-time, adaptive content tailored for different audiences, languages, and platforms. Figoli et al. (2022) discuss this shift. While this approach promises enhanced engagement and user experience, especially for digitally savvy users, it also risks producing formulaic results that lack emotional resonance if human direction is absent.

As immersive experiences like VR and AR expand, AI will assist in shaping interactive and 3D environments. AI can manage complexity, but the creative vision must come from the designer (Shneiderman, 2020).

To prepare for this future, design education needs to evolve. Students must go beyond learning software. They need to understand how AI functions, when it helps, and where it fails. They should learn to write prompts, critique outputs, and decide when to reject suggestions. It doesn't eliminate creative thinking, it affirms it (Amabile, 1996).

Designers also have to think in terms of authorship and copyright. As AI handles more execution, human value will lie in direction, judgment, and accountability. That requires sharper ethical awareness, earlier intervention, and a stronger connection to human experience (Goleman, 1995).

Finally, we need more research. Tools are evolving quickly and we must question what's actually changing in our creative work, before we lose sight of how those changes occur. Research will help us understand where AI adds value, where it creates friction, and how it's affecting not only workflows, but identity, authorship, and originality. This is especially vital in regions like Lebanon, where design carries deep cultural meaning.

RHU's case study captures a pivotal moment, where tradition meets transformation, and reminds us that the future of design remains a human story, still unfolding.

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