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RESEARCH ARTICLE **Section:** *Visual & Performing Arts*

Visual rhetoric and AI-generated visuals in graphic design education: reconstructing meaning, authorship, and critical practice

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ABSTRACT

This study explores the rising importance of AI-generated visuals in graphic design studies and their impact on visual rhetoric, authorship, and conceptual thinking. The rise of accessibility of such technologies in university-level education brings many questions about originality, critical analysis of images, ethical responsibility, and place of the author/designer in the process of creation and meaning-building. In spite of the fact that AI systems create sophisticated images almost automatically, there is a need to ensure active visual thinking of students rather than passive usage of technology.

The research follows a qualitative descriptive-analytical approach with a focus on the theoretical framework of visual rhetoric and further concepts developed by Barthes, Groupe μ and Durand concerning substitution, omission, addition and permutation in images. This study discusses certain educational strategies employed in graphic design programs and investigates the effect of AI-generated visuals on conceptualizing ideas, working with typography, composition and symbolism in studio practice.

As a result, it was found out that such visuals contribute to brainstorming, experimenting, and fast prototyping in case they are employed critically; yet, an excessive use of AI leads to a reduction in originality, a shallow understanding of concepts, and responsibility. Thus, it is concluded that AI should be utilized not as an alternative but as a design assistant.

KEYWORDS: artificial intelligence, design education, graphic design, visual communication, visual rhetoric

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1. Introduction

1.1 AI's rise in several fields

In traditional educational approaches, graphic design involves the relationship between ideas and visualization (Frascara, 2004; Lupton, 2014). Students learn to develop images, compositions, symbols, and text combinations by applying certain methods of communication to the audience. Every step performed within the process of visual communication is essential, as design decisions directly affect user perception and interpretation (Norman, 2013).

AI visual generation technologies such as Midjourney, DALL·E, and Adobe Firefly, among other innovative software solutions in the area, represent one of the newest technological achievements in graphic design. It is possible to produce high-resolution images based on texts without drawing. Various advantages and disadvantages emerge because of the emergence of this technology in academic settings.

One of the positive aspects of this innovation is an opportunity to test numerous visual concepts within a few seconds while it usually takes much more time to make the visuals. In this way, students can experiment with various styles to choose the best option among available variants. At the same time, the excessive use of AI visualizations might cause students' lack of skills in defending and developing concepts.

However, the main challenge related to the implementation of technological innovations into graphic design courses concerns the risk that the intellectual basis of the field might be undermined in the process of learning. The primary goal in designing is not only making images but also creating meaning through those images. Therefore, visual rhetoric is the core of this research.

It is crucial to investigate the influence of AI visuals on the process of teaching and learning graphic design. This conceptual relationship is illustrated. As shown in Figure1.

Figure 1: Conceptual framework showing the relationship between visual rhetoric, AI-generated visuals, and conceptual design thinking in graphic design education

2 Literature Review

2.1 Visual Rhetoric in Graphic Design

Visual rhetoric is about how images convince, communicate, and construct meaning (Barthes, 1977; Kress & van Leeuwen, 2021). According to Roland Barthes, images consist of denotation and connotation, where the visual sign operates culturally and not objectivity. Subsequent studies by scholars like Jacques Durand (1987) and Groupe μ (1992) furthered Barthes' theory by identifying rhetorical operations such as substitution, omission, addition, and permutation.

In graphic design education, rhetorical theories help explain why design is fundamentally argumentative. In other words, posters, logos, book covers, and digital user interfaces communicate through violating the norm in the visuals. Meaning is constructed through a balance between the norm. This aligns with postmodern perspectives in graphic design, where meaning is often constructed through deviation and reinterpretation of visual norms (Poynor, 2003).

Rhetorical studies of visual design enhance conceptual understanding and enhance students' ability to reason and defend visual solutions. The integration between rhetorical theory and AI-assisted design processes

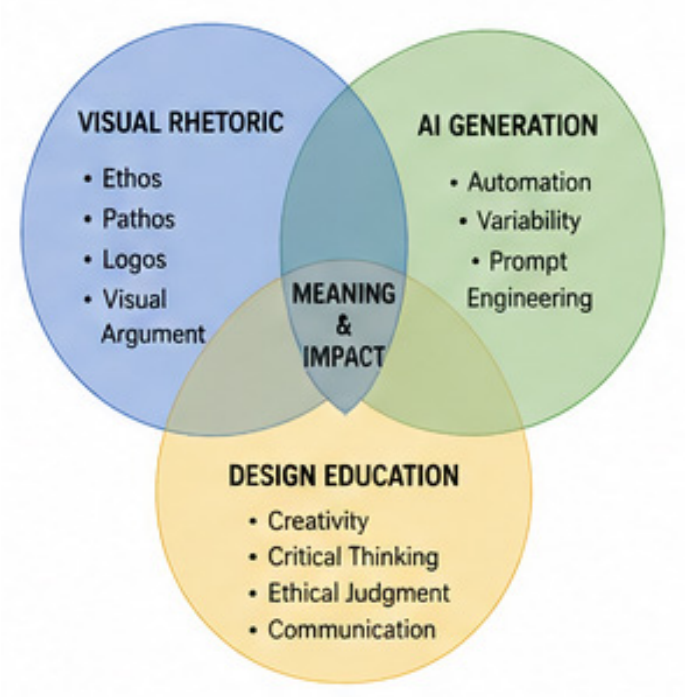

Figure 2: Intersection between visual rhetoric theory and AI-generated visual production in contemporary design education

2.2 Artificial Intelligence and Creative Production

AI in design has grown fast through generative technologies that are fed on large visual datasets (Manovich, 2018; Acar, 2023). Generative AI is used to simulate aesthetic styles, create illustrations, and produce compositions according to texts provided by the user. It is time-effective and accessible enough to be used in academic environments.

Many researchers emphasize that using AI increases efficiency and contributes to the ideation phase. However, there are worries about originality issues, the problem of ethical ownership, visual biases, and the loss of reflection within the design process. Learners may adopt the outputs of the technology without considering symbolism, cultural background, and target audience.

Therefore, it is necessary to find ways to incorporate AI into conceptual thinking in universities. Current research points out how fast the integration of generative AI occurs within creative professions and directly influences the process of educating designers. According to recent studies, ChatGPT, as well as various image generators, change the way in which students come up with their ideas, moving away from creation to prompt-based work (Dwivedi et al., 2023; Kasneci et al., 2023). Although this makes the creation of designs more efficient, there are questions about originality and critical skills. The use of AI in education is discussed as having an influence not only on improving study results but also on issues associated with maintaining academic integrity (Zawacki-Richter et al., 2019; Cotton et al., 2023). Thus, according to the above research, the role of AI depends more on its pedagogical application. From the design-related perspective, research has found that although using AI enhances imagination and expands options when designing, it decreases authorship since students tend to apply generated images (Hertzmann, 2018; Acar, 2023).

3. Methodology

The current research uses a qualitative descriptive-analytical methodology grounded in design research practices (Sullivan, 2022). It is based on visual rhetoric theory but does not measure any phenomena quantitatively, analyzing rather the interpretation of design education practices.

The current analysis will explore the selected examples of visual design assignments such as poster design, identity design, editorial design, and branding within an undergraduate setting. The current paper will compare traditional processes of concept formation with computer-assisted generation.

The discussion will be driven by three analytical perspectives:

1. Conceptual uniqueness and authorship
2. Rhetorical effectiveness and symbolics
3. Ethical and pedagogical issues in grading students' work

Such an approach would enable the critical discussion of AI-generated visual content in education. The overall research structure and analytical framework are summarized in as shown in Figure3.

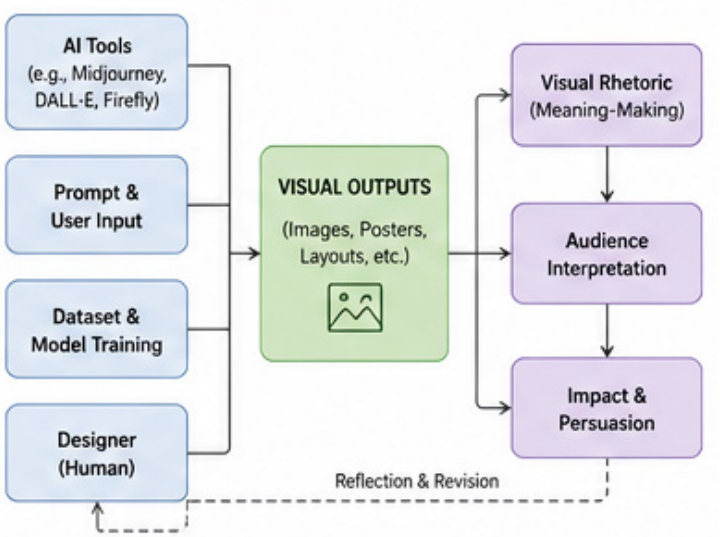

Figure 3: Methodological structure of the study including conceptual analysis, comparative observation, and rhetorical evaluation

4. Results

4.1 AI as a Tool for Early Concept Development

The analysis proves that AI is highly efficient in the exploratory phase of the design process. Students use the generated visuals for experimentation with the theme, references, and composition Examples of AI-generated visual outputs used during the exploratory phase are shown in Figure 4. It saves time and helps build confidence in the ideation phase.

For instance, in the branding of tourism destinations project, students can develop several stories about the place with the help of symbolic visuals and choose a communication strategy later.

Nevertheless, there is no educational benefit until students critically analyze the output and not adopt it blindly.

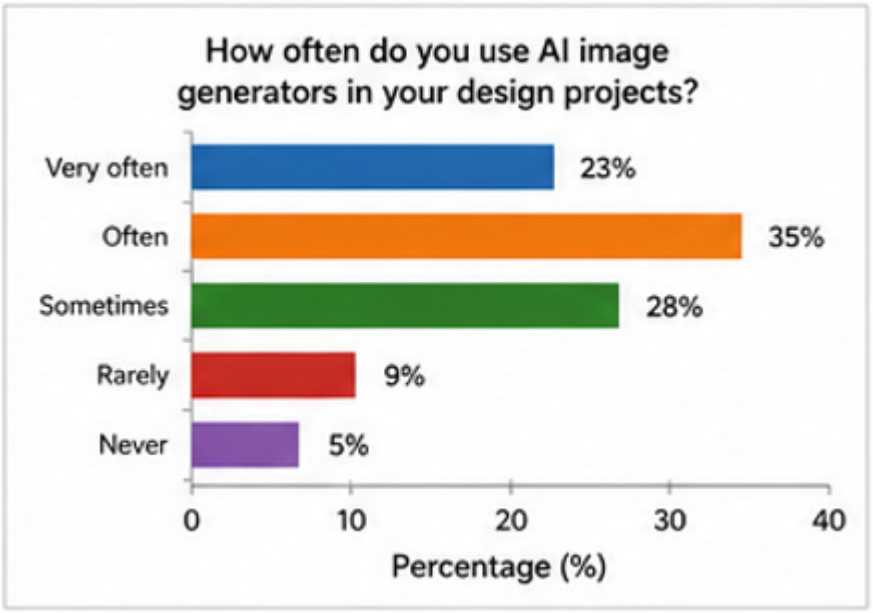

Figure 4: Sample AI-generated visual concepts produced by students during the ideation phase of a tourism branding project

4.2 Case-Based Observation in Design Studio Practice

An experiment was conducted regarding the use of artificial intelligence for generating graphic design for tourism branding through an undergraduate group of students. There were 18 students asked to create design concepts for a chosen tourist destination in two separate instances: with and without the use of artificial intelligence technology.

In the first instance, students were required to come up with their concepts without any assistance from AI tools. The concepts were extremely diverse and content-rich, but it required a significant amount of time to develop them and there was no consistency in their quality. However, in the second instance, when students used artificial intelligence technologies, they easily came up with 5 to10 visual concepts.

The only problem that occurred during review sessions is that some students had difficulties justifying their designs. This reinforces the doubts raised about authorship in the next section.

The comparison between the two approaches is summarized in Table 1

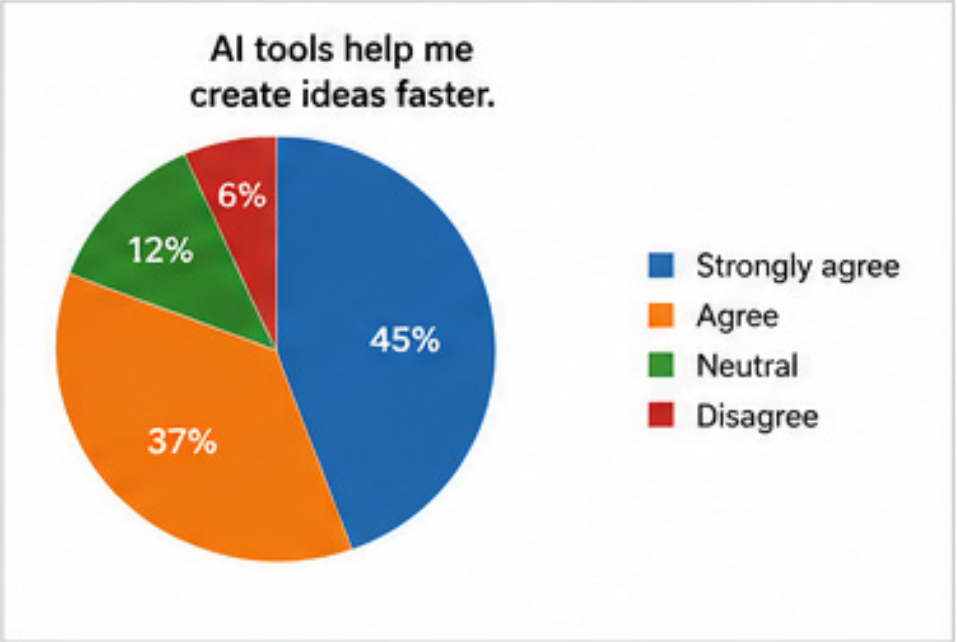

Figure 5: Visual comparison of traditional versus AI-assisted design processes in terms of time, quality, and conceptual clarity

4.3 Weakening of Visual Authorship

Another problem arises when learners replace their conceptual growth with the reliance on prompts. Under these circumstances, the designer assumes the role of the selector, not the creator, and the resulting image looks great visually but shows no conceptual ownership. This issue is illustrated through a comparative example in as shown in Figure 6.

This undermines the purpose of the educational process, which involves students giving reasons for their visual decisions, including references to the target audience and communicative objectives.

In evaluation, this problem is even more acute since, based solely on the visual output, it might be concluded that AI solutions are more sophisticated than those created manually.

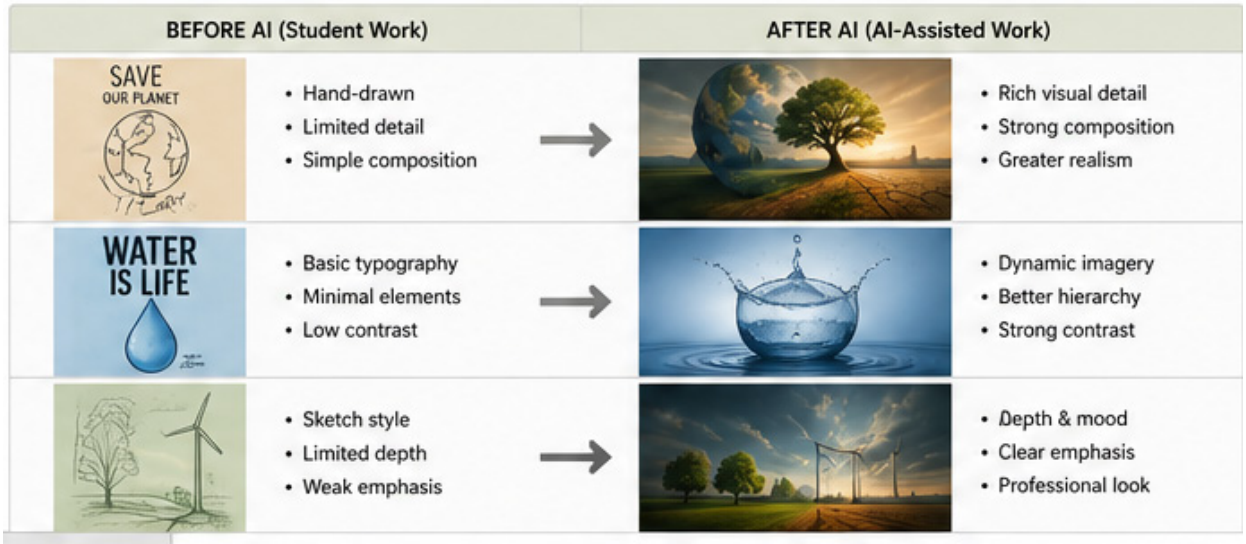

Figure 6: Comparison between student-generated concepts and AI-generated outputs highlighting differences in authorship and conceptual depth

4.4 Ethical Responsibility and Academic Integrity

Generated images using AI pose serious ethical questions around copyright, data set integrity, and visual theft without proper accreditation. Few students realize that what is generated might also be plagiarized in some sense by using existing artworks.

For these reasons, design education needs to incorporate ethics as part of the curriculum (McCosker & Wilken, 2024). There will need to be an understanding of accountability for sources, criteria for disclosure, and distinguishing between drawing inspiration and mindless copying.

There also needs to be an institutional process for declaring use of AI in academic work.

Recent research also emphasizes that generative AI introduces new forms of academic integrity challenges, including unclear authorship boundaries and hidden dataset dependencies (Cotton et al., 2023; Tlili et al., 2023). These challenges require explicit institutional policies and transparent disclosure practices to ensure fairness in academic evaluation.

5.Discussion

5.1 Visual Rhetoric as an Evaluation Framework

The visual rhetoric paradigm provides a pragmatic approach to analyzing AI-supported work. Rather than determining whether the student made use of artificial intelligence, the teacher should consider whether there is a rhetorical purpose still discernible. These results support current research asserting that while generative AI is beneficial in enhancing ideation velocity, the process tends to be detrimental to independent reasoning skills (Zhang & Dong, 2023; Dwivedi et al., 2023). This conflict between efficiency and creativity has recently become one of the most important topics of discussion within design education pedagogy.

Is it possible for the student to account for symbol replacement? Why was this particular metaphor chosen? How does the process of writing influence interpretation? How do cultural expectations condition the visual reaction?

These inquiries put authorship back into the hands of the student and move scholarly assessment from productivity to accountability. An applied example of rhetorical analysis in student work as shown in Figure 7.

Element	Rhetorical Function
1 Color Contrast	Creates dichotomy (life vs. death), evokes emotional response (pathos).
2 Imagery	Tree symbolizes choice and consequence (logos + pathos).
3 Composition	Central split emphasizes decision point and balance.
4 Typography	Bold imperative message calls for action (ethos + pathos).
5 Texture	Reinforces the theme through visual detail and realism.

Figure 7: Rhetorical analysis of a student design showing the use of symbolism, composition, and visual hierarchy

5.2 Curriculum Transformation in Graphic Design Programs

AI integration requires reimagining the curriculum instead of adding new software tools. The traditional curriculum for studio education emphasizes drawing, experimentation, iteration, and critique. AI brings faster production processes that transform the way learners tackle visual problems.

As such, universities need to redesign learning outcomes and make sure that learners are not only assessed for the time they take to produce visuals, but for their reasoning. Universities need to incorporate prompt building in the curriculum, and make it part of critical thinking lessons, instead of a way to bypass visual production processes. Learners need to know how language creates imagery, and how choices about prompts affect symbol interpretations.

For example, in branding classes, students need to justify their choice of metaphors, and how visual hierarchy aids them in achieving communication objectives, while taking into consideration the expectations of their audiences.

5.3 Studio Critique and Reflective Practice

It is important for design studios to involve critique sessions wherein students defend their visual choices and get proper feedback. In cases of utilizing AI technology, it is even more crucial to follow this methodology.

Otherwise, students might accept the output as the end result due to its polished look without reflecting on it properly. Faculty need to encourage reflection through the requirement of keeping a journal of thoughts from inception to creation of concepts and mapping out those concepts.

The capability of writing about reflections would guarantee that the student is the writer of his/her work. The incapacity of describing symbolism, composition conflicts, and deviation would make the student unable to take responsibility for his/her art.

5.4 Cultural Identity and Local Visual Context

The most serious potential threat posed by the use of generative AI is the prevalence of visual culture based on the dominant globalized aesthetic which can erode local cultural identity. AI tools are often trained using datasets that favor dominant visual cultures, thus their outputs might not reflect the correct cultural symbols, typeface, or design elements of Arab identity.

This becomes especially relevant to graphic design teaching in Jordan or other parts of the Arab world. Graphic design assignments such as tourism promotion campaigns or institutions' branding require preservation of cultural authenticity and not creation of visually appealing yet culturally inaccurate outputs.

For instance, creating a campaign for Petra or Jerash should not involve using the clichéd exotic visual symbols. Students need to question the visual outcomes generated by the AI software and think about how their work incorporates symbolism and historical reference as well as Arab typeface.

5.5 Assessment Rubrics for AI-Assisted Projects

Evaluation criteria will likewise require innovation. While conventional testing emphasizes technical excellence and visual appeal, AI-produced material is capable of producing great visuals regardless of conceptual substance. Four main aspects should be considered in developing an effective rubric:

1. Conceptual originality
2. Rhetorical clarity
3. Ethical transparency
4. Technical refinement. The proposed evaluation model is illustrated as shown in Figure 8

RUBRIC FOR EVALUATING AI-ASSISTED DESIGN PROJECTS				
Criteria	**Excellent (4)**	**Good (3)**	**Fair (2)**	**Poor (1)**
Visual Rhetoric	Clear, persuasive message with strong visual argument	Clear message with adequate visual support	Message somewhat unclear or weak visual argument	Unclear message and weak visuals
Creativity & Originality	Highly original and innovative use of ideas and AI	Some originality in concept or execution	Limited originality; relies heavily on generic outputs	No originality; fully generic output
AI Use & Integration	AI used strategically to enhance design	AI used appropriately with minor issues	AI use is basic or not well integrated	AI use is irrelevant or misapplied
Technical Quality	High quality in composition, color, typography	Good technical quality with minor flaws	Acceptable quality with noticeable flaws	Poor technical quality
Reflection & Critical Thinking	Insightful reflection on pectures and decisions	Adequate reflection with some insights	Limited reflection	No reflection

Figure 8: Proposed rubric for evaluating AI-assisted design projects based on originality, rhetorical clarity, ethical transparency, and technical execution

Conceptual originality tests whether the student generated an argument or just chose one that was produced for her convenience. Rhetorical clarity concerns whether symbolism and composition convey the desired message. Ethical transparency necessitates making the process of AI assistance completely transparent.

The above will allow institutions to uphold equity while adjusting to the new mode of content creation. The overall educational evaluation framework is summarized as shown in Figure 9.

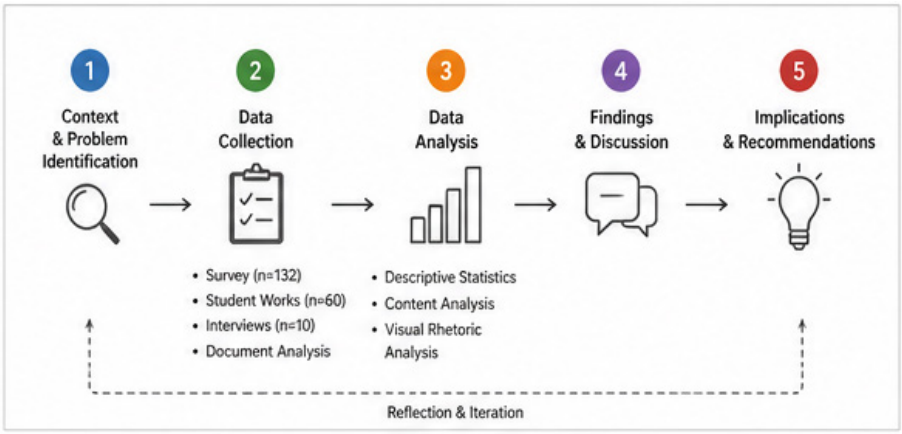

Figure 9: Integrated framework for incorporating AI in graphic design education while preserving conceptual thinking and authorship

6. Faculty Development and Institutional Policy

The preparation of faculties should also be taken into account. The majority of teachers do not know how to properly evaluate projects created by AI, as all existing teaching techniques are older than the application of the new technology in the educational process.

Training courses will help teachers become familiar with prompt systems, copyright issues, biases in

the dataset, and ethical disclosure requirements. The policies will reduce the differences between teachers and departments.

Universities should create policy papers regarding the permissible usage of AI in their academic projects. There should be no misunderstandings among students about the boundaries between assistance and cheating. Otherwise, injustice may occur.

7. Future Research Directions

Future investigations should avoid mere descriptive approaches and incorporate field observations of the classes in question. Comparisons across AI-supported and conventional design studios can help establish better conclusions about issues like learning experiences, development of creativity, and ownership perspectives.

Additionally, quantitative surveys including both students and faculty members might help assess issues such as levels of acceptance, ethical implications, and educational merit. Long-term research would be helpful to determine how repetition of the use of AI influences strategic design versus creative independence.

Comparative studies across different Arab universities can offer additional insights since the subject matter is highly influenced by language and culture.

8. Conclusion

AI has now become an element in the field of graphic design that cannot be neglected even at a higher educational institution level. This inclusion in the field of graphic design is very beneficial for experimenting with ideas and speeds up the processes involved in visualization. Nevertheless, it is essential to preserve the main objective of teaching graphic design within the educational process by fostering visual thinking abilities in students.

AI should help graphic design learning as an assistant, not as a substitute for the thinking process. In this regard, it is the designer who bears the responsibility for interpreting ideas and communicating them precisely to the audience.

Since graphic design is a rhetorical process, visual rhetoric should be used as an academic background where AI is used as an auxiliary element.

This will provide a good opportunity to teach future designers how to stay engaged intellectually when designing with the assistance of AI.

Based on recent studies within design education, there has been a shift in student engagement from manual implementation to prompt-based conceptualization due to artificial intelligence tools. Scholars highlight that while this process increases speed and experimentation, students become less likely to be reflexive authors as they rely too much on automation. In visual communication courses, there is, therefore, an ongoing dilemma concerning production and conceptualization.

The results of research on design studios confirm that the usage of AI images helps in ideation processes in such areas as branding, editorial design, and advertising. Nevertheless, instructors often face challenges during their attempt to evaluate originality because good-quality visual output might cover poor conceptualization. Thus, the importance of rhetorical evaluation is emphasized.

Finally, studies related to academic integrity draw particular attention to the necessity of developing appropriate policies. Openness concerning generative tool usage and source awareness have become important prerequisites in today's education environment in regard to the quality assessment framework. Otherwise, it will be very difficult to separate assistance from substitution.

The comparative education model confirms that the best solution would be to guide AI's introduction through critical discussions where emphasis is placed on rhetorical intentionality, cultural relevance, and symbolism.

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References

Acar, O. A. (2023). Generative AI in creative work: Implications for design education and professional practice. *Design Studies, 89*, 101230.

Barthes, R. (1977). *Image, music, text*. New York, NY: Hill and Wang.

Blythe, M. (2023). Authorship after automation: Design responsibility in the age of generative systems. *Journal of Visual Communication, 22*(4), 311–329.

Buchanan, R. (2001). Design research and the new learning. *Design Issues, 17*(4), 3–23.

Coomer, A. (2022). AI art and visual culture: Algorithmic imagery and the question of authorship. *AI & Society, 37*(2), 913–927.

Cotton, D. R. E., Cotton, P. A., & Shipway, J. R. (2023). Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. *Innovations in Education and Teaching International*. Advance online publication.

Durand, J. (1987). Rhetorical figures in the advertising image. In J. Umiker-Sebeok (Ed.), *Marketing and semiotics* (pp. 47–52). Berlin, Germany: Mouton de Gruyter.

Dwivedi, Y. K., Kshetri, N., Hughes, L., Slade, E. L., Jeyaraj, A., Kar, A. K., Wright, R., … (2023). So what if ChatGPT wrote it? Multidisciplinary perspectives on opportunities, challenges and implications of generative AI. *International Journal of Information Management, 71*, 102642.

Frascara, J. (2004). *Communication design: Principles, methods, and practice*. New York, NY: Allworth Press.

Groupe µ. (1992). *Traité du signe visuel*. Paris, France: Seuil.

Hertzmann, A. (2018). Can computers create art? *Arts, 7*(2), 18.

Kasneci, E., Sessler, K., Küchemann, S., Bannert, M., Dementieva, D., Fischer, F., & Kasneci, G. (2023). ChatGPT for good? On opportunities and challenges of large language models for education. *Learning and Individual Differences, 103*, 102274.

Kress, G., & van Leeuwen, T. (2021). *Reading images: The grammar of visual design* (3rd ed.). London, UK: Routledge.

Lupton, E. (2014). *Graphic design thinking: Beyond brainstorming*. New York, NY: Princeton Architectural Press.

Manovich, L. (2018). *AI aesthetics*. Moscow, Russia: Strelka Press.

McCosker, A., & Wilken, R. (2024). Generative media and educational ethics: AI image production in university learning environments. *Higher Education Research & Development, 43*(1), 55–71.

Norman, D. (2013). *The design of everyday things* (Revised and expanded ed.). New York, NY: Basic Books.

Poynor, R. (2003). *No more rules: Graphic design and postmodernism*. London, UK: Laurence King Publishing.

Sullivan, G. (2022). *Art practice as research: Inquiry in visual arts and design education* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Tavin, K. (2010). Visual culture and critical pedagogy in art education. *Studies in Art Education, 51*(3), 197–213.

Tlili, A., Shehata, B., Adarkwah, M. A., Bozkurt, A., Hickey, D. T., Huang, R., & Agyemang, B. (2023). What if the devil is my guardian angel: ChatGPT as a case study of using chatbots in education. *Smart Learning Environments, 10*(1), 15.

Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education. *International Journal of Educational Technology in Higher Education, 16*(1), 39.

Zhang, J., & Dong, A. (2023). Prompting creativity: The impact of AI image generators on design ideation. *Creativity Research Journal, 35*(3), 409–425.