Citation: **Rania Mahmoud (2024), Artificial intelligence serves as an innovative technical intermediary for creating photo and expressive drawings, International Design Journal, Vol. 14 No. 6, (November 2024) pp 215-232**

Artificial intelligence serves as an innovative technical intermediary for creating photo and expressive drawings

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Abstract:

The study problem lies in attempting to understand the capabilities of artificial intelligence as a digital execution medium for producing images and expressive illustrations inspired by literary texts. Can the artist fully control their creative experience, or is it machine learning and its data analysis that primarily drive the images it produces? What are the pros and cons of AI applications in image creation, and what are the ethical considerations in using this medium? Does it pose a threat to the artist's creativity, or is it an aid that enriches the creative experience? This was explored through a practical application in the course "Execution Media 3," conducted by fourth-year students in the Book and Illustration section (2023-2024) at the Department of Printed Designs, Alexandria University. The aim was to produce expressive illustrations inspired by a literary text, necessitating an extensive study on the nature of AI as a digital medium and how to build and produce images by crafting and controlling the textual content to create expressions that align with the artist's feeling toward the literary text. Can this medium convey human emotions as intuitively felt by the artist when creating expressive illustrations using traditional or digital media? The study details the stages of the practical experiment and presents the results, emphasizing the importance of ongoing research into this medium, which has forcefully established itself in the creative arena. It also discusses how to utilize it as an auxiliary tool to clarify ideas or prepare preliminary concepts for completed artworks, with the necessity of setting ethical guidelines for its use, considering it a double-edged sword that can create professional images and illustrations quickly, potentially competing with human creativity. Artists always strive to explore new technological and technical advancements to create innovative images, effects, and arts that enrich their continuous passion for their creative journey. Digital art, a fusion of artistic and scientific creativity, relies on digital media to convey a message through sensory and creative expression. It includes the artistic works and practices performed by the artist using digital technology professionally, making it a crucial element in shaping their ideas visually. Although this type of art has often faced criticism from some and acceptance from others, artists have demonstrated complete control over their tools, making digital art an influential tool in drawing, design, image creation, and processing. It has become indispensable in producing illustrative and expressive images, whether created entirely through specialized programs or by combining traditional and digital media and then digitally reproducing and publishing them. Today, the term "Artificial Intelligence" has emerged in the scientific arena. While not a new term, dating back to the mid-20th century, it officially began in 1956 at Dartmouth College in Hanover, USA. Since then, many major countries and global investment companies have devoted enormous sums to research, discovery, and investment in this field. Today, AI models have undeniably established themselves in the creative artistic arena, becoming one of the available tools for artists to experiment with freely, following the production of various AI engines by these companies. The field is now open for everyone to experiment and produce high-precision and high-quality images, illustrations, and animated videos in a short time. This has enabled a practical artistic experiment to explore the potentials of one of the AI tools as a new expressive medium, with participation from 47 fourth-year students in producing expressive illustrations inspired by the poem "In the Name of Egypt" by the artist-poet Salah Jaheen. The goal of this experiment was to harness the students' enthusiasm for the rapid results of AI applications in image and illustration creation and control the results to align with their perceptions and the images in their minds that express the written text. The experiment aimed to merge their feeling for the subject with the emotions conveyed by the literary text and how to provide the machine with the necessary data to achieve the best possible results.

The experiment proceeded through several stages: First Stage: Students directly interacted with one of the AI models for generating expressive images and illustrations, specifically the "Leonardo ai" model produced by Leonardo, a company funded by a group of multinational investors headquartered in Sydney, Australia, established in 2022. They also utilized other models to translate texts into English and interpret the poem using AI, such as ChatGpt3 by OpenAI (2022), Bing by Microsoft Bing, among others. Second Stage: The students selected results, identified points of similarity within the artwork's details, and restructured the components to generate multiple alternatives, choosing the best among them. Third Stage: The finalization of the artwork involved selecting the best alternatives, with the possibility of utilizing the results to generate further creativity by adding, subtracting, and reconfiguring using drawing or image processing programs to emphasize each student's personal creative aspect.

Results: Despite the enormous progress AI achieves in the field of creativity, it is crucial to understand that machines will not replace humans in this field but will serve as an assisting partner. Creativity is not merely the accumulation of knowledge and data but an expression of the human spirit, experience, and perception of the world. Humans are capable of rational and emotional thinking and expressing their feelings in multiple and diverse ways. This distinguishes the creative works they produce, as they bear a unique mark of each individual and reflect diverse perspectives. This makes human creativity unparalleled and invaluable. Over time, smart technology will gain greater and more precise capabilities,

potentially increasing its impact on all aspects of our lives, including creativity. However, we must believe that the human being is the true essence of creativity, and smart machines will be merely tools that help enhance and expand the horizons of creativity. Artists constantly seek to discover what is new to satisfy their creative desires and attempt renewal without compromising the authenticity and credibility of the experience. AI technology as a performance medium may help improve digital drawing skills and expand the scope of creativity and innovation in art and design.

Recommendations: It is essential to keep up with ongoing studies and the tools digital technology provides us, without setting barriers that prevent conscious experimentation and studying the pros and cons of dealing with it. Forming committees from specialized universities in all AI fields to establish social and legal rules that protect data ownership, in line with ethical standards for dealing with it as a technical medium and how to document artworks created wholly or partially using AI. Researchers in art and creativity should collaborate to expand experimental fields among artistic and design communities in AI, using a systematic scientific approach that continuously leads to results that enrich the processes of artistic creativity.

Keywords:

Artificial Intelligence – Technical Medium – Creativity

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Paper History:

Paper received June 19, 2024, Accepted September 29, 2024, Published on line November 1, 2024

