

Techniques and Artistic Features of AI-Generated Designs Between Uniqueness and Subjectivity

Hossam El-Din Galal Ali

Associate Professor of Design, Department of Art Education, Faculty of Specific Education, Assiut University hosamelden@spcedu.aun.edu.eg

Abstract:

Technology is an innovative aesthetic feature, and new artistic trends have emerged that rely on the use of modern technology through the use of computer tools in the field of fine arts in general and design in particular. Artificial intelligence has recently dominated the general discourse, and in the current digital age, AI has become an integral part of many fields, including art and design. With the development of AI technology, it has become possible to use complex algorithms to create innovative artistic designs. Despite the recent interest, AI has been present in our computing systems for decades. Google Search is one form of AI, as well as autocorrection and spell-checking. AI is the simulation of human intelligence processes by machines, especially computer systems. This study aims to explore the systematic and artistic characteristics of AI-generated designs, focusing on the uniqueness and subjectivity of these designs. Through practical experiments, a set of designs will be created using three different AI platforms, using the same phrases for different subjects. These designs will be analyzed and compared to extract the patterns that distinguish each platform. This research attempts to answer an important question: Can AI programs have a defined artistic style? And what factors influence this style? The importance of this research stems from the need for a deeper understanding of how AI works in the field of design, and how these technologies can be effectively used to achieve innovative artistic results and provide recommendations for improving the use of AI in design and guiding future research in this field. This era is described as the era of artificial intelligence... an era of research and modern discoveries, an era of scientific, technological, and artistic creativity. Technology is considered an innovative aesthetic feature, and since the emergence of the first signs of digital technology, many fine artists have hurried to keep pace with this scientific trend. They have skillfully exploited the limitless and endless possibilities of artificial intelligence (AI) that computers possess and harnessed these extraordinary digital capabilities to serve their artistic creations, from photographs and digital drawings to actual or virtual sculptures. In doing so, they established a new artistic culture in line with the current requirements, based on technological media and AI. AI has entered many fields and recently emerged prominently in the field of graphic design. Many artworks and designs produced by AI have appeared, each characterized by a unique nature that reflects a kind of uniqueness and subjectivity, showcasing the features of these programs. AI research has also focused on developing programs in various distinct fields, including those that help designers accomplish their work with minimal effort and in the shortest possible time. "AI significantly enhances designers' creativity, serving as a virtual assistant by completing tasks that require the designer's time and effort, allowing them to focus on developing ideas and creative aspects. One of the main strengths of AI is its ability to improve and speed up productivity. Designers who rely on AI can create designs faster and at lower cost. Additionally, AI can analyze vast amounts of data and then suggest design modifications. The designer selects the appropriate suggestions and makes suitable adjustments based on the results of that data analysis" (Mohamed Said, Mona: 2023, 173). We live today in an era of unprecedented changes and rapid transformations, where the ability of digital technology represented by AI to design unique and exceptionally useful creative content contributes to creating new patterns for performing tasks and providing innovative means to accelerate productivity in various fields. Experts agree that AI's impact on the economy will increase in the coming years, as evidenced by the high demand for these technologies and their numerous applications. This suggests that we are witnessing an unprecedented revolution in AI aimed at serving humanity. Many global studies predict that AI technology will change the world in the next few years. We have seen the significant role AI plays in shaping human interaction with modern technologies and machines, utilizing them as a key to future innovations characterized by diversity, flexibility, and swift adaptation to cultural and technological transformations, opening broader horizons for innovation.

This study aims to explore the systematic and artistic characteristics of AI-generated designs, focusing on their uniqueness and subjectivity. It also seeks to gain a deeper understanding of how AI works in the field of design, how to effectively use these technologies to achieve innovative artistic results and provide

recommendations for improving the use of AI in design and guiding future research in this field.

Statement of the Problem: The researcher believes that exploring the systematic and artistic features of AI-generated designs leads to a deeper understanding of how AI functions in the field of design and how to effectively use these technologies to achieve innovative artistic results. AI has entered many fields and recently emerged prominently in graphic design, resulting in numerous artworks and designs produced by AI, each characterized by a unique nature. This research aims to identify the key artistic features of these designs and provide recommendations for improving the use of AI in design.

The problem of the research can be determined through the following question: What are the artistic characteristics and techniques that can be identified through AI-generated designs?

Research Objectives: 1- Identify the artistic features that distinguish AI-generated designs. 2- Explore the uniqueness and subjectivity in AI-generated designs. 3- Extract the patterns and techniques that distinguish each AI platform.

Research Significance: Provide a deeper understanding of how AI functions in the field of artistic design. Highlight the most important systematic and artistic features of AI-generated designs as a new approach to enriching the field of design. Contribute to future research on AI and artistic design, which can enhance innovation and creativity in the field of design.

Research Hypothesis: The research assumes that: 1- AI enhances the designer's creative ability by producing unique, highly precise, and quality designs. 2- Utilizing AI advancements contributes to generating innovative design ideas characterized by uniqueness and subjectivity through various programs and platforms, meeting the requirements of the design process with good artistic planning. 3- Comparing AI designs with human-generated designs affects the future perspective on employing AI in design. 4- Technological advances in design using AI have led to a qualitative leap in the form, design, and quality of design elements.

Delimitations: Subject boundaries: Studying and analyzing some AI-generated designs to identify the patterns and techniques that distinguish each platform.

Research Methodology: This study adopted a descriptive and analytical approach through theoretical framework and analysis of some models to verify the research hypotheses.

Results: AI techniques and programs have developed design methods, as they have the ability to spread and reach a large number of users, contributing to the rapid pace of artistic production and the rapid spread of high-quality artworks. Artificial intelligence technologies are still in their infancy toward perfection. Despite the multitude of ideas generated through it and the unique style and pattern of each application, until research is complete, it remains affected by some issues. These include reliance on direct repetition of certain elements and a lack of complex ideas that encompass deeper expressive methods. AI technology contributes to forming a new and advanced aesthetic system for practitioners and students of fine arts. AI tools and techniques improve the quality of artwork and provide new formative and visual possibilities that help the artist achieve their personal vision. AI techniques and programs are characterized by uniqueness, subjectivity, and creativity in producing exceptional artworks with a new technological vision. The research introduced a new intellectual approach in the field of design, helping to break away from the traditional form.

Recommendations: The researcher recommends keeping pace with rapid technological developments, especially in the field of AI, and benefiting from them in the field of artistic design. The researcher recommends avoiding complete reliance on artificial intelligence technologies, as they indirectly hinder the individual creative style of designers. Additionally, the researcher emphasizes the need to establish strict and clear regulations and laws governing intellectual property rights for creative works designed using artificial intelligence. Conduct more in-depth studies on the impact of AI programs on various forms of fine arts. Emphasize the development of regulations and curricula and support them with modern technologies that keep pace with contemporary developments to benefit art students.

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