



Iraqi Digital Art: Origin and Evolution

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Abstract:

The current challenge facing our age is the information digitization, at the same time, there is a huge development in the interdisciplinary of technologies with sciences. In the last few years, the World witnessed a number of information challenges with different dimensions, including digital dimensions, which are called the digital world and the virtual world for authors and movie writers. Consequently, the digital art concept emerged that utilizes the computer in an efficient way and as a new technique for drawing. This art is considered a great leap for modern art. The influence of digital technology transformed traditional arts like painting and sculpture into new forms, from pure arts to virtual reality. The most important characteristics and advantages are reflected in saving time, effort, cost and area. Digitally, art would enrich Iraqi culture by employing Iraqi creativity. This paper targets the concept of digital art, characteristics of art in virtual society and presenting the history – origins and evolution – of digital art. A group of paintings have been created using Photoshop Cc, Photo Shop C5 and Art Rage programs.

Keywords: Art Rage programs, Digital Art, Photo Shop C5, Using Photoshop Cc.

Introduction

God has bestowed humans with minds and recognition, enabling them to be creative and innovative. He gave humans knowledge that they didn't know before, including how to make and develop things to serve humanity. God gave humans many senses to enable them to activate recognition and learn through various means, including computers and computer software and languages. This is a technological revolution that has become a part of all [1] aspects of our life and fields of industry and science. The significance of technology emerged, and our age is the age of information technology. Many walks of life have seen great changes, one of them are digital transformations in Art. Necessity prompts humans to find means and alternatives for existing things (less competent) to make them more developed and competent. Mental imaginary abilities of the digital

artist meet his abilities to use computer programs and techniques to create digital paintings that portray the meanings of creativity through computer, internet, ideas, and colors. Thus, the digital art concept emerged.

The Aim of the Study the study aims is to identify the role of utilizing information technology in the art by using this new device, the computer, to produce a unique digital work, through the use of the Photoshop program and other programs to reflect what goes on in the artist's mind on the computer screen. Knowing the concept of digital art Method The significance of the study stems from the fact that the study seeks to explore areas for employing information technology in the field of arts for

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intellectual production represented by digital artworks, as this study an unprecedented practical try in this field, which the researcher assumes to become a source for future researchers of this field.

Introduction to Digital Art Computer use is still at its beginnings, however, such use is increasing gradually, and it has taken many forms, in which computer technologies and developed effects are used to produce great artistic works, as we see on the computer screen what goes on in the artist's mind [1]. Inserting technology in the painting is a method to improve artistic work and present it in a contemporary manner; yet digital art cannot replace the artist efforts because the human mind is the one that moves technology and not the opposite. Digital art is one of the modern trends in presenting works of the visual art movement that uses computer technology and the advanced effects of Adobe Photoshop and other programs. It depends more than any other art on the computer, as it has been established by the computer in a digital form in a new, efficient way, to create a moving workshop for the digital artist. Computer technology helps in developing new creativity in a completely new artistic painting, which is non-traditional and non-repetitive in any manner. Digital art is defined as the art created by computer programs [2]. Its Arabic equivalent is الفن الرقمي. The term means that the picture appearing on the computer screen consists of an infinite number of numbers and mathematical equations and an infinite number, more than 16 million, of color shades. The paintings may be Changing into virtual reality [3]. In general, digital arts is a term used to describe the art that tries to describe the art that transforms through using digital technologies and that can produce visual art. The researcher defines digital art as the product of modernity. It is an art that uses a computer efficiently as a tool and as a new technique for painting to provide alternatives, as we can see on the computer screen what goes on the artist's mind. Inserting technology in the painting is a method to improve artistic work and present it in a contemporary manner; yet digital art cannot replace the artist efforts because the human mind is the one that moves technology and not the opposite. It stems from the union of the mental imaginative capabilities of the artist and his ability to direct and control computer programs; because computers are void of feelings and affections; they can only draw paintings through the digital artist direction. Thus, creative digital paintings reflecting reality, expression, and imagination are made.

The contributions of this paper are;

1. Established the interference between information technology and arts to find digital works formation in reality.
2. Enriched Iraqi culture by employing digital art in Iraqi path of creativity using Iraqi creative.
3. Developed an artistic environment and supporting a virtual world based on knowledgeable method.

CHARACTERISTICS OF DIGITAL ART

1. Feeling of Equality: As tools of digital art environment, unlike with traditional art, provide the opportunity to draw at any time without problems. This art offers full opportunity for digital art creators.
2. Continued access to the world of development and digitalism.
3. Non-reliance on traditional art.
4. Benefitting from time.
5. The ease and a large number of computer technologies in digital art development.
6. Reduction of work area size History of Digital Art.

History of digital art has gone through stages of interference between technology and art. This is only natural in an art progressing towards making electronic devices makers and creative in a manner unfamiliar to human beings, these stages are:

1. In 1950, the America Ben Laposky creates the first ever digital art painting named "Oscillon", defined through wave lines emitted from cathode tube in television on quick camera films. Lines change through a program designed by Laposky by a concurrent computer, pre-electronic computer. Immediately after that, a similar work was made by the German Herbert Frank.
2. First computer-made picture in the United States. The following year, Sir John Hughtney used a horizontal computer to make an animation.
3. 1961: the first computer art competition, Edward Zayik presented the first movie to be totally made by a computer.

4. 1970: The first museum for computer-made art in Paris.
5. 1971: Peter Folds' "Hunger" became the first animation to win a regular cinematography award at Can; new computer art named Fractal appeared at the hand of Benua Mandilport in IBM company lab.
6. 1980: The first drawing by computer program, named Paint Box, was introduced.
7. 1981: The first photo shop program was released to suit the needs of the Star Wars Director, George Lucas. Years later, the same program was installed on Mac computer.
8. 1991: Mozaic browser provided internet on computers. Relevant Studies The basic concept of digital art is to direct artist and technology interaction in a new direction corresponding to the artist's creative way of thinking [3]. Contemporary art is like a common ground between the artist and technology and the artist's interaction with technology [4]. As technology advanced, artists found themselves inside a new age defined by this advancement. Digital art is one of the fields shown by this advancement. It is not a set of homogeneous practices; it is a complicated process consisting of three main elements that underline visual art, scientific and industrial research, media, and political and cultural activities. Since artists and scientists are different, artists worked on introducing technology to art, whereas scientists introduced science to technology [5, 6].

Iraqi Digital Art

The study aims to identify the role of utilizing information technology in the art by using this new device, the computer, to produce a unique digital work, through the use of the photo shop program and other programs to reflect what goes on in the artist's mind on the computer screen. Computer technology plays a role in producing digital art works [7], but they are mainly and directly related to an artist's performance, skills, and abilities to distribute the elements (point – line – area – shape – color – texture – shadow and light). This in turn is connected to the role of aesthetic values of each of (rhythm – repetition – movement – contrast – unity) and the relation to expressive notions and concepts. Procedures of constructing a digital painting are connected to a reasonable sequenced series that lead to a scientific cognitive result. It depends on art's basic elements and psychological aspects and accurately planned. Each of these is composed of a series predetermined by the digital artist. These educational procedures may form to create what is known as digital art.

A collection of Iraqi digital art paintings are presented in Figures- (1, 2, 3, 4, 5, 6, 7). These paintings have been evidently demonstrated the maturity in the Iraqi digital art conceptually and artistically.



Figure 1-A lady mase



Figure 2-A promise



Figure 3-Reflections



Figure 4-Vertex



Figure 5-Jolousy



Figure 6-walking



Figure 7-Dearming Lady

RESULTS

The six paintings of Figure-1 to Figure-7 are innovatively created by Sanaa Mohsin that demonstrating the following facts:

1. Creating computer-made digital art paintings with such great creativity is not an easy task; it requires artistic sense and fine taste in addition to the ability to use computer programs and write programs.
 2. The importance of using electronic computer appeared in different creative fields as a creation tool. The basis on which digital art relies is the computer screen.
 3. Digital art is a mixture of technology and creativity embodied in changing the culture of expression and provides a new optical age.
- Thus, these computer-made paintings look creative reflecting reality, imagination, surrealism, and expression.

CONCLUSION and Future work

A solution has been indicated for some technical obstacles and challenges related to lack of educational knowledge and scholar's weak participation in creating Iraqi digital art. An artist cannot live in isolation of the facts, tools, and techniques of this field. Art works carry an idea, topic, and message, regardless of the method of presentation to enrich creative thinking for receivers. The future digital art may be realized in a dedicated reconfigurable platform [8-13] as a visual digital art hardware.

References

1. Kamhi MM. **2003**. Where's the art in today's art education?. *Arts Education Policy Review*. 2003 Mar 1; **104**(4): 9-12.
2. Mohsin S. **2018**. Realistic applications of information technology in art. *Journal of Fundamental and Applied Sciences*. 2018;10(5S).
3. Graham B. and Cook S. **2010**. *Rethinking Curating: Art after New Media*-Leonardo Books. The MIT Press; 2010 Mar 31.
4. Wilson MW. **2012**. Art. In *Religion, Politics, and the Earth 2012* (pp. 55-68). Palgrave Macmillan, New York.
5. Negroponce N. **1995**. The digital revolution: Reasons for optimism. *The Futurist*. 1995 Nov **1**; **29**(6): 68.
6. Shanken EA. **2015**. Contemporary Art and New Media. A companion to digital art. *Art Research Journal*, **2**(2): 75-98.
7. Quaranta D. **2010**. *The Postmedia Perspective. traducción inglesa de un capítulo de Media*, New Media, Postmedia. Milan: Postmediabooks.
8. Hasan S., Boussakta S. and Yakovlev A. **2010**. Improved parameterized efficient FPGA implementations Improved of parallel 1-D filtering algorithms using Xilinx System Generator. In *The 10th IEEE International Symposium on Signal Processing and Information Technology* 2010 Dec 15 (pp. 382-387). IEEE.
9. Hasan S., Boussakta S. and Yakovlev A. **2011**. Parameterized FPGA-based architecture for parallel 1-D filtering algorithms. In *International Workshop on Systems, Signal Processing and their Applications, WOSSPA 2011* May 9 (pp. 171-174). IEEE.
10. Hasan S. **2016**. Performance-vetted 3-D MAC processors for parallel volumetric convolution algorithm: A 256× 256× 20 MRI filtering case study. In *2016 Al-Sadeq International Conference on Multidisciplinary in IT and Communication Science and Applications (AIC-MITCSA) 2016* May 9 (pp. 1-6). IEEE.
11. Humaidi AJ, Hassan S and Fadhel MA. **2018**. Rapidly-fabricated night-time lane system: An FPGA implemented architecture. *The Asian International Journal of Life Sciences*. 2018; **16**(1): 343-355.

12. Humaidi AJ., Hassan S. and Fadhel MA. **2018**. FPGA-based lane-detection architecture for autonomous vehicles: A real-time design and development. *The Asian International Journal of Life Sciences*.2018; **16**(1): 223-237.
13. Humaidi AJ. And Hasan S. **2018**. Al-Jodah AA. Design of Second Order Sliding Mode for Glucose Regulation Systems with Disturbance. *International Journal of Engineering & Technology*. 2018; **7**(2.28): 243-7.