The Future of Aesthetics in Digital Ages

Nessreen Y. Ibrahim

PhD Lecturer in Decoration Department- Applied Arts Faculty- Helwan University

Key words

Digital Aesthetics, History of Digital Art, Computational Aesthetics, Technology in Art, Future Aesthetics.

Introduction

Aesthetics is a branch of philosophy, which deals with art. Arts are always a result of age facts. In this age - which is full of digital technologies and electronic applications - a new field of studding aesthetics appears, it deals with art, science, technology, and philosophy. We can name it as Digital Aesthetics or Computing Aesthetics. Whilst this discipline is in its first step, the paper focuses on its conceptual meaning and what fields of study are related to.

In Digital Aesthetics we are searching for aesthetic values among wide rang of technologies such a information technology science (IT), Internet art, Virtual Reality (VR), Artificial life(AL), Cybernetic arts, and Bio cybernetic art, ext...

These technologies create new tools based on multi and interactive media, which make some kind of new relationship between the viewer and the artwork (aesthetic product). These tools generate new aesthetic ideas, principles, and theories thatdiffer from the traditional ones. And for that we need to study and theorize the principles and relationships in this new field of study.

This paper is a trial to reach and study aesthetics and relations, which can form a general frame for the process of design and for the evaluation design process with respecting the artwork digital nature.Therefore, in this paper we followed the structural bases of the Digital artwork, by asking these questions: what is Digital art? What is Digital aesthetics? What are its disciplines? How can we judge it?Is the digital art has any especial aesthetics rather than traditional?

Nelson Goodman tells us that "art is not a copy of real world" but how will we judge or find value in the 'worlds' created through new media? This paper examines aesthetics theories which have guided our value systems for imagery of the past and the present, and makes recommendations for an approach to aesthetics which is grounded in and connected to prior image traditions but which takes into account the new image technologies. [1]

What is Digital art?

The abstract, geometrical, mathematical, scientific and technological bases for such art forms make them important sources for early computer art explorations.Art and fine art are separate and distinct. Practitioners of fine art are those who have a particularly pressing vision and a need to express it. The product of their vision paintings, sculptures, prints, film or whatever – may or may not be art one of the peculiarities of fine art is that in the crucible of time all works of line art find their true level. Future generations will determine today'sartworks, and if it will be considered art or not. For there is a peculiar quality about

art. It is timeless, we cannot determine if a particular work is art. We are too close to it in time to know if it has the lasting quality that enables it to transcend time.

While some choose to spend their lives writing computer code, building bridges, driving a bus, developing virtual worlds or countess other disciplines, there are a few who feel compelled to make what is called fine art. It is important to realize that fine art is created by people. It is a response to how we relate to each other and the world in which we live. The computer or other technologically sophisticated tools can be used for the creation of works that might some day be considered art. The tools do not determine what is art.[2]The technology as the computer or any other digital device is just a tool, whichwe use to create our piece of art.

Can we consider Digital work as An Art?
(The relationship between Digital art and modern art)

In Digital art we need to examine how digital work might relate to modern art movements. Frank Dietrich, artist and media researcher at the University of Utah, USA, has written several valuable papers dealing with the history of computer art and its relationship with modernism, but with a focus on how the computer takes art in new directions. Here we look rather at the relationship with old ones. The Constructivist ideals and preoccupations may not have been researched in depth by the computer artists, but they would have been aware of some of the work, and more to the point they gravitated to the artistic forms because of a fundamental interest in the aesthetics of mathematics and science.
In fact it was the technology that drove the early computer art experiments as much as the artistic influences of prevailing art movements. Bell Labs had an open research strategy that encouraged some explorations and allowed for collaboration between engineers, and artists such as painter Lillian Schwartz, animator Stanley Van Der Beek and video artist Nam June Paik. The work produced from the Bell Labs experiments in the 1960s was influenced by the art movements.[3]

Evolution of imagery technologies

Mcluchan said; "The artist's obsession with the eye as we have know it throughout earlier traditions in the arts was never the same for at that time a new paradigm was created". The visual arts traditions which he says have always been concerned with creating images as an obsession with the eye using what ever technology was available.
The first tradition "Painting" was an effort to produce an original form, which represented an illusion of what was real. "Sculpture" is the second major tradition bases on imaginative uses of real 3D space. Each of these forms of imagery changed as new tools and technologies became available bringing new styles and traditions. The third major tradition" Photography" and the generation of successive images in time became film and video."Holography" is offered as an introduction to the fourth tradition. It is identified as a medium, which brings together art and sculpture.
Image is reproducing in this age through new tools, which we call them; Digital Media and Digital Technology.

What is Aesthetics?

Aesthetics derives from the Greek word aisthetika, meaning things perceptible through the senses with the verb stem aisthe, meaning to feel, to apprehend through the senses.
Aesthetics was first used by a German philosopher in 1744 to refer to the science of beautiful [4],The establishment of aesthetics as a formal discipline in the Western tradition

is owed dually to Immanuel Kant (1790) and Alexander Baumgarten (1735). Kant in his Critique of "Judgment" posed perception of beauty as something that could be pure and universal and thus formalizable.[5]

The present use of the term aesthetics refers to philosophic inquiry into the nature and value of art and its place within a broad cultural context. In a recent article Marcia Eaton (1990) suggests that the question "what is art" is the most important "issue in contemporary aesthetics – especially if this discipline is to contribute practically as well as theoretically to society" she supports her position by telling us that attempts to find answers to this question are important as a way of uncovering the values of our culture.

"In order to become art, artifacts must be treated in special ways", Eaton (1990) suggests that it is not the content of this talk that is important but it is the goal of the discussion that is the critical aspect. "When artifacts are discussed as works of art, the goal is to bring the viewer or listener to perceive aesthetics features that might have if they had been left on his own". [6]

Aesthetics Experience and Aesthetics Qualities

Aesthetic experience can be described, but what makes an experience aesthetics not an easy to answer. Kern E. (1982) in his paper about aesthetics education suggested that when all the qualities of an object or an event achieved a harmonious whole, an ideal state of harmony, we might achieve an aesthetics experience. Beardsley(1982) provides five criteria that may characterize an aesthetic or art experience. The five Criteria of Aesthetic Experience were; Object directedness, Felt freedom, Detached affect, Active discovery, and the fifth was Wholeness.

Early work in aesthetic education identified these as the traditional design elements of the visual arts(color,line, shape, texture), with the inclusion of sound, space, and motion. Also included were the traditional principles of design called Formal Qualities. These included: rhythm, balance, tension, proportion, harmony, unity, and variety.

The variety of meanings accessible through the presented form isanther set of aesthetic qualities. In reference to the more traditional two and three-dimensional arts of painting, sculpture, and photography these have been identified as representations of: internal/external images, signs, symbols, feeling, abstract, concepts, metaphors. These attributes of representation may suffice for "still" arts or "timed marks" but contemporary imagery such as film, television, and a variety of computerized forms require attention to the aesthetic qualities of the unique perceptual experience of the new imager.

Aesthetic qualities are those aspects of any given phenomena, which are perceptible directly or through interpretation. In this sense aesthetic qualities are features of specific works of art. But aesthetic inquiry must go beyond specific works. In order to answer the big questions asked in aesthetic inquiry it is necessary to consider aesthetic theories.

Aesthetic Theories

For many people aesthetic theory is synonymous with philosophy of art, referring to abstract notions of the nature and value or purpose of art. Western theories or philosophies of art tend to fall into four major categories or types of aesthetic because they implicitly fund notions of the meaning of art even for those unfamiliar with them as specific theories.[7]

1-**Art as Imitation** (Mimetic Theories of art)

      The purpose of the work of art is to represent or imitate some thing in the real world as it generally appears or in some idealized form(better than life). These theories can be traced back to ancient Greece but seem to prevail even today.

According to this theory artworks may be judged on their correctness, completeness, and convincingness.

2-**Art as Teacher** (Instrumental theories)

The purpose of the work of art is to provide a guide for life, to have beneficial effects on people. This pragmatic theory of art emphasizes the use of art as an instrument for furthering moral, religious, social or political points of view.Using this theory, artworks may be judged by their effectiveness in influencing the thoughts and actions of individuals in society.Instrumentalism emphasizes the legitimacy of art related to the dominant concerns of life and thus acts as corrective to the artistic tendency to become excessively involved with purely technical problems.

3-**Art as Feeling** (Expressive theories)

Based on these theories the purpose of the work of art is to reveal the inner psychological experience or feelings of the individuals. It is well known that the arts can provoke powerful feelings.

4-**Art as form** (formal theories)

This may be the most compelling theory of our century. Formalism emphasize the composition or structural arrangements of work of art. The form of the artwork is the essential property to be considered. Anderson R.L. (1990) suggests that this is where the notion of skill comes in to consideration in art. Art's formal qualities are the result of masterful manipulation of techniques by artist. The word art refers to the highest level of skill.

5-**Art as No theory or a combination of theories**.

Aesthetics for the future

Arts in Digital age like (Hypermedia art, Holographic art, Cybernetic art, bio cybernetic art, Robotic, Artificial life, Mixed Reality, Virtual Reality, …) have been developing for about fifty years. That development has depended both on technological advances in Artificial Intelligence and Human-Computer Interfaces, laser applications, systems theories, nanotechnology, and on 'internal' aesthetic principles.

It is an interdisciplinary subject that exists within several mainstream disciplines: computer science, psychology, sociology and anthropology and industrial design.

In short, do we need a new aesthetic for today new digital art, or can we rely, to some extent at least, on familiar principles in evaluating it?

These questions are relevant to discussions of post-digital art as such. But they are also relevant in a discussion of "Creativity and Cognition," not least because one's theory of the psychological processes involved in creativity may affect one's aesthetic judgments. [8]

If there are several different ways of generating creative ideas, are these differentially aided by the technologies involved in different examples of now a day's art? And if so, should that influence our aesthetic judgments of artworks in this new genre?

Creativity in new generation of art distinguishes in three ways in which novel ideas can be generated. Combinational creativity involves unfamiliar positions of familiar ideas. Exploratory creativity involves the exploration, and testing, of established styles, or conceptual spaces. And transformational creativity involves the alteration of one or more dimensions of the conceptual space, so that ideas can be generated which simply could not be generated before. The more fundamental the dimension that is transformed, the more surprisingthe newly generated ideas will be.[9]

The review of aesthetics ideas and issues related to the imagery of traditional art forms is just basic we can suggest a new aesthetic to be used for assessing the nature and value of the imagery found in new technology.

We need in these digital ages a systematic effort to adapt the analytic criticism format to the attributes of the new forms of imagery. Engaging in this analytic process would in turn provide the groundwork for the synthetic effort of aesthetic inquiry.

In the digital aesthetics it should satisfy the two categories of what is (the directly perceptible qualities) and what it means (the interpretive representational, symbolic or metaphoric content aspects). Technical aspects should be included in the first category and contextual, sociological aspects in the second.

Reimer E. (1992) identified and describes four types of knowledge, which is important make art and judges it. Knowing how is artistic cognition and it includes how to imagine, craftsmanship, how to be sensitive, and how to be authentic. It is obvious that these types of knowledge may come about as a result of production or creation of an artwork. This review of the four dimensions or aesthetic knowledge may be seen as a structure for the construction of aesthetic knowledge.

What new forms of imagery for aesthetics contemplation will require this construction of knowledge? What new directions for learning through art need to be considered? Loveless R. (1992) wrote about the evolution of media technologies; "their changing effect on consciousness and their parallel role in redefining literacy. The children in the future will need to be literate with both data in motion and image of motion. The language of the motion of image found in photo, film, video, and satellite communications is the basis of the latter literacy."[10]

Conclusion

The technology as an artistic tool is in its infancy. Much of what we see created with digital tools and latest technology today is merely a reflection of the tool, not the mind or soul of a person.

Our duty as artists, designers, and philosophers in this digital age is to try searching for the digital aesthetics, by knowing more and more about the new digital mediums (software and hardware), which will make the elements of design are more sophisticated than ever, and the tools - as well -will be more difficult to deal with by the artist himself alone. The artist and the designer will need to beintroduced to new aesthetic concepts like "on real time", "streaming time", "resolution", "pixelized", "hyper-media", "multi- media", "interactivity", … ext.

The art in digital represent a wide range of imagery, which produced by latest technology. Digital Technology became an artistic tool so that aesthetic knowledge is now more digitalized, we have to understand its technical approach to be able to deal with and understand or judge the artworks in this futuristic digital age.

References

1.4.6.7.10 **Fredette, Barbara W.m Aesthetics for the 21st century: Another challenge for Education**, symposium of the international visual literacy association , Delhi, Greece, June 25-29, 1993.

2.**WillTait, The Space Between: Fine Art and Technology, Computer Graphics,**Febrmry 1998, p.17

3.**Mike King, Computers and Modern Art: Digital Art Museum**, London Guildhall University,p.92,93

5. **Hugo Liu & Pattie Meas, Rendering aesthetics impression of text in color space,**International Journal on Artiˉcial Intelligence Tools, World Scientiˉc Publishing Company, January 23, 2006

8. **Linda Candy, Ernest Edmonds, BronacFerran, John Haworth, Judith Mottram, Jon Pettigrew**, Panel: Research into Art and Technology, *C&C'02,* October 14–16, 2002, Loughborough, Leics, United Kingdom.

9. **Margaret A. Boden Aesthetics and Interactive Art**, *C&C'05(Creativity and Cognition Research Studios),* April-2005, United Kingdom.p.1