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An Investigation of Computer Application to Painting in Nigeria

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Abstract

This study historically, overviews the subject and development of painting from the primordial time, to the postmodern period, bringing into focus the computer as a new medium for artistic inquiry. The background similarly overviews the influence of the machine on various artistic forms like textile design, graphic design and even painting especially in Western climes, without Nigerian examples of paintings with the computer. The problem of the study therefore, is the seeming apathy by Nigerian painters to apply computer to painting. Objectives were set as follows; **i.** to record the historical developments of the computer in Nigeria. **ii.** Investigate the dimensions of computer application to painting in Nigeria. **iii**. Analyze computer paintings by Nigerian painters. **iv.** Make a comparative analysis of conventional and computer paintings by Nigerian artists. **v.** Curate an exhibition of computer paintings in Nigeria. Review of literature was tripartite structured on; **i.** Historical overview of persons, products and ideas that have influenced painting. **ii.** The computer and its influence and, **iii.** Computer influenced paintings. Methodology was based on art historical paradigms of inquiry which are essentially qualitative, however, quantitative values in the objectives made it pertinent to mix appended quantitative statistical results. Population was 41 computer paintings by Nigerian painters and 14 Nigerian computer painters based on purposive/judgmental sampling. Data was variously collected through the following instruments; questionnaire, interview schedules, observation, photography, and internet. Books, exhibition catalogues and social media like the face book provided secondary sources of data gathering. Field work benefitted from a pilot study with validated questionnaires and interview schedules. A total of 139 questionnaires were turned in and 14 artists with computer paintings were interviewed and analyzed respectively based on prescriptions by Eyo (1977) and Stokstad (2005). Major findings were that; the computer had made inroads into Nigeria since 1963 at the University of Ibadan and 1967 at the Ahmadu Bello University, Zaria with developments leading to the application of computer to painting around the early 1990s. It was also found that Nigerian painters have applied the computer to panting in various dimensions like; image manipulation, enhancement, illustration, painting with software like Photoshop, CorelDraw among other software and hardware. Another finding was that few Nigerian painters were actually interested and have created paintings with the computer. Furthermore, because the paintings share certain commonalities, they could be grouped and analyzed like the conventional ones. However, differences, advantages and disadvantages exist. The major challenge being posed by electricity cut in Nigeria and lack of acceptance like the conventional ones. The research theoretically finds support from Friedberg (2006) theoretical polemics that asserts the metaphor of the windows as a frame that encloses a painting. The researcher therefore, suggested that computer painting be included in the painting curriculum to give desired clout to enhance painting and complement the examples analyzed and discussed in this research.

Introduction

An art historical **'investigation of computer application to painting in Nigeria'**, is the subject matter of this inquiry. It historically overviews the subject and development of painting from the primordial time on cave walls, through the Christian art period, and Renaissance period, to the Postmodern period, as observed by many writers including Kleiner and Mamiya (2005), Sayre (2005) and Stokstad (2008). The overview brings into focus the computer as a new medium for artistic inquiry and expression in painting. Similarly, the **background** captures Snyder's (2008) definition of the computer as a "machine that performs tasks such as calculations or electronic communication under the control of a set of instructions called a programme. Programmes usually reside within the computer and are retrieved and processed by the computer's electronic". Snyder (ibid) further states the precision of the computer in performing tasks. The creations of paintings are among such numerous tasks. Its application is dynamic as it is seen in textile designs, architecture, engineering, graphic design and several others, through a variety of software and hardware.

The **problem** of the study is the seeming apathy by Nigerian painters to paint with the computer. This has led to the absence of computer paintings on the contemporary Nigerian painting space; consequently the painting type seems not to have caught the fancy of the Nigerian art historian and art purists leading to a dearth in literature in Nigeria. The inquiry therefore, **aimed** to undertake a study of computer-generated paintings in Nigeria in a bid to expose the inherent possibilities using this medium with the following outlined **objectives**;

i. to record the historical development of the computer in Nigeria,
ii. to investigate the dimensions of computer-application to painting by Nigerian painters,
iii. to analyse computer paintings by Nigerian painters,
iv. to make a comparative analysis of computer and conventional paintings in Nigeria.

The **literature** review was based on the following structures; **i**, a historical overview of persons, ideas and products that have influenced painting, **ii**, the computer and its influence, and **iii**, computer influenced paintings. The influence of a culture or artistic style has been a norm. Cultures borrow from cultures; an example of this can be seen in the Tiv traditional black and white fabric-Angeer, which the Idoma ethnic group has also adopted with a shift from black and white stripes to black and red striped fabric. This is largely borne out of influence coming from their Tiv neighbours or brothers. Little wonder that Nicodemus (1993) affirms that, "all the dynamic cultures of the world have borrowed from other cultures in a process of mutual fertilization." In the bid to develop, there is the need to look at the positive aspects of other people's technology and adapt.

Leonardo da Vinci's sketchy ideas of flying machines and war machines were precursors to some of the greatest inventions of today. The Ornithopter; an aircraft with flapping wings, was the brainchild of Leonardo da Vinci, according to Magurn (2008) "He invented a large number of ingenious machines, many potentially not practicable, embodied sound principles of aerodynamics." The developments that probably took place from his sketches led to the helicopter, airplane, space rockets, wind mills and wind energy. Although, his relationship and explorations of machines can be equated with science, Leonardo da Vinci, according to Kleiner and Mamiya (2005) "stated repeatedly that all his scientific investigations made him a better painter". In the light of the above, Leonardo's paintings marked him out as a genius. Scientific aids indeed can, and have extended artistic explorations by painters. Gyegwe (2008) observes that scientific instruments are good aids to artistic developments considering the use of the microscope in the resolution of artistic problems. In light of the above, the microscope was used in the aesthetic contemplation and investigation of the watermelon fruit in painting.

Nicodemus (1993) recounts that "…Aina Onabolu started as a youngster in the late nineteenth century to explore certain new phenomena in his environment, the photographs and naturalistic pictures in British magazines and books." Similarly, Fosu (1986) also affirms that "Onabolu became an artist through self training by copying portrait examples from textbook illustrations, foreign newspapers and magazines''. Contact with western materials was no doubt a point of influence which characterized Onabolu's Western styled painting, and laid the foundation for today's contemporary art practice in Nigeria which is largely different from traditional African art philosophy, style, medium and content. With the introduction of the computer to Nigerian business and academic environment, another product of influence was established. Artists in western worlds have used the computer to create paintings, and with the aid of the internet, Nigerian artists like Onabolu who came into contact with western magazines are also coming into contact with computer-generated paintings and also experimenting with the computer. According to Sullivan (2010) "digital technology is not so much a new tool to aid inquiry, but a place for rethinking things in a way never before imagined. This is just the kind of space where artists, scientists, researchers, cultural theorists and community activists are speaking to each other in a fresh language". This further supports the computer as a new tool for visual inquiry within the perspective of postmodernism. According to Sayre (2005), 'the computer offers artists many new possibilities for making art." Sullivan (2010) thinks that "artists-theorists working at the interface of art and science within digital environments are finding that past notions no longer serve as adequate systems around which to define plans and actions." This could be a reason why some painters are beginning to extend their practice with the use of the computer. It is in light of this that Kleiner and Mamiya (2008) posits that the objects that art historians now study have transcended conventionally known media to computer generated art.

Akukwe (2003) states that the President Ibrahim Badamosi Babangida administration introduced what looked like a computer education programme in 1990. Lately, there has been a drive by the government to promote computer studies in schools Azi (2006), sought to create an indigenous computer based programme that

would help to enhance the learning capacity of the Nigerian child. The key factor here is the use of the computer to teach children through moving or motion images or pictures to (enhance assimilation, retention and recall) among pre-primary school children in Nigeria." It could be noticed that the focus on children is at the foundational levels without addressing the needs of those in the secondary, tertiary, and professional levels.

I-CLAP focused on the use of animation as a teaching medium. In this work, images like axe, alphabets and common or indigenous objects were created by means of drawing or the elements of design using the computer and appropriate programme or software like CorelDraw, Photoshop, Poser and the likes. Coincidentally, such elements are also applicable to painting, and the tools used too are also common to the painter. However, the work, as a graphic exploration, did not address computer generated paintings but focused on the animation of images for interactive learning purposes. Walker (2006) takes a view of art by making comparisons with digital and classic art. While he raises many points that give value to both art forms, he does not discard any as less legitimate than the other. He appreciates the confusion beclouding many artists as to what qualifies one, to be an artist and expert, at what he does. He emphasizes the need for artists to know the history of painting in its entire ramification including its past, present and possessing some knowledge of the digital form.

Mcmorran (2007), Mafe (2009), Domi (2008), and Ogene (2009) practically explore extensively, the capacity of the computer as tool for a new painting medium by creating paintings with the computer. The review found out that computer paintings were not given attention in Nigeria as there were no art historical records, neither were they featured in painting exhibitions, but much could be found in western literatures. In addition no school has a dedicated curriculum in teaching computer painting in Nigeria which could seem as apathy in the practice.

Methodology

The methodology employed for this investigation is based on art history paradigms which are essentially qualitative. This includes the survey method, descriptive method, and comparative analysis. These methods were adopted by previous researchers including Jari (2007), Wrong (2009), Adogbo and Ojo (2003), Trowel (1994), Babalola (1981), Saliu (1994), Evans (1965) and Lewis (2014). Quantitative values in the objectives necessitated the use of questionnaire as an exploratory tool which was statistically analysed and appended. In addition, face to face interview, internet interview and observations were made.

The **population** for the study was primarily 41 computer paintings and 13 artists. Gallery workers, foreign cultural personnel, visual artists in general and art collectors also were sources of data collection. **Sampling** was purposive in view of the difficulty in finding respondents. This method of sampling is supported by Sambo (2008) who observed that the researcher can subjectively choose subjects to include and not include in a research.

Research Instruments that were used to collect empirical data for this research are questionnaire, interview schedules, direct observation, photography and the internet. Secondary sources of data are books and exhibition catalogues.

Validation of Instruments: Questionnaires and interview questions were validated by a team of professors. Samples of the questionnaire and interview questions have been appended. The pilot study also contributed in further validation. **Pilot Study** was conducted in Maiduguri. The validated questionnaires were tested on ten (10) respondents comprising artists and academics. One interview was conducted. **Field work** was embarked upon where 139 questionnaires were turned in and thirteen artists were interviewed. **Data Analysis** of the questionnaires was undertaken using the statistical package for social sciences (SPSS). Interviews were transcribed and reported using descriptive and analytic methods.

Analysis of Paintings

Paintings were categorized based on their commonalities, Eyo (1977) views classification as an important tool for analyzing artworks. In that sense, paintings were analysed based on some of the prescribed format by Stokstad (2008) which are; basic facts, subject matter, formal qualities, style, patronage, historical context, critical judgment and interpretation. From the artists visited, many paintings were found and categorized as figure painting, symbolism, still life, portraiture, landscape, abstraction, enhanced images, computer and conventional interface and drawings. They are illustrated by one example each from plate 1 to 8.

Plate: 1
Artists: Edward Lapang
Title: The boxer
Medium: Computer
Size: A4
Date: 2012

Figure painting: The figure of 'The Boxer' in plate 1, by Edward Lapang is an action pose. The figure is placed in almost the middle of the landscape space. His right leg is posed forward while the other is backward with the same orientation seen in the hands. He wears a blue short while he is bare-chested. Around his waist is a red coloured object which creates beautiful complement to the grey blue trousers he wears. The action of the legs and hands tend to be complemented by the facial expression especially with the direction and look in the eyes. Lapang succeeds in carefully modeling out the facial features of the nose, eyes, and lips and impressionistically treats the fingers.

The background is a dominant shade of green, suggestive of foliage. The foreground is equally painted in shades of green with light colours that help to delineate the background. His use of lines tends to strongly define the figure. This can be seen in the thick black outlines around the figure's shoulders, legs, and pants. The effect of the brushwork is reminiscent of the oil on canvas or general bristle brush strokes effect on a ground. Interestingly, proportion, perspective, tactile quality and composition are effectively controlled, to present a painting that could be mistaken for a conventional media type.

Lapang was not paid or commissioned for this work. This work was produced out of his desire to experiment with the computer in his area of specialization as a painter. The painting therefore, succeeds to establish the possibility of rendering a figure painting using the computer as a new medium for painterly expressions. In the final analysis, the painting could be interpreted as a local boxer who is in practice. This is common among the ethnic groups in Nigeria where traditional boxing or wrestling is used as a form of entertainment.

Plate: 2
Artist: Victor Ekpuk
Title: Wailing woman
Medium: Computer
Year: 2009

Symbolism: "Wailing Woman" by Victor Ekpuk was painted in 2009, using adobe Photoshop. The artist's rendition of this painting according to him was a response to the killing of Ken Saro Wiwa by the military regime of General Sani Abacha, and the general violence in the country including the Boko Haram insurgency, that has overwhelmed Nigeria, especially in the north eastern part. It was in 2009 that the terrorist activities of Boko Haram became noticeable leading to the extra judicial execution of Mohammed Yusuf by the Nigerian police. As a result many places of worship were bombed, public places were also targeted, including the United Nations building in Abuja. It is 2014 now, and the sinister and clandestine activities of the sect have not slowed down. The painting therefore, reechoes a historical milieu in Nigeria's annals.

'Wailing woman' explores and exploits traditional graphical symbols to depict a kneeling woman with raised hands to the sun before a corpse and a pool of blood that flows. Shades and tints of blue are explored to define the human figures. The black graphical symbols of Nsibidi from Ekpuk's ethnic background create textures on the shape of the Nigeria map with the manipulation that shows armed men. The artist probably used the pen tool in the Photoshop environment to achieve the intricate graphical symbols.

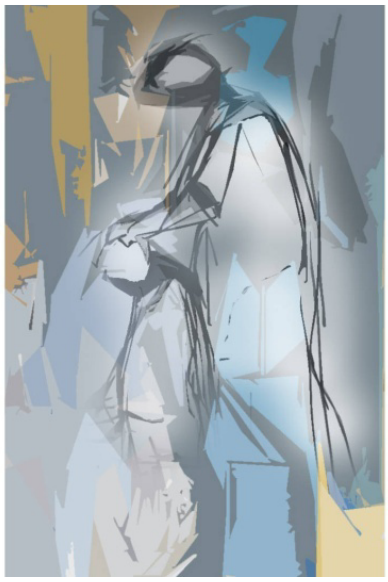

Plate: 3
Title: For God so loved the world
Artist: John Ogene
Medium: computer
Year: 2009

Abstraction: 'For God so loved the world' is an abstract painting by John Ogene. He dissolves two human figures into the background of forms. The figures are represented with lines and sombre colours in a brief, yet powerful manner that supports the title. One figure appears to be standing with hands laid over a kneeling figure. It is reminiscent of a moment of one blessing the other. "For God so loved the world that he gave his only begotten son…" is a scripture in the Holy Bible that Ogene appears to have been inspired by to render this abstraction.

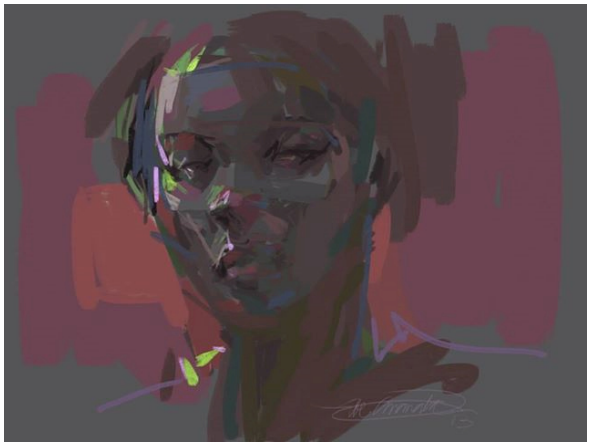

Plate: 4
Artist: Ibe Ananaba
Title: Untitled
Medium: (Artrage-IPAD)
Size: A4
Date 2012

Portrait: The painting above is a striking one. It tends to reconstruct and reenact the character of the conventional approach to painting using oil on canvas or even acrylic on canvas with Artrage-iPAD. The portrait

depicts yet another female. The eyes gaze at the onlooker with an unassuming effect. It is unlikely to construct any story behind this painting, but it is set in a quiet atmosphere and devoid of symbols or motifs. The face is expressionless.

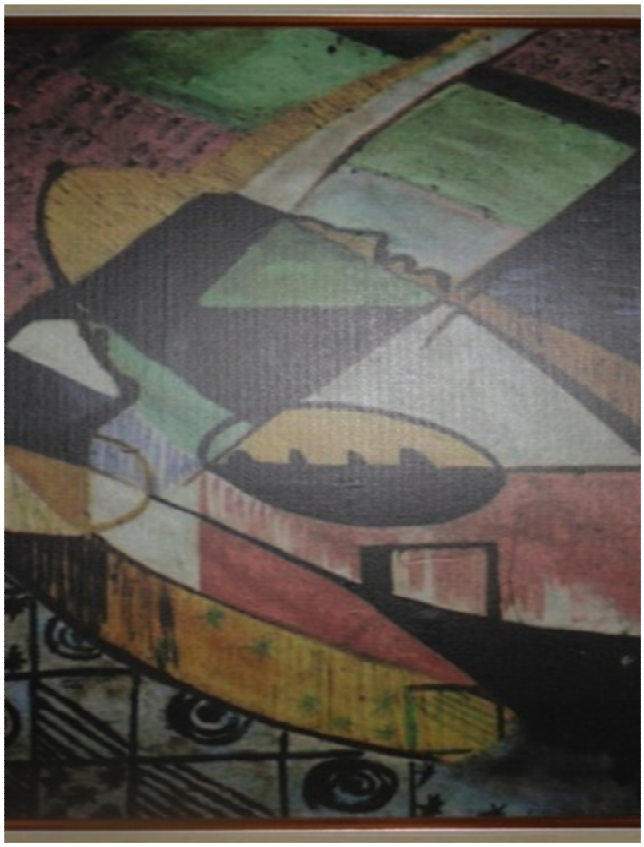

Plate: 5
Artist: Rom Kalilu
Title: Genius at work
Medium: Computer and convention interface
Size: 10 x 15”
Date: 1986

Conventional and Computer Interface: ‘Genius at work’ was originally a painting realized with pigment. The painting is one with geometric shapes, lines, a cowry shell and the abstracted impression of a man’s head wearing a hat. The painting is rendered in mostly flat colours devoid of tints and shades except for limited portions where the artist introduces light and shade. The cowry shell for example is rendered in black and yellow at the top half of the painting. Lines are used to delineate the shapes and differentiate the colours. For example, the hat is seen in yellow while a black line defines it from a pink background on the top left corner of the painting. At the bottom of the painting is an elaborate use of lines to introduce motifs akin to African forms.

The style in the painting is that of abstraction. This is characterized by oval shapes, circles, squares, and triangles. Black helps to emphasize the human head which may be the genius at work in the painting. The representation of the cowry shell beneath the man’s head is suggestive of wealth or money that rewards hard work.

Plate: 6
Artist: Ibe Ananaba
Title: Anita
Medium: computer – generated (Wacom Cintiq)
Dimension: A4
Date: 2013

Drawing: The work above is titled 'Anita'. It is a portrait drawing of a young woman who is actually the artist's sister and was a gift to her. 'Anita' is positioned at a three quarter view. It captures a smile by the young woman with bunny hair style, which is reminiscent of a Nigerian female from the Igbo extraction. Ibe used Photoshop to create a tonal gradation around the hair which is impressionistic as three shades of black tone can be appreciated. An overlay of a darker tone creates depth heightened by darker spiraling lines in a variety of sizes. There is evidence of continuous lines which is encouraged by the use of the software. The face is drawn with a strong knowledge of facial proportion and effect of light and shade which achieves perspective and solidity or roundness on the face. The carefree use of lines in varying tones and sizes creates the effect of cross–hatched surface on her shoulders. It appears as though Ibe worked from light to dark tones after sketching.

Plate 7
Artist: Ben Atanu
Title: Gourd
Medium: Computer
Size: A4
Date: 2012

Still Life: The gourd seen in plate 7 is a still life drawing in red and black colours. The gourd is positioned in the middle of the space creating almost a symmetric balance. The "gourd" has been rendered using CorelDraw computer software. The use of scribbled lines to create light and shade and eventual roundness or volume in this work, is dominant. The right side of the gourd is left untouched creating a strong light effect while the base is shaded with stronger black tones to portray a shadow. Atanu did not create this drawing for sale. It was borne out of the desire to experiment as is the case with many of the computer generated-paintings. The attempt could be seen as successful, even though it is the only example found for analysis and it represents what can be understood to be a gourd. While other artists are looking to the human figure, and portraiture, the attempt to represent the gourd presents a different way of using the computer, and the possibilities therein.

The artist was unable to provide an interpretation for this work. However, considering the geographical location of Idah in Kogi State where he hails from, and the presence of palm trees in that region, the production of palm wine and the use of gourds to store and transport wine could be a subliminal connection.

Plate: 8
Artist: Ben Atanu
Title: Untitled
Medium: Computer (Photoshop)
Size: A4
Date: 2012

Landscapes: The untitled drawing above is another Photoshop drawing by Ben Atanu. The work is a landscape representation of two huts, depicting the sky, foreground and trees. The huts are reminiscent of those seen in most Nigerian villages.

Findings and Conclusion

The main purpose of this study is to investigate the application of computer to practice of painting by Nigerian painters in view of the seeming absence of computer paintings on the contemporary Nigerian art environment. Major findings are presented as follows;

Historical developments of computer painting in Nigeria

Majority, (85.6) percent of the respondents, through the questionnaire were aware of computer paintings and (54.0) percent of respondents, learnt of it through television, radio, school and other media. This finding partly satisfies objective one (1), and research question one (1) which sought the history of computer painting in Nigeria. In the same vein, the study found that the computer presence in Nigeria's academic milieu is traceable to 1963 at the University of Ibadan and 1973 when the Iya Abubakar computer centre was detached from the department of Mathematics, Ahmadu Bello University Zaria. Consequently, it was introduced into the Department of Industrial Design (ABU, Zaria) in 1995. Prior to its introduction to the Industrial Design department, Ahmadu Bello University Zaria, its application was mostly mathematical or scientific and not in art.

Although Professor Rom Kalilu had claimed that he developed the first module of computer art in Nigeria in 1992, his refusal to provide the copy of the document limits this study's finding in stating when computer application to art started in Nigeria. Other artists who stated when they started painting with the computer are; Ibe Ananaba in 1997, Ifeanyichukwu Nwachukwu in 2009, Victor Ehikhamemor, 2006, Dr. Iyabo Tijjanni, 1996, Victor Ekpuk, 2004. With the above earliest years of computer application to painting, it could be established that computer painting in Nigeria dates back to the early 1990's after the efforts of the Ibrahim Babangida regime to include the computer in the Nigeria's educational system.

Dimensions of computer Application

An important finding of this study is the dimensions of computer application to painting in Nigeria by painters. One of the dimensions is the use of photography where images taken with digital camera are manipulated, distorted, enhanced to create paintings, like the works of Felix Adakuno, and Ben Atanu. Another dimension is the enhancement of images or paintings; Professor Kalilu's painting is an example of this dimension of computer application to painting. Yet another dimension is the use of the computer and appropriate software like Corel draw, painter x, Photoshop, to create painterly illustrations as seen in 'inter house sports' day by Nwachukwu Ifeanyichukwu. The use of photoshop in creating most of the paintings provides yet another dimension in the use of software.

Analysis of paintings

The study further found that few Nigerian painters have created paintings with the computer. These paintings were equally analyzable using the formal analysis. This is because the same principles that guide the creation of the conventional paintings are also employed in creating the computer paintings. Similarly, the elements of art are not different, in both painting types. Importantly, the analysis found that; the paintings address a number of genres and themes. This made the classification under genres like portraits, figure, painting, abstraction, symbolism, enhanced images, landscape, still life, conventional and computer interface possible. Themes found in the analysis are political, social, cultural, economic, and religious. For example Victor Ekpuk's symbolic "Wailing Woman" is political, while Dr. John Ogene's "For God so loved the world" is religious. David Osagie's paintings address social-economic issues in the Nigerian society while Ibe Ananaba expresses draftsmanship in his rendition of both paintings and drawings.

Comparative Analysis of Conventional and Computer Painting

The study further found that both painting types have similarities, differences, advantages and disadvantages. Similarities are in the use of elements and principles of art, two dimensionality and thematic exploration. Advantages are seen in speed of creation of computer paintings as a painting could be rendered between minutes to months. While a conventional painting could take a longer time to create, it enjoys originality and durability among other advantages which is why more people exhibit preference for the conventional type. Another advantage of the computer type is the abundance of materials in the software like colours, and tools. This advantage is also a disadvantage, as it may take a long time to understand them even as the issue of electricity poses a major challenge in painting with the computer.

The underlying difference between the two is that, computer paintings are virtual, while the conventional paintings are real. The virtual condition of the computer painting configures it to electronic and makes it dependent on specified memory or configuration in terms of size of Random Access Memory (RAM) and size of

hard disk. In the light of the above, the computer paintings are dependent on electricity [which is a challenge in Nigeria] to be created and viewed. This electronic feature is in tandem with Sayre's (2005) analysis of David Hockney's landscape where the palettes are electronic. Similarly, the virtual background of computer paintings as observed and found in this study is supported by Friedberg (2006) theoretical polemics that assert the metaphor of the window to the "computer as a frame that encloses painting" Windows™ itself being the software trademarked by Microsoft through which these computer paintings have been created.

Exhibition Possibility

The paintings having been analysed as sharing the same aesthetic qualities, with the conventional one's exception of tactile traits have been found to be exhibitable like the conventional paintings.

In addition, the virtual condition of the paintings makes it possible for a virtual exhibition as well. This possibility of a virtual exhibition creates room for wider viewership, appreciation, and acquisition, therefore, leading to a faster transmission of cultural, political, social and governmental policies, to distant nations and Nigeria in general, in a swift.

Conclusion

The researcher concluded in this investigation that computer paintings in Nigeria which started in the early 1990s have a low acceptance by many artists and art purists. This is supported by results revealed by respondents preferences and comments in appendix 1. Consequently, it has not been entrenched into the Nigerian painting education, as an aspect that needs academic exploration, rather all those who learnt it, did out of sheer interest by fiddling with the computer, taking online lessons and accidental discoveries. Based on the foregoing, the wider implications of the study have been identified to be an additional medium that combines speed, innovation and ease for the painter therefore, enhancing contemporary Nigerian painting. However, the fear that it would lead to a reduction in the artist's creativity and low patronage was expressed by majority of respondents. Although that fear and position was allayed and debunked by the interviewees as they have to be grounded in the conventional media first, before excelling in the computer medium. This is true, especially as revealed in the analysis of paintings. It could be observed that, the individual personalities of the artists are uniquely reflected in the paintings; therefore, the computer paintings are only an extension of their individual mannerisms and style.

References

Adogbo, M.P. and Ojo, C.E. (2003) Research Methods in the Humanities. Malthouse Press Ltd. Lagos. P. 28.

Azi, J.I (2006) Interactive Child Learning Aid Project (i-CLAP): Developing an Indigenous Multimedia Model for Enhancing Pre-primary Education in Nigeria.Unpublished PhD Dissertation Department of Industrial Design, ABU, Zaria.

Danjuma, K.N (2010) A comparative study of the painting of Gani Odutokun and Jerry Buhari. Unpublished PhD Dissertation, Department of Fine Arts ABU, Zaria. P. 108.

Duniya, G.G. (2010). Styles and Trends in Contemporary Nigerian Art. Unpublished PhD Dissertation, Department of Fine Arts Ahmadu Bello University, Zaria, Nigeria. p. 27.

Eyo, E. (1977) Two Thousand Years Nigerian Art. Federal Department of Antiquities. Lagos. Nigeria. p.24.

Faure-Walker, J. (2006) Painting The Digital River. Prentice Hall. New Jersey..

Friedberg, A. (2006) The Virtual Window. From Alberti to Microsoft. MIT Press.Cambridge.P.4

Gyegwe, A.G. (2008) An Artistic Contemplation of the Watermelon Fruit in Painting. Unpublished MFA Thesis, Department of Fine Arts Ahmadu Bello University, Zaria, Nigeria. p.77.

Hiroki, S. (1999) Computer-Generated Oil Painting with Brush and Canvas Models. IEIC Technical Report (Institute of Electronics, Information and Communication Engineers) Vol. 99; No. 512.

Jari, J. (2007) Image and Form of Indigenous Christian Art in Catholic Churches in Plateau State. PhD Dissertation, Department of Fine Arts, Ahmadu Bello University, Zaria., Nigeria. P.45.

Kleiner, S.F. and Mamiya, J.C (2005) Art though the Ages. Wadsworth and Thomas. U.S.A Vol. 1. P. 2, 614.

Lewis, J. (2014). How to write an art comparism essay. Demand media. http://www.classroom.synonym.com/write-art-comparism-essay-2406.html

Mafe, D. (2009) rephrasing Voice: art, Practice-led Research and the Limits and Sites of Articulacy. Unpublished PhD Dissertation. Art and Design Creative Industries Faculty. Queensland University of technology, Australia. p. 79.

Magurn, Ruth Sannders. “Leonardo da Vinci.” Microsoft Student 2009 (DVD). Redmond, WA: Microsoft Corporation, 2008.

McMorran, S. M.(2007) An Investigation of Intrractive Art and Its Introduction into a Traditional Art Practice. Unpublished PhD Dissertation. School of Arts and Social Scinces. University of Northumbria, Newcastle.

Nicodemus, E. (1995) Inside. Outside: in seven stories about modern art in Africa P. 31. Whitechapel.London. p.31.

Ogene, J. (2009) Digital Technology and the Problem of Image Proliferation. Department of Fine and Applied Arts, University of Benin, Nigeria.

Owen, P. (1970) Painting: The Appreciation of the Arts. Oxford University Press. London. P.13. Saliu, A.R. (1994) A Study of the Decorative Arts of the Ebira. PhD Dissertation. Ahmadu Bello University. Zaria, Nigeria.

Sambo, A.A. (2008) Research Methods in Education. Stirling-Horden publishers (Nig) Ltd. Ibadan. P.88, 92, 123.

Sayre, S.M (2005) A World of Art. Upper Saddle River, New Jersey. U.S.A. p.439, 244- 5.

Snyder, I.L (2008) “Computer,” Microsoft Student 2009 [DVD]. Redmond, WA: Microsoft Corporation.

Sporre, D.J. (2000) The Creative Impulse. Prentice Hall Inc. Upper Saddle River. London. P.596, 547.

Stokstad, M. (2008) Art History. Third Edition. Pearson, Upper Saddle River, New Jersey. P.1190.

Sullivan, G. (2010) Art Practice as Research. Second edition. Sage publications, inc. Los Angeles. P. 158, 23.

Wrong, D. H. "Sociology." Microsoft® Student 2009 [DVD]. Redmond, WA: Microsoft Corporation, 2008.

Appendix 1: statistical results on Respondents Preferences and Comments

Table 1

Which do you prefer Between Computer and Conventional Paintings?

Variations		Frequency	Percent
Valid	CONVENTIONAL/TRADITIONAL PAINTING	86	61.9
	COMPUTER GRAPHIC PAINTING	24	17.3
	BOTH	29	20.9
	Total	**139**	**100.0**

Table 2

Comment on Computer Technology to Paintings in Nigerian Art

Variations		Frequency	Percent
Valid	FASTER	8	5.8
	GOOD	6	4.3
	INNOVATION	55	39.6
	NO COMMENT	38	27.3
	NO COMPARISM	6	4.3
	NOT GOOD	2	1.4
	REDUCE CREATIVITY	24	17.3
	Total	**139**	**100.0**

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