THE EFFECT OF NEW TECHNOLOGIES ON PHOTOGRAPHY

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Abstract: The gradual software development changed the integrity of art and technology especially, digital revolution like digital photography. The use of new software throughout recent years has always affected the way photographers create their work. The photograph created a surprised impact on modern art as artists responded to photography and also implemented it as an artistic tool. Current digital photography has similarly allowed artists to use new tools to produce their work with completely new artistic processes.

Current study emphasizes on un-detachable integrity of art and technology especially in photography. The main object of this article is to evaluate the effects of technology and software in production, formation and concept of photographer's art works. This study should concentrate on digital technologies and soft wares, as they have had by far the greatest impact on the arts especially photography.

In other words, attempt to insist points between the inherently innovative visions of art making and technology. So, the question is "what the role of technology in art, especially, photography is". Can technology play an essential role in making conceptual photography?

Keywords: Technology, software, digital photography, Art.

INTRODUCTION

The term "new technology" can be used to encompass a range of technologies like soft wares, which have had some influence on the arts in recent years. The emergence of new technologies in the 21st century has led to new ways of understanding and making art (Ontario Ministry of Education, 2009), positioning the incorporation of technology into the Visual Arts classroom as a critical, and yet, unmapped area of inquiry and discussion for educators, administrators and academics. (Osorio, the Technology-Infused Visual Arts Curriculum, 2015).

Digital artworks have a tendency to transcend the selfness inherent in traditional modes of artistic expression. Digital artworks make the interaction between viewer and artwork an essential part of the creative and exhibition process (Langill, 2011; Shifting polarities).

21st century learners' skills include global awareness, self-directed learning, critical thinking, collaboration, economic and financial literacy as well as communication and information literacy (Rocky View Schools, 2014).

And today more than ever before, we can see that visual arts and technology have had an influence on each other, and that in many cases, they have also become inseparable. 21st century Art educators should therefore facilitate learning opportunities that are reflective of such a reality (Mayo, 2007; Art Technology Integration).

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Technology and Art

The importance of technological literacy is such that today's educators from all disciplines and grade levels constantly seek to infuse their lessons with technology-rich activities, but roadblocks and impediments to this mission are numerous (Gregory, 2009). The most common thread in such body of research indicates that researchers and pedagogues themselves agree that the main challenge faced by 21st century educators is possessing a proficient of level of technical knowledge operating digital technologies in order to be able to effectively facilitate student learning in (or through) such media (Polly et all. 2010; Black and Browning, 2011).

Recently, artists have begun using digital technology to create new forms of art. Many of these artists have produced works that explore the interactive

Capabilities of digital technology (Clarke, J. 2003. The Effect of Digital Technology on Late 20th and Early 21st Century Culture) Since artworks owe their creation to our daily life and photography is a reflection of everyday life as well, using technology and software plays an important role in production of contemporary art works and drastically develops inference and formation of concepts. "Software can add zest to an otherwise flat image. But software does replace talent and creativity only marginally. It cannot overcome bad technique. So yes, most of digital photography's advancements don't make you a more advanced photographer. They can make photography more fun. But the final outcome counts (Kestenholz, D 2013, Camera & Craft: Learning the Technical Art of Digital Photography. How Technology Changed Photography). Given the amount of information about the digital world, the rapid pace of change and the need for information on a timely basis, it was decided to base the article on a description of the characteristics of the digital world. This study pays special attention to the influence of digital and soft wares on the arts especially photography. (David Poole, (June 2011) Digital Transitions and the Impact of New Technology on the Arts. assistance from Sophie Le-Phat Ho for the Canadian Public Arts Funders (CPAF) network.

Walter Benjamin, German critic of culture and literature, was long concerned about art and technology. Benjamin believes that independent image of art was disappeared forever by mechanical proliferation of artworks and thus it is detached from its basic ordinance. Material, place and time left behind their old nature during last 20 years. Now we are expecting huge innovations that will evolve the whole art technics; Innovations which will evolve art creation itself and even may evolve our perception of art. Mechanical proliferation have its place by 1900 (Yazdanjoo, P. (2008). Release of thought: philosophy chapters in cinema).

The fact that Zizak is studying is the thing that gives cyberspace (this digitalized imagery of postmodern era) its special ambiguity. According to viewpoints that praise cyberspace, *i.e*. Gnostics, this digital space is a free fluid world that takes

reality for granted. It is a space where we can manipulate identities and apply them to play the fantasies. By the way, digital space can play the role of a media to achieve our very inner fears and anxieties as well.

It is always possible to click and open an extra catastrophic window. A window that will send us back to our daily life facts by a revers strike. (Zizak 2005, 25)

One of the artists who uses technology is Loretta Lux. Loretta Lux (German, b.1969) is a photographer known for her portraits of young children, digitally altered to resemble the aristocratic stiffness and formality of Old Master paintings. Born in Dresden, Germany, Lux studied painting at the Academy of Visual Arts in Munich, and began working with photography in 1999. Influenced by painters such as Francisco de Goya and Agnolo Bronzino, Lux dresses her subjects in vintage clothing and digitally adds props and backgrounds. Portraits such as Dorothea (fig 1). An expressionless girl with pale skin and blue eyes that match the sky in the background, and Marianne (fig 2), a redhead looking uncomfortable wearing a stiff coat, echo Diego Velázquez's Infanta Margarita (1653). While Lux's rigorous and unsentimental approach follows German documentary photographers such as Bernd and Hilla Becher and Thomas Struth, she also draws from commercial advertising to bring her work closer to kitsch. Her carefully constructed portraits, stylized and surreal, become metaphors for childhood innocence rather than reflections of her sitters' psychology. Lux's work is included in many museum collections (Lux, 2005).

Figure 1: Loretta Lux, Dorothea, 2001

Figure 2: Loretta Lux, Marianne, 2004

He created the stressful images with precise photography and scenery setting of children of his friends in front of a white wall in a studio. Then he montage by Photoshop software the photos on his own painted designs or some other images that have been photographed before which are often cold and lifeless landscape or routine inner spaces; afterwards, he makes some changes on photos of children such as big hands, legs or head or even closer or farer eyes; these changes illustrate a strange mysteries which are apparent on cold gaze of models in empty and silent spaces in photos.

These pale semi photo-painting images do not look like commercial vulgar portraits, modern advertisement nor post cards. The images have a grace beauty in the early first sight but some more reflection adds a strange feeling of anxiety and distress. The kids with Chinese like and flaw less skin and empty glassy eyes more resemble insentient robots than live people. Children though can be recognized as children, lose their appearance as a human being. They are images with luxury title of "imaginary portraits" rather than reflecting images of specific children; artificial creatures who terrifically conjugate childhood innocence with adult ambiguity.

Benyamin in his book "The work of Art in the age of Its Technological Reproducibility" states that: even the most perfect copies of an art work again lack an element; its presence in its time and place; its unique presence where it is assumed to be. He believes what is lost in technical reproduction is the halo of an art work (Benjamin, W.1936, the Work of Art in the Age of Its Technological Reproducibility).

Italian photographer Sandro Giordano captures the downfall of man — literally (fig 3). Face plants, falling, belly flops and drops are the subject of the series, with men and women head-first into the ground, their belongings strewn around them in the inevitable mess. 'My photographs are short stories about a falling-down world'. Giordano describes 'each shot tells about worn out characters who, as if a sudden black-out of mind and body took over, let themselves crash with no attempt to save themselves, unable, because of the fatigue of the everyday representation of living, oppressed by appearance instead of simply exist the series expresses the willingness to save material things before human wellbeing, showing the figures at the exact moment they've hit rock bottom. 'They reach their limit beyond which their false self cannot go. Each of them saves an object, they hold it in their hand and it symbolizes this falsification. this presence is represented not only by the objects but also the clothes, the hairstyles and the location.' the images have been carefully composed using live models and props, manipulated and arranged into the various disastrous scenes. After a fall, 'the instinctive reaction is bewilderment and awkwardness towards the unlucky fate of the character, but then that same awkwardness breaks into a liberating laugh. This is the effect I want to recreate through my photographs: tell tragedy through irony.'

Figure 3: Sandro Giordano, In Extremis, 2014

Anthony Aziz (born Fitchburg, Massachusetts, USA) and Samuel Cucher (born 1958 in Lima, Peru/grew up in Caracas, Venezuela) are visual artists working together as a collaborative team since meeting in graduate school in 1990 at the San Francisco Art Institute (fig 4). They are pioneers in the field of digital imaging and post-photography with projects exhibited at numerous venues including the 1995 Venice Biennale, the LA County Museum of Art and the San Francisco Museum of Modern Art.

Figure 4: Anthony Aziz and Samuel Cucher, Dystopia (1994-95)

Allen Demblorem photographed little girls in his "Little Doll" collection. Faces in the first sight resemble Barby dolls (fig 5). These photos are inspired by Aesthetics and advertisement attraction in Barby little dolls which are designed based on western women cliché and have turned in to a commercial icon for more than 60 years. Annual Miss World match holds in the USA and many teenager and children attend. In these matches children are forced by their mothers to dress up like dolls and act specifically of Barby models. These collection tries to exhibit the innocent children and teenagers subject to commercial issues and it is a kind of objection to entrance of child, as a symbol of purity and innocence, to commerce and advertisement. The photographer manipulated the photos, added bigger eyes, smaller noses, and happy colors to remind the watcher of Barby dolls. Photos are taken from 2004 to 2006.

Figure 5: Allen Demblorem, little dolls, 2004-2006

The collection "Symbol" by Allen Demblorem drawn us to the inner core of contemporary China. A blue sky of colorful Shanghai, porter men and women who are moving paper masses and huge shafts all are symbols for a changing society(fig 6). Allen took photos of small trades in the street of Shanghai and attempted to exhibit them in the developed Narcissist society of China (as the heart of world firm).

These people all have something in common and that is they are all immigrants from around China. In these photos images of buildings and towers and a developing city is in the background and people active in this development are in foreground. There is also an irony in this collection. The huge load on bikes and their vacuity beside complication of rework in a country.

Figure 6: Allen Demblorem, totems, 2009-2011

The photographer shows development of a city on one hand and the poverty of immigrants on the other hand. Photos in this collection are manipulated too. Colors are exaggerated, load on bikes are burnished and shanghai is presented a clean city while it is not. As stated by Allen, he rode 6 hours on bike around the city every day for 6 weeks and took around 6000 photos. Finally 8 photos have been chosen for the collection to be manipulated, adding or removing details, rearranging the environment and the irony and exaggeration as the result of photographer wonders, are apparent in the photos of this collection. Artists working in visual art, literature, and music have begun to incorporate digital technology into their creations. In each case, they have either appropriated existing technology or created new technology to suit their particular needs. The result has been new cultural forms that have called into question the nature of the fields within which they are created, as well as the nature of the artists themselves and the roles and responsibilities of their audience(Clarke, J.2003; The Effect of Digital Technology on Late 20th and Early 21st Century Culture).
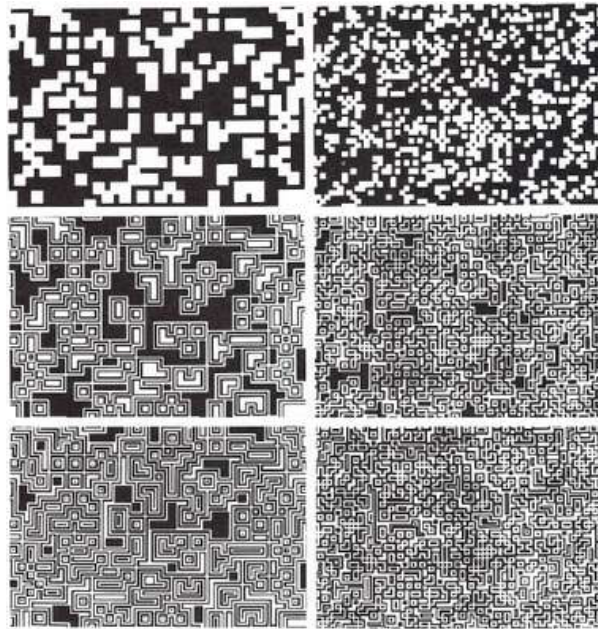

Figure 7: Kenneth C, Knowlton. Contours inside and outside scattered boxes, 1970

In 1963, Knowlton developed the BEFLIX (Bell Flicks) programming language for bitmap computer-produced movies, created using an IBM 7094 computer and a Stromberg-Carlson 4020 microfilm recorder (fig 7). Each frame contained eight shades of grey and a resolution of 252 x 184. Knowlton worked with artists including Stan VanDer Beek and Lillian Schwartz. He and VanDer Beek created

the Poem Field animations. Knowlton also created another programming language named EXPLOR (EXplicit Patterns, Local Operations and Randomness. In 1966, Knowlton and Leon Harmon were experimenting with photomosaic, creating large prints from collections of small symbols or images. In Studies in Perception they created an image of a reclining nude (the dancer Deborah Hay), by scanning a photograph with a camera and converting the analog voltages to binary numbers which were assigned typographic symbols based on halftone densities. It was printed in The New York Times on 11 October 1967, and exhibited at one of the earliest computer art exhibitions, The Machine as Seen at the End of the Mechanical Age, held Museum of Modern Art in New York City from November 25, 1968 through February 9, 1969. https://en.wikipedia.org/wiki/Ken_Knowlton.

If visual artists, writers, or musicians choose to work within the new medium, they often find themselves able to express creative visions that might not have been possible otherwise(Clarke, J.2003; The Effect of Digital Technology on Late 20th and Early 21st Century Culture).

Information technology is a powerful force that speeds up sharing images created by artists in all media and coordinates artists, interested in computer sciences, with other available cultural courses. Also it is not required to be in any specific place to watch the photos you can easily watch them all on your PC through international networks or computer storages. In this way more people can benefit from a collection on the media. This kind of integrity was not possible before creation of Internet, TV, Radio, Cinema and photography. Emergence of any new technology, improved cultural capacity of the public for development of private exercises. (Stated in Contemporary art Magazine, John Robertson, P. 18). The digital transition allows artists to replace physical objects with electronic files and to displace distribution over time and between places with instantaneous distribution over networks (Pool, D. 2011, digital Transitions and the technology on the Art). Recently, artists working in visual art, literature, and music have begun using the computer as a tool for creative expression. Not only have artists using this digital technology produced new works within each individual field, but they have also used the computer as a means of combining aspects of these fields into a new cultural form known as digital multimedia (Clarke, J. 2003; The Effect of Digital Technology on Late 20th and early 21st Century Culture).

CONCLUSION

The artist may experience what was previously unimaginable, and be able to share it with their audience. The potential diversity of expression through computer programs and processes available puts the artist in an enviable position. (http://the conversation.com/computing-gives-an-artist-new-tools-to-be-creative-57631)

Applying photo as a slave to represent real physical world outside, as a mirror to the world or as an open window to directly watch the world, goes back to antiquity of photography itself (Snyder and Allen, 1975; Snyder, 1980). Actually in the recent orientations we are facing contrast of photography and digital imagery, continuity of an old discussion about photography.

What is believed as donated by digital technology to our generation, is achieved by a really critical selection attention to the history of images of photography (Sattari, M. 2009, Photography in the 20th century). Technology opens new doors and promises shortcuts… There are no shortcuts. But there is a lot of mediocrity that came along with the digital revolution as cameras are all-present and becoming an extension of ourselves(Kestenholz, D. (2013); Collaboration and new technologies in the advancement of art conservation practice).

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