

11.

AN EVALUATION OF DIGITAL PHOTO-MANIPULATION SOFTWARE USE AMONGST GRAPHIC DESIGN STUDENTS OF AHMADU BELLO UNIVERSITY, ZARIA

PALNAM Ijudai Musa,

Department of Industrial Design,
Faculty of Environmental Studies,
University of Maiduguri
ijudaimusa@yahoo.com

And

AZI J.I.

Department of Industrial Design,
Faculty of Environmental Design,
Ahmadu Bello University, Zaria
azijoe86a200@yahoo.com

Introduction

To make a graphic design work remarkable, artistic and marketable; images or photos used in designs deserve a closer study. The appearance of an image on a graphic design is a key virtue in visual impact. Images used are the principle part in a design that is most advantageous in commercial competition because of their significant influence on viewer responses. According to Azi (2013), Digital photo-manipulation is the application of image editing techniques to photographs in order to creatively develop an idea in contrast to mere image enhancement or correction, through digital means.

This paper primarily explores the significance of digital photo-manipulation as a creative tool for expression, with specific reference to graphic design students of Ahmadu Bello University, Zaria. With the advancement of technology, photo-manipulation has opened a limitless pathway to creative expression for graphic designers (Azi, 2013). Photo-manipulation as a work of art promotes creativity, helps support media articles, promotes product advertising, tells a story, brings the viewers in, sells a product or an idea and induces positive consumer response, as a latent art and design tool.

This paper advocates for the enhancement of creative craftsmanship of graphic design students in Nigeria, using digital photo-manipulation techniques to meet global standards in digital art improvements especially in graphic design studies. Anthony (2013) explains photo-manipulation to be a form of art, where either images or photos are changed or several photos combine to create a new one, to depict concept as a creative designer. Photo-manipulation is a tool used by photographers, photo journalists, photo editors, graphic designers, curious imaging artists, mass media, visual artists, just to mention a few.

Statement of the problem

The problem of this study arises because of the fact that, in spite of the limitless potentials and advantages of photo-manipulation techniques as a tool for enhancing creative expression skills, this art form seems to be under-explored and underutilized. Photo-manipulation is seen to offer graphic design students and graphic designers the tool to be able to freely express their inner creative skills. Low confidence level, poor technical competency and lack of proper sensitization on photo-

manipulation techniques may be major contributory factors. Image editing has become a common activity that every designer seems to be indulging in, including non-professionals, a development that is seen as one of the most significant benefits of the digital age. Irrespective of the opportunities provided by such digital technology tools, the quest for interest and competency amongst graphic design students remains unfulfilled.

Objectives of the study

The objectives of the study are to:

- i. examine the role of photo-manipulation as a tool for creative expression
- ii. examine the importance of photo-manipulation skills in graphic design

This study is significant, as it provides guidance and additional literature on photo-manipulation as a tool for enhancing creative expression amongst graphic design students. It also advocates for the enhancement of creative craftsmanship of graphic design students by integrating photo-manipulation using software like Photoshop to improve the current state of computer graphics in Nigeria.

What is Photo-manipulation?

Photo-manipulation involves making changes to the appearance of a photo for various purposes, such as advertisements, magazines, books, package designs and gallery artwork. Images are altered with the use of computer software, producing images that are visually appealing, surreal, striking, humorous or eye-catching in some way (Azi, 2013). Multiple images are often combined to create a juxtaposing collage or unique image.

Photo-manipulation is as old as photography itself, and its history can be seen as part of the history of image manipulation in general, which can be found in Ancient Egypt. Before computers, photo-manipulation were achieved by retouching with ink, paint, double exposure, piecing photos or negatives together in the dark room. Darkroom manipulations are sometimes regarded as traditional art rather than job related skill. In the early days of photography, the use of technology was not as advanced and efficient as it is now. Results are similar to digital manipulation but they are harder to create back then. An early example of tempering was in the early 1860s, when a photo of Abraham Lincoln was altered using the body from a portrait of John C. Calhoun and the head of Lincoln from a famous seated portrait by Mathew Brady, the same portrait which was the basis for the original Lincoln five-dollar bill.

The 1980s saw the advent of digital retouching with Quintal computers running Paintbox and Scitex imaging workstations being used professionally. Silicon Graphics computers running Barco Creator became available in the late 1980s, alongside other contemporary packages, which were effectively replaced in the market by new software packages such as Adobe Photoshop.

The Role of Photo-Manipulation in Graphic Design

Employing photo-manipulation or photo-editing techniques empowers the designer with the capacity to reshape a photographic image to fit specific media needs like newspapers, magazines, posters, product advertisement or web publication at a point in time. David (2010) asserts that, photo-manipulation is one of the most creative forms of expression to come out of the digital age. It offers an ever evolving collaboration between photography and graphic design, combining certain elements to create a unique image that can convince even the most experienced set of eyes and requiring very creative skills.

With the expansion of new technologies in the production and use of computers that assist in design and societal advances in the fields of visual arts, architecture and design, emphasis is now placed on acquisition and application of information towards new aesthetics within the visual arts professions. In design and architecture professions, the major focus today is no longer on pure form generation, which has been the case in the past. A more comprehensive position relative to user needs and involvement, affordability, resources, environmental conservation and the ability to produce through industrialized manufacturing methods has been established.

Advantages of Photo-Manipulation in Graphic Design

Photo-manipulation is a tool used by photo editors, graphic designers and others working in visual communications, communication design, visual arts, mass media, content design and related fields. Katie, (2014) observes that photo-manipulation is creative and imaginative, producing photos that are unexpected, visually appealing, surreal, striking, humorous or eye-catching in some way. Photographs are modified to develop magazine covers, page layouts and album or book covers. Multiple images are often combined to create a juxtaposition, collage or unique image.

Photo-manipulation uses a mixture of photography and graphic design. Thus, a photo that underwent this procedure offers an illusory appeal similar to photo art. One of the easiest photo manipulation methods is known as image warping. Photo-manipulation uses creativity to put together and change certain areas of a picture to create a photo that is true-to-life. It takes a photo to another level by making it appear real instead of just an image (Megan, 2012).

Potentials of Creative Expression in Graphic Design

It is popularly said that, "what we see has a profound effect on what we do, how we feel and who we are" (Science Daily, 2005). Through experience and experimentation, humans continually increase in the understanding of the visual world and how we are influenced by it (Mike, 2012). Studies (Science Daily, 2005) reveal that the human brain deciphers image elements simultaneously, while language is decoded in linear, sequential manner taking more time to process.

Our minds react differently to visual stimuli. Relatively speaking, in terms of communication, textual ubiquity is brand new. Thanks to millions of years of evolution, we are genetically wired to respond differently to visuals than text. For example, humans have an innate fondness for images of wide, open landscapes, which evoke an instant sense of well-being and contentment. American psychologists hypothesize that this almost universal response stems from the years our ancestors spent on the savannahs in Africa (Mike, 2012). A child is capable of looking and recognizing shadows and images before he/she is able to speak real words. Creative expression in design is very important and cannot be over emphasized because it plays a crucial role in graphic design and communication.

Some Basic Techniques That Are Essential for Successful Photo-Manipulation

Photo-manipulation techniques are used by designers in developed countries to create extremely creative works of art. Once the key techniques in photo-manipulation are understood, creating designs that are imaginary to the simplest idea can be conveyed using photo-Manipulation (Anthony, 2013).

- i. **Rendering and Combining Multiple Images:** Photo-manipulation takes various images (either stock images or photographed) and merge them together, using any photo-manipulation software package; for example a tool called vertus fluid mask in Photoshop helps render out images in a matter of minutes using special masking tools.

- ii. **Colour Blending:** This process helps images blend easily with one another and most importantly, form a nice coherent work of art.
- iii. **Proportion:** Proportion is probably one of the most important techniques in photo-manipulation, if a design is going to be extremely farfetched, then it has to look realistic and proportion makes a huge difference in how realistic an artwork looks.
- iv. **Emphasis on Detail:** When creating a piece of art or design, one area has to be the focus. This is aimed at drawing the viewers' attention instantly to the spot. There are many techniques to doing so, one of which is to work on focusing attention on the most vibrant, colourful, or sharp area in an artwork or design.

A Review of Photo-manipulated Art and Design Works

Find below an overview of some designs from the print media that have been produced using photo-manipulation techniques.



Fig. I, Title: Creative 7UP Advert, Artist/Designer: Garrigosa Studios,
Source: <http://mymodernmet.com/10-incredible-photo/>

Fig I above shows a typical example of digital photo-manipulation in advertisement. Instead of just displaying the product (7up) image alone, the designer went further to add a creative image of lemon using water splash effect, which further makes the product attractive, captivating and eye catching, which in turn promotes the product.

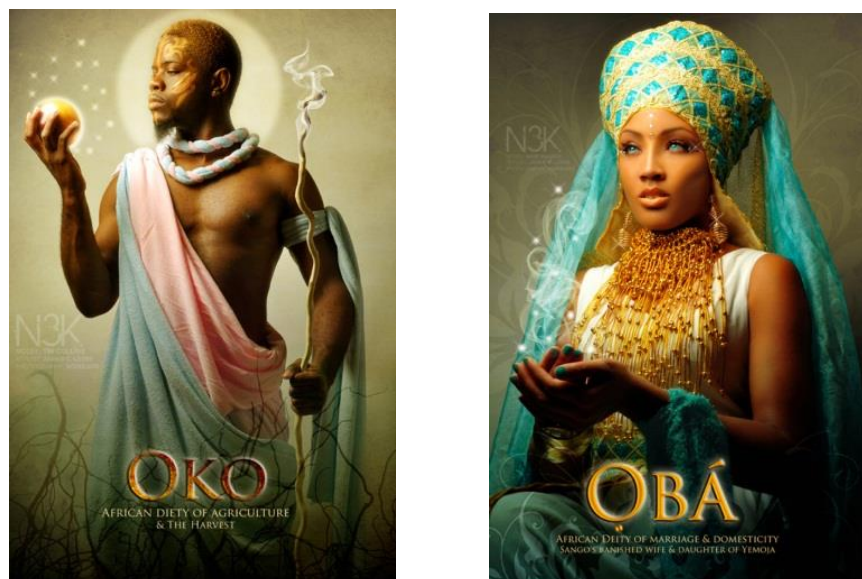


Fig. II, Title: African Yoruba Orisha, Artist/Designer: James C. Lewis
Source: <http://africanluxurymag.com/the-orisha-experience/>

Fig II above shows an artwork designed by James C. Lewis entitled Yoruba Orishas. Lewis was intrigued with the story, characters and regality of the Orishas and embarked on an inspiring and creative digital photo-manipulation photography project to express some of the Orishas the way he saw them. He employed photo-manipulation techniques to render images of Sango, Obatala, Ogun, Oya, Osumare, Babalu-aye, and a host of others. This is a typical example of works that could be done by indigenous artists and designers in Nigeria to promote our cultural heritage, by taking advantage of the advancement of technology with specific reference to photo-manipulation in our age and time.

Methodology

Primary data were sourced through the use of structured Likert-scale questionnaires, interviews and observations. The target population for this research includes both Undergraduate and Diploma Graphic Design Students of Ahmadu Bello University, Zaria. The sample was attained using simple, random sampling technique to ensure every individual had an equal chance at selection. A simple percentage was used to analyse the data collected. This method of data analysis is considered suitable, because the results can be represented graphically and distributed in tables using percentages.

Results

Table I. Distribution of Respondents by software experience level

Software experience level	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Beginner	10	33.3%	33.3%	33.3%
Intermediate	15	50%	50%	50%
Professional	5	16.7%	16.7%	16.7%

Questions		Response										
		SA		A		D		SD		U		
		F	%	F	%	F	%	F	%	F	%	
1	Photo-manipulation helps to induce positive consumer response?	13	43.3	17	56.7	0	0	0	0	0	0	
2	Does photo-manipulation have the capacity to induce variety in a photo viewing experience?	14	46.7	15	50.0	0	0	1	3.3	0	0	
3	Should Photo-manipulation software be a creative art tool utilized by graphic designers?	17	56.7	12	40.0	0	0	0	0	1	3.3	
4	Photo-manipulation techniques help to make objects in a photo more visually interesting?	13	43.3	16	53.3	0	0	1	3.3	1	3.3	
5	Have you used photo-manipulation techniques before?	8	26.7	11	36.7	2	6.7	7	23.3	2	6.7	
6	Do graphic designers have the potentials of acquiring and mastering photo-manipulation techniques?	6	20.0	12	40.0	3	10.0	3	10.0	6	20.0	
7	Does photo-manipulation skills require basic graphic design knowledge?	9	30.0	11	36.7	4	13.3	4	13.3	2	6.7	
8	Is photo-manipulation creatively combining and modifying elements of Photos to produce a unique design that is convincing to a viewer?	13	43.3	9	30.0	3	10.0	2	6.7	3	10.0	
9	Is Photo-manipulation a tool used by communication designers?	5	16.7	19	63.3	1	3.3	3	10.0	2	6.7	
10	Are you aware of any photo-manipulation design in print media?	5	16.7	19	63.3	1	3.3	2	6.7	3	10.0	
11	Do you think that Photo-manipulated images relay intended messages or ideas effectively at a glance without the aid of text?	10	33.3	15	50.0	0	0	0	0	5	16.7	
12	Are you aware that many successful graphic designs in advertising are subjected to photo-manipulation techniques?	6	20.0	16	53.3	2	6.7	3	10.0	3	10.0	
13	Is photo-manipulation technique being taught in the department?	8	26.7	0	0	10	33.3	9	30.0	3	10.0	
14	Are photo-manipulation tools such as computer systems and software packages made available to graphic design students in the department?	1	3.3	12	40.0	10	33.3	4	13.3	3	10.0	
15	Do graphic design students in the department have access, one way or the other to basic photo-manipulation tools, such as a computer system and software packages?	10	33.3	18	60.0	2	6.7	0	0	0	0	

16	Can Photoshop and CorelDraw be used in photo manipulation	2 1	70.0	9	30.0	0	0	0	0	0	0	
17	Have you used Photoshop or CorelDraw for at least six months of your study?	2 4	80.0	6	20.0	0	0	0	0	0	0	
18	Have you used Photoshop or CorelDraw to make designs as a graphic design student?	2 3	76.7	6	20.0	0	0	0	13.3	0	0	

SA: Strongly Agree, **A:** Agree, **D:** Disagree, **SD:** Strongly Disagree, **U:** Undecided

Major Findings

From the data gathered on graphic design students, within the Department of Industrial Design, Ahmadu Bello University, Zaria, the following findings were established.

- I. Photo-manipulation is seen as a trendy computer graphic design skill that warrants free creative expression.
- II. Photo-manipulation is underexplored and underutilized amongst graphic design students of Ahmadu Bello University, Zaria.
- III. Photo-manipulation is flexible in enhancing the appearance of an image on a graphic design work.
- IV. Graphic design students of the Department of Industrial Design require more exposure and sensitization on the benefits of this graphic design tool, towards enhancing their competence in computer graphic design.

Conclusion

From the data collected through questionnaires administered to graphic design students within Ahmadu Bello University, Zaria the following conclusions were made. The data analysed, revealed that the respondents (graphic design students) have access to computer graphic design tools at their disposal, but have underexplored and underutilized such in enhancing the aesthetic and functional characteristics of their designs due to lack of awareness.

The data analysed also revealed photo-manipulation technique is not incorporated in the syllabus of the respondents. The combination of appearance with aesthetic standards is a major function of a graphic designer's skills. Photo-manipulation makes photos visually appealing, surreal, striking or eye-catching, which makes this tool significant in graphic design.

Recommendations

The following recommendations are suggested in view of the findings and conclusion of this study:

1. Photo-manipulation is a creative art tool that should be utilized by graphic designers given its flexibility and freedom.
2. Graphic designers should carefully and creatively take advantage of this technique, in strengthening and possibly repositioning their practice in this digital age.

3. Photo-manipulation techniques should be inculcated in the syllabus of all graphic design schools in order to enable graphic design students to learn, towards enhancing their skills and professional competence and making them competitive after graduation.
4. Graphic designers in Nigeria should keep abreast of trends in graphic design and computer technology in order to ensure their place is not taken by other professions and non-professional designers especially in multimedia communication environments.
5. Graphic designers in Nigeria especially undergraduate graphic design students should keep up with new and updated computer graphics and design software either on their own or with the help of formal software training programmes. Graphic designers must be creative and able to communicate ideas visually.

References

- Azi J. I., Dakyes S. U., and Ogunwole S. O. (2013). Use of Photo-Manipulation Techniques in Enhancing Magazine Cover Portraiture: Lessons for Journalistic graphics in Nigeria. *International Journal of media and Communication Studies*. Vol 5. <http://www.academicjournals.org>. Retrieved September 14, 2014.
- Anthony. C. (2013). What is Photo-Manipulation? Editing Photographs to Create Illusions and Enhance Story Telling. <http://www.google.com/what> is photo-manipulation. Retrieved August 10, 2014.
- David, O. (2010). Taking Graphics to New Heights: African Artists Digital Art. Bookmarked the Permalink. <http://www.google/taking> graphics to new heights. Retrieved July, 2015.
- Katie, P. (2014). The Advantages of Photo-Manipulation: One link Solution. [http://www.google/the advantages of photo-manipulation](http://www.google/the%20advantages%20of%20photo-manipulation). Retrieved August 15, 2014.
- Megan (2012). Photo-Manipulations in Advertising: Make Something Mondays. [http://www.google/photo-manipulations in advertising](http://www.google/photo-manipulations%20in%20advertising). Retrieved April, 2015.
- Mike, P. (2012). The power of Visual Communication: Do-It-Yourself Billion Dollar Graphics. [http://www.google/the power of visual communication](http://www.google/the%20power%20of%20visual%20communication). Retrieved July, 2015.
- Science Daily (2005). Understanding Visual Processes for Visual Communications. <http://richardbinhammer.com/understanding-visual-processes-for-visual-communications/>. Retrieved 19th December, 2015.