

EXPLORING THE EMERGING TECHNOLOGIES IN THE NEW MEDIA, CREATIVE ARTS & DESIGN FOR ECONOMIC DEVELOPMENT

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Abstract

Several technological advancements have positively affected the creative arts sector, giving room for greater economic viability and self-reliance for existing and upcoming artists. Despite this, many creatives are yet to embrace the new norm so as to enjoy the economic benefits inherent in it. This paper therefore seeks to explore and survey the nexus between creative arts and design, and the emerging technologies in the new media. The new media is the offshoot of the technological advancements and digital revolutions of the twentieth century. These have impacted the craft of creative arts and design, which originally and traditionally is manually based. An exploratory research method was used in this work. Data were sourced from journals, books and the internet. With the emerging technologies and the influence of the new media, several digital and other advanced innovations have made the production and reproduction of works of art a lot easier, more consistent and economically viable. Artists can now explore modern technologies irrespective of their academic, social and financial status if they learn the requisite skills. Sadly, in a few years to come, artists who are not technologically compliant might be displaced, because technology rules the world today. The outcome of this study indicates that the emerging technologies in art and new media will bring economic growth, reduce unemployment, improve productivity and reduce stress for artists.

Keywords: *technology, creative art, new media, design, economic development.*

Introduction

The emergence of several technologies has greatly impacted the practice, growth and development of creative arts and design. Also, to a large extent, the new media, which are the off-shoot of technological advancements have become the bedrock of creative art and design in this era. Historical information available shows that technological advancements of the 1900s immensely contributed to the development of several sectors in the society such as; health, creative arts and design, business, manufacturing and information communication.

It is pertinent to emphasize that the 20th century saw dramatic technological advancements, particularly in communication, transportation, and electronics. Key developments include the widespread use of electricity, the invention of the airplane and automobile, and the emergence of radio, television, and computers. These technological developments helped artists to produce and reproduce art works in large quantities, and make the processes easier. Some of the technological developments that emerged which had positively impacted the new media and creative arts and design respectively are the computers, internet, industrial printing machines industrial fabricating and welding machines, kiln and other ceramics production equipment.

According to Nyekwere et al (2013), with the new media, millions of people around the globe through social networking are building online communities to communicate their

shared interest and activities. Nwachukwu et al (2024) opined that the new media provides the requisite platform for reaching the global audience who are clustered in the various social media arena. Modern day advertising can now leverage on the ability of the new media to reach the global market, and create strategic advertising campaigns for indigenous products to be seen and accepted globally. In addition, Igyuve (2020) also believed that the strongest milestone in evolution of new media was laid in 1988, when the Internet Relay Chat (IRC) was birthed; with this new advancement in technology, the invention of the World Wide Web (www) in the early 1990s, and the first web search engine was made possible.

Conceptual Framework on emerging technologies in creative arts and new media in relationship with economic development

Technology is the bedrock of human development and productivity. Every developed economy has embraced and explored the potential of technology for production, which has led to economic growth. Nigeria, as one of the growing economies of the world, must likewise follow the same model for national economic growth. Every sector of Nigeria's economy must be encouraged to create policies, design strategic development plans and pursue entrepreneurial engagements that are technologically inclined. The entire production sector (including the creative arts and design) should utilise modern technology to increase productivity, as seen in advanced economies such as China, Japan, the USA, Germany and Switzerland, which have to a large extent leveraged this and invested heavily in the manufacturing sector using modern technology. If growing economies such as Nigeria are to become like China and others, there must be strong government policies and structures intentionally established to encourage production and manufacturing (Nwachukwu Bassey & Okeke, 2024). With this, technology will be fully explored, giving room for increased production and economic growth.

Ismaila (2022) reveals that, in retrospect, the study of modern economic growth was pioneered by Solow (1956) and Swan (1956) and further modified by Solow (1957) to allow for technical change. The Solow neoclassical model of economic growth explains how long-run economic growth can be achieved through the accumulation of physical capital and labour, while technology and the savings rate are exogenous in the model, and the savings rate is typically constant over time. Grossman and Helpman (1994) argued that the advancement of technology has been a driving force behind the rise in living standards. This is despite the Solow (1956) prediction of zero growth for countries with high capital, owing to the decreasing marginal productivity of capital. This implies that the theory will be nullified if technology improves: the marginal productivities of the same input will increase. Again, there is no gainsaying that technological advancement enhances the economy; hence, every growing economy must, as a matter of urgency, create an enabling environment that will encourage the exploration of technological gains.

The issues of embracing the use of these emerging technologies, and of learning the necessary requisite tech skills by both established and upcoming artists, are part of the matter of concern here. The reason is that some creative artists and designers show little or no interest in acquiring tech skills such as computer graphics, exploring AI and many more. It is evident that technology has come to stay; anyone who is not compliant may be left behind in a couple of years. In graphic design alone, many job segments have been displaced by modern technology. One of them is the lithographer, whose job has been taken over by modern technology known as Direct Imaging (D.I); and the colour separation and plate-making process, which was done using traditional lithographic methods, has been taken over

by Computer to Plate (CtoP) technology. The D.I and CtoP technologies allow the computer to print directly onto any surface using modern digital large-format printers, and to make offset printing plates using direct digital contact from computer to plate. With this technology, there is no need for the job of a lithographer who does the manual colour separation. Imagine if the lithographer is not compliant with modern tech skills: he will definitely be out of a job. It is therefore necessary to establish the need for creatives to adapt to the emerging technologies so as to improve and enhance their productivity. Increased productivity brings economic gains, not only to the entire society but also to the artist and designer.

Methodology

An exploratory research approach was used for this study. Data were collected from journals, books, internet. Gilson and Goldberg (2015) explain that conceptual papers (which are exploratory in nature) do not have much data, because their focus is on integration and proposing new relationships among constructs. Thus, the onus is on developing logical and complete arguments for associations rather than testing them empirically.

Finding the nexus between new media and Creative Arts

The new media and creative arts exist around each other because there is a strong connection between the two. Neither may be able to stand alone in the face of emerging technologies. The new media has a friendly interface for interacting with users; this interface is created and designed by graphic designers, who are part of the creative arts. Facebook, animation, Google, website platforms and interfaces are powered by graphics and cannot operate without them. On the other hand, creative art and design would not reach the target audience without the help of the new media. Therefore, it could be established that emerging technologies in these two fields are the powerhouse of digital communication.

Exploring the Components of the New Media: A Look at Social Media Platforms

Social media is one of the major components of new media. As the name implies, social media is the aspect of media that deals with the social lifestyle, mannerisms, relationships, norms, interactions and ideologies of the users. Hence, one can assert that all the online platforms that allow users to share information, create content, entertain, stream live, engage in visual storytelling and create a community could be seen as social media (Nwachukwu et al., 2024). Some popular social media platforms in Nigeria today are Facebook, Twitter, Instagram, TikTok, WhatsApp, YouTube, Snapchat, etc. These platforms have hundreds of millions of people who are actively engaged in them on a daily basis; this makes them a viable tool in the hands of creative and strategic advertising moguls. Some of the social media platforms that are used for digital marketing and advertising today are:

- a. YouTube: Particularly used for creating video content and live streaming, YouTube has the capacity to engage online video lovers. With over 2.3 billion monthly active users, and about 5 billion videos viewed daily, it is estimated to be used by about 62% of businesses and digital marketers. This platform is significant for music, entertainment, education, tutorials, vlogging, marketing and advertising.
- b. Instagram: This is another visual-based social media platform that enables users to follow accounts, create accounts (individual and business), go live, share videos and photos, connect with friends and family through direct messages, like and comment

on posts, etc. It is popularly known for its quality visuals and aesthetics, influencer marketing, e-shopping and community engagement. With over 1.2 billion active users, Instagram has become a powerful tool for business marketing, advertising, personal branding and influencer marketing.

c. TikTok: This social media platform is known for creating and sharing short-form videos using filters, effects and AR lenses to enhance the videos as well as engage in trends and challenges. It is also prominent for music and sound concentration. It has high engagement, with about 1 billion active users. The entertainment feature inherent in TikTok makes it the favourite of Gen Zs (16–24 years old). This shows that this platform will be effective for advertising and marketing any product with a target audience in that age bracket.

d. Facebook: This is one of the social media platforms. It allows users to connect with family and friends, as well as enabling them to share photos, videos and updates. It also gives users the opportunity to create and follow pages of individuals, businesses, organisations and public figures. It has features that engage content and conversations through comments, shares and likes. As at 2024, Facebook remains the largest social media platform in the world, with over 2.9 billion monthly users globally.

This indicates that Facebook is a viable platform for advertising any form of product, due to its ability to reach a very large target audience globally. Facebook has a significant impact on modern advertising and online marketing due to its ability to stream and display texts, photos and videos, as well as engage individuals and groups simultaneously.

Advent of Computers for Creative Designs

The abacus, which emerged about 5,000 years ago in Asia Minor and is still in use today, may be considered the first computer. This device allows users to make computations using a system of sliding beads arranged on a rack. Early merchants used the abacus to keep trading transactions (LaMorte, 2016). Different generations of computers were invented and modified until around the 16th century. In support of the above, Ishaq (2019) traces the history of the computer to the period of the scientific revolution (1543–1678). The calculating machine invented by Blaise Pascal in 1642 and that of Gottfried Leibniz marked the genesis of the application of machines in industry. This progressed up to the period 1760–1830, which was the period of the Industrial Revolution in Great Britain, where the use of machines for production altered British society and the Western world. Since then, computers have undergone several transformations and improvements, having gone through several generational modifications. The computer is designed not only for the computation of data; it has been modified to allow creative designers to use it for their designs. Modern computers allow users to generate images from the internet, create graphic design layouts using different design software, edit photographs and carry out many more interesting creative manipulations.

On this note, Asiimwe (2025) stated that artists use many digital tools to express themselves. Photo editing programs, graphic design software and animation tools are examples of software specifically created for artistic expression. Platforms enable artists to simulate their traditional painting and drawing practices while freeing them from many physical limitations. Creative artists have many possibilities available in the computer, ranging from editing,

graphic design of posters and handbills, printing on diverse surfaces and many more. Arekete (n.d.) explained that with personal computers, we can use a wide variety of interactive input devices and graphics software packages. For higher-quality applications, we can choose from a number of sophisticated special-purpose graphics hardware systems and technologies. Output devices are needed to generate graphical outputs. Without an output device, you cannot know what processing has been done. To a large extent, the advent of computers has contributed to the development and enhancement of the field of creative arts by giving it a digital facelift and eliminating the stressful traditional methods, especially in graphic design. However, other aspects of creative arts and design have also been impacted by the advent of computers. The textile and ceramic industries make use of computer-controlled technologies in operating their production machines. Modern screen printing and embroidery machines are digitally computerised, allowing designers to create their designs with design software and reproduce the same on fabrics directly from computer to the printing and embroidery machines.

Conclusions and Recommendations

Having established the fact that technological advancements have played a vital role in the development and enhancement of the new media, it is relevant to emphasise the need to explore these technologies for economic growth, as seen in developed countries. Also, we know that as years go by, technology keeps evolving by the day, and there is a need for creatives to catch up with the speed, so as to remain relevant and abreast in the field. Firstly, it is highly recommended that creative artists should learn technological skills, so that they will flow and grow with the emerging technologies, and remain relevant in their careers. Secondly, government and entrepreneurs should be encouraged to invest more in industrial production, in order to grow the national economy, since no economy succeeds without productivity. Thirdly, there may be a need for government policies to control the abuse of new media by users. This can be done by making laws that will keep the new media space in check; with this, the actual purpose of the new media will be achieved. Above all, there is a need to embrace, encourage and create an enabling environment for national technological advancement; this will bring about a radical industrial revolution that will grow the Nigerian economy and bring it to the level of one of the advanced economies of the world.

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