COPYRIGHT LAW IN NIGERIA IN THE ERA OF GENERATIVE ARTIFICIAL INTELLIGENCE; A CRITICAL EXAMINATION OF THE POTENTIAL INTEGRATION INTO NIGERIA'S COPYRIGHT LEGAL FRAMEWORK.

BY

AGNES OMIME SULEIMAN

LAW1806048

FACULTY OF LAW

UNIVERSITY OF BENIN

JUNE 2024

A LONG ESSAY WRITTEN AND SUBMITTED TO THE FACULTY OF LAW, UNIVERSITY OF BENIN, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF LAWS (LL.B) DEGREE OF THE UNIVERSITY OF BENIN, BENIN CITY.

CERTIFICATION

I, Agnes Omime Suleiman, with Matriculation Number LAW1806048, hereby certify that apart from references to other persons' works which have been duly acknowledged, the entire work is a product of my personal research, and this project has neither in whole nor in part been presented for another degree elsewhere.

_____

Agnes Omime Suleiman

LAW1806048

APPROVAL

We certify that this project was written and completed by Agnes Omime Suleiman with Matriculation number LAW1806048 in partial fulfilment of the requirements for the award of a bachelor of laws (LL.B) degree.

BARR OLORUNFEMI UBOSE _____

PROJECT SUPERVISOR SIGNATURE AND DATE

DR. D.T ACHI _____

PROJECT CORDINATOR SIGNATURE AND DATE

PROF. IKPONMWONSA OMORUYI _____

DEAN, FACULTY OF LAW

DEDICATION

I dedicate this work to my fellow law students who share a similar passion for technology and innovation and are driven by that passion and curiosity to always find an intersection between the law and technology with the aim of ensuring that innovations meet legal and ethical standards while also demonstrating the various ways that technology can improve our legal system. May our efforts pave the way for a new generation of lawyers that will embrace innovation and drive progress.

ACKNOWLEDGEMENT

I would like to express my heartfelt gratitude to God for the gift of life and for his many blessings upon my life.

To my parents, Mr and Mrs Suleiman, I am forever thankful to you for being the constant source of inspiration and for doing everything within your power to ensure my needs are adequately provided.

To my siblings, Victoria, Esther and Veronica, thank you for your unconditional love, encouragement and endless support.

I extend my gratitude to my uncle and aunty, Mr and Mrs Bashir, their children: Aji, Omime and Ofushi for their generosity, hospitality and warmth. Thank you for providing a place I could call home.

I acknowledge the members of Opus Dei at Tiebe Centre, who have provided spiritual counsel, academic guidance and have helped me to stay grounded in my catholic faith.

To my friends. Thank you for your companionship, laughter and memories that have made this journey much easier and enjoyable.

Lastly, I express my sincere gratitude to my supervisor, Barr. Olorunfemi Ubose, who has provided the much needed and invaluable guidance, patience and resources that made this research less daunting. I am very grateful sir.

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ABSTRACT

While Artificial intelligence has vast uses that is ubiquitous and indispensable in our everyday life, a popular use in recent times is the generation of works of intellectual property ranging from literary works, musical works to audio-visual works. This study explores the challenges that surface from this intersection between Artificial Intelligence and intellectual property. There are two major issues that arise as regards these works created by Generative Artificial Intelligence systems. The first issue this study addresses is whether text data mining of copyright works used as training data for the development of Generative Artificial Intelligence systems, to create works of intellectual property without license from the holders of the copyrights, amounts to copyright infringement. To achieve this, a brief explanation of how text data mining works was given, the defence of fair use was examined with reference to relevant case laws and an appraisal of the legal framework in Nigeria as well as in other jurisdictions on the subject, with a view of considering the possibility of formulating policies that will protect the rights of copyright holders without stifling the development of Artificial Intelligence in Nigeria. The second issue addressed is whether works created by Generative Artificial Intelligence can be subjects of copyright. This was done by juxtaposing and critically examining the concepts of authorship and ownership, the position of the law on the legal personality of Artificial Intelligence and the prospects of conferring Artificial Intelligence with legal personality and enforcement of the rights that may be so bestowed to Artificial Intelligence in Nigeria.

CHAPTER ONE

1.1 BACKGROUND OF STUDY

Artificial intelligence is not a new phenomenon but has only seen a surge of progress in its development in recent years and has sparked interests among people because of the vast opportunities it currently presents and the huge prospects it has in the future. Fortunately, Africa has not been left out especially as regards Generative Artificial Intelligence which is one of the most common uses of Artificial Intelligence in Nigeria particularly popular among the youth for research and digital business and it is currently unregulated. On a global scale, particularly in Europe, Asia and the United States, as Generative Artificial Intelligence becomes an integral part of their lifestyle, it is now a matter of necessity to regulate the workings of Generative Artificial Intelligence especially as regards the raised concerns of copyright infringement, resulting to a significant amount of law suits by authors of copyright works against the owners of Generative Artificial Intelligence companies. Fortunately, this tension has not reached Nigeria yet probably due to its novelty, notwithstanding, the law can be proactive as the issues are still bound to rise - after all, there are online sources of Nigerian journals, textbooks, articles etc. whose data can be scraped to be used as training data for Generative Artificial Intelligence, this is especially true and bound to happen as measures are being put in place to ensure that there is sufficient data from developing countries. Another concern is whether the works so generated can be duly registered and protected under the copyright laws. Works generated by Artificial Intelligence like images, are common place

recently and persons who through the use of Generative Artificial Intelligence, caused these images to be generated have started to seek protection of it and will continue to do as long as Generative Artificial Intelligence exists. This protection so sought has led to a couple of lawsuits that have not being decided in their favour, at least in certain jurisdictions, while some jurisdictions have made statutory provisions for the copyright protection of works generated by Artificial Intelligence. These persons seek protection on the strength of their creative inputs known as 'prompts' which has led to controversies that can only be put to rest by a clear provision on that subject. This study seeks to contribute immensely to the global discourse on these issues and will inevitably examine the existing legal framework both in Nigeria and other jurisdictions and suggest possible modifications to accommodate the current issues posed by Generative Artificial Intelligence.

1.2 STATEMENT OF PROBLEM

In Nigeria, with the current use of Generative Artificial Intelligence, there is a total absence of a specific regulatory framework on Artificial intelligence. The Copyright Act[1] which was very recently amended, is silent on the status works generated by Artificial Intelligence. While in other jurisdictions with such regulatory framework coupled with copyright provisions, they have failed to proffer permanent solutions to the challenges that will simultaneously promote the development of Artificial Intelligence without compromising the interests of copyright holders.

[1] Copyright Act, 2022 (Act No 8)

1.3 RESEARCH QUESTIONS

i Can artificial intelligence be conferred with legal personality such that it can be recognised as an author?

ii Does the use of copyright works as training data amount to fair use?

iii Where copyright infringement is alleged who will be held liable? The user, Artificial Intelligence, or the owner of the Artificial intelligence company?

iv Are works generated by Artificial Intelligence eligible for copyright protection under the copyright laws?

1.4 AIM AND OBJECTIVES

The primary aim of this study is to address the ethical and legal implications arising from the use of Generative Artificial Intelligence and how a progressive regulation can effectively address them.

The specific objectives of this study are as follows;

- To examine critically the legal framework on Generative Artificial Intelligence and copyright in Nigeria
- To evaluate the effect of this legal framework and identify the gaps and shortcomings
- To comparatively analyse the Nigerian framework with that of other jurisdictions to identify useful provisions that could be adopted.

- To propose recommendations for a comprehensive legal framework that will provide solutions to the current issues facing the use and acceptance Generative Artificial Intelligence.

1.5 SCOPE OF RESEARCH

This study will focus on the extant legal status of Generative Artificial Intelligence in Nigeria and draw comparisons with other leading jurisdictions on the subject matter. It will highlight the current and potential benefits of Generative Artificial Intelligence particularly in Nigeria, the downsides and the need to have a comprehensive regulatory framework.

1.6 RESEARCH METHODOLOGY

This study will employ the doctrinal and comparative analysis approaches. Under the doctrinal approach, also referred to as library-based research method, reliance on existing articles, journals, reputable online sources and legislations on the study subject will be made to understand the current state of knowledge.

Under the comparative analysis approach of research methodology, an overview of the legal framework of international leading jurisdictions on the subject matter will be carried out and contrasted with Nigerian legal framework related to copyright.

By employing these methods of research, a thorough analysis of the subject matter is guaranteed.

1.7 SIGNIFICANCE OF STUDY

With lawsuits underway, consultations with stakeholders, legal scholars and policy experts, for the purpose of finding solutions, this study will contribute to the discourse on the subject and pave a way for policy experts in Nigeria, giving something to work with for a future regulation of Generative Artificial Intelligence.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

In this chapter, the concepts relevant to this study such as Artificial Intelligence, Generative Artificial Intelligence, Text Data Mining Copyright etc. were defined to provide a basic understanding of the manner and context in which they were used throughout this study. This chapter also laid down the fundamental principles of copyright adopted which includes authorship, ownership and originality as the theoretical framework of this study.

2.2 CONCEPTUAL CLARIFICATIONS

2.2.1 **Artificial Intelligence**

Artificial intelligence commonly known as AI in its abbreviated form is any computer system made to independently or autonomously simulate human actions and thinking. The European union adopted a comprehensive definition of Artificial Intelligent by the **Organisation for Economic Co-operation and Development's (OECD) Council. According to the organisation, Artificial Intelligence is** *a machine-based system that for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions,*

contents, recommendations, or decisions that can influence physical or virtual environments.[2] *These Artificial Intelligence systems vary in the level of their autonomy and adaptation after deployment.*

2.2.2 Text Data Mining

Text mining is the process of deriving information from machine-read material. It works by copying large quantities of material, extracting the data, and recombining it to identify patterns.[3] It is through this process that Generative Artificial intelligence systems are trained from resources across the internet to be subsequently used to generate content.

2.2.3 **Generative Artificial Intelligence**

Generative Artificial Intelligence is a form of Artificial Intelligence that can autonomously generate new content, such as text, images, audio, and video.[4] These contents are usually generated by inserting prompts in the search bar of the chat format. It differs from a search engine like Google because it gives a more personalised and direct response to the user's prompts. These prompts can be tweaked for a customised output up until the user is satisfied with the output. ChatGPT, Beethoven AI and deep AI are examples of Generative Artificial Intelligence systems that are capable of generating texts, music and images respectively which are the most common uses of Generative Artificial Intelligence.

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[2] Stuart Russell, Karine Perset, Marko Grobelnik 'Updates to the OECD'S definition of an AI system explained' <https://oecd.ai/en/wonk/ai-system-definition-update > accessed 16 February 2024.

[3] The National archives, 'Text Data Mining And Data Analytics in Call for Evidence Responses' <https://webarchive.nationalarchives.gov.uk/ukgwa/20140603093549/http://www.ipo.gov.uk/ipreview-doc-t.pdf > accessed 16 February 2024.

[4] Zhihan Lv 'Generative Artificial Intelligence in the metaverse era' <https://www.sciencedirect.com/science/article/pii/S2667241323000198> accessed 16 February 2024

2.2.4 Copyright

Copyright in an intellectual work is the exclusive right of the author of the original work to control or enable the doing of certain specifically stated acts in respect of the whole or a substantial part of the work; either in its original form or in any other form recognisably derived from the original form but subject to certain statutory exceptions.[5] Copyright in a work arises the moment the work is created and unlike patents and trademarks, there is no requirement for registration. The Nigerian Copyright Act[6] provides for the kind of the works that can be protected, acts that amount to infringement and the remedies for injured parties.

2.3 **THEORETICAL FRAMEWORK**

The principles of authorship, ownership and originality form the basis for any discourse on copyright protection, copyright infringement and liability and are the foundational principles underlying the entire analysis done in this study.

2.3.1 Authorship rights of Artificial Intelligence

The works created by Artificial Intelligence are now becoming the subjects of controversy. The question is whether such works are eligible of copyright protection and the persons entitled to enforce such rights. The answer to this question varies by jurisdiction and will be examined. The protection of works generated by Artificial Intelligence and the recognition of

[5] JO Odion and NEO Ogba, *Essays on Intellectual Property: Copyright, Trademarks, Patents, Industrial Design* (Ambik Press 2010) 1
[6] n (15)

authorship rights of Artificial Intelligence is relevant for those who have interests in the use and creation of the works. Where an end user procures the creation of a work by Artificial Intelligence by way of prompts, he may seek to protect the work so as to exclude others from using it without his authorisation. There are however difficulties in obtaining copyright in such works. He has to show that the works are not just original, but that they originated from him which is exactly where the problem lies. Some have argued that the work cannot be said to originate from the end user because the creative aspect was done by Artificial Intelligence. Whether the courts in determining originality using the sweat and brow test, modicum of creativity or the skill and judgment test will consider the prompts as sufficient to hold that the work is not just original but also originated from him is very doubtful especially considering the huge and highly significant role that Artificial Intelligence plays in the process. The next option may be to regard Artificial Intelligence as the author and register it in its name such that he, the prompter can be regarded as either the owner or the joint owner of the work. It is then important to consider the current position of the law on the recognition of Artificial Intelligence as an author and the prospects of Artificial intelligence being recognised as an author in Nigeria and other jurisdictions.

NIGERIA

The Copyright Act[7] does not explicitly make any provision for the copyright of works generated by Artificial Intelligence. We can infer that Artificial Intelligence cannot be vested with copyright from the tenor of Section 5 of the Act which provides that copyright in works eligible for protection shall be conferred on an individual who is either a citizen of Nigeria or a habitual resident of Nigeria or conferred on a body corporate incorporated under any Nigerian laws. In other words, only a natural person or a corporate personality can be an author in Nigeria.

[7] n (15)

The United States

The Copyright Act[8] in the United States does not contain any provision concerning the authorship rights in a work created by Artificial Intelligence. There is a recent case before the United States district court that is instructive on this matter. Thus in *Stephen Thaler v Register of Copyright*[9], the plaintiff sought to register an artwork generated by Artificial Intelligence with the United States Copyright Office (USCO), naming the Artificial Intelligence system as the author and himself as the owner of the work. The Register refused to register the work because the plaintiff applicant stated in the application that the Artificial Intelligence system created the work independently which suggests that there was no creative input from the plaintiff. The court held that only works created by human persons are entitled to copyright protection. It was further stated that although the copyright law did not mention categorically that an author must be a human person, it has been settled in several decisions that an author must be the human originator. One of the cases the court made reference to in reaching its decision is *Naruto v Slater*[10] where a Macaque fumbled with the camera of a photographer and took pictures of itself, it was held by the Ninth Circuit that the Macaque being an animal, cannot be regarded as the author of the work. On a final note, the district court held that since copyright did not arise in the work in the first place, the plaintiff cannot be deemed to be the owner. The effect of this decision is that any work created by Artificial Intelligence in the United States will be in the public domain and offers no exclusive benefit to the person that procures its creation. The decision of the district court is on appeal and we await the appellate court's decision which will either affirm or overturn the lower court's

[8] Copyright Act, 1976 (17 U.S.C)

[9] Case 1:22-cv-01564-BAH, <https://caselaw.findlaw.com/court/us-dis-crt-dis-col/114916944.html > accessed 20 May 2024.acc

[10] 888 F.3d 418 (9th Cir. 2018)

decision but until then, this decision is valid law. Similarly, in the application of one Jason Allen[11] to the United States copyright office to register a two dimensional artwork which was created using text to image Artificial Intelligence Tools, the applicant failed to disclose the fact that the work was created using Artificial Intelligence tools. The copyright office was aware of that fact after it became public knowledge after the work was known to be the first product of artificial intelligence to win an art competition in Colorado. The registration was declined on the basis that work not solely created by humans cannot be granted copyright. The applicant requested that the decision be reviewed citing his prompts and editing of the image as a sufficient input of human authorship of the work. In response to that request, he was asked to account for the features of the work created by him such that only those features will be eligible for protection. The applicant refused to do so because of how burdensome it will be and made several arguments to back his stance one of which was public policy. He requested for a second review of that decision made by the copyright office. The review board of the copyright office on review found that the work contained huge amounts of Artificial Intelligence input and unless the applicant was able separate the aspects of the work with human contribution from that of Artificial Intelligence, the work will not be registered. Again in the application made by one Ms Kashtanova[12], to register a work entitled 'Zarya of the Dawn' which was successfully registered by the united states copyright office. The work was a comic book which contained images. The copyright office issued a letter to the author asking for more details as regards the authorship of the work that was registered. In response to that letter, the author revealed that the images were created using artificial intelligence. The copyright office in response to the apply, informed the author that the certificate of registration issued to the author will be cancelled and a new one will be issued which will only cover the aspects of the work solely created by the author. The author's attorney argued

[11] Re: Second Request for Reconsideration for Refusal to Register Théâtre D'opéra Spatial (SR # 1-11743923581; Correspondence ID: 1-5T5320R)

[12] Re; Zarya of the dawn (registration # VAu001480196)

that Artificial Intelligence was used merely as a tool and that the author should be credited for the creative process of the work especially when the prompts used to create the work are considered. The copyright office whilst acknowledging that the author exerted some efforts in creating the images in the work is not satisfied and does not agree that the efforts so exerted is sufficient for the images to be attributed to the author. In conclusion, the copyright office agreed to issue another certificate of registration that will exclude the images generated by Artificial Intelligence.

The United Kingdom

The Copyright, Designs and Patents Act[13] in Section 9(3) provides that the author in a literary, dramatic or musical work which is computer generated shall be the person who makes arrangement for the work to be generated. The Act in Section 178 defined 'computer generated' works to means works with no human authors. Since Artificial Intelligence is a non-human entity, works generated by it are computer generated works within the meaning of this Act. The United Kingdom unlike the United States, adopted a liberal approach in protecting works not created by humans. However, this law does not recognise Artificial Intelligence as the author, what it does is vest the right of authorship in the person who arranged for the work to be made. First, to clear any doubts that may arise as to who the author is between the owner and the end user under this section, it is my opinion that the end user who inserted the prompts in the Artificial Intelligence system that led to the generation of the work can truly be said to have made arrangements for the creation of the work and is the intended author under Section 9(3) of the act and not the owner of the Artificial Intelligence company. The owner does no more than provide the resources for the creation of the work but is not directly involved in the creation of the work. The work sought to be

[13] Copyright, Designs and Patents Act, 1988 (c. 48) shall herein after be referred to as "The Act" or "CDPA"

protected must be fixated and original which does not necessarily mean novelty but that it must not be a duplicate of another work.

Asia

Asian countries are known for being proactive in matters pertaining to technology and are usually at the forefront of any such development. They were among the first countries to permit text data mining for commercial purpose, a policy they made to ensure they present a non-hostile environment dedicated to the development of Artificial Intelligence. Currently, japan, Singapore, despite having legislations allowing text data mining for training Artificial Intelligence models, they do not offer any protection to the works created but they are working on policies to that effect. In Korea, the Ministry Of Culture, Sports And Tourism[14], recently stated that works generated by Artificial Intelligence are not eligible for copyright protection unless they were created with significant human creative intervention. What this means is that only deserving works will be copyrighted such that the applicant seeking registration of the works in his name will be required to prove his contribution to the creative process of the work.

In China, the Beijing internet court decided a case on copyright infringement of an image generated by Artificial Intelligence. In *Li v Liu*[15], the plaintiff generated images from a text to image generator, Stable Diffusion. The defendant used the image without his permission and the plaintiff brought an action in copyright infringement. The court had to consider whether the image itself was eligible for copyright protection and if yes, whether the plaintiff

[14] Minseo Park 'South Korean Government Takes a Stance; AI-Generated Content Denied Copyright Protection' <https://www.koreatechtoday.com/south-korean-government-takes-a-stance-ai-generated-content-denied-copyright-registration/ > accessed 20 April 2024.

[15] Beijing internet court judgment (2023) Jing 0491 Min Chu No.11279, <https://www.chinaiplawupdate.com/2024/01/beijing-internet-court-releases-translation-of-li-vs-liu-recognizing-copyright-in-generative-ai/ > Accessed 20 April 2024.

can be regarded as being the author of the image. In China, the Copyright law in Article 3 defines 'works' to include works of literature, art, natural science, social science, engineering technology which may be expressed orally, written, photographic works etc.[16] the work must be original and must be the intellectual achievement of the author. The court found that the image falls under the definition of 'works' in the Copyright law. The court recognised the plaintiff's inputs as being an intellectual creation. The plaintiff was able to show that the image creation was essentially Artificial Intelligence bringing his own ideas to life because of the way he put in specific prompts that tailored the image according to his taste and preferences which gave the image an original character. The above case shows the willingness of the court to reward the efforts of a person even though the work was created by Artificial Intelligence as long as he is able to show that he exerted some 'intellectual effort'.

From the above comparative analysis of the legal framework of different jurisdictions on the authorship rights of Artificial Intelligence, one common theme among these jurisdictions is their refusal to recognise Artificial Intelligence as an author which is based on the principle of legal personality. As seen in the United Kingdom, Korea and China, they are prepared to recognise the end user as the author rather than Artificial Intelligence. The argument made in *Stephen Thaler* supra, is that copyright is for the purpose of rewarding human creativity and not any other non-human entity. It is important that we explore the possibility of Artificial Intelligence being clothed with legal personality and examine the effect it will have on the interests of others especially as it relates copyright.

[16] Article 3, Copyright Law of The People's Republic Of China, 2010 <https://www.wipo.int/wipolex/en/text/466268 > accessed 20 April 2024.

2.3.2 **Legal Personality of Generative Artificial Intelligence**

Legal personality refers to the sum total of a person's legal advantages and disadvantages .[17] It is conferred by the legal system and such a person is capable of having rights and duties.[18] It is also the attribute that an entity, natural or artificial has to enable the entity have the ability to sue or be sued in law.[19]

The legal personality of Artificial intelligence is a very salient point that must be considered. In the context of copyright, the refusal to recognise Artificial Intelligence as an author based solely on the reason that it is not human is not sufficient. The recognition of Artificial Intelligence as a legal person, eligible of becoming an author will secure the interests of the end users and help to properly define the roles they each play in the generation of works such that in appropriate and deserving cases, they get to enjoy the rights embedded in works created in and are prevented from exercising exclusive rights over the works in less deserving cases.

The legal personality proposed here is a limited legal personality. Limited to the extent of depriving Generative Artificial Intelligence of locus standi; the right to institute legal action and absolving it of legal responsibility to be sued and incident legal duties. This is because of the obvious difficulty or present impossibility of holding Artificial Intelligence, a non-sentient being responsible which is the major argument put forward in justifying the refusal of recognising Artificial Intelligence as a legal person. While that argument has merits, it fails to recognise that there are classes of natural persons that have rights with no corresponding duties or liabilities and legal personality cannot be understood purely on corresponding rights and duties**.** For example, infants and persons of unsound mind each have rights to life but cannot be held liable for the offence of murder or manslaughter because they do not in the

[17] Ifedayo Akomolede, *Introduction to Jurisprudence and Legal Theory* (Niyak Print & Law Publications 2008) 91
[18] Theophillus Dada, *General Principles of Law* (3rd edn, T.O Dada 2013) 13
[19] Ifedayo Akomolede, *Introduction to Jurisprudence and Legal Theory* (Niyak Print & Law Publications 2008) 92

eyes of the law have the requisite mental capacity, yet the law deems it fit to make them subjects of such rights. Infants in particular, have been described as passive legal persons who can neither be held liable for their actions nor assert their rights by themselves.[20]

Generative Artificial Intelligence with its current level autonomy is incapable of generating anything infringing or contrary to law without the direction or control from either the end user, the programmer or the owner of the Artificial Intelligence company who can be held liable wrongful acts committed by it. As time goes by, Generative Artificial Intelligence may attain a high level of autonomy and capacity which makes it an active legal person but until then, the purpose of the legal personality discussed here is to benefit those who will be dealing with Artificial Intelligence. The rights and duties are exercised on behalf of Artificial Intelligence by natural persons and in the interest of natural persons.

There are several theories that explain and justify the endowment of legal personality**.** The Fiction theory of which Salmond and Savigny are the principal proponents holds that only human beings are persons properly to be called. The legal personality ascribed to a corporation is mere fiction. The artificial person has no real existence but only exists in contemplation of the law. While human persons are real, tangible and have a will, a corporation has fictitious will imputed to it by law.[21] The Concession theory holds that the law is the one and only true source of legal personality. That is, legal personality is obtained if the conditions stipulated by the law is met.[22] This implies that the legal personality endowed to an entity can also be withdrawn if the law so provides. Section 42(7) Company

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[20] Visa Kurki, 'Active but not Independent: the Legal Personhood of Children' *Griffith Law Review* [2021] (30)(3), <https://www.tandfonline.com/doi/full/10.1080/10383441.2021.1996881> accessed 20th May 2024

[21] Ifedayo Akomolede, *Introduction to Jurisprudence and Legal Theory* (Niyak Print & Law Publications 2008) 103

[22] Ifedayo Akomolede, *Introduction to Jurisprudence and Legal Theory* (Niyak Print & Law Publications 2008) 107

and Allied Matters Act[23] provides that the commission may withdraw, cancel or revoke a certificate of incorporation issued under the Act where it is discovered that the certificate was fraudulently, unlawfully or improperly procured. Thus while a company in Section 42 CAMA is given corporate personality, Section 42(7) withdraws it. This takes a positivist approach and follows simply that the legislature can decide to endow personality on any entity if they deem it fit and necessary. Thus, the legislature can decide to amend the Copyright Act to bestow Artificial Intelligence with authorship rights. The purpose theory holds that only human beings are persons and it is in the interest of these human persons that the law bestows non-human persons with legal personality.[24] What this means is that only humans are persons and properly so called. It is to protect the interests of human persons in relation to these non-human persons that the law bestows them with legal personality. Under this theory therefore, Artificial Intelligence though not a person, can be regarded as a person for the benefit of human persons who have interest in the activities or workings of Artificial Intelligence. Applying these theories, we can conclude that while artificial is not a human person and lacks the basic qualities of a natural person, the progression of the society requires that the laws to adapt to the new demands. One of such demands is the conferment of a limited legal personality to Generative Artificial Intelligence by the copyright laws. This is to ensure that those who generate content from Artificial Intelligence do not lose the incentive to do so which is likely to happen if the law does not protect their interests. Where Artificial Intelligence is recognised as an author, it automatically makes the work copyrightable subject to the requirement of originality which enables the end user to register it as the owner. That way, he doesn't have to lose out on the economic benefits that is accruing to the work.

[23] The Companies and Allied Matters Act (CAMA) 2020 shall herein be referred to as "The Act" or "CAMA"
[24] Ifedayo Akomolede, *Introduction to Jurisprudence and Legal Theory* (Niyak Print & Law Publications 2008) 106

The next concept to be discussed is originality which is very vital to recognition of the authorship rights of Artificial Intelligence and the ownership or authorship rights of the end users in works generated by Artificial Intelligence.

2.3.3 Originality

Originality is one of the criteria for the eligibility of copyright protection. The Nigerian Copyright Act[25] in Section 2(2)(a) provides that literary, artistic and musical works will only be eligible for copyright protection if 'some effort' was expended to give it an original character. Section 2(3) further provides that any work that meets the requirements set out in the previous Section will be eligible regardless of its quality or purpose. In *University of London Press v University Tutorial Press*[26], it was held among other things that the word 'original' does not necessarily mean originality of an idea or an inventive thought but rather it means originality in the expression of an idea.

What then is the measure of 'some effort"?

The previous and now defunct Copyright Act provided that there must have been 'sufficient effort' put in the work sought to be protected. The now defunct Copyright Act and the extant one did not provide a way of measuring the standard of effort they each recommend thus recourse has to made to the decisions of the courts on that issue. The courts in doing this have formulated three tests namely;

1. Sweat of the brow
2. Modicum of creativity
3. Skill and judgment

[25] n (15)
[26] [1916] 2 CH 601

Sweat of The Brow

This test as the name implies, considers the hard work of the author alone with no reference whatsoever to the quality of the work or the end product. This test is known as the objective test and was developed by English judges. In *University of London Press v University Tutorial Press*,[27] the issue was whether the examination papers were original and could be subject of copyright. The court first stated that the originality required relates to the expression of thoughts. This means that the work must not be copied from another work and must originate from the author. It was held that since it was proved that the authors formulated the questions they set, the examination papers originated from them. This test has been criticised for being rather too low on the standard. The critics are of the opinion that the whole point of copyright protection is to protect creativity and not just effort.

Modicum of Creativity

This test is unlike the sweat of the brow test concerned with the end product. The author is required to show that he has put some level of creativity in the work and his hard work is not enough. In *Feist Publications V Rural Telephone*,[28] it was held that though the level of creativity required is very low, it is often not met. In the instant case, the white pages containing telephone listings were held to lack creativity and thus not eligible for copyright protection. This test is known as the subjective test as it behoves on the judges to determine whether a work is 'creative' enough. Furthermore, in Section 2(3) of the Copyright Act[29]which provides that the quality or the purpose of the work will not be considered before

[27] Ibid

[28] 499 U.S. 340 (1991)

[29] n (15)

it is given copyright protection seems to do away with this test because requiring creativity is tantamount to looking into the quality of the work

The first two tests have been criticised for being extreme. While the first is rather too low, the second is too high. The third test is meant to be a middle ground between the two tests.

Skill and Judgment

Here, the author is expected to expend both physical and mental effort. He is expected to have created the work to the best of his own skill. The court utilises public perception to assess whether the work has value enough to be protected. In *Cramp & Sons Ltd v Frank Smythson ltd,*[30] a pocket dictionary was held to be original in character. In *Ladbroke v William Hill*,[31] a decision that cemented the requirement of labour, skill and judgment. The work in question were coupons and the amount of work, money and ingenuity that the plaintiffs put into the work was emphasised by the lords. In *Leslie v Young*,[32] a substantial part of the work contained time-table which were easily obtainable and the court held that they were not entitled to copyright. However, about four pages contained a great deal of useful information, result of careful work and accurate compilation and were held to be eligible for protection. The relief sought was also to be granted to extent of the material part held to be eligible.

What test is applied in Nigeria?

[30] [1944] AC 329
[31] [1964] 1 All ER 465
[32] [1894] AC 335

In *Offrey v Chief S.O Ola & ors*,[33] it was held that for a work to be eligible for copyright protection, one must first put substantial mental and physical energy and the labour of skill must not be negligible or common place. Thus, in the instant case, a book showing horizontal and vertical lines did not show that substantial labour was put into its production. In *ICIC v Ekko Delta*,[34] directories sought to be protected were proven by the defendant to have been copied and held not to be an original work.

In the above cases one can validly infer that the courts applied the skill and judgment test as both physical and mental efforts were required. It is however pertinent to note that the cases were decided under the defunct Copyright Act where the standard was 'sufficient effort'. The bar has now been brought even lower to 'some effort'. This drop in standard suggests that the legislature intends that the sweat of the brow test be favoured. The interpretation of that provision as to the correct measure of 'some effort' is better left for judicial interpretation.

These tests have always and only been applied in determining the originality of works created by humans. As regards the sweat and brow test, the simple requirement here is that the work should not be a copy of someone else's work. Thus, a work that is not a duplicate of another person's, necessarily implies that the creator has put in some effort. This test will not present much difficulty to works generated by Artificial Intelligence. In the absence of evidence of the work belonging to someone else, English courts will not hesitate to hold that such work is original.

The second test looks at the end product to decide whether it is worth any protection at all. This test can easily be applied to works generated by Artificial Intelligence. The question before the courts is whether by assuming the work before them is created by a human person, it will be eligible for copyright protection.

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[33] HOS/23/68/2015 27 June 1969
[34] [1977] FHCLR 346

The third test combines the first two tests. It requires labour skill and judgment. This test is not very applicable to Artificial Intelligence because of the difficulty involved in trying to prove that Artificial Intelligence expended labour or that it exercised skill in creating the work since the process of creating the work can hardly be investigated.

One of the arguments against the originality of Artificial Intelligence, is the training process of the Artificial Intelligence model which includes the use of other works of copyright which may be infringing. As we will see in the next chapter, that argument may not be substantiated because of its transformative nature except in certain circumstances where it can be shown that the work so generated, is a replica of another work such that it totally lacks the quality of originality. This issue is not unique to Generative Artificial Intelligence alone as human authors also infringe other works of copyright. In light of this, the Nigerian Copyright Act in Section 2(4) provides that a work is not ineligible by reason only that it involves infringement of some other work.

The courts will decide on a case to case basis whether the works are worthy of protection. There are works that show commendable ingenuity and deserve copyright protection while others which may not be as creative can be denied such protection.

Until Generative Artificial Intelligence is conferred legal personality, we may as well explore and examine other alternatives which will essentially serve the same purpose of protecting the interests of end users. The alternatives are the ownership and authorship rights of end users.

2.3.4 Ownership Rights of End Users

As seen in the Stephen Thaler's case, the end users have interests in the works created by Artificial Intelligence in response to the prompts they inputed**.** The refusal to recognise Artificial Intelligence as the author resulted in the end user who was also the programmer being denied ownership rights of the artwork in question. While we may refuse to recognise the authorship rights of Artificial Intelligence, it does not change the fact that Artificial Intelligence indeed created the work. Since being human is a condition precedent to being recognised and referred to as an author in the strict legal interpretation of the word, we can refer to the status of Artificial Intelligence as that of a 'creator' while advocating for the ownership rights of the end user.

How is an Author different from an Owner?

An author may be described as the person who created the work.[35] Ownership as stated earlier, as provided in the Copyright Act, initially vests in the author. To state it differently, an author is prima facie the owner of the copyright and has the exclusive right to deal with the work as he deems fit. He has the moral rights in the work which is the right to be recognised, the right to object to derogatory treatment of the work and the right not to have the work falsely attributed.[36]The owner on the other hand, has the economic right which refers to the right to exploit the work for the monetary benefits accruing from the work.

Common law recognises the interests of certain persons to have exclusive rights and exercise control over copyright works while not being the creator of the works. These persons are regarded as the owners of the work. This is so in certain contractual relationships where authorship and ownership rights are vested in two separate persons

[35] Chudi nwabachili, *Intellectual Property Law and Practice in Nigeria* (Malthouse Press Ltd. 2017) 40
[36] Tina Hart, Linda Fazzani and Simon Clark, *Intellectual Property Law* (Red Globe Press 2009)70

Both capacities as aforementioned have different legal consequences which is further complicated by the Nigerian Copyright Act. The Copyright Act[37] in Section 28 provides that copyright initially vests in the author without providing a clear definition of who an author is in Section 108, the definition section. Similarly, in Section 37 of the act, it is provided that an action for an infringement of copyright is actionable at the instance of the owner without providing any definition of who an owner is. Bearing in mind that an owner of a copyright work does not have to be the author or even be involved in the creative process of the work, it is an alternative that offers wider and secure protection to the users.

The idea that the end user should own the copyright in works generated by artificial intelligence stems from the principle that where an employee in a contract of service creates a work in the course of employment, it belongs to the employer. One of the tests the court employs in determining if it is a contract of service is the control test. Here, if the employee is subject to the direction, dictates and control of the employer in respect to what manner the work should be carried out, it is held to be a contract of service. Likewise, the end user of Generative Artificial Intelligence dictates, controls, specifies the result he wants to see generated by the particular Generative Artificial Intelligence system he is using for content generation. I see no reason why that principle should not apply here. The owners of the Artificial Intelligence systems could also provide in their terms of use that works the end users have produced belong to the end users or it could be implied since it is customary that use of software programs to produce a result usually belongs to the end user especially where a subscription or other fees have been charged. The burden of proving that one is the owner of a work of copyright is relatively easier than proving that one is the originator of a work. All he may be required to show is the evidence that he procured or arranged the creation of

[37] n (15)

the work since his contribution to the making of the work is not required in asserting ownership rights.

2.3.5 Authorship Rights of End Users

The end user may also be regarded as the author of the work generated by Artificial Intelligence but only in special circumstances. The end user obviously satisfies the requirement of being a human person. The next thing to consider is the requirement of originality. The work as we already know but must be original to the author, that is, it must originate from him. It is not convincing that a literary work generated from Artificial Intelligence that generates texts like ChatGpt will be said to originate from the end user since it doesn't require much effort, time or skill or complex prompts. However, it is a completely different scenario when using Artificial Intelligence to generate images. Users have reported having to input several detailed prompts usually containing keywords to generate images. These prompts and the entire process of generating images require basic expertise in photography, editing, graphic designing etc. to produce the desired image and that requires a significant level of creativity. Human creativity in copyright as we have it now, is not as hands-on as it used to be several years ago since technology has done away with the need to do tasks manually and at each stage of technological development, the courts have struggled with recognising the creativity that subsists even in the use of technology gadgets. For example, there was a point in the United States where the congress had not recognised the authorship rights of a photographer which was officially recognised in the case of *Burrow-Giles Lithographic co v Sarony*[38]. That case is very relevant to the argument made here that an end user can be recognised as the author of the works generated by Artificial Intelligence.

[38] 111 US 43 – Supreme court 1884, <https://scholar.google.com/scholar_case?case=17794409671595926696> accessed 20 April 2024.

In that case, it was argued that photographs are not original to the photographer and he could not be regarded as the author because photography is merely a mechanical process of producing an already existing animate or inanimate object done by the camera with no intellectual effort on the part of the photographer who operates the camera manually which is insufficient to make it original. It was held that since the photographer was responsible for choosing the light and shade, provides the accessories used on set, controls the pose of the subject etc. it is an original work eligible for copyright protection. Similarly, in works generated by Artificial Intelligence, the end user's prompts direct the Artificial Intelligence on what to generate and dictates the specifications of what the generated work should contain or be like. Artificial Intelligence here, should be regarded as a tool; a means to an end. To determine whether the user can be an author, the degree of his input should be taken into account because some have rightfully argued that the end users cannot be considered authors based on their prompts because of the likelihood of proliferation of similar works due to the use of common place prompts that lack any form of creativity. Thus, the authorship right is not automatic and should require strict proof of creativity.

The user in deserving cases definitely exerted some mental effort which gives the work its original nature such that the work can hardly be replicated except the exact prompts or very similar prompts are used. Where an end user decides to use Generative Artificial Intelligence to produce an image and he seeks to make it the subject of copyright, he may be required to register it. It is pertinent to note that unlike trademarks, patents, industrial designs etc. there is generally no requirement of registration since copyright arises from the moment the work is fixated. However, because of the unique nature of works generated by Artificial Intelligence, registration may be required to entitle the end user to the exclusive right over the work. While filing an application to register the work, he may be further required to submit evidence to the registrar to show the amount of work and skill he put in to create the work. Here, the registrar

is expected to evaluate the strength of the evidence before him and decide whether or not to register the work. An aggrieved applicant may further appeal the decision of the registrar to the appropriate court. It is in the interest of the public that the duration of copyright in works generated by Artificial Intelligence is short. Since copyright in a work is exclusive, it may cause monopoly over time and restrict access to the work. The duration of copyright according to the Nigerian Copyright act is seventy years which is the same duration under the CDPA.[39] However, Section 12(7) of the same act reduced the duration to fifty years for computer generated works.

2.3.6 Joint Authorship of Generative Artificial Intelligence and the End Users

For there to be co authorship or joint ownership there must be evidence that both authors worked together to create the work.[40] It is not required that there had to have been a joint intention to create a joint work.[41] Section 108 of the Nigerian Copyright Act defined 'work of joint authorship' to be a work produced by the collaboration of two or more authors in which the contributions of the authors are merged into inseparable and interdependent part of a whole. The contribution made must be 'a significant and original contribution' to the creation of the work and must appear in the work.[42] If the contributions from the authors are distinguishable and separable, they will be regarded as sole authors in the respective contributions that they made.[43] The principle of joint authorship best captures the roles that both Generative Artificial Intelligence and the end user play in creating the work. They

[39] Section 12(2), Copyright, Designs and Patents Act 1988, (c. 48)
[40] JO Odion and NEO Ogba*, Essays on Intellectual Property: Copyright, Trademarks, Patents, Industrial Design* (Ambik Press 2010) 22
[41] Tina Hart, Linda Fazzani and Simon Clark, *Intellectual Property Law* (Red Globe Press 2009) 209
[42] ibid
[43] JO Odion and NEO Ogba, *Essays on Intellectual Property: Copyright, Trademarks, Patents, Industrial Design* (Ambik Press 2010) 22

contribute in different capacities to create the work. The work would not exist without the other which makes their contributions indistinguishable. It still has to be shown that the contribution of either of them is original to them. It further helps if the end user's contribution is very much significant both in terms of quality and quantity such that he earns the right to be named author.

2.4 **CONCLUSION**

The concepts relevant to this study were defined, the pre-existing literature on the fundamental principles of copyright and the theories to be adopted in this study were also established. The literature review showed that the existing traditional rules of copyright in addition to the copyright regulation in Nigeria, do adequately address the novel issues posed by the advent of Artificial Intelligence in the realm of copyright especially as regards the acquisition and protection of copyright in works created by Artificial Intelligence, they nonetheless lay a solid foundation for policy makers to work into a more comprehensive legal framework to address the issues raised in this study.

CHAPTER THREE

COMPARATIVE ANALYSIS OF THE LEGAL FRAMEWORK REGULATING GENERATIVE ARTIFICIAL INTELLIGENCE IN NIGERIA, THE UNITED KINGDOM, THE UNITED STATES AND THE EUROPEAN UNION.

3.1 INTRODCTION

Generative Artificial Intelligence models are trained on several works through the text data mining process. While a good number of these works are in the public domain, majority of them are protected by copyright. Authors of these copyright works are aggrieved with the unauthorised use of their work as training data for the Artificial Intelligence models. Some authors also allege that certain outputs Generative Artificial Intelligence Systems infringe their works by generating works that are strikingly similar to theirs. In both cases, the affected authors have filed copyright infringement lawsuits against these Artificial Intelligence companies. This chapter will examine the acts of infringement, the general defences to copyright infringement and apply them to the claims of copyright infringement by Generative Artificial Intelligence.

3.2 WORKS PROTECTED UNDER NIGERIAN COPYRIGHT ACT

The Nigerian Copyright Act[44] in Section 2(1) (a) to (f), listed the type of works that are eligible for copyright. These works include literary works, musical works, artistic works, audio-visual works, sound recordings and broadcasts. They are known as the traditional

[44] n (15)

works of copyright. The first three are known as primary sources while the last three are known as secondary sources or derivative works. For these works to be eligible, they must have passed the originality and fixation tests which were thoroughly examined in the previous chapter. Surprisingly, for an Act that was amended in the year 2022, the Nigerian Copyright Act does not address emerging works such as digital works and is silent on the input and output aspect of Artificial Intelligence despite it being a globally debated issue. Generative artificial intelligence currently generates literary, musical and artistic works.

3.3 ACTS THAT AMOUNT TO INFRINGEMENT UNDER THE ACT

The Copyright Act[45] lists out the acts that amount to infringements. These acts range from copying to reproduction, possession of means of infringing copies, possession of infringing copies, sale of infringing copies, importation of infringing copies and public performance of copyright works or permitting the performance of copyright works. It was further provided by the Act in Section 3(2) that the acts listed above are in respect of the whole or substantial part of the work either in its original form or any form recognisably derived from the original. The particular act of infringement complained of is 'copying' in both the input and output aspects of Generative Artificial Intelligence. Text data mining involves the copying of copyright works. Also, the works generated by Generative Artificial Intelligence have been alleged to be copies of copyright works that may have been used as training data during the mining process.

[45] Section 36, Copyright Act, 2022 (Act No 8)

3.4 TEXT DATA MINING AND ITS REGULATION UNDER THE NIGERIAN COPYRIGHT ACT AND OTHER JURISDICTIONS

The success or otherwise of the copyright infringement lawsuits depends heavily on the legal status of Text Data Mining which makes it important to examine the position of the law as regards Text Data Mining in certain jurisdictions.

3.4.1 TEXT DATA MINING IN THE NIGERIAN COPYRIGHT

The Nigerian Copyright Act has no provision whatsoever on text data mining either directly or incidentally. The absence of any such regulation makes it unclear whether Text Data Mining is legal and permissible in Nigeria. However, since it is not expressly prohibited by the Act, it may as well be deemed permissible in Nigeria. It may also be argued that since text data mining involves copying, it amounts to copyright infringement. This lack of regulatory provisions makes it uncertain but it does not come as a surprise and may actually be beneficial in retrospect since regulation at this stage may discourage the spread and development of Generative Artificial Intelligence in Nigeria.

3.4.2 TEXT DATA MINING IN THE EUROPEAN UNION

The Copyright in Digital Single Market Directive 2019 has certain provisions regulating Text Data Mining in member states. Article 2 defines “text and data mining” to mean any automated analytical technique aimed at analysing text and data in digital form in order to generate information which includes but is not limited to patterns, trends and correlations.

Article 3 provides that reproductions and extractions of works is permitted for the purpose of text and data mining made by research organisations for scientific research.

Article 4 goes further to provide that such reproductions allowed in article 3 are only permissible where the works are not expressly reserved by the right holders that is, where the authors do not expressly forbid that their works should not be used for such purposes.

This exception does not cover Generative Artificial Intelligence since the use of the data is not purely for scientific research purposes.

EUROPEAN UNION ARTIFICIAL INTELLIGENCE ACT PROPOSAL

The European Artificial Intelligence Act proposal contains some provisions on Generative Artificial Intelligence.

Article 28B provides that providers of foundation models used in Generative Artificial Intelligence systems should document their use of copyrighted works as training data and make it publicly available.

Amendment 651 Article 71 Paragraph 4 provides that non-compliance of the Artificial Intelligence system or foundation model with any requirements or obligations will be subject to ten thousand euros (EUR 10 000 000) or in the case of a company, two percent (2%) of its total worldwide turnover for the preceding year whichever is higher.

This Act is still in the stage of a proposal and will not come into force until 2026.

3.4.3 TEXT DATA MINING IN THE UNITED KINGDOM

The Copyright Designs and Patents Act[46] is the primary legislation on copyright in the United Kingdom. Section 29(A) of the Act provides that copies for text and data analysis for non-commercial research provides that the making of a copy of a work for text and data analysis by a person who has lawful access to the work does not infringe copyright in the work. This is for the sole purpose of research for a non-commercial purpose. It must be accompanied by sufficient acknowledgement unless it is practically impossible.

The effect of the above provision is that data mining in the manner used by Generative Artificial Intelligence for commercial purposes amounts to copyright infringement if the requisite license(s) is not obtained.

While this provision has not been subject to review yet, the case of *Getty V Stability Diffusion*[47], presents the court with an opportunity to give full effect to the provision. This case which epitomises the ongoing conflict of interests between developers of Generative Artificial Intelligence and authors in the United Kingdom which had earlier inspired the Government through the Intellectual Property Office to work on an Artificial Intelligence Code by actively consulting the stakeholders of Generative Artificial Intelligence and authors across the United Kingdom. Unfortunately, the project was abandoned as both sides were unable to reach a consensus on how the code will balance their interests as regards the use of copyright works for training data of Artificial Intelligence models.[48]

Now that we see that text data mining without obtaining the license to do so is not permissible in many jurisdictions particularly in The United States and The United Kingdom

[46] n (24)

[47] [2023] 3090 EWHC

[48] 'UK AI copyright code initiative abandoned' <https://www.pinsentmasons.com/out-law/news/uk-ai-copyright-code-initiative-abandoned> accessed 10 June 2024

where authors have instituted actions in copyright infringement against the owners of Generative Artificial Intelligence, it is imperative that we consider the defences available to the owners. This is also important to Nigeria policy making since the United States and the United Kingdom are common law jurisdictions which share some similar principles of law and their laws are persuasive in Nigeria.

3.5 THE DEFENCE OF FAIR DEALING UNDER COMMON LAW AND THE NIGERIAN COPYRIGHT ACT

Substantial copying is the gauge for determining the extent of infringement or whether the work is covered by the defence of fair use especially as regards the copying of a copyright work. Where a significant amount of the work is copied, with the potential of hurting the proprietary interests of the owner, it amounts to substantial copying and an infringement of the work.[49] Whether a significant amount referred to here has been taken by the defendant, depends much more on the quality than the quantity of what he has taken'.[50] Since copyright protects the expression of ideas and not the ideas themselves, it has been said that the copying alleged must likewise be the copying of the expression of ideas and not just the copying of the ideas.[51] It is much easier to determine where a work has been infringed in a case where the infringing copy, say for a literary work, copies the original work word for word without changing a single thing. However, more often than not, the infringing work may be a summary, paraphrasing or sampling of the original work etc. In such cases, the only way of determining whether an infringement has occurred is to put both the original work and the infringing work side by side to discover whether the alleged infringing copy is based off the

[49] JO Odion and NEO Ogba, *Essays on Intellectual Property: Copyright, Trademarks, Patents, Industrial Design* (Ambik Press 2010) 34
[50] Lord Reid, Ladbroke v William hill [1964] 1 WLR 273 at 276
[51] W Cornish and D Lleweyn, *Intellectual Property; Patents, Copyright, Trademarks and Allied Rights* (6th edn, Sweet &Maxwell 2007) 455

idea of the original work. The defendant can defend himself by giving reasons for the similarity to show that the work indeed originated from him.

Fair dealing also known as 'fair use' in the United States, is a defence available in common law jurisdictions usually contained as a provision in their copyright legislations. It is a defence that allows the use of copyright works in a manner that will ordinarily constitute the infringement of copyright as long as it is used for certain permitted purposes. It is a defence to a claim of copyright infringement. The burden of proof lies on the defendant to show that he used the copyright work of another in a manner that amounts to fair dealing. In *Hubbard v Vosper*[52], where the defendant wrote a book to criticise the writings of the claimant on his religious cult and philosophy, the issue was whether it amounted to fair dealing especially where the defendant took substantial amount of extracts from the claimant's writings. Lord Denning held that the definition of fair dealing is a question of degree and one must consider the number and extent of extracts, whether they are too many and too long to be fair. He further stated that where the use coveys the same information as the author but for a rival purpose it may be unfair, where the long extracts that were taken were accompanied by short comments it may unfair but where short extracts were taken but long comments were attached, it may be fair.

The Nigerian Copyright Act[53] provides for the defence of fair use and has detailed provisions to that effect. Section 20 of the Act provides the use of copyright works for certain purposes as amounting to fair dealing. The purposes include private use, parody, satire, pastiche, caricature, non-commercial research and private study, criticism, review etc. The section further provides that certain factors are to be considered to determine whether the use of a

[52] [1972] 1 ALL ER 1023
[53] n (15)

work is fair dealing. These factors include the purpose and character of usage, nature of the work, amount and substantiality of the portion used in relation to the work as a whole and effect of the use upon the potential market or value of the work. Thus, one can validly conclude that the use of copyright work may amount to fair dealing where the purpose is private use, research, a reasonable amount of the work is used, where there is no revenue derived, there is acknowledgement of the author etc. The key point is that the moral rights of the author is to be respected and his economic or pecuniary rights should not be compromised. Anything to the contrary is beyond the principle of fair dealing. Relying on this defence to defend the copying that takes place during the text data mining will not suffice because of the commercial nature of its use. While, there is no charge to use these Generative Artificial Intelligence systems, the end users may use the works for commercial purposes.

3.6 THE DEFENCE OF TRANSFORMATIVE USE UNDER THE UNITED STATES COPYRIGHT LAW

For lawsuits in the United States, since fair use generally may not avail the owner of Generative Artificial Intelligence systems, the defence of transformative use may be a potent option. Transformative use is a subset of the fair use doctrine in the United States copyright laws. Unlike fair use, it is not a product of enactment in the Copyright Act. Instead, it is a creation of judges while in the process of determining whether a defendant can successfully rely on the defence of fair use in a case of copyright infringement. Thus, where the courts are satisfied that the use of copyright work is ‘transformative’, the courts will more often than not rule that the use amounted to fair use in favour of the defendant.

There are four factors to be considered by the courts to determine whether a use amounts to fair use. These four factors are provided in Section 107 of the United States Copyright Act[54]

1.The purpose and character of the use; whether it is of a commercial nature or it is for non-profit or educational purposes

2. The nature of the copyrighted work

3. The amount and substantiality of the portion used in relation to the copyrighted work as a whole

4.The effect of the use on the potential market or the value of the copyrighted work

To specifically determine transformative use, emphasis is placed on the fourth factor which is whether it harms the potential market or value of the original work this is regardless of whether the use was commercial or there was substantial use of the original work which will ordinarily undermine the success of relying on the defence of fair use generally especially in jurisdictions that do not apply the principle of 'transformative use'. The potential market also includes the derivative market which the owner of the original work is entitled to benefit from.

What then is transformative use?

To answer this question, we have to examine a few cases from the plethora of cases where the defence of transformative use has been applied successfully and otherwise. This principle was well established in *Campbell v Acuff-Rose music*[55]. In that case, the district court held that the use by the defendant was fair use. It held that the defendant had not taken more than

[54] n(22)

[55] [1994] 510 US 569

was necessary to make a parody of the original and the parody could not affect the market of the original work. The court of appeal reversed the judgment on the basis that there could be no fair use once the use was commercial. The supreme court reversed the court of appeal and held that the work was transformative in the sense that it 'adds something new, with a further purpose or a different character, altering the expression, meaning and message of the original work'. Another relevant aspect of the supreme court judgment was the consideration of whether a commercial use automatically bars the defence of fair use. On that note, the court held that while commercial use weighs against the defence of fair use, it does not bar the defence of fair the same way the use for educational purpose does not automatically protect the defendant from a claim in copyright infringement.

. In *American Geophysical Union v Texaco*[56], the defendant an engineering company made photocopies of works of scientists under the plaintiff's publishing press. While the defendant paid about three subscriptions to obtain original copies, the plaintiff alleged that the making of photocopies was prohibited and amounted to infringement. The defendant is relying on the defence of fair use and contending that since its use is for scientific research, it is transformative. The court rejected the transformative argument more so that it 'supersedes' the original work rather than transform it. In addition, the plaintiff showed that there were options for the defendant to legally obtain as much photocopies as they required, on payment of royalties. Thus even though the plaintiffs did not incur any loss in the 'subscription market', they were deprived of the substantial revenue they would have benefitted from had the defendant exercised the licensing options for making photocopies in the manner they did.

Transformative use can also be seen in the light of derivative works. Derivative works is essentially the creation of copyright works out of other copyright works. In most cases, derivative use may be abridgements. To be eligible for copyright protection these works must

[56] 60 F.3d 913

either be transformative or the appropriate license must have been obtained else it may amount to copyright infringement. The Nigerian Copyright Act has a relevant provision on this principle where in Section 2(4) it provides that a work is not ineligible by reason only that it involves infringement of some other work. It is important to note that transformative character of a derivative work does not automatically bestow it with copyright protection nor shield it from copyright infringement. Where the owner of the original work is able to show that he provides licensing options for such derivative use, the failure to obtain such license may undermine his defence of transformative use. In *Princeton University Press v Michigan*[57] document services, the defendant prepared excerpts from published works of the plaintiff. These excerpts were usually sold to professors and college students. The defendant failed to pay permission fees and the plaintiff alleged that the failure to obtain license before making excerpts of works of copyright affects an existing and flourishing derivative market. It was held that the excerpts had transformative value because they were custom made for the students, they did pool the content of the excerpts from different sources and they offer benefits that the original works did not provide. Also, the defence of fair use stands regardless of the fact that they were sold for profit since the excerpts were for educational purposes and the professors or students could have copied the works themselves but made the defendants do it for them which was no different. Based on the evidence before the court, it held that there was no proof of substantial copying. In *Authors Guild v Google Books*[58], a class action suit was brought against google books for scanning several books and storing them in their database so that end users could search them which included snippets of the books and digitised copies were given to the partner libraries for non-infringing uses. The court held the use to be fair as it was transformative and highly beneficial to the society because it allows them to have access to vital information about millions of copies of books

[57] 117 S. Ct. 1336 (1997)
[58] 804 F.3d 202, <https://law.justia.com/cases/federal/appellate-courts/ca2/13-4829/13-4829-2015-10-16.html> accessed 17 March 2024

they hitherto would not have had access to. This was further supported by the fact that the books themselves were not provided to the public, therefore did not substitute the market of the authors. Another argument put forward by the authors was that the use by Google was a derivative use and so they were entitled to benefit from it. The argument was not upheld and the use by Google was held not to be a derivative work because the contents of the copyright works were not altered in such a way that the original work or the material elements were presented in another form. It is also instructive that the commercial nature of google did not affect the finding of fair use by the court. In *Infinity Broad v Kirkwood*[59], the defendant retransmitted the plaintiff's transmissions of radio broadcasts to remote towns for a fee. The plaintiff brought an action in infringement of copyright. The defendant sought to rely on the defence of fair use on grounds that their use was transformative. The court held that though customers derived benefit, the broadcasts in the retransmissions were unchanged and still had the character of the original broadcasts. The court held that 'a change of format, though useful, is not technically a transformation'[60]. Thus one can conclude from this case that while the benefits provided by the work may support the finding of fair use, it is still important for the work to have gone through some kind of alteration that gives it a different character. Since the interests of the defendant in this case was providing the broadcasts in its original form to inhabitants of remote towns, he could and should have obtained a license. In *Gyles v Wilcox*[61], it was a case where the defendant made abridgements of the plaintiff's work. What is instructive in this case is the comment of Lord Hartwicke who presided over the case. He stated that an abridgement may be fair if it involved some form of labour on the part of the editor such that there was a significant difference from the original work.

[59] 150 F.3d 104 (2d Cir. 1998)

[60] 150 F.3d 104 (2d Cir. 1998) <https://www.copyright.gov/fair-use/summaries/infinitybroad-kirkwood-2dcir1998.pdff> accessed 17 March 2024

[61] (1740) 26 ER 489

3.7 ANALYSIS OF COPYRIGHT INFRINGEMENT CASES AND THE DEFENCES OF GENERATIVE ARTIFICIAL INTELLIGENCE

There have been several lawsuits that allege copyright infringement of Generative Artificial Intelligence. The allegations are two-fold. The first is that the training of these Artificial Intelligence models on these works of copyright amount to in themselves copyright infringement regardless of whether they generate any content with that information. The second is that some works generated bear huge resemblance to previous works of copyrights used as part of the training data. These allegations will be considered in turns bearing in mind that what amounts to copyright infringement depends on the copyright laws of the jurisdiction that the alleged acts took place.

The authors whose copyright works have been used as training data are particularly concerned with the fact that contents generated by Artificial Intelligence will not exist without their own works and thus they deserve remuneration by way of licenses. It is important to reiterate that text data mining involves reproduction of copyright works which makes the process an act of copyright infringement. One exception is where the use is for research and other non-commercial purposes based on the principle of fair use. Thus, one may argue that at the stage of mining, the use of copyright works as training data for Generative Artificial Intelligence is fair use because it serves no commercial purpose as nothing capable of generating revenue is being generated which is further supported by the fact that the use of Generative Artificial Intelligence currently involves no charge and is open to the public. The second condition for it to amount to fair use is that there must be lawful access during the mining process, that is, the works should be accessed without circumventing the technological protections put in place, if any. It will also be unlawful

access within Article four of the European Union Copyright in Digital Single Market Directive 2019 if it was expressly reserved by the website that the works should not be used for Text Data Mining purposes. However, if the use by Generative Artificial Intelligence is held to be commercial, the defence of transformative use will still avail the defendants. The importance and transformative value of Generative Artificial Intelligence far exceeds that of search engines especially in the realm of research and problem solving. It is compared to search engines because the courts have held that the text data mining by search engines constitutes fair use as seen in the case of *Authors Guild v Google Books*[62] because of their transformative nature. It is difficult to see why the same protection should not be extended to Generative Artificial Intelligence.

On the other hand, where works generated by Generative Artificial Intelligence turn out to be strikingly similar to works of copyright, the issue of copyright infringement is raised. Therefore, is it copyright infringement if in response to the end user's prompts, a literary work of copyright is produced verbatim or almost verbatim or an image bears huge resemblance to the work of a particular photographer? One instrumental fact leading to the finding of fair use in Google's case is the fact that the contents of the books were not provided to the public. For Generative Artificial Intelligence, the training data is directly involved in the generated content. Works generated by Artificial Intelligence that are the replica of a copyright work will most likely be held to be infringing works as it is a flagrant deprivation of the author's right to remuneration. However, as stated in *Gyles v Wilcox*[63], true abridgements may be fair use. What then is a true abridgement that is permissible? An abridgement that shows the author has put in substantial effort, time and ingenuity can be said to have to have an original character and very much fair use. As for images, an output of Generative Artificial Intelligence bearing so much resemblance to a particular image used as

[62] n (51)
[63] n (51)

part of the training data such that there is no difficulty in spotting that resemblance, is a glaring act of copying that should not be excused on the principle of fair use for it simply supersedes the work. Fair use is a defence because copyright does not seek to protect novel ideas but rather originality in expression of the work and there is no originality in expression of a duplicated work. Now that the conditions that will make a work created by Artificial Intelligence infringing have been identified, the appropriate question to ask next is whether the outputs of Generative Artificial Intelligence bear huge resemblances to any particular copyrighted work or will generate the exact work of copyright if prompted to do so.

Generative Artificial Intelligence systems are not created to produce the exact copies of copyright works that they have been trained on and will often decline to do so when requested, citing copyright protection as a reason. However, that is not to say the allegations are totally untrue. There is a possibility that in generating these works, some works may inadvertently be copied to a high degree. The idea that Generative Artificial Intelligence produces very similar copies of works of copyright is an oversimplification of the generating process. Save for when end users specifically request the generation of the work of a particular author say for example, a summary of the first chapter of JK Rowlings 'Harry Potter and the Sorcerer's Stone' which will even be declined, the works generated in response to prompts give information not based on one work but from hundreds on that particular subject and that is why they hardly bear semblance to a particular work. In works created by human authors, the summary of a book has been held to be fair use and even eligible for copyright protection because of the mental effort required also because the summary of a work does not substitute the market of the original work. In any case, these are matters concerning facts and should be decided on a case to case basis. The burden is then on the claimants to show with adequate evidence that there is an actual infringement of their works. What these Generative Artificial Intelligence systems do are what humans have been doing

for ages albeit in a much lower capacity and volume. Artists since time immemorial have been influenced by other artists and even copy their style, musicians make music by sampling other musical works. In other words, some degree of copying is allowed and only substantial copying amounts to copyright infringement.

The cases that will be discussed hereafter are still pending and yet to be decided. Thus in *Getty Images V Stability Diffusion*[64], the claimant, an audio visual company is alleging that the defendant Artificial Intelligence model was trained on its vast images. The claimant further alleges that some of these images bear the watermarks of the company such that the generated images pass off as the claimant's. The claimant is challenging both the input and output aspects of defendant's Artificial Intelligence system. As stated earlier, if the claimant can show that the defendant had no lawful access to the images or the technological measures put in place for the protection of the works were circumvented contrary to the anti-circumvention laws, the defendant will most likely be found liable in infringement of copyright and the question of whether the images generated by the Artificial Intelligence system bears resemblance to those of the claimants will not even arise except to compound damages. Where however the defendant had lawful access, the claimant will have to prove with credible evidence that the images so generated are infringing copies because of their similarity to the claimant's images. If he fails to prove that, he may still have a claim in trademark infringement since the images allegedly bore the watermarks of the claimant's.

In *Authors Guild v OpenAI*,[65] the claimant, a professional organisation of writers, brought a claim for the unauthorised use of their works which allegedly mimic the authors' characters and stories of fictional works. The highlight of this case is the fact that a user of OpenAI ChatGpt produced a sequel to a famous book by using the character and storyline of the

[64] n (44)
[65] 1:23-cv-8292

original work.[66] It is difficult to see how it doesn't amount to copyright infringement. Following the lawsuit, the programmers of OpenAI have put some measures in place so that it can no longer be used to produce derivative works of original works. What this tells us is that the biggest challenge is actually the ingenuity and mischief of the end users who use Generative Artificial Intelligence for infringing purposes that may not be intended by the programmers. This is not to say the owners of the Generative Artificial Intelligence systems are not liable to some degree, at least vicariously, rather, to guarantee the uncontroversial continued existence of Generative Artificial Intelligence, guidelines should be put in place to ensure that the end users do not use the systems to achieve results that will amount to copyright infringement.

3.8 CONCLUSION

It is quite clear that the use of copyright works as training data is part of the research work on the going development of Artificial Intelligence which will be seriously inhibited if text data mining is not permitted. The only concern of copyright infringement is in the output. The level of autonomy of Generative Artificial Intelligence and the unscrupulous behaviour of the end users will sometimes result in occasions of copyright infringement. This genuine threat of infringement will necessitate the establishment of protective measures which will be discussed in the next chapter. The Nigerian Copyright Commission in conjunction with the National Assembly should work on policies that will promote the development of Artificial Intelligence while safeguarding the interests of copyright owners.

[66] ibid

CHAPTER FOUR

EXAMINING THE VIABILITY OF LICENSING OF COPYRIGHTED WORKS FOR TEXT DATA MINING PURPOSES AND DIGITAL RIGHTS MANAGEMENT SYSTEMS IN NIGERIA

4.1 INTRODUCTION

As discussed earlier in the previous chapter where the cases of copyright infringement by Generative Artificial Intelligence were examined, it remains debatable whether the acts complained of do indeed amount to infringement especially in Nigeria where the courts have not had the opportunity. However, we saw that in some instances there could be a clear case of copyright infringement. While the use of Generative Artificial Intelligence is currently free, it is not expected to remain so also copyright protection of works generated by Artificial Intelligence may soon be guaranteed which means that the owners of such works will be permitted to exploit the works for the economic benefits. In other words, there will be a gradual shift from the current non-commercial use to a full blown commercial use. It will then be difficult to convince the authors that the use of their copyright works for commercial purposes is fair use especially where the works generated are substantial copies of their works. It is important that the development of artificial intelligence is pursued but it should not be pursued at all costs. There should be a way of balancing the interests of authors against those of the owners of Generative Artificial Intelligence and the public interest. One way ensuring that the interests of the authors are safeguarded is to encourage the licensing of copyright works. This chapter will consider the feasibility of licensing copyright works and other measures that the authors of copyright works can put in place to prevent the unauthorised use of their works for text data mining purposes.

4.2 GUIDELINES FOR THE LICENSING OF COPYRIGHT WORKS FOR TEXT DATA MINING

Licensing of copyright works is not new rather it is an established market. The copyright laws of several jurisdictions including the Nigerian Copyright Act have provisions relating to copyright licensing. The national assembly being the relevant legislative body should

consider introducing policies that will address the licensing of copyright works for text data mining. As Jiarui Lui puts it, 'The key argument for courts is not whether the use is justifiable but whether a use without license is justifiable'.[67]

There are several factors to consider before making the copyright licenses compulsory. The cost of licensing on the Generative Artificial Intelligence companies is one of such factors especially as there is currently no charge involved in utilising the Artificial Intelligence systems. The training data used is made up of millions of copies of works. Some are works in the public domain with no copyright protection, some others are orphan works in which the authors are either unknown or cannot be found. The works we are concerned with are the ones with known and identifiable authors. For works with known and identifiable authors, an efficient way of licensing is through collective societies. There are a good number of collective societies that were formed to serve the interests of the member authors. Collective societies are made up of owners of copyright works that offer a blanket protection to these owners and act on their behalf to issue licenses to users of the copyright works. The benefit of these collective societies is that those seeking to use the copyright works only have to obtain one licence for a catalogue of works.[68] Thus, collective societies could issue licenses on behalf of their members for a stipulated fee to Generative Artificial Intelligence companies for the training of their Artificial Intelligence models. The burden is then on the collective societies to distribute the income among the authors in the agreed proportion and there could also an option for authors to opt out, that is, authors who are members of the collective societies can deny consent as regards the usage of their works. Getty images already exploits this market. Getty images is an American visual media company and acts as a collective

[67] J. Lui, 'An Empirical Study of Transformative Use in Copyright Law' Stanford Technology Law Review (2019) (22) (1) 172 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3330236> accessed 17 March 2024.
[68] C Colston and J Galloway, *Modern Intellectual Property Law* (Routledge 2010)

society for photographers. In the legal action recently commenced by Getty images against Stability Diffusion, a Generative Artificial Intelligence company, it was alleged that stability AI's use of their copyright works as training data was unlawful. Getty further stated that they already provide an option for obtaining licenses to use their works as training data for Generative Artificial Intelligence models. It is doubtful that where a copyright owner has exploited a particular market, use of the copyright works without obtaining the requisite licenses will not lead to a finding of copyright infringement on the grounds of fair use. Authors Guild is proposing to establish a collective society that will issue licenses to Generative Artificial Intelligence companies to train their models on the literary works of its members which according to them, would be a fair and reasonable amount.[69] There are several other collective societies for copyright works such as Phonographic Performance Limited (PPL) which is a collective society for British music, Copyright Clearance Centre (CCC) etc. Thus, a copyright owner who wishes to license their copyright works should be mandated to do so through collective societies. This is necessary to facilitate an efficient licensing system. Section 116 of the Copyright Designs and Patents Act[70] 1988 provides for licensing bodies known as collective management organisation with the objective of granting licenses covering works of more than one author. Similarly, Section 88 of the Nigerian Copyright Act[71] recognises collective management organisations otherwise known as collective societies which must first seek the approval of the copyright commission before they can operate. In Nigeria, we have the Reproduction Rights Society of Nigeria

[69] 'FAQs on the Authors' Guild Positions and Advocacy on Generative AI' <https://authorsguild.org/advocacy/artificial-intelligence/faq/ > accessed 17 March 2024.

[70] n (24)

[71] n (15)

(REPRONIG) which is a collective society of copyright owners of literary works. Such a society can grant licenses for text data mining.

4.3 USE OF DIGITAL RIGHTS MANAGEMENT SYSTEMS FOR THE PROTECTION OF COPYRIGHT WORKS

The copyright laws of various jurisdictions give the owners of copyright works the exclusive right to control the manner in which their copyright works can be used and made available to the public. Previously, these rights can only be enforced by the courts. Fortunately, in recent times, especially where copyright works are now fixated in digitised copies, technology can now be used now be used to restrict access to these copyright works that effectively prevent the occurrence of copyright infringement. This method of using technology to safeguard works of copyright is known as Digital Rights Management Systems. A common example is the use of Digital Right Management Systems by Netflix to prevent unauthorised access. Thus, works of copyright are often protected from data mining using Digital Rights Management Systems. Authors could utilise Digital Rights Management Systems to protect their works from data mining. These Digital Rights Management Systems are however not hack proof. In fact, one can hardly think of any technological system that is hack proof. Once these systems containing works of copyright works are hacked into, the works become susceptible to endless copying. Thankfully, there are anti-circumvention laws. Anti-circumvention laws restrict any act of circumventing technological measures to get access to work of copyright. Therefore, where a Generative Artificial Intelligent company circumvents the technological measures to gain access to a copyright work in order to use them as training data, it amounts to unlawful access and the issue of fair use does not arise at all as it is a blatant violation of the author's copyright and a clear case of copyright infringement. Anti-

circumvention laws will apply whether or not the works have actually been copied.[72] What is being punished is the unlawful access not the copyright infringement per se. In the United States, it is a federal crime to circumvent any measure put in place to control the access to a copyright work.[73] In the United kingdom , Section 296ZA of the CDPA prohibits the circumvention of technological measures applied to a copyright work except it is for research. In Nigeria, Section 50 of the Copyright Act[74] prohibits the deliberate circumvention of a technological measures protecting access to a copyright work.

4.4 REGULATION OF COLLECTIVE SOCIETIES AND DIGITAL RIGHTS MANAGEMENT SYSTEMS

Where the owners of copyright works as a collective society issue licenses and use Digital Rights Management Systems, there is bound to be exploitation of these powers to the detriment of the users of copyright works which makes it a matter of necessity to subject these powers to some level of control by a board or a tribunal that will take up a mediatory role between users of copyright works and the owners of copyright works.

Collective societies especially tend to monopolistic and this is evident in their refusal to grant licenses or charging exorbitant amount of money to issue licenses.[75] These enormous powers can be checked by adjudication by a tribunal and the provision of compulsory licenses.[76]

4.4.1 COPYRIGHT TRIBUNAL AND COMPULSORY LICENSES

[72] N Elin-Koren and M Salzberger, *The Law and Economics of Intellectual Property in the Digital Age* (Routledge,2015)
[73] 17 U.S.C S.1201 (a)(3)(A)
[74] n (15)

[75] C Colston and J Galloway, *Modern Intellectual Property Law* (Routledge, 2010)
[76] ibid

Copyright tribunals are essentially quasi-judicial organs and administrative agencies usually established by the copyright statutes in different jurisdiction to carry out adjudicatory roles. The provisions establishing them usually contain their functions and the scope of their limitations.

Compulsory licenses on the other hand, are licenses granted without the permission of the copyright owner usually in the interest of the public.

The United Kingdom has a copyright tribunal that adjudicates over matters between collective societies and users of copyright works. The tribunal was established and empowered by the Copyright, Designs and Patents Act. Thus where the royalties demanded are deemed unfair, the terms of the licenses are unreasonable or there is a refusal to grant license, the intending users of the copyright works can bring an action against the collective society before the tribunal and the tribunal has the power to order the issuance of a license and where it is satisfied that the grounds on which it was refused is unfair and also the power to vary the terms of license.[77] In the United States, the Copyright Royalty Board which consists of three judges that perform the functions similar to the copyright tribunal. They have the power to vary the royalty rates and terms of licenses.[78]

In Nigeria, Section 90 of the Copyright Act[79]sets up a Dispute Resolution Panel comprising of three members knowledgeable in copyright matters to settle disputes on payment of royalties, terms of license and other related issues.

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[77] Section 149, Copyright, Designs and Patents Act, 1988 (c. 48)

[78] Section 801, Copyright Act, 1976 (17 U.S.C)

[79] n (15)

The Copyright Tribunal of the United Kingdom and the Dispute Resolution Panel in Nigeria have the powers to issue compulsory licenses but the Copyright Royalty Board has no such powers. The rationale behind the grant of compulsory licenses is the public interest in the particular copyright work which is so beneficial that the copyright owner will not be allowed unduly prevent the public from having access to such works. The copyright laws of certain jurisdictions also provide for the compulsory licenses. The Nigerian Copyright Act provides in Section 35 that the Copyright Commission can issue a compulsory license to 'rectify the abuse of a dominant market position or promote public interest'. The copyright laws in both the United Kingdom and the United States also have provisions relating to compulsory licenses.

Owners of Generative Artificial Intelligence companies can approach the tribunal or board depending on their domicile with petitions concerning either the refusal of licenses or the unreasonable terms of the licenses. The tribunal and board will decide accordingly on the merits of each case. Parliament can also amend the copyright laws if it deems fit, to include the compulsory licensing for text data mining purposes in the development of Generative Artificial Intelligence models subject to certain reasonable conditions.

Digital Rights Management Systems have proven to be very useful in protecting copyright works from infringement. However, like collective societies these protective measures tend to be monopolistic and very restrictive. They restrict even the legitimate non-infringing acts that users should ordinarily be able to do such as making copies for private use, scientific research, educational purposes etc. The European Union directive allowing text data mining for research purposes was a response to the complaints of researchers that Digital Rights Management Systems put in place do not allow them carry out text data analysis research despite the fact that they had lawful access to the works of copyright. Copyright protection is not absolute and it is in the interest of the public that adequate access to copyright works is

given to enable innovation built on previous works of copyright. The inventions that we have now would not have been possible if the creators were prevented from sampling pre-existing models. It was stated earlier that Digital Rights Management Systems have legal backing expressed in the anti-circumvention laws in the United States, United Kingdom and Nigeria. The European Union Copyright in Digital Single Market Directive, the United Kingdom and Nigerian anti-circumvention laws have a common exemption. The exemption applies to research or educational purposes. What this means in effect is that, users can circumvent technological measures to access a copyright work as long as it is for research and educational purposes. The European Union Copyright in Digital Single Market Directive in Article four goes further to state that that the exemption is valid as long as the owner of the copyright does not expressly forbid such use. The exemption granted by the Nigerian Copyright Act in Section 50 is further qualified with two conditions.[80] The first condition is that the copies made must not be retained for longer than is necessary and the second condition is that it must not be used for any other purpose. We can see that even the exemptions are very limited. As regards Generative Artificial Intelligence companies, it is unlikely that the anti-circumvention laws will be amended to accommodate their type of use. The better option is a statutory compulsory license that still gives the copyright owners the opportunities to give reasonable grounds why their works should not be used. Voluntary licensing should be encouraged among copyright owners to foster a good business relationship between copyright owners and owners of Generative Artificial Intelligence companies in furtherance of their individual interests.

[80] Section 50(4), Copyright Act, 2022 (Act No 8)

Thus, compulsory licenses and the control by copyright tribunals can effectively check the wide powers possessed by collective societies and copyright owners who use Digital Rights Management Systems.

4.5 CONCLUSION

Authors and the users of copyright works in this case, the owners of Generative Artificial Intelligence companies can work harmoniously to ensure that the interests of both sides are guaranteed. Overall, adopting the methods in this chapter depends on the interests of the state in the development Artificial Intelligence. As seen in Asian countries where such development is paramount to them, they have adopted more liberal approaches in making sure that nothing stands in the way. Conversely, in the United States, the policy makers are not particularly pursuing the development of artificial intelligence with so much vigour and are somewhat sceptic about Generative Artificial Intelligence. Since policies are mostly driven by economic and political forces, it only makes sense that in Nigeria, the policy makers should take a more liberal approach with some level of control because Artificial intelligence could be a big game changer for the Nigerian economy which has recently been boosted by the thriving financial technology sector. Public consultations with the relevant stakeholders should precede any policies that will be made on this subject.

Public consultation with authors, owners of Generative Artificial Intelligence and interested members of the public is very important before making policies that will address copyright licensing. Licensing particularly by collective societies makes the business relationship between copyright owners and users of copyright works much easier and guarantees that the interests of the authors will be paramount in negotiations.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter outlined the conclusions of each chapter in this study. Furthermore, recommendations were given to ensure a comprehensive legal framework on Generative Artificial Intelligence.

5.2 SUMMARY OF KEY FINDINGS

Chapter one of this study laid the foundation for the study where the emergence of Artificial Intelligence in the realm of intellectual property and the legal issues that arise therefrom were highlighted. The chapter established the lack of a comprehensive legal framework on l Generative Artificial Intelligence in leading jurisdictions and the non-existence of a legal framework in Nigeria. The scope of research was identified in the chapter to be Nigeria and a comparative analysis of the legal framework on copyright between the United States, United Kingdom and Nigeria was to be made. It was also established that the doctrinal method of research was going to be employed. The significance of the study was stated to be a contribution to the general discourse on the subject matter and a foundation for future policies on Generative Artificial Intelligence.

Chapter two carried out a concise but detailed explanation of the relevant concepts used in this study and applied the general traditional principles underlying the creation, protection and authorship of copyright works to works generated by Artificial Intelligence as the theoretical framework.

Chapter three established the works covered by copyright in Nigeria and common law jurisdictions, text data mining infringement of copyright, the defences of fair dealing in Nigeria and the United Kingdom and the defence of transformative use in the United States. It also carried out an analysis of allegations made in the law suits brought against Generative Artificial Intelligence companies.

Chapter four examined the prospects of copyright licensing for text data mining, the use of technological measures for the protection of copyright works and how these measures can be controlled to prevent monopoly by the owners of copyright works.

5.3 CONCLUSIONS

This study concludes that while Generative Artificial Intelligence is one of the most beneficial innovations in recent times, it is simultaneously one of the most controversial innovations that has sparked huge reactions from the public because of the legal and ethical challenges that comes with its development and its use.

This study also acknowledges the total absence of participation of Nigeria in the global discourse on Generative Artificial Intelligence and the need to actively participate in matters and events regarding the development of Generative Artificial Intelligence while taking a proactive approach on policymaking that will address the issues that accompany this development.

Our hope is that the recommendations given will have practical usefulness such that it will assist policy makers by giving them something to work with in the process of formulating policies.

5.4 RECOMMENDATIONS

This study has shown that to a large extent that the input and out aspects of Generative Artificial Intelligence fall under fair use and do not infringe copyright, the few but not negligible instances of legitimate copyright infringement were also highlighted. It is important to acknowledge the fact that without these works of copyright, Generative

Artificial Intelligence will not exist and be able to produce the kind of mind blowing results that they do. This in fact is true for the copyright works themselves. It is difficult to find any work that is novel in its entirety, authors will not deny the fact that other works of copyright have influenced the creation of their works. Instead of going back and forth with the issue of copyright infringement, we are capable of finding a middle ground.

According to Roscoe pound, it is the duty of the state through its laws to not just protect the interests of the members of the state but also find a way to balance these competing interests however difficult it may be.

We can achieve that by first consulting the stakeholders on both sides before enacting a comprehensive regulatory framework that will effectively find a balance between the interests of owners of Generative Artificial Intelligence companies and copyright owners. The extant Copyright Act can be amended to include and require copyright licensing for text data mining by Generative Artificial Intelligence from collective societies and empower the copyright tribunal to exercise some level of control over such activities.

In Nigeria, there is currently no tension between authors and the owners of Generative Artificial Intelligence companies despite the fact that Generative Artificial Intelligence is widely used in addition to search engines. We do not have to wait until these issues arise before we take action. It should not be surprising that there is hardly any case of copyright infringement by Artificial Intelligence which is as a result of the insufficient data collected from Nigeria. The developers of these Artificial Intelligence models are seeking to end this data bias by training the models on collected data from Nigeria and other developing countries affected by the data bias. This means that more Nigerian copyright works will be mined thereby increasing the chances of copyright infringement to occur.

A comprehensive regulation will also ensure that the development of Generative Artificial Intelligence is guaranteed in Nigeria by clearly spelling out the permitted and non-permitted acts that can be carried out by Generative Artificial Intelligence companies. Since Generative Artificial Intelligence companies have been faced with a myriad of lawsuits in recent times, they will prefer to only work with data from jurisdictions with a legal framework that gives them the freedom to so.

Furthermore, the policy makers in Nigeria after careful deliberation, can include works created by Artificial Intelligence as works eligible for copyright protection under the Nigerian Copyright Act and extend the definition of an author to either include Artificial Intelligence for the benefit of the end user or the end user can be regarded as the author being the person who facilitates the creation of the work. The conditions of either happening should be carefully formulated and included to ensure that only deserving works are indeed protected.

5.5 AREAS OF CONTRIBUTION TO KNOWLEDGE AND FUTURE RESEARCH

There is very little amount of literature on Generative Artificial Intelligence and copyright in Nigeria. This study contributes immensely to the available literature in Nigeria by doing a comparative analysis of the legal framework on copyright with those of leading jurisdictions that contain provisions that address Generative Artificial Intelligence. The study carried out an in depth analysis of the extant Copyright Act in Nigeria and case laws to highlight the gaps that can be filled with new provisions on Generative Artificial Intelligence that will fit in almost seamlessly.

The different aspects of Generative Artificial Intelligence and copyright are inexhaustible and it is impossible to discuss all of them in one study. Therefore, a further area of research to explore is based on the issue of jurisdiction when bringing an action for copyright

infringement by Generative Artificial Intelligence where the alleged infringement occurred in different places with varying laws on the subject matter.

5.6 CLOSING REMARKS

Exploring the intersection between Generative Artificial Intelligence and copyright is nothing short of intriguing and highly relevant. One thing the law has always had to do is respond to social change. Each stage of development of the society especially when it has to do technological development has always presented policy makers with challenges. Copyright is constantly evolving and instead of being sceptical about any change, it is best we embrace it and focus on what makes it beneficial. Generative Artificial Intelligence is one of those changes that seems to threaten the core of copyright; human creativity. Its enormous benefits far outweigh its disadvantages and we should work on making policies that will surmount the current challenges facing its full integration.

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