GENERATIVE AI AND NIGERIAN COPYRIGHT
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Abstract

The past half a decade has seen a tremendous growth in the adoption of artificial
intelligence technologies by average everyday individuals. This mass adoption
raises novel legal questions vis-à-vis existing copyright regulations in Nigeria.
Particularly, this article analyzes three key questions. First, whether AI generated
content infringes on the copyright in works used in such AI system’s training.
Second, who copyright in AI generated content vests, and third, who should be
held liable when such content infringes on pre-existing copyright. On the first
question, this article argues that in majority of cases, AI generated content does
not infringe on the copyright of authors. On the second question, it argues that AI
generated content cannot be afforded copyright protection since authorship vests in
the AI system, a non-juristic person. Lastly, on the third question, it argues that
creators of AI systems should be held liable for copyright infringement orchestrated by such systems.

IntroductionThe past half a decade has seen a tremendous growth in the adoption of artificial
intelligence technologies by average everyday individuals. This adoption has been
fuelled mainly by the meteoric advancement in the technical capabilities of AI
systems within this time period. From text based models like ChatGPT and Grok
generating full length papers, to image generators like Midjourney creating realistic
imagery and art, AI has been deployed to a wide variety of use. These use however, pose novel legal questions vis-à-vis existing Intellectual Property (IP) laws globally.

In this essay, with a focus on Nigerian intellectual property regulations, three key
challenges will be examined: (a) whether the training of AI systems on copyrighted
content constitutes copyright infringement, (b) who ownership in AI generated
content vests and (c) who bears liability for infringing AI generated content.

Training or Copyright Infringement?

AI systems, particularly the narrow generative AI systems that exist at present, are
at a high level, easy enough to understand. They are trained on large sets of data
using machine learning algorithms in order to “learn” how to generate seemingly
intelligent output. To understand whether there is in fact infringement, it is
necessary to first understand the process through which the typical generative AI
system goes from training to prompt to output. Large Language Models would be
specifically discussed first since they deal mostly with literary content before other
generative AI systems like image generators would be examined.

LLMsLarge Language Models, as the name implies, are AI models trained on copious
amounts of language data consisting articles, books, research papers and even
social media posts to infer and understand the meaning and context of words. In
generating responses to user prompts, these models generate words one at a time
and work by predicting the next suitable word in word sequences. The question of
whether infringement occurs at any point in this process is then raised. If Charles Smith writes a novel and that novel is then used as training data for an LLM, is there copyright infringement? This article argues – probably not.

Per the Copyright Act, 2022, copyright is infringed by any person who, inter alia,
does or causes any person to do an act which constitutes a violation of any of the
exclusive rights conferred under the Act[[1]](#footnote-1). In the case of literary works, holders of
copyright in such works are vested with the exclusive right to perform 11 specific
acts in relation to their work. However, of the eleven, only two are specifically
relevant to the present discourse, viz:

a. The right to reproduce,

b. The right to create adaptations.

a. The right to reproduce

Section 9(a) expressly provides that the exclusive right to reproduce a literary work
shall vest in the copyright holder of such work. The term “reproduction” is defined
in the Act as:

“the making of one or more copies of a literary, musical or artistic work,audiovisual work or sound recording”*[[2]](#footnote-2)*.

It therefore stands to reason that if a company, planning to use a copyrighted work
to train its model, proceeds to make a copy of the said work at any point in order to
effect such training, same would constitute infringement under section 9(a).
However, where it is ensured that no unauthorized copy of such work is made,
there would be no infringement since there is no reproduction stricto sensu.

Another avenue via which infringement may occur is the AI system itself
generating output that is a reproduction of its copyrighted training data. For
instance, if an AI system is trained on copyrighted material discussing the history of the Second World War and it outputs content substantially reproducing the
copyrighted work, this would constitute a reproduction under the Act and
consequently, copyright infringement. However, the odds of an AI system
substantially reproducing its copyrighted training data is close to zero. This is due
to the fact that these generative AI systems function somewhat like the typical
human brain and not at all like search engines as is often commonly misconceived.

When prompts are inputted, the AI system generates brand new content based on
the collective “knowledge” gained during the training phase from data that has
long since been discarded. The process of training is a one off thing and whatever
the AI system produces is often the product of wholly original artificial thought.

Of course this position would be different in situations where the user expressly
prompts the AI system to rely on specific material in producing content. For
instance, in situations where an AI system is prompted to generate an abridged
version of a copyrighted novel, there would be exist a strong argument for
substantial reproduction. However, even in the exceptional circumstances where
there appears to be substantial reproduction on the part of the AI system, the fair
dealing exception may still likely apply to absolve liability.

Fair dealing

Fair dealing (otherwise referred to as fair use in some jurisdictions) is a defence to
a copyright infringement action which permits individuals to use copyrighted
material without the permission of the copyright holder for purposes such as:

a. Private use

b. Parody, satire, pastiche, or caricature

c. Non-commercial research and private study

d. Criticism, review or the reporting of current events[[3]](#footnote-3).

It is necessary to clarify that this list is not exhaustive and acts which do not
directly fall within any of the aforementioned purposes can still qualify as fair
dealing.

In assessing whether a specific use is fair, the Act outlines four factors to
be taken into consideration:

1. The purpose and character of its usage.
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 value of the copyrighted
work[[4]](#footnote-4).

These factors will be analyzed seriatim within the broader context of AI training
and content generation.

i. Purpose and character of use

This factor primarily considers the purpose such work is utilized for (whether
commercial or not) and the character of such usage (whether transformative or
not). Where a work is used for a non-commercial purpose, it strengthens the
argument for fair dealing. However, the mere fact that a work is utilized for a
commercial purpose is not a dispositive answer to the question of whether or not
such use is fair dealing. All four factors must be applied together.

On the character of use question, where a work used in such a manner as to be considered transformative, it weighs heavily in favour of a finding for fair dealing. Therefore, where a person writes a review or critique of a work and in the process reproduces sections of the work in order to advance his arguments, such a use would be considered transformative regardless of the unauthorized reproduction.

ii. The nature of the work

This factor examines the nature of the original work. Works considered highly
creative are afforded better protection than those considered less creative. This
reasoning follows common sense in that it would be unfair to punish an individual
for simply reproducing factual information. If a person writes a non-fiction book
discussing the history of the Second World War, they cannot go ahead to accuse all
other books discussing the same subject as infringing on their work since there is
no way such books could be written without putting forth similar facts to that
contained in the original work. High creativity on the part of the original work
weighs against a finding for fair dealing.

iii. Amount and substantiality of the portion used

The more a work is reproduced, the less likely a court is to find fair dealing. The
extent of a work copied is an important factor in determining whether a specific
use is fair. Substantiality is also important in that even if a small portion of a work
is reproduced but that portion happens to be a fundamental aspect of such a work,
such use would weigh against a finding for fair dealing.

iv. Effect of the use on the potential market or value of the work

This factor takes into account the propensity of the use to adversely affect the
market or value of the original work. If, for instance, a person publishes an
abridged version of a book summarizing its most important points, such a work has
the potential to negatively affect the market for the original work since people who
buy the abridged version would be unlikely to still want the full original version.
Where a use negatively affects the market for a work, it would be unlikely for it to
be deemed fair dealing.

Based on the preceding, when all four factors are taken together, it would appear
that the question of whether or not an AI reproduction constitutes fair dealing
would greatly depend on the facts and circumstances of each case. In
circumstances where an AI system reproduces a small portion of a work in order to
respond to an educational query, a good case for fair dealing can be made.

Conversely, it would be quite difficult to justify an AI reproducing the lyrics of Ed
Sheeran’s “Perfect” in its entirety to a user’s query requesting lyrics to create a
song for commercial purposes.

b. Right to create adaptations

Copyright holders possess, inter alia, the right to create adaptations of their work[[5]](#footnote-5).5
Adaptation is defined by the Act as,

“the modification of a pre-existing work from one type of work to another oraltering a work within the same type to make it suitable for different conditions of exploitation and may also involve altering the composition of the work*[[6]](#footnote-6)*”.6

Two kinds of adaptation can be extracted from the above definition:

1. Modifying a work from one type of work to another (e.g literary work to
artistic work and vice versa),
2. Altering a work within the same type to make it suitable for different
conditions of exploitation.

A close examination of the above definition would reveal that infringement under
adaptation would only occur in very specific circumstances. The output commonly
generated by AI systems gleaned from knowledge derived from the content of the
copyrighted material it is trained on would be unlikely to be adjudged adaptations. If the converse were true, most materials in existence today would also constitute
infringement in some form since all works fundamentally derive something from
other works already in existence.

Dealing with the specific circumstances where the output would be adjudged infringement, good examples falling within the first kind of adaptation - modifying from one type of work to another - would be situations where an AI generates a comic strip based off of a novel or creates an audiobook out of a written work on a user’s request. These examples fall within the first kind of adaptation because the work is modified from one type to an entirely new one. Examples within the second kind - altering a work within the same type - would be creating an unauthorized translation of a work or even generating a movie script based off of a novel. These examples fall within the second kind of adaptation because the finished derivative work is still of the same type as the original.

AI Image Generators

AI image generators behave similarly to LLMs in that they are both subsets of the
broader generative AI family. While LLMs deal with generating text, image
generators deal with generating artistic works from text prompts. Image generators
are trained on millions of images paired with textual descriptions in order to learn
what specific entities like animals, colours, etc., “look[[7]](#footnote-7)”7 like. Artists looking to enforce their copyright in artistic works suffer the same challenges as their literary
counterparts.

Unless the creator of the AI system makes an unauthorized copy of
the artistic work in the process of training, an image produced by an AI system
rarely copies enough of a work to constitute a reproduction neither does it fulfil the
conditions necessary to come under the classification of an adaptation. However, in the off chance that AI generated content resembles a work closely enough to constitute a reproduction, it is still likely that the fair dealing exception
would apply albeit depending greatly on the facts and circumstances of each
individual case.

The Author Problem in AI Generated Content

So far, this article has referred to the possibility of an AI system infringing the
copyright of other individuals. However, this is a legal impossibility as only
persons, whether natural or juristic, can possess ownership of and infringe on
copyright under Nigerian law. As AI systems are not recognized as legal entities
under Nigerian law, the question then arises as to who is liable for copyright
infringement in AI generated content. Another pivotal question of who copyright
in AI generated content vests is also raised. The answer to these questions not only
affords the owners of such works due protection under Nigerian law but also
clarifies the individual(s) to be held responsible should such works infringe on the
copyright of others.

On the question of authorship, section 28(1) of the Copyright Act provides that
except as otherwise provided in an agreement, copyright conferred by the Act shall
initially vest in the author. An author is clarified by the Act as being either a person
possessing Nigerian citizenship or habitually resident in Nigeria or a body
corporate incorporated under Nigerian law[[8]](#footnote-8). It is therefore clear that generative AI
systems are at present, unable to be conferred copyright protection as authors under
current copyright laws as they are not juristic persons.

As a result, the question of whether AI generated works can be afforded copyright protection therefore hinges on the question of whether or not the user who prompts such an AI system into generating a work can be considered the author of said work. Per Section 2(2) of the Act, copyright in literary, musical or artistic works shall not vest unless:

1. Some effort has been expended in making the work, to give it an original
character; AND
2. The work has been fixated in a medium.

Since the Act requires “some expended effort” in the creation of a work in order to
make it eligible for copyright protection, it is only fair to assume that the person
who expends that required effort would be considered the author of such a work.
Following this logic, the earlier question of whether users who prompt AI systems
can be considered authors of the generated content can then be reframed as
whether the process of prompting a generative AI system fulfils the requirement of
expending some effort sufficient to give the work an original character. In the
course of answering this question of originality by various courts over time, two
diverging doctrines have emerged: the “sweat of the brow” and “modicum of
creativity” doctrines. Both will now be briefly examined in the context of
generative AI systems.

Sweat of the brow

This doctrine posits that a work is eligible for copyright protection so long as some
level of skill and effort has been expended in its production. It is unnecessary that the work possesses any element of creativity. The “sweat of the brow” doctrine
originated in the UK in the early 20th century and is exemplified in the locus
classicus, **Walter v Lane*[[9]](#footnote-9)*,** where the House of Lords held that works produced by
the effort of some reporters in transcribing the verbal speeches of the Earl of
Rosebery were eligible for copyright protection on the basis of the skill, effort and
time expended in creating the work. Under this doctrine, therefore, works such as
phone directories or compendia of facts and figures would be eligible for copyright
on the basis of the skill, effort and time required in their production irrespective of
the absence of creativity in them.

This principle, in the context of prompting an AI system, can be argued both ways. While it is tempting to argue that the process of prompting should be considered sufficient to pass the effort criteria, this article adopts the contrary view. If a man asks another to paint a picture of a cat or write an article on a particular subject, who does authorship vest? The person who prompts or the person who creates? If in this scenario, authorship rightly vests in the person who creates, the answer need not be any different just because the creator happens to be a computer program. The effort expended via prompting does not directly go into the creation of the work but rather, guides the AI system into what the finished work should be.

Modicum of creativity

This doctrine takes a different view to the traditional sweat of the brow doctrine
and posits that a work must be independently created by the author and have a
minimum level of creativity/intellectual judgment to be eligible for copyright
protection. “Independent creation” simply means that the potential work must not
copy any pre-existing work and must be brought to fruition by the independent
efforts of the author.

This principle was first propounded in the American case of **Feist Publications, Inc. v Rural Telephone Service Co*[[10]](#footnote-10)*.** where the US Supreme Court held that telephone listings created by Rural and copied by Feist did not possess enough creativity to be afforded copyright protection. The modicum of creativity doctrine has become the standard for copyright eligibility in the United States as well as the EU. If this doctrine were to be applied to AI generated content, it would appear such works would fail to meet the independent creation requirement under the doctrine since AI generated works cannot be considered independently created by the user who prompts the AI system to generate them and would therefore, be ineligible for copyright protection.

Bringing the discussion back to Nigeria, a close examination of the originality
condition outlined in Section 2(2)(a) of the Copyright Act, 2022 would favour the
conclusion that the Act uses the sweat of the brow doctrine as opposed to the
modicum of creativity doctrine. The section clearly states that a work would be
ineligible for copyright protection unless “some effort has been expended in
making the work, to give it an original character”. The clear emphasis on the effort
expended in a work’s production is consistent with the reasoning behind the sweat
of the brow doctrine. If this conclusion is to be followed, AI generated content
would, nevertheless, still fail to enjoy copyright protection under Nigerian law
flowing from the fact that AI systems are ineligible for copyright protection as
authors under the Copyright Act.

On the second question of who should be held liable for infringement, per the
Copyright Act, infringement is primarily effected where a person “does or causes
any person to do an act, which constitutes a violation of the exclusive rights
conferred under this Act[[11]](#footnote-11).”11 In cases where the infringement occurs in the training phase, there is no complexity as the AI’s creator would simply be held liable for
the infringement. However, things become complex where the infringement occurs
in the process of generating a response to a user’s query. If the AI system were
simply taken as a tool, it can then be argued that users who wield the system as a
tool to create infringing content would be liable in the same way a person who uses
a photocopying machine as a tool to create unauthorized copies of a work would
be.

On the flip side, the counter argument can be made that as the creator of an AI
system is the one who dictates what such a system is trained on and remains in
control of the system, they should be held responsible for any infringement that
occurs. This article believes that it would be unfair to hold the users of AI systems
liable for copyright infringement orchestrated by such systems by virtue of the fact
that they are usually unaware and incapable of dictating how such AI systems
function and operate. Furthermore, it is only the creators of such systems who can
effect the changes necessary to ensure the copyright of existing works are not
infringed by the content generated by such systems.

The Data Privacy Problem

A preceding section of this article has shown that in the majority of use cases, AI
systems do not, at least within the current IP regime, infringe on the copyright of
individuals. However, the potential for data privacy breaches is still severe. Even
in situations where AI systems do not breach copyright, they may still be in
contravention of data privacy regulations where the personal data of individuals is
in contention.

This breach would usually occur in the training phase where content
constituting personal data (such as social media profiles and posts for instance) is
used in the AI’s training. To avoid this, companies training AI systems on personal
data must ensure they possess adequate legal basis before processing such data.
While there are 6 lawful bases for processing personal data available under
Nigerian law: consent, performance of a contract to which the data subject is a
party, protection of the vital interest of the data subject, compliance with a legal
obligation, performance of a task carried out in public interest, and legitimate
interest of the data **controller[[12]](#footnote-12),12** the safest basis is the consent of the data subject.

Before personal data is used in training, the data subject’s consent for such training
must be sought to ensure compliance with regulations currently in force. The data
processing principles outlined in Section 24 of the Nigeria Data Protection Act
(NDPA) must also be strictly adhered to. As long as these are done, it appears
creators of AI systems would be safe in using content constituting personal data in
an AI system’s training.

ConclusionThis article has discussed the novel legal challenges raised by the meteoric
advancement in AI technology. On the question of whether AI systems infringe on
the copyright of other creators, this article has submitted that within existing
Nigerian copyright laws, in the majority of situations, there would not be copyright
infringement. On the question of authorship, this article has submitted that AI
systems are the authors of content they generate and as they are not juristic
persons, their works cannot be afforded copyright protection under the Copyright
Act. On the question of who should be held liable for infringement, this article has
submitted that creators of AI systems should be held liable for infringement
orchestrated by such systems.

In concluding, it would be stated that there is a great need for new legislations
regulating the creation, training and use of AI systems to be enacted to ensure that
creators and users of AI systems are not allowed to profit off the labour of existing
copyright holders as appears to be the unfortunate case at present. AI, and
technological innovation at large, is changing the world. Law has a crucial role to
play in ensuring this change is towards a world that is fairer, better and more
equitable for all.

1. Section 36(a) Copyright Act, 2022 [↑](#footnote-ref-1)
2. Section 108(1) Copyright Act, 2022 [↑](#footnote-ref-2)
3. Section 20 (1), Copyright Act, 2022 [↑](#footnote-ref-3)
4. ibid [↑](#footnote-ref-4)
5. Section 9(j), Copyright Act, 2022 [↑](#footnote-ref-5)
6. Section 108, Copyright Act, 2022 [↑](#footnote-ref-6)
7. “Look” is not used in the literal sense since Generative AI systems cannot technically see images. The image data is transformed into computer-readable format that is then understood and processed by the AI system. [↑](#footnote-ref-7)
8. Section 5, Copyright Act, 2022 [↑](#footnote-ref-8)
9. (1900) AC 539 [↑](#footnote-ref-9)
10. (1991) 499 U.S. 340 [↑](#footnote-ref-10)
11. Section 36(a), Copyright Act, 2022 [↑](#footnote-ref-11)
12. Section 25, Nigeria Data Protection Act, 2023 [↑](#footnote-ref-12)