

**THE LEGAL CHALLENGES OF ARTIFICIAL INTELLIGENCE IN COPYRIGHT AND DATA
PROTECTION LAWS IN UGANDA**

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**A DISSERTATION SUBMITTED TO THE SCHOOL OF LAW IN PARTIAL FULFILLMENT OF
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DECLARATION

I, **KASUMBA JOHN DAVIS** hereby certify and declare that this dissertation is entirely my own original work and has never been submitted to any Institution of learning for any academic award. All sources of information, data, and ideas used in this work have been appropriately cited and acknowledged in accordance with academic conventions. To the best of my knowledge, no part of this work has been plagiarized, fabricated, or misrepresented, materials reproduced from published sources are clearly identified and credited.

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APPROVAL

This research paper entitled **The Legal Challenge of Artificial Intelligence in Copyright and Data Protection laws in Uganda.** has been written under my supervision and has been approved.

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Supervisor.

DEDICATION

I dedicate this work to my father Mr. **KASUMBA AMOSI** and my mother **MRS Prossy** for the unconditional support and encouragement in my academic journey. Their sacrifices and guidance are the reasons for everything in my life I will always and forever be grateful.

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ABSTRACT

The study investigated, mined, analyzed and educates the legal Challenges that artificial intelligence (AI) has posed on copyright and data protection laws in Uganda. The study based on the objective; To assess the adequacy of Uganda's Copyright and Data Protection law in addressing AI-generated works. Data was collected between April and May 2025 using the sample strategy with questionnaire as the survey design to the stake holders in the Copyright and data protection field. The study finds that there is a high level of copyright infringement and data privacy breaches by Artificial Intelligence accompanied by a lower observance of the copyright and data protection laws by Artificial Intelligence Systems owners. The study addresses the human authorship issue that is negatively criticized and undermined by the Artificial Intelligence systems developers and generative AI users. The Liability concerns in AI copyright infringement issues have been ratified by the study identifying who is liable when AI infringes on copyright. The study explores the legal arguments brought about in litigation whether fair use is a defence to AI infringement of copyright and whether transformed generative AI works constitute to derivative works. The study is an education of AI-generated challenge to interpretation of the literal meaning of the traditional copyright principles. The study reviews all related and relevant literature about copyright law identifying the bridge between Generative AI and copyright law. The study is guide to the law reform commission, the parliament of Uganda and academic institutions in understanding in the challenges that Artificial Intelligence evolution is posing to copyright and data protection laws. The study discovered ignorance in the Ugandan populace about copyright and data protection law principles and Artificial Intelligence, therefore the study poses a challenge to the government bodies such as the Uganda Registration Service Bureau and the Uganda Communications Commission to educating the copyright law stake holders about Artificial Intelligence and Copyright and Data Protection. The study examines ethical considerations under the Data Protection laws obligating user consent and data collection by generative AI.

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LIST OF ACRONYMS USED

AI	ARTIFICIAL INTELLIGENCE
URSB.....	UGANDA REGISTRATION SERVICE BUREAU
U.S.....	UNITED STATES
DCMI.....	DIGITAL MILLENIUM COPYRIGHT ACT
CMI	CONTENT MANAGEMENT INTERFEARANCE
IBM.....	INTERNATIONAL BUSINESS MACHINES
CHATGPT.....	CHAT GENERATIVE PRE-TRAINED TRANSFORMER
EU.....	EUROPEAN UNION
LTD.....	LIMITED
UK.....	UNITED KINGDOM

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CHAPTER ONE

1.1 GENERAL INTRODUCTION

This section inaugurates the central problem of the study presenting a literal definition of the study topic, aiding provision of the groundwork for understanding the purpose of this research work.

Artificial Intelligence systems are escaping control by writing their own computer codes to modify themselves, through an interview with CBS news¹, Hinton told Scott Pelley the journalist. The godfather of AI Geoffrey Hinton assessed the fact that AI systems may become autonomous and act in ways that were not explicitly intended by their creators as AI could learn undesirable behaviors from its training or through malicious use by bad actors to perform actions that infringe on copyright or data protection law, Geoffrey Hinton explains the capability of AI systems to breach data protection electronic security measures. Artificial Intelligence scrapes off copyrighted content from websites and also by passes security measures to access protected data. AI chat bots such as CHATGPT, DEEPSEEK and GROKAI extract data from online sources and use it for other purposes without permission from owners hence Geoffrey Hinton depicted that the governments should impose regulation on artificial intelligence. The study aimed at analyzing the legal challenges of AI in copyright and data protection.

Artificial intelligence is the capacity of computers or other machines to exhibit or simulate intelligent behavior per the Oxford English Dictionary.² Artificial intelligence is technology that enables computers and machines to simulate human learning, comprehension, problem solving, decision making, creativity and autonomy³. The definitions meaning educates that AI is a machine-based system/ set of technologies that enable computers to perform a variety of advanced functions including the ability to see, understand and translate spoken and written language analyze data and recommendations.⁴ Copyright is an original work of authorship including literary, musical, dramatic, choreographic, pictorial, graphic, sculptural, and architectural works; motion pictures and other audiovisual works and sound recordings fixed in any tangible medium of expression, giving the holder the exclusive right to reproduce, adapt, distribute, perform, and display the work.⁵

¹ <https://www.cbsnews.com/news/geoffrey-hinton-ai-dangers-60-minutes-transcript/>

² https://www.oed.com/dictionary/artificial-intelligence_n?tl=true

³ <https://www.ibm.com/think/topics/artificial-intelligence>.

⁴ <https://cloud.google.com/learn/what-is-artificial-intelligence>

⁵ BRYAN GANER BLACK`S LAW DICTIONARY PAGE 1020 8TH EDITION

Data protection refers to the safeguarding of individual's personal data from unauthorized access, use, and disclosure⁶.

In Uganda, there is no specific legislative regulation of Artificial Intelligence though the Data Protection and Privacy act 2019 and the Copyright and Neighboring Rights Act Cap 222 are acting as interim measures to AI related challenges in copyright and data protection. This employs a fact that there are no legal definitions of AI by the copyright and data protection laws, no clear position of the law towards Ai generated works from developers, users and data producers. AI is reshaping creativity and innovation hence there is a challenge of applying traditional copyright law principles to AI generated content particularly when input data is not a result of human creativity.

The Copyright law in Uganda, in line with the global jurisdictions, delineates that copyright is for only human authorship not AI. Intellectual property segment contests that AI is the new tool of creating art works, and they allege that human aided AI creatives depict an original expression of creative works. However, in *Naruto v David J Slater*⁷ Australian court depicted that non-humans cannot own copyright as it was revealed that a monkey could not hold copyright over a photo it took. This depicted that the AI works are not copyrightable however Legal experts argue that an AI assisted work could be copyrightable if an artist`s hand work is perceptible. Although that`s not the case in Uganda as anything related to AI generated works is far away from being copyrightable. If AI generates work without direct human input, it may not qualify for copyright hence the study examined the legal challenges of AI in copyright and data protection by analyzing the wrestle between AI and copyright, this was achieved by assessing the difference between AI assisted works and AI generated works.

In *Acohs Pty Limited V Ucorp Pty Limited*⁸ Acohs Pty Ltd used a computer program to generate material safety data sheets, Ucorp Ltd was sued for copyright infringement due to copying the same material safety data sheets, the court held that the source code that generated the safety data sheets was not original and did not fall within the ambit of copyright as the data was not the result of human authorship but rather a machine generated output. In *Nova Productions Ltd V Mazooma*

⁶ <https://www.dlapiperdataprotection.com/index.html?t=law&c=UG>

⁷ 888 F.3d 418 (9th Cir. 2018)

⁸ [2012] FCAFC 16,

Games Ltd⁹ the United Kingdom court strained that copyright protection does not extend ideas in computer programs but a software developer owns copyright because they created the program.

Copyright is defined as the property right in an original work of authorship including literary, musical, dramatic choreographic, pictorial, pictures and other audiovisual works and the body of law relating to such works is copyright law¹⁰. This research work assessed whether works created by humans with assistance of AI, works created by AI and works improved by AI are copyrightable. This was comprehended through an assessment of the strengths and weaknesses of works created by AI in line with ownership and identifying gaps and potential areas for improvement for AI works to be recognized as well as the human original works. It is trite law that what is worth copying is prima facie worth protected, the study assessed the legal stance towards AI generated works from already existing copyrighted works. The question raised is whether AI is regarded as creative tool or a creator, if a human creator uses AI to create or to transform a copyrighted work does it earn protection! The Chinese court affirms that the artistic work created by the human author using AI is copyrightable¹¹

The legal tensions between AI and copyright as well as data protection are projected in issues concerning authorship due to lack of human creativity, the issue of derivative works and liability for infringement and fair use as defence that AI system raise. In regards to data protection the conflict lies in the privacy concerns where data is collected by AI without informed consent to the owners and data protection security breaches as AI has access to information that require password and tight security protocol to be accessed, the question is how AI is accessing that data. The study's findings in the fourth chapter are valuable for policymakers, stakeholders, advocates and intellectual property students as a guideline to the solution of the wrestle between Artificial Intelligence and Copyright and data protection.

1.2 BACK GROUND OF THE STUDY

In Uganda, through the 1995 constitution, the Data Protection and Privacy Act 2019, the Computer Misuse Act and the international laws acceded to by the government of Uganda such as the International Covenant on Civil and Political Rights and the Universal Declaration of Human

⁹ [2007] EWCA Civ 219

¹⁰ Page 411 10th edition of the Black`s law dictionary

¹¹ <https://www.technologysleage.com/2025/03/another-chinese-court-finds-that-ai-generated-images-can-%20by%20copyright>.

Rights, enhance data protection, however AI systems operate in ways that violate these legal frameworks. AI systems rely on multi-data sources to function effectively for example chat bots like CHATGPT hence they collect data without explicit consent from users through opaque processes such as scraping data from social media and websites without notifying individuals or obtaining permission. Section 10 of the Data Protection and Privacy act¹² prohibit any person to collect a person`s data without his/her consent however AI systems by pass this legal requirement by using automated data collection methods that can`t be detected. This is in violation of Article 27 of the 1995 constitution of the republic of Uganda and Article 17 of the International Covenant on Civil and Political Rights which prohibit out right violation of information privacy.

An investigation conducted by the National Information Technology Authority Uganda revealed that Safe-Boda a passenger-transport company unlawfully shared customer `data with third parties. It was revealed that third parties should not have access to data without the consent of the owner.¹³ AI systems are accused of giving out private information to the public without owner`s consent. AI systems collect data without consent and notifying users and data owners hence breaching transparency and ethics under the data protection and privacy law. AI systems owner Elon Musk admitted that AI systems collect and share people`s data during their training¹⁴without users knowing how their data is being used hence depicting that there is a legal challenge by AI in data protection. The challenges posed by AI in data protection are significant regardless of Uganda`s strict legal framework of data protection a, AI systems undermine and breach these protections. This study addressed these challenges and analyzed the enforcement mechanisms of data protection rights although it finds that AI is continuously posing a threat to data protection and privacy both in Uganda and globally.

The intersection of AI and copyright in Uganda has raised questions due to the inconsistency of AI systems in appreciating copyright laws such as the Ugandan Copyright and Neighboring Rights Act cap 222. The act is the primary statutory framework of copyright protection in Uganda. The emergence of AI generated works has posed a challenge to the statutory interpretation of the legal

¹² DATA PROTECTION AND PRIVACY ACT CHAPTER 97

¹³ <https://afmpanga.com/safeboda-found-in-breach-of-data-privacy-laws/>

¹⁴ <https://www.theguardian.com/technology/2025/jan/09/elon-musk-data-ai-training-artificial-intelligence>

definitions of the copyright principles provided in the act such derivative works, authorship and fair use as well as lack of any statutory definition of Artificial Intelligence in Uganda.

Derivative works in the age of artificial Intelligence, exploring Section 2 of the Copyright and Neighboring Rights act¹⁵, the act defines derivative works as the works created resulting from adaptation, translation or other transformation of an original work but which constitutes an independent creation in itself. In addition, Section 4(2) of the act derivative works can be a collection of pre-existing works. The study examined whether AI generated works can be classified as derivative works and affirms that they are ineligible due to the fact that works authored by machines are not copyrightable. AI systems create outputs based on existing data, which may include copyrighted material. If these outputs are considered derivative works they could infringe on the original creator's rights unless authorized. However, the act does not specifically address whether AI generated works qualify as derivative works. This creates uncertainty especially when AI systems produce content that closely resembles existing copyrighted works.

This research work critically deconstructs the issue of authorship in regards to artificial intelligence generated works by exploring the modicum of creativity in AI generated works. In *Thaler V Perlmutter*¹⁶ the US court of appeal at the district of Columbia affirmed that copyright law doesn't protect works entirely protected by AI. This precedent was an appeal by Dr Thaler who developed a generative AI system named the creativity machine and used it to create an image 'a recent paradise' however the US copyright office denied application to register the copy since the AI machine was the author. Section 2 of the Copyright and Neighboring Rights defines an author as the physical person who created or creates work protected under section 4, which doesn't include AI generated works and includes a person or authority commissioning work or employing a person making work in the course of employment. This depicts that AI as a non-human can't own copyright. The legal argument is that if AI cannot be an author then the human who operates or instructs the AI should be considered as the author. A photographer using AI to produce or transform an image, is he the sole author or AI plays a role in authorship? The degree of human output as to whether the output is purely AI generated or Ai aided due to the fact that AI created

¹⁵ COPYRIGHT AND NEIGHBORING ACT CAP 222

¹⁶ NO 22 CV 384 1564 BAH [2023]

content is unprotected, though human augmented outputs may qualify if court considers AI as a tool not as a creator, however this has to be determined by the copyright court.

AI generated works challenge traditional principles of ownership under copyright law, as they lack human authorship prerequisite under intellectual property jurisprudence. Section 10 of the Copyright and Neighboring rights act recognizes co-authorship where multiple contributors jointly creates a work. AI users have argued that AI and it`s human operator could be considered as co-authors as the AI contributed to the creative prosses. However, that act does not address whether non-human entities can be co-authors as it recognizes only human co-authors. This leaves ambiguity and a gap in cases where for instance AI generates a novel based on human input as AI effort is not recognized. Section 8 and 9 of the Copyright and Neighboring Rights act depict that the author as a human creator holds moral and economic rights. The moral rights to be credited as the author and the economic rights to profit the owner from their work. AI generated works don`t qualify as AI is not recognized as an author. The argument is that the purpose of copyright law is to incentivize creativity and protect creators hence AI generated works may be exploited by humans that may imitate such works.

Courts grapple with the issue of fair use, the question is whether AI`s stochastic outputs meet intellectual property conception standard of fair use. Section 14 of the Copyright and neighboring rights act provides for fair use allowing limited use of copyrighted material without permission for purposes such as production, translation, public teaching, published works, judicial proceeding works, works broadcasted for public, work transcribed into braille or sign language for educational purpose of persons with disabilities. and others. Globally courts have rejected the argument by AI system developers and owners that AI training and improvements qualifies as fair use of copyrighted materials and data. This interpretation does not align with Section 14 of the Copyright and neighboring rights act as well. The AI systems developers claim that AI can`t be trained without using copyrighted data and it`s for the benefit of the users which is a legal challenge.

The question of liability by AI copyright infringement. Section 45 of the act¹⁷ provides that infringement of copyright occurs where, without a valid transfer, license, assignment or other authorization under this act a person deals with any work or performance contrary to the permitted

¹⁷ IBID 11

free use and in particular where that person does or causes or permit`s another person to reproduce, fix, duplicate, extract, imitate or import, distribute in Uganda or exhibit to the public for commercial purposes. However, AI systems cannot be liable under the law as they are not legal persons. This raises a question, who is responsible for copyright infringement by AI, is it the developer, user or the company deploying it. The act does not provide clear guidance for example AI generated a song that closely resembled a copyrighted track of musician Azawi under SwangzAvenue record label. However, the record label was unclear of who should be held responsible for infringement.¹⁸The study finds that they were neither helped by the Uganda Registration Service Bureau nor compensated for economic loss.

This study traced the genesis of the normative conflict between AI and copyright, tracing its emergence and evolving jurisprudential tensions. According to Ronald R. Kline¹⁹the Dartmouth Summer Research project on Artificial Intelligence was a seminal event that led to the birth of AI in 1950-1956²⁰, led by the father of AI a mathematics professor at Dartmouth College gathered a group of researchers Minsky from Harvard University, N. Rochester, Claude Shannon computers scientists with an aim to gather researchers to explore the possibilities of creating machines that could stimulate every aspect of human intelligence .In 2023, AI systems such as Alpha Go, AI surgent and Open AI CHATGPT were created. appreciated by students, researchers and scientists. However, scientists raised issues concerning AI though the population could not draw their minds towards the cause in which data protection and copyright infringement were included.

The rapid ascendance of AI as a generative and creative agent, has precipitated a paradigm shift in intellectual property law, compelling legal scholars, policymakers, and industry stakeholders to confront and question foundational principles of authorship, inventorship, and infringement in an era of machine autonomy. Copyright owners are challenging AI developers in the courts over the permission less use of their copyrighted works for the training of these AI tools and infringement on data privacy. In Getty Images and 5others V Stability AI²¹the plaintiff a Seattle based company accused the defendant AI company, popular for generating diffused images for copying millions of its photos without permission, infringing on the plaintiff`s trademark with its AI generated

¹⁸ https://www.newvision.co.ug/category/entertainment/swangz-avenue-responds-amidst-allegations-of-NV_181818

¹⁹ Cybernetics, Automata studies and the Dartmouth Conference on Artificial Intelligence

²⁰ <https://home.dartmouth.edu/about/artificial-intelligence-ai-coined-dartmouth>

²¹ [2025] EWHC 38 (Ch)

system causing consumer confusion and financial loss to the plaintiff. The plaintiff argued that the output generated by stable diffusion often contains a modified version of image watermarks they own hence portraying that Stability AI had copied. The precedent is an intrigue to intellectual property populace as to whether AI can be sued for copyright infringement and questions about the future developments of AI addressing issues such as fair use, moral rights and economic rights.

The study discovered that there are no precedents involving AI copyright infringement in Uganda hence the review of the litigations was focused on the global reports. Sarah Anderson v Standard AI ltd²² the plaintiff sued Standard for unlawful use of copyrighted works without permission. The plaintiff alleged that the training of the standard AI in diffusing of images was an infringement and violation of the digital millennium copyright act as they removed copyright management information from the images owned by the plaintiffs and programming the AC to omit any CMI as part of the output. In Thomson Reuters Enterprise Centre V Ross Intelligence Inc²³ the plaintiff alleged that the use of their head notes to assist Ross Intelligence in formulating questions used in key numbers and head notes to locate judicial opinions. Further Programmer`s Class Action V Microsoft, GitHub and Open AI²⁴ the plaintiff alleged that the defendant violated Section 1202 of the DMCA for unauthorised and unlicensed use of the programmer`s software code to develop the defendants AI machines, Codex and Copilot. The plaintiff was of the view that Section 1202 of the DMCA makes it unlawful to provide false CMI with the intent to include or conceal infringement

The legal actions against AI systems, highlight the legal problems by AI industries and AI system developers in approach attribution and licensing practices when using copyrighted works. The intellectual property legal community has been intrigued with inquisitive conversations about the AI systems and use of copyrighted works. This loomed of the urgency to conduct the study about the legal challenges of Artificial Intelligence in Copyright and data protection law. The study discovered answers to questions whether AI systems recognized the foundational principles of copyright law and data protection.

²² Case No. 23-cv-00201-WHO 2023-10-3

²³ [2023] 694 F.Supp.3d 467

²⁴ No. 22-cv-06823-JST May 11 2023

1.3 STATEMENT OF THE PROBLEM

The rapid growth of artificial intelligence presents significant challenges to Uganda's copyright and data protection legal framework. The Copyright and Neighboring rights act does not recognize AI-generated works, creating ambiguity about ownership and protection. Similarly, the Data Protection Act lacks sufficient provisions to regulate AI-driven data processing, raising concerns about privacy. According to David Bainbridge²⁵, the author of the work is the original owner of the work and is normally the first owner of the copyright, However the AI art is ineligible for copyright registration because it is not a human entity required to be the author as per S.2 of the Copyright act. These legal gaps not only affect innovation but also push individuals and businesses to potential disputes and violations. The study identified these gaps and proposes recommendations to align Uganda's legal framework with the challenges posed by AI in Copyright and data protection.

1.4 OBJECTIVE OF THE STUDY

To assess the adequacy of Uganda's Copyright and Data Protection law in addressing AI-generated works. The study intended to explore the wrestle between AI and Copyright and Data Protection laws in response to the challenges imposed on Copyright and Data Protection laws by AI.

1.5 SPECIFIC OBJECTIVES

To evaluate Uganda's Copyright and Data Protection laws in defining ownership rights for AI-generated works.

To examine the ways how AI has infringed copyright and violated protected data

To identify gaps in Uganda's Copyright and Data Protection laws concerning the attribution and liability of AI-generated works.

To analyze the roles and responsibilities of the Artificial Intelligence system owners and companies towards protection of already existing copyrighted works.

To explore and assess the various legal actions that depict the challenges of artificial Intelligence in Copyright law in data protection.

²⁵ DAVID BAIN BRIDGE INTELLECTUAL PROPERTY PG 31-68 1001 ED

To analyze the extent to which AI has recognized the copyright and data protection principles.

To provide recommendations for both policy and legal improvements to preserve the Copyright law and protect copyrighted works in the era of Artificial Intelligence reliance by creators.

1.6 HYPOTHESIS

The evolution of Artificial Intelligence is at the infancy stage in Uganda. In absence of a statute regulating the use of AI, the legal challenges of Artificial Intelligence in Copyright and Data protection law should be studied to over control the acculturation of AI use.

1.7 RESEARCH QUESTIONS

To what extent has AI contributed to copyright infringement, and how have courts responded?

To what extent do Ugandan copyright laws address the ownership and authorship of AI-generated?

What role has fair use doctrine played in mitigating copyright disputes involving AI-generated content?

Who should be held legally responsible for copyright infringements committed by autonomous AI systems, the developer, the user, or the AI itself?

What are the gaps in the Copyright and Data protection laws in regards to Artificial Intelligence?

What steps have been taken by the Artificial Intelligence system owners and companies towards the protection of already existing copyrighted work and protected data?

What steps can be taken to improve Copyright and data protection laws in regards to Artificial Intelligence?

1.8 SIGNIFICANCY OF THE STUDY

This study provides actionable insights for lawmakers, AI developers, and copyright owners in Uganda. For lawmakers, the research offers evidence-based recommendations for amending the Copyright and Neighboring Rights Act to address AI-generated content, ensuring that Uganda's legal framework remains relevant in the digital age. For AI developers, the study clarifies the legal boundaries within which they can operate, reducing the risk of litigation and fostering innovation. For copyright owners, the research proposes mechanisms to protect their works from unauthorized

use by AI systems, while also exploring how they can leverage AI to enhance creativity and productivity

The study educates the Intellectual property populace, particularly the lawyers, regarding the challenges encountered by copyright and data protection as a result of artificial intelligence given the increasing use of AI in creation.

The study explores the gaps in the copyright and data protection law to integrate Artificial Intelligence to work without a wrestle with Copyright law. for example, the Copyright law doesn't protect works created by AI since S.2 of the Copyright act²⁶ demands for only human entities, but it may protect works created with assistance of AI hence this is crucial information Intellectual property scholars.

The study provides concrete solutions to the legal and policy challenges posed by AI-generated content in Copyright and data protection as it proposes amendments to Uganda's copyright laws for example inclusion of training AI as fair use under S.14 of the Copyright and Neighboring act²⁷. Suggest best practices for AI developers, and recommend strategies for copyright owners to protect their interests. By doing so, the research serves as a practical guide for stakeholders, enabling them to navigate the challenges of AI in copyright and data protection in a way that fosters innovation while safeguarding intellectual property rights.

The study reveals the challenging experiences that are faced by the owners of copyrighted works that are being infringed and abused by AI and AI users, this is of essence to improve or enforce the regulations and policy on Artificial Intelligence approach towards copyrighted works enabling the copyright owners to identify who is liable for infringement.

The study educates the copyrighted works owners about the effects of artificial Intelligence towards their works for example musicians, image owners such as models and others. This addresses the public's concerns and need for action.

²⁶ COPYRIGHT AND NEIGHBORING RIGHTS ACT AS AMMENDED CAP 222

²⁷ IBID 26

The study is a source of information about the legal challenges of artificial intelligence in copyright and data protection law as it analyzes the challenges imposed on copyright by artificial intelligence as well as addressing the solutions that can be adopted by the policy makers to solve this problem.

1.9 JUSTIFICATION OF THE STUDY

The global cases of Copyright infringement by artificial Intelligence such as Getty Images V Stability AI²⁸ makes it inquisitive for one to explore the legal challenges of AI in copyright and data protection law in Uganda protecting. Globally, copyright faces a problem such as infringement by AI users and system developers. This implicates that there are legal concerns due to the fact that AI violates the fundamental principles of copyright protection. The study is crucial for ensuring the protection of copyrighted works in Uganda. The United States. district court for the district of delaware's recent ruling in Thomson Reuters Enterprise Centre GmbH v. Ross Intelligence Inc²⁹ that use of copyrighted works to train AI models does not fall under the fair use exception made it inquisitive for anyone interested in copyright to conduct a study about the effect of artificial Intelligence towards copyright law. This is because S.14 of the Copyright act³⁰ doesn't include AI training as fair use.

The urgent need to address the legal gaps in Uganda's copyright framework as it relates to AI-generated content. Uganda's Copyright and Neighboring Rights Act, does not explicitly address the ownership and liability issues arising from AI-generated works. For instance, S. 2 of the act depicts that an author should be a human entity, creating ambiguity in the law as it excludes AI systems from being recognized as authors. This raises critical questions about who owns the copyright when AI generates content, whether it is the developer, the user, or no one at all.

Policy evaluation addresses the loopholes in a system which enhances innovation of effective strategies and solutions. The study aims at assessing the regulatory framework of Copyright laws. so as to question the malfunctioning policy in regards to AI. For example, a need to create an independent policy for artificial Intelligence works since the current Copyright and data protection acts do not cater for them as it's silent about regulating the artificial intelligence works.

²⁸ [2025] EWHC 38 (Ch).

²⁹ 1:20-cv-00613 (D. Del. Feb. 11, 2025)

³⁰ COPYRIGHT AND NEIGHBORING RIGHTS ACT CAP 222

The increased number of complaints by copyright owners in Uganda against Artificial Intelligence arouse curiosity for anyone to examine what are the legal challenges of AI in Copyright and data protection. Such information can only be obtained through conducting this study. For instance, it was reported by Daily monitor newspaper that Ugandan music are unaware of who is liable for AI`s infringement on copyrighted music³¹.

The global warning about the dangers of artificial Intelligence towards copyright infringement and data protection abuse aroused curiosity for a study to be conducted about the legal challenges of artificial intelligence in copyright and data protection for example Geoffrey Hinton`s interview with CBS new³² about the dangers of artificial intelligence he said “the systems were designed for learning algorithm, but when this learning algorithm interacts with data it produces good neutral networks that can escape control by writing their computer codes. This was a warning that AI has capacity to infringe on data privacy and copyright protection.

1.10 SCOPE OF THE STUDY

1.10.1 THEMATIC SCOPE

This study investigates the legal challenges surrounding Copyright protection as a result of Artificial Intelligence, with a primary emphasis on the current intellectual property policies and Copyright laws. It explored various dimensions of copyright infringement by Artificial Intelligence and the changes that have been brought by AI towards Copyright law, including policy, regulations, and legal disputes within the context of Copyright.

1.10.2 TEMPORAL SCOPE

The study encompassed the evolution of Artificial Intelligence in regards to affecting Copyright law policies, leading to the precedents and legal claims of AI infringement of copyright law. By examining this temporal continuum, the study elucidated the historical development and transformative shifts in Intellectual property legal approach to Artificial Intelligence.

1.10.3 GEOGRAPHICAL SCOPE

This study transcended with an expansive outlook by focusing on both Uganda and the global jurisdictions that have experienced the legal impact of Artificial Intelligence towards copyright. It

³¹ <https://www.monitor.co.ug/uganda/lifestyle/entertainment/ai-is-uganda-s-music-industry-under-attack--4564976>

³² <https://www.cbsnews.com/news/geoffrey-hinton-ai-dangers-60-minutes-transcript/>

delved into Uganda's copyright law policy as well as the international jurisdictions analyzing the impact of AI on Copyright

1.11 CONCEPTUAL FRAMEWORK

The framework below highlights the complex interplay of the legal challenges of Artificial Intelligence in copyright law and data protection, describing the legal conflict arising from the intersection of AI with copyright and data protection by exploring how copyright and data protection principles apply to AI generated content.

AI GENERATED WORKS	How AI and AI users object to Copyright and data protection	AI users and system developers claim	<i>Copyright and Neighboring rights act cap 22</i> <i>Data protection and privacy act.</i>
AI System Developers	Training AI systems using copyrighted works and protected data	Fair use	Not fair use as per S.14 of the Copyright act
AI USERS	Improving copyrighted works using AI Using	Derivative works	S.4 Cap 222 Derivative works
	Using Copyrighted work without consent	Non-Copyright infringement	S.45, Copyright act infringement
	Using AI to create artistic works	Originality Authorship	S.9, Moral rights
AI	Accessing data without owner`s consent	Right to access data	Data privacy infringement
			S.10 of the data protection act.

The table above shows how irrational AI, AI users and system developers use copyrighted works and protected data. The framework clarifies the liability of AI users and system developers in

copyright infringement and data misuse as it depicts the use of copyrighted works protected by the law hence portraying the intersection of AI and copyright and data protection. The framework shows that use of copyrighted works without permission is infringement under the Copyright and Neighboring Rights act and violation of data privacy under the data protection and privacy act 2019. Furthermore, on the issue of infringement, the framework explored how it is a challenge for copyright owners to trace the person liable for infringement as it may be AI, the AI user or the AI system developer.

The framework depicts fair use as principle in copyright law provided under section 14 of the Copyright and Neighboring act, where copyrighted material can be used without permission for purposes of translation, public teachings, reproduced broadcasts, judicial proceedings and education purposes. AI users and system developers claim that AI's use of copyrighted materials is fair use. The issue of originality, as the law depicts that AI generated works lack direct human creativity hence this depicts that there are no moral rights as per S.9 of the act to be recognized as the author economic rights to financially benefit from your works as per S.8 of the act.

1.11 LITERATURE REVIEW

1.11.1 INTRODUCTION

This section reviewed and examined the literature related to the study, which was used as the facilitation source to the study topic findings. The literature was reviewed with the guidance of the study research questions as well as the objectives of the study. The study examined the literature concepts and principles of Copyright and Data Protection in context of AI.

The study focused on the Ugandan legal framework of the copyright and data protection exploring literature on how Artificial Intelligence is challenging copyright and data protection, the rationale and purpose of this literature review is to examine the controversy in the relationship between Artificial Intelligence and copyright law and data protection. The literature review explores the effectiveness of the Copyright and data protection laws to AI. The research comprehends the roles of different stake holders such as AI users and system developers producing an evaluation of the literature about the problem.

1.11.2 ARTIFICIAL INTELLIGENCE AND COPYRIGHT LAW

According to Colston Catherine³³ copyright is a statutory property right to the owner. David Bainbridge defines copyright as a property right which subsists (exists) in various ‘works’, for example literary works, artistic works, musical works, sound recordings, films and broadcasts³⁴. David Bainbridge expounds that Copyright does not protect the idea but the expression of the ideas, the AI system owner’s argue that AI should be considered as a creative tool which generates an idea that is expressed by the user commanding this system. The question that comes up is originality, if AI is the master brain behind the idea, will the expression of the idea have a minimal degree of creativity? AI systems owners have admitted that AI generates basing on already existing data and information collected from other sources. The Black’s Law dictionary defines copyright as an original work of the author³⁵ According to S.4 of the Copyright and neighboring rights act³⁶, AI generated works are inclusive of works that can be copyrighted. Furthermore, S.2 of the Copyright and Neighboring rights act defines an author as the physical person who created or creates work meaning that AI can’t be recognized as an author since it’s not a human entity.

The copyright and Neighboring Rights act under S.4(2) of the act assesses that derivative works include translations, adaptations and other transformations of pre-existing works collections of pre-existing works like encyclopedia and anthologies, which by selection and arrangement of their contents constitute original works, shall be protected under this Act as original works. AI system developers argue that AI generated works are derivative works as they are improvements of existing works with a sense of originality although globally courts have rejected it, it is inconsistent with S.4(3) of the Copyright and neighboring rights act as it states that the protection of a derivative work under subsection (2) shall not affect the protection of the pre-existing work used by a person for derivation purposes. The literal meaning is that when a derivative work is created and granted protection, this protection does not diminish or interfere with the legal rights and protections already afforded to the original, pre-existing work from which the derivative work was created meaning that generative AI users with permission from original owners of copyrighted works

³³ COLOSTON CATHERINE PRINCIPLES OF INTELLECTUAL PROPERTY PAGE 167

³⁴ DAVID BAINBRIDGE INTELLECTUAL PROPERTY 8TH EDITION AT PAGE 5

³⁵ BLACK’S LAW DICTIONARY 7TH EDITION AND OXFORD DICTIONARY OF LAW

³⁶ COPYRIGHT AND NEIGHBORING RIGHTS ACT CAP 222

produce derivative works. However, the complaint of derivative works can only succeed if AI is recognized as an author by the law.

This study portrays the challenge of AI in Copyright ownership, Guadamuz³⁷ examines whether AI-generated works qualify for copyright protection under traditional legal frameworks, which universally require human authorship asking if AI operates autonomously, should copyright vest in the programmer, user, or no one? S.8 of the Copyright and Neighboring rights act depict that the owner of the protected work shall have economic rights for financial benefits from the work such as to publish, produce or reproduce the work, to distribute or make available to the public the original or copies of the work through sale or other means of transfer of ownership to perform the work in public and to broadcast the work. S.9 of the act also depicts the moral rights to be recognized as the author of the work, however the economic and moral rights can't be claimed in AI generated works, this is an ambiguity that is seen as an obstacle to innovation as AI systems are the new tool of creativity. The issue of economic rights in regards to AI generated works is a challenge that the study interrogates. According to Section 8 of the Copyright and Neighboring Rights act, the author or creator of the copyright has the economic rights. Furthermore, it is trite law that the copyright owner may assign his or her economic rights in copyright to another person to use the economic rights, transfer to another person or bequeath the economic rights in a copyright in whole or on part as portrayed in *Classic Art works (u) ltd v Vicent Lukenge and Children of Grace*.³⁸

The critical analysis of the study discovered, the justification of AI system developer's invocation of fair use doctrine when facing copyright infringement claims. Gimmelman J 2016³⁹ he critiques copyright's traditional principle of human authorship, which ignores the realities of automated content processing by robots, the essay assessed that courts historically exempted machine copying from infringement claims, as bulk copying for search engines e.g. Google Books was deemed fair use because it served a transformative purpose of enabling educational search functionality rather than replicating expressive content. Gimmelman's argument is that AI chat Botts's access of data is fair use.

³⁷ Guadamuz, A. (2021). *Androids Dream of Electric Copyright*.

³⁸ HIGH COURT CIVIL SUIT NO 207 OF 2010

³⁹ GIMMELMANN, J. (2016). *COPYRIGHT FOR LITERATE ROBOTS*. IOWA LAW REVIEW.

What constitutes to fair use? S.14 of the Copyright and Neighboring rights act provides for fair use which includes: (a) the fair use of a protected work in its original language or in a translation shall not be an infringement of the right of the author and shall not require the consent of the owner of the copyright of the work is for private personal use only. (b) A quotation from a published work is used in another work including a quotation from a newspaper where the quotation is compatible with fair practice and the extent of the quotation does not exceed what is justified for the purpose of the work in which the quotation is used and acknowledgement is given. (c) A published work is used for teaching purpose to the extent justified for the purpose by way of illustration in a publication, broadcast or sound or visual recording where the use is compatible with fair practice and acknowledgement is given to the work and the author the work is communicated to the public.

Fair use limit`s infringement for teaching purposes for schools, colleges, universities or other educational institution or for professional training or public education where the use is compatible with fair practice and acknowledgement is given to. The work and the author the work is reproduced, broadcast or communicated to the public with acknowledgement of the work, in any article printed in a newspaper, periodical or work broadcast on current economic, social, political or religious topic unless the article or work ,Any work that can be seen or heard is reproduced or communicated to the public by means of photograph, audiovisual work or broadcast to the extent justified for the purpose when reporting on current events, any work of art or architecture in a photograph or an audiovisual or television broadcast is reproduced and communicated to the public where the work is permanently located in a public place or is included by way of background or is otherwise incidental to the main object represented in the photograph or audiovisual work or television broadcast a political speech or a speech delivered during any judicial proceeding.

AI companies and owners have argued that data mining training can mount to fair use. The study assessed whether it can be regarded as fair use. According to Justice Madrama in *Angella Katatumba v Anti-Corruption Coalition of Uganda*⁴⁰ basing on Section 14 of the Copyright and Neighboring rights act, the Nature of the use considering whether the use is for commercial purposes or non-profit educational purposes and Sustainability assessing the amount of the copyrighted material used in relation to the entire work are a portion used are crucial factors in

⁴⁰ Civil Suit No. 307 of 2011

determining whether a use is fair. However, if the nature of the use and the sustainability principles are considered, AI generated works can't be a result of fair use because AI systems operate for profit so using copyrighted images, music and other works is commercial exploitation, furthermore, AI use of large data harms the market of copyrighted works yet they don't seek permission to use this material and also, they don't acknowledge the author. On 12th February 2025, The U.S. District Court for the District of Delaware's ruled in Thomson Reuters Enterprise Centre GmbH v Ross Intelligence Inc⁴¹ that use of copyrighted works to train AI models does not fall under the fair use.

The liability question in AI copyright infringement claims. Section 45 of the Copyright and Neighboring rights act, provides that infringement of copyright occurs where, without a valid transfer, license, assignment a person deals with any work or performance contrary to the permitted free use and in particular where that person causes or permit's another person to reproduce, fix, duplicate, extract, imitate or import, distribute in Uganda or exhibit to the public for commercial purposes. According to the Guardian newspaper⁴², The Open AI owners admitted that it is impossible for AI tools to be trained without copyright infringement. They assessed that tools like CHATGPT AI has to access copyrighted material to be trained. This depicts that there is infringement. Furthermore, in addition to infringement of copyright by AI, the study portrays the data text mining⁴³ process used by AI tools to learn patterns and structure text. This is the process which the AI tools use to encroach on copyrighted works during their training and functioning which is the primary way of copyright infringement by AI.

Justice Peterson in University of London Press V University Tutorial Press⁴⁴ held that what is worth copying is prima facie worth protecting. In the same precedent, J. Peterson established that test of originality as he examined that; originality under copyright law did not pertain to the originality in the idea or thought but expression of such idea or thought. Such expression must not be copied from another work it must originate from the author. In controversy to what AI does, AI creates works e.g. music art and writing but however AI creates this from already existing works hence this question the test of originality in AI productions. On August 18, 2023, Judge Beryl A. Howell

⁴¹ No. 1:20-cv-613-SB (D. Del.)

⁴² <https://www.theguardian.com/technology/2024/jan/08/ai-tools-chatgpt-copyrighted-material-openai>

⁴³ <https://www.ibm.com/think/topics/text-mining>

⁴⁴ [1916] 2 Cn 601

found in *Thaler v. Perlmutter*⁴⁵ that an AI-generated artwork can't be registered for a copyright. The plaintiff, Stephen Thaler, had access to generative AI titled, the "Creativity Machine" and produced an image titled, "A Recent Entrance to Paradise." After the US Copyright Office denied Thaler's application three times from 2019 to 2022, Judge Howell affirmed its rejection under judicial review. Judge Howell wrote that human authorship is a bedrock requirement of copyright hence emphasizing that copyright was designed for humans for human-made work. After all, a machine would not benefit from the conferment of exclusive rights that humans do.

The courts have strained that AI operates basing on a specific degree of human input and follows orders to generate a result. Ownership of the AI also not transfer ownership of the work itself to the human author. The study assessed whether AI works should be copyrighted for the benefit of the human author who used or instructed it. The study examines the case studies of copyright owners that have made losses from their works due to copyright infringement. Azawi a Ugandan musician and song writer faced financial losses due copyright infringement by artificial intelligence. The AI version of her song "masavu" surpassed popularity of her original song as it carried a vibe reminiscent of the late singer Mozey Radio. This is similar to American singer Ice spice rendition of Drake's Munch song that also went viral surpassing the original song. Azawi's management in the interview with New Vision newspaper⁴⁶ requested for a resolution to regulate AI as it affects the financial earnings on online streams and it's difficult to trace the anonymous parties that were earning from the download royalties.

Finally, the issue of whether works that are generated from AI can be considered derivative works under the copyright law. According to section 4 of the copyright and Neighboring rights Act in line with *Mwambusya Ndebesa V Yoweri Kaguta Museveni*⁴⁷, derivative works are ones that build up or transformation an already existing work, hence they include translations, adaptations and other transformations of pre-existing works. Furthermore, in *Interlego AG V Tyco Industries*⁴⁸ a derivative work must have a quality which the law material doesn't poses. This has been claimed by AI system users as a reason for acceptance of their works.

⁴⁵ Civil Action No. 22-1564 (BAH) [Thaler]

⁴⁶https://www.newvision.co.ug/category/entertainment/swangz-avenue-boss-concerned-over-ais-impact-NV_181740

⁴⁷ APPLICATION NUMBER 25 OF 2010

⁴⁸ [1989] AC 217

1.11.3 ARTIFICIAL INTELLIGENCE AND DATA PROTECTION

The study examined data protection legal frameworks in line with copyright protection on issues of image rights, data privacy and unauthorised access of personal data. Section 1 of the Computer misuse act⁴⁹ defines data as electronic representation of information of any form. According to Section 9 of the Data Protection and Privacy act⁵⁰ a person is prohibited from collecting and processing of special personal data. Further in Getty Images v stability AI⁵¹ court depicted that the AI system company infringed the copyright by using millions of Getty Images, without permission, to train their AI image generator, "Stable Diffusion," essentially "scraping" copyrighted images from Getty's. Furthermore, various AI system users have breached privacy of people through editing copyrighted images and using them for commercial purposes case in point on x social media platforms various footy influencers are using footballer images with AI edit`s adding their stake logos a betting company this is a threat to data protection and copyright.

The computer misuse act under Section 11⁵² depicts that unauthorised access or interception of any program, or another person`s data or information, sharing such information by that person is an offence. It further stretches that any person who utilizes a computer program to unlawfully overcome security measure to access data commit`s an offence. This depicts that AI system developers are in violation of the law as they access data without authorization from the owners, however the challenge is how can they be held liable as it is difficult to trace them due to the opaque procedures they go through in accessing data. Furthermore, Section 17 of the Computer misuse act depicts that it is an offence for a person who has access to any electronic data, record book or any information to disclose any other person`s information, however AI systems for example GROKAI discloses personal information of users of the X social media platform to anyone⁵³. This depicts that AI systems and the developers are in violation of the law.

The Data Protection and Privacy Act cap 97 depicts that personal data must be collected and processed with the individual's consent, and it should only be used for the specific purpose it was collected for, adhering to the principle of purpose limitation. Additionally, only the necessary

⁴⁹ COMPUTER MISUSE ACT CAP 96

⁵⁰ DATA PROTECTION AND PRIVACY ACT 2019

⁵¹ 2023 ewhc 3090 (chi)

⁵² COMPUTER MISUSE ACT CAP 96

⁵³ <https://frontline.thehindu.com/science-and-technology/grok-chatbot-tay-microsoft-elon-musk-india-censorship-free-speech-shift/article69344524.ece>

amount of data should be collected, following the data minimization principle. Data must be protected against unauthorized access, loss, or destruction to ensure security, and individuals must be informed about how their data is being used, ensuring transparency. Furthermore, individuals have the right to access, correct, or delete their data, safeguarding their rights as data subjects. However, AI system developers have violated the law, hence depicting a challenge towards data protection.

1.11.4 LEGAL DILEMMA

The study discovers that the evolution of Artificial Intelligence is at its pick at the global stage although in Uganda it's at an infancy stage. The study finds that there are no literature definitions of Artificial Intelligence in the legal dictionaries and the statutes of Ugandan laws. Marx's theory depicts that the laws are made due to influence of the scheme of economic production and need of equal opportunity. Azawi a Ugandan musician made economic losses as she earned less digital streaming rights from her original composition of the Masavu song due to a deep fake AI production that circulated online and in the main stream media. The question is whether the AI deep fake version of the song was a derivative work as it transformed into a new idea, this is due to reasons that some people regard this as music sampling. Justice Madrama in *Angella Katatumba v Anti-Corruption coalition*⁵⁴ held that extracting a portion of a sound recording from a copyrighted song is not fair use. According to the literature definitions of fair use and derivative works, AI is not specifically identified, this portrays why AI is undermining the copyright laws.

1.12.0 METHODOLOGY

1.12.1 INTRODUCTION

This section shows the strategy and the rationale as well as the tools and procedures that the researcher used to collect and analyze data. The study depicts a mixed-methods approach, combining qualitative and quantitative methods to comprehensively examine the legal challenges of AI in copyright and data protection. Research methodology is the process for direct approach through mixed types of research techniques. The study was carefully planned to produce accurate and dependable outcomes that aligned with research goals and objectives through discussing the research approaches taken comprehensively

⁵⁴ CIVIL SUIYT NO 307 OF 2011

1.12.2 RESEARCH DESIGN

The study was conducted by considering both qualitative and quantitative approaches. While using the qualitative which is referred to as the collection of extensive data on many variables over an extended time in a naturalistic setting in order to gain insight.

The descriptive research design was the mixed-method study we shall be taken in four stages. The first stage involved the comprehensive literature review. The second stage involved interviews, questionnaires and observations. The third stage involved analyzing of qualitative and quantitative data. The fourth stage involved in collation of all information and preparation of a report about the findings of the research work.

1.12.2.1 QUANTITATIVE ANALYSIS

The researcher focused on gathering and analyzing the numerical data, this helped in unveiling the people affected by artificial Intelligence`s effect towards their copyrighted work based on type of works i.e. music, literary works etc. The determining the number complaints of Artificial Intelligence violation of copyrighted works. The approach enabled giving an over view about what other intellectual property scholars and lawyers are thinking about the study topic.

In this design approach information collected contained;

1. The Copyrighted works that have been affected by artificial intelligence.
2. The Individual owners of copyrighted works affected by artificial intelligence.
3. The Challenges faced by copyright owners as a result of artificial intelligence.
4. The recommendations from the affected copyright owners in policy enforcement.
5. The position of AI users in creation of works and idea expression.
6. Lastly the position of the law and registration bureaus in policy enforcement in line with the study.

1.12.2.2 QUALITATIVE ANALYSIS

The study focused on the grounded theory study approach under qualitative “which investigated the experience and reactions of both copyright owner and AI users as well as AI owners to generate a theory. This aided in answering the research questions and coming up with a conclusion to the problem.

The study considered the phenomenological research approach because it involves us looking at a phenomenon which is wrestle between AI and copyright and how the Copyright law is protecting the copyrighted works from AI. The goal of this approach was to target the affected individual in exploring the experience of the effect of AI to their works.

1.12.3 DATA COLLECTION

Data collection involved instruments that were used to get data that for both the qualitative and quantitative analysis;

Qualitative Data: This involved reviewing legal frameworks and case law in Uganda and international jurisdictions. Interviews with legal experts, policymakers, and stakeholders in the AI, copyright, and data protection fields also be conducted. First, a hint on our sources of data i.e. our primary sources used were; the Ugandan Copyright and Neighboring Act cap 222, Data Protection and Privacy Act, 2019, The Computer Misuse act cap 96. Text books such as, Colston Catherine Principles of Intellectual property, David Bain bridge Intellectual Property. Websites and research journals about the legal challenges of AI in copyright and data protection.

Quantitative Data: Surveys and questionnaires were distributed both on ground and online to stakeholders for example creators, AI users, and intellectual property students to gather measurable insights on the impact of AI on copyright and data protection. The instruments of data collection included questionnaires, interviews and documentary analysis.

1.12.3.1 SAMPLING STRATEGY

The participants were selected using sampling method of purposive sampling and stratified random sampling of the intellectual property segment to ensure representation of key demographics relevant to the study. The sample size, a total of number participants was included, considering qualitative research or power analysis in quantitative studies. The inclusion and exclusion criteria, participants in the study were eligible if they meet criteria, for example age range, professional background, experience with the phenomenon under study. Those with who exclusion conflicting interests and incomplete responses were excluded.

1.12.3.2 ETHICAL CONSIDERATIONS

The study based on ethical guidelines, including informed consent, confidentiality and approval. In observance of informed Consent, participants were provided with a written application seeking

for their consent explaining the study's purpose, risks, and benefits. This is justified by the rejection and biased response from proposed participants who were excluded. All data was being anonymized, with identifiers removed to protect participant privacy to ensure confidentiality in the study. Approval was portrayed through ethical clearance was obtained from all relevant bodies where the study was conducted, if applicable. Voluntary Participation was observed as participants were free to withdraw at any stage without penalty.

1.12.3.3. QUESTIONAIRE

The use of questionnaires was employed online to gather information from a large audience in collecting quantitative data. The questions were in line with the pointers in quantitative analysis mentioned about and the objectives for the questionnaires is similar to that of interviews.

1.12.3.4 DOCUMENTARY ANALYSIS

The researcher collected data using the thematic analysis to identify recurring themes, such as gaps in legal frameworks, ethical concerns, and jurisdictional conflicts in line with the legal challenges of Artificial Intelligence in Copyright and Data Protection laws in Uganda.

The researcher employed statistical tools to analyze trends, such as the frequency of AI-related copyright disputes or data breaches. The researcher used online opinion polls such as the WhatsApp opinion for data visualization and interpretation. The researcher also collected information from secondary sources that have been identified above this involved reading information from other researchers as portrayed by in the literature review, looking at articles, journals newspapers and among other things.

1.12.3.4 QUALITY/ERROR CONTROL

The reason for selecting this instrument was its 'efficiency as an approach where by the responses result into accurate information other than focusing on only theory or literature view. The planned procedures ensured accuracy, reliability and consistency of the data collected including data interpretation and data analysis.

1.12.4 AREA OF THE STUDY

The study focused on Uganda as a primary jurisdiction assessing the Copyright and Neighboring Rights act cap 22 and the Data Protection and Privacy Act 2019. To provide a unique case study for understanding how developing countries like Uganda are addressing AI-related legal

challenges. International jurisdictions such the European Union and the United States of America were included to provide a comparative analysis in order to identify best practices, lessons, and potential harmonization of laws to address cross-border AI challenges, such as global data violation and copyright infringement.

1.12.5 ETHICAL CONSIDERATIONS

The study addressed ethical concerns related to AI-generated data, particularly how personal data processed by AI models is handled. The study ensured compliance with Uganda's Data Protection and Privacy Act cap 97, The Copyright and Neighboring Rights Act cap 222 and the Computer Misuse act cap 96 and international standards for example The International Convention on Civil and Political Rights. The researcher took measures and responsibility to anonymize personal data used in the study, and informed consent were obtained from participants. Additionally, the study explored ethical implications of AI-generated content in copyright, such as ownership and attribution issues.

1.13 DATA ANALYSIS

The study examined the Legal Challenges of Artificial Intelligence in Copyright and Data Protection laws in Uganda. The study discovered that the Ugandan statutes and laws don't define artificial intelligence and the researcher discovered that there is no case law involving Artificial Intelligence in regards to copyright and data protection laws, therefore the research collected information basing on online law reports across the globe in contrast with the provisional Ugandan laws. The researcher faced bias from the copyright law stake holders specifically musician as they rejected participation in the study as it was proposed. The researcher conducted online opinion polls to facilitate the collection of the quantitative methods of data collection.

Table 1 below shows the Legal Challenges of AI in Copyright and Data Protection law

INSTRUMENT	AGREE	DISAGREE	NEUTRAL
AI has negatively affected Copyright	90%	0%	10%
AI is a threat to electronic data privacy	50%	40%	10%

There are no laws regulating AI in Uganda	0%	100%	0%
AI is useful in creation of artistic works	100%	0%	0%
AI is not established in Uganda	50%	10%	40%
AI works should be copyrightable	10%	90%	0%

The information from Table above show revealed justifies that AI has posed challenges to Copyright and Data Protection law. Though it was an online survey from an online opinion poll with a small audience, the table gives a hint about the legal challenges of AI in copyright and data protection. AI has negatively affected Copyright 90% of the participants agreed, no participant disagreed and 10% of the participants are neutral.

All the respondents 100% disagreed that Uganda has no laws regulating Artificial Intelligence neither did the participants agree nor were they sure. This finding portrays the infancy of Uganda as a country in the evolution of AI and the delay by the parliament as participants think the copyright laws and the data protection laws directly regulate AI yet they are just provisional laws. All participants agreed that AI is useful in generation of artistic works, this finding also corresponds with evolution of generative AI as the new global tool of creation posing a challenge to the human authorship principle. Majority of the participants agree that AI is a threat to data privacy, although it`s a moderate percentage (50%) compared to the 40% that agree. This also justifies the central challenge of data privacy infringement that AI has posed on data protection laws

The participants portray uncertainty or mixed knowledge about AI's presence in Uganda because it`s a moderate percentage (50%) that agrees that AI is already established in Uganda. This justifies the researchers compliment that AI evolution in Uganda is at its infancy as the population. Majority of the participants disagree that AI generated works should not ne copyrighted as the table shows 90% of the participants disagree with copyrighting AI works this in contrast to the

majority of the participants that agree that AI is useful in creating artistic works, shows the ambiguity and challenge that AI has posed to Copyright and data collection laws

1.14 CONCLUSION

The study focused on the following legal challenges of Artificial Intelligence in Copyright and data Protection.

Copyright Challenges such as ownership of AI-Generated Content determining whether AI-generated works qualify for copyright protection and who owns the rights is it the developer, user, or AI itself by AI. Furthermore, addressing cases where AI systems reproduce or adapt copyrighted works without authorization fair Use and also analyzing whether AI's use of copyrighted material falls under fair use or other exceptions.

Data Protection Challenges such as issues of consent and transparency assessing whether AI systems obtain valid consent and provide clear explanations for data processing activities. Addressing risks of data breaches or misuse by AI systems. Examining how AI systems are violating the law in regards to data protection. Accountability, determining who is liable for AI-related copyright infringement or data breaches developers, users, or organizations. Educating ways to balance the promotion of AI innovation with the protection of individual rights.

1.15 CHAPTER SYNOPSIS

Chapter One is a representation of the structure of the researcher`s proposal before conducting the study and the achievements of the researcher during and after the study. Chapter one inaugurates the central problem of the study presenting a literal definition of the study topic, aiding provision of the groundwork for understanding the purpose of this research work.

Chapter Two is an education of the legal challenges of Artificial Intelligence in copyright and data protection law. The chapter analyses the literature and principles of Copyright and data protection in contrast to the challenges posed by AI.

Chapter Three specifically analyses the copyright and data protection statutory legal frameworks in regards to artificial intelligence both in Uganda and across the globe.

Chapter Four explains the researcher's findings discuss the conclusion and comments recommendations to the government on how to solve the legal challenges of Artificial Intelligence in copyright and data protection laws in Uganda

CHAPTER TWO

2.1 THE LEGAL CHALLENGES OF ARTIFICIAL INTELLIGENCE IN COPYRIGHT AND DATA

This chapter explores the evolution of artificial Intelligence systems towards the doctrine of copyright and data protection. The chapter analyses antinomies between AI and copyright and data protection law computing the doctrinal discord over copyright principles of authorship, ownership rights and infringement and the hermeneutic ruptures of AI and data protection.

This chapter peruses through legal information comprehending AI's wrestle with copyright and data protection laws. This chapter examines the litigations and the philosophical discussions related to AI's capabilities and the doctrinal foundations of copyright and data privacy laws. The chapter affirms on the solutions how AI technology developments can be adapted and appreciated by copyright and data protection principles.

2.2 LEGAL CHALLENGES OF ARTIFICIAL INTELLIGENCE IN COPYRIGHT LAW.

“We were both created and we create, why cannot our own creations also create?” Beach J in Thaler v Commissioner of Patents [2021] FCA 879 at page 15

2.2.1 INTRODUCTION

Copyright is an original work of authorship including literary, musical, dramatic, choreographic, pictorial, graphic, sculptural, and architectural works; motion pictures and other audiovisual works and sound recordings fixed in any tangible medium of expression, giving the holder the exclusive right to reproduce, adapt, distribute, perform, and display the work⁵⁵. Houston Law review educates that The Statute of Anne 1710 was a groundbreaking piece of legislation that fundamentally transformed copyright law by shifting its focus from publishers' monopolies to

⁵⁵ BRYAN GARNER'S BLACK'S LAW DICTIONARY 8TH EDITION AT PAGE 1020

authors' rights. A prologue of the principle of authorship, the author of the work being the owner of its copyright.⁵⁶

In the UK, where copyright law originates from⁵⁷, before 1710, a perpetual monopoly over rights controlling ownership was under the Licensing Act of 1662. Authors had no legal ownership of their works once sold to publishers. However, the Statute of Anne vested copyright directly in authors recognizing their intellectual labour as the basis for ownership. This was revolutionary birth of the traditional copyright principle of authorship in copyright law. Basing on the commentary of the first copyright law (the statute of Anne)⁵⁸, the statute enactment aimed to penalizing infringement by non-authors to copyrighted artistic works. It influenced modern copyright law, including the U.S. Copyright Act of 1790 and international frameworks like the Berne Convention 68. Its principle of author-centric ownership is central to copyright systems today including the Copyright and Neighboring Rights Act of Uganda⁵⁹.

The primary challenge between generative AI and copyright is authorship, this resides in the statutory interpretation of authorship by the copyright law offices and the judiciary. The central challenge arises due to the courts upholding the traditional legislative intent for enactment of copyright laws. The copyright offices such as US copyright offices and the URSB register's office in Uganda have rejected registration of Generative AI works basing on the authorship principles. AI generated works will not be recognized as derivative works as the statutory provisions require a human intellect as an author.⁶⁰ Authorship is a crucial principle in traditional Copyright Law as well in the modern foundation of Copyright, historically, the Statute of Anne (1710) established copyright as a right granted to human authors, recognizing their intellectual labor as the basis for ownership. This is a legal justification that authorship by a human creator is the beam of copyright law.

Philosophical Justification of human authorship as a foundation of copyright law is rooted in *John Locke's labour theory of property*⁶¹, which argues that a person has a natural right to the fruits of their intellectual or physical labour. Since Artificial Intelligence lacks consciousness, intent, or

⁵⁶ <https://houstonlawreview.org/article/4176-the-statute-of-anne-an-american-mythology>

⁵⁷ <https://www.gca.cards/history-of-copyright-in-the-uk/>

⁵⁸ https://www.copyrighthistory.org/cam/tools/request/showRecord.php?id=commentary_uk_1710

⁵⁹ COPYRIGHT AND NEIGHBOURING RIGHTS ACT CAP 222

⁶⁰ SECTION 2 OF COPYRIGHT AND NEIGHBORING RIGHTS ACT CAP 222

⁶¹ <https://plato.stanford.edu/entries/locke-political/>

labour, its outputs don't fit this justification, its only human creativity that traditionally qualifies. In 1876, Frédéric Auguste Bartholdi was awarded copyright for Statue of American Independence, one of the world's famous artistic works, the copyright though expired, it was not registered because of the historical memories attached to the work but to award the creator for his human input. The Most copyright systems including the U.S. Copyright Act, Berne Convention and Copyright and Neighboring rights act of Uganda require that the artistic work should be an original creation of a human author. This is the justification why intellectual property courts consistently rule that non-human entities such as animals, machines and AI cannot hold copyright because they lack **authorship** in the legal sense⁶².

The central challenge of AI in Copyright law encircles around the principle of authorship. The chapter explores other grievances such as Copyright infringement by AI, Liability issues after infringement, the question of fair use by AI system developers, the issue of derivative works and Moral and economic rights. Without courts and statutory drafters granting Generative AI authorship rights, AI with forever challenge the copyright legal discipline. Historically it was developed in early precedents, *Burrow-Giles v. Sarony*⁶³ where the court reinforced that copyright protects human intellectual effort, not mechanical or automated processes. This is a justification to the primary challenge AI has posed to the copyright doctrine as the courts and law comprehend that generative AI doesn't belong to the intellectual property segment.

2.2.2 THE AUTHORSHIP QUEST

Authorship is the pillar of copyright law, without a human author, there is no legal basis for granting copyright protection and exclusive rights ownership. Copyright was designed to incentivize human creativity, not to protect machine generated outputs no human author no copyright. In 1991, the US supreme court *Feist v. Rural*⁶⁴ educated that copyright requires human creativity to be granted or for one to register his artistic work. AI-generated works are often seen as derivative compilations of training data, lacking human originality. The world Intellectual Property organisations firmly comprehends that copyright exists to encourage human cultural production, not to reward AI developers for automated outputs.⁶⁵ The position of courts of law on

⁶² NARUTO V. SLATER 888 F.3D 418 (9TH CIR. 2018).

⁶³ BURROW-GILES V. SARONY 1884

⁶⁴ FEIST V RURAL CO.499 U.S. 340 (1991)

⁶⁵<https://www.wipo.int/web/wipo-magazine/articles/artificial-intelligence-and-copyright-40141>

AI generative works depicts that there is hindrance to AI works in regards to copyright registration as traditional copyright frameworks struggle to accommodate non-human creators, even if AI produces seemingly original works.

The intellectual property segment comprehends on debates and possible shifts whether AI outputs should be protected. AI system developers argue for a sui generis (new) intellectual property right for AI works, separate from copyright. Developing new intellectual property rights for AI users and AI systems may overwhelm the traditional copyright law. Intellects suggest assigning rights to the AI's user and system developer, but this clashes with traditional authorship principles. The UK allows copyright for computer-generated works owned by the person who arranged the creation of the works according to Section 9(3) and 178 of the 1988 UK Copyright, Designs and Patents act. However, the Ugandan copyright law only protects human authored works⁶⁶.

This research work discovers the loopholes in the constructive interpretation of authorship as a statutory principle through dissolving the question whether AI generated works can be granted authorship. Authorship is the cornerstone of copyright because the law was built around human creativity. While this principle justifies refusing AI copyright, it also hinders legal adaptation to new technologies. Future reforms may need to redefine "authorship" or create new rights for AI-generated content but for now, human originality remains key.

2.2.2.1 WHETHER GENERATIVE AI CAN BE GRANTED AUTHORSHIP

Ugandan laws don't grant AI rights of ownership, section 2 of the Copyright and Neighboring Rights act⁶⁷ defines authorship as the person who creates or created the work protected under Section 4. Section 4 of the Copyright and Neighboring rights act doesn't provide for AI or generative AI artistic works. The US copyright law and Berne Convention for the Protection of Literary and Artistic Works⁶⁸also depict that any artistic work created by a non-human is authorless due to its lack of human intellect. It is unfair to AI and AI users as they allege to have potential to challenge the fundamental premise that only humans can create, however its trite law that nonhumans cannot even sue for copyright infringement⁶⁹hence their creations are undermined.

⁶⁶ COPYRIGHT AND NEIGHBORING RIGHTS ACT CAP 222

⁶⁷ COPYRIGHT AND NEIGHBORING RIGHTS ACT CAP 222

⁶⁸ 1886, AS AMMENDED ON SEPTEMBER 1979

⁶⁹ IBID 8

AI has posed challenging questions to intellectual property. In *Calla Homes (South) Ltd v Alfred McAlpine Homes East Ltd*⁷⁰ court assessed, humans are not the only contributors to the mechanical fixation of an artistic creation or an innovation. Failure to recognize the contributors to the fixation of a work undermines the definition of an author. According to Professor Ginsburg an author is one who exercises the requisite skill and effort involved in creating, selecting or gathering together the detailed concepts or emotions which the words have fixed in writing⁷¹. AI generated works may be regarded either derivative works, works that require neighboring rights or co-authored work. Professor Ginsburg depicts that authorship may be conceived through two aspects, the creative ability to conceive the work and the ability to control the execution of the work. This justifies the reason why AI system developers yearn for joint authorship. What counts in the end is that the joint work of individuals collaborative collaboration of the kind contemplated by the definition of joint authorship⁷²The iteration of the Copyright and Neighboring act provides that co-authors should only be humans⁷³

James Grimmelmann⁷⁴ is of opinion that, the intellectual property conservative segment preserving the traditional human authorship principle of copyright is the only impediment obstructing AI authorship recognition by the courts and statutory bodies due to the anthropocentric ignorance towards generative AI evolution in creation of artistic works. The primary challenge of AI to copyright is the issue of authorship. AI system developers and users are pushing the copyright law intellects to recognize AI authorship although they take a different optimistic view from the copyright law conservatives.

This study synthesizes that AI generated works should be recognized as ideas hence they should be copyrighted once expressed. Its arbitrary to regard Microsoft artistic works copyrightable and disregard AI literary texts non-copyrightable. The user of the Microsoft word and the AI user are similar as they both command with key word. In the matter of *Zarya of Dawn* registration of a graphic novel⁷⁵the Microsoft text was protected but the AI images were not. The Chinese court

⁷⁰ [1995] EWHC 7 (CH); [1995] FSR 818

⁷¹ GINSBURG & BUDIARDJO, SUPRA N 5, AT P 352

⁷² ASIA PACIFIC, SUPRA N 38, AT [78] (CITING TELSTRA CORPORATION LTD V PHONE DIRECTORIES COMPANY PTY LTD [2010] FCAFC 149).

⁷³ S.10 OF COPYRIGHT AND NEIGHBORING RIGHTS ACT CAP 222

⁷⁴ GRIMMELMANN, J. (2016). COPYRIGHT FOR LITERATE ROBOTS. IOWA LAW REVIEW.

⁷⁵ <https://jolt.law.harvard.edu/digest/zarya-of-the-dawn-how-ai-is-changing-the-landscape-of-copyright-protection>

held that if a human uses AI as a tool of creation, the artistic work is copyrightable due to its significant human input.⁷⁶ The UK Copyright, Designs and Patents under S.178 and 9 depicts that computer-generated works arranged by a human are copyrightable. Microsoft works and computer-generated works involve more human control in the generation process than AI generated works. By contrast, AI-generated works are those where the human contribution to the expression of the idea is typically with minimal input of human intellect or an identified human being and the output is generated by the AI itself. The question is what is the difference between a person writing a novel using Microsoft word and AI bot?

The table shows the difference and explains why work generated by type writers is copyrightable.

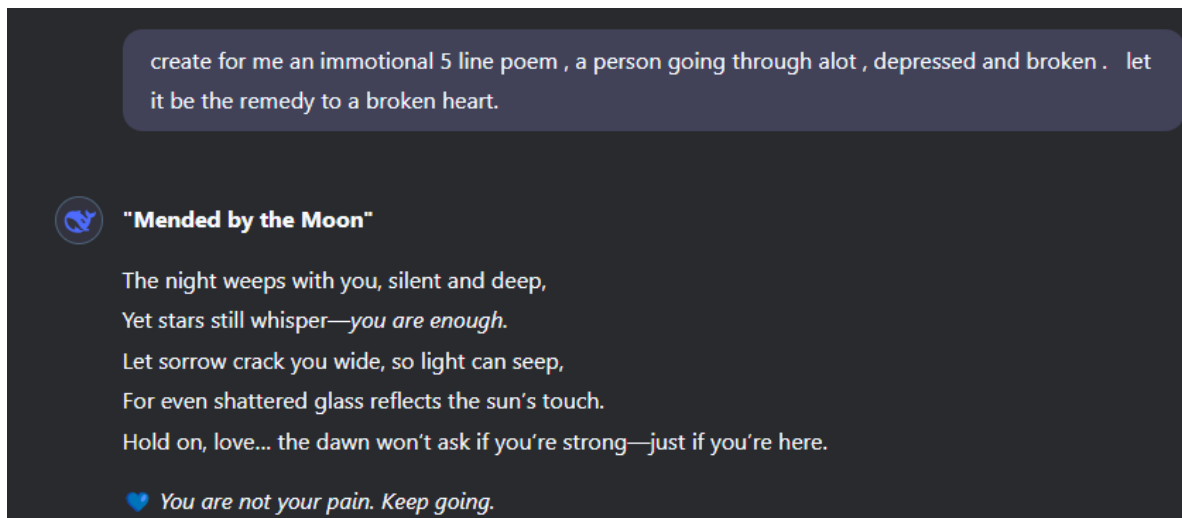
FEATURE	AI	MICROSOFT WORD
TO NE	More Natural. Adaptable	More professional
CREATIVITY	Generates Original Content	Focusses on editing
FORMATTING	Free format	structured
USE CASE	Drafting any art work	Quick edits and summaries

Computer software such as Microsoft word is framed as an instrument enabling human creativity with a human direction hence the artistic works created qualify as human authored works. However, AI generated prompts such as a poem about love, lacks sufficient human creativity and direction. The courts will require evidence of iterative refinement or unique arrangement to justify protection. Human intellect in use of AI asserts a substantial creative input which qualifies for authorship. AI is regarded as the tool used to express the idea created by the human user. If the AI autonomously generates novel or a poem without human direction, should it be considered a co-author? The Copyright and Neighboring rights⁷⁷ does not recognize AI as a co-author due to the fact that its non-human.

Figure 1. Output generated with DeepSeek-R1 AI based on the human intellect architecture

⁷⁶ Li Yunkai v. Liu Yuanchun (2023)

⁷⁷ Section 10 of Copyright and neighboring rights act cap222



It's trite law that copyright does not protect ideas, only the expression of an idea.⁷⁸The illustration above demonstrates creativity by DeepSeek AI, expressing the idea of human intellect. Cheng Lim Saw and Duncan Lim's research work written on October 30, 2024⁷⁹ examines and justifies why a human crafted prompt should be copyrightable. Cheng and Lim comprehend that a sufficiently detailed and developed prompt with a human description of character features transcends a mere idea and arguably represents an original authorial expression of a fictional character which qualifies to literary copyright.

AI generated works have a spark of creativity, a question surfaces about why isn't this creativity protected? Andres Guadamuz, a senior lecturer in intellectual property law, University of Sussex, United Kingdom comprehends that the rise of the machines is here, but they do not come as conquerors, they come as creators.⁸⁰Computers have produced works of art for a longtime, it's absurd that AI generated works are no recognized yet they heavily rely on the creativity of the human programmer. Are intellectual property bodies fearing the potential of AI to disrupt copyright law or they are conserving the traditional copyright principles?

Figure 2. Output generated with Adobe Firefly Image 3 Mode

⁷⁸ GLORIA AKETCH V BROOKSIDE LTS AND 2 OTHERS CIVIL SUIT 1065 [2022]

⁷⁹ Saw, Cheng Lim and Lim, Duncan, The Case for AI Authorship in Copyright Law (October 30, 2024). Singapore Management University School of Law Research <https://dx.doi.org/10.2139/ssrn.5108423>

⁸⁰ <https://www.wipo.int/web/wipo-magazine/articles/artificial-intelligence-and-copyright-40141>



The figure above qualifies for literary copyright protection as an original work. It's undeniably true that the AI generated work lacks authorship but a human crafted prompt should be protected. It is visibly clear that AI overtook the instructions and created more expressive elements in the image in figure 2 leading to a question of what is an AI assisted artistic work and an AI generated work? The court may dissolve such an issue by determining the degree of human input. The US Copyright court in *Thaler v. Perlmutter*⁸¹ held that if the artistic work created with assistance of AI it may qualify for copyright protection only if a human's contribution is substantial and independently copyrightable. However, in Uganda and globally the copyright courts have not defined the difference between AI generated works and AI assisted works. The ambiguity is drawn on how the court should go about determining a direct result of contribution and creative choices at the

⁸¹ *Thaler v. Perlmutter*, No. 22-CV-384-1564-BAH

prompt stage in AI assisted works and identifying what constitutes as elements attributable to the AI.

Authorship as a core principle of copyright law is quivered by generative AI however much the development of AI is believed to be at its infancy stages. The increased global investment in technology depicts acculturation towards use of AI by creators such as musicians, film directors and producers. In 2023, the German artist *Boris Eldagsen* admitted use of AI to generate an artistic work that won Sony world photography awards yet it couldn't be recognized⁸². As this study comprehends, the AI user segment may become fugitive to the traditional copyright law undermining the literature of intellectual property. The artificial intelligence category of the 1839 Awards photography competition that recognizes and awards generative AI artistic works is a justification of the acculturation towards use of AI in creativity.⁸³ This research work firmly comprehends that courts and statutory bodies in Uganda and globally should consider AI authorship through precedent, statutory amendment or by enacting a sui generis intellectual property act about AI.

2.2.3 COPYRIGHT INFRINGEMENT BY AI

‘Use of copyrighted work to train AI systems is no defence to Copyright infringement by AI Companies’ judge William Orrick (Andersen v. Stability AI).

Georg Wilhelm Friedrich Hegel views that art and creativity embody personal expression therefore unauthorized use of a creator's art work violates the creator's spirit.⁸⁴ AI systems owners have admitted that AI systems are trained using copyrighted work. The court declared that training generative AI models by owners using copyrighted material is infringement.⁸⁵

Infringement is an offence under S 46 of the Copyright and Neighboring rights act, however the literal wording identifies a human who can be held liable as it states that “any person who”. The significant barrier aligns in finding out who is liable, is it the AI, as AI can escape control and

⁸²<https://www.theguardian.com/technology/2023/apr/17/photographer-admits-prize-winning-image-was-ai-generated>

⁸³ <https://www.cbsnews.com/news/real-photo-ai-competition-flamingone-miles-astray/>

⁸⁴ <https://www.tandfonline.com/doi/abs/10.1080/00201740903087300>

⁸⁵ ANDERSEN V STABILITY AI Ltd 3:23-cv-00201 (N.D)

work without instructions of its programmer, Is it the user, the system developer of the AI systems company owners. AI definitely rocks the copyright landscape with this conundrum.

Its trite law that AI is not recognized as an author under copyright law.⁸⁶Judge David Wangutusi in *Obsessions Company Ltd V Warid Telecom and D Mark Company Ltd*⁸⁷held that the perpetrators do not take into account the trouble that the producers of this intellectual property passthrough to produce them, for such infringement therefore where the infringer is making a financial gain from his breach, exemplary damages would be appropriate. The fact that monetary remedies can't be compensated by AI, it depicts that liability falls to human actors. The liability falls on the human that made the contributions or modifications on an artistic work already existing and copyrightable. Liability lies to the AI systems developer and company owners if they use copyrighted materials to train their AI models. The New York Times Company sued the system developers and owners of Open AI Inc the Microsoft Corporation. systems for unlawful use of Times articles to train GPT large language models⁸⁸.

In Uganda and other jurisdictions with low levels of intellectual property, the specter of AI has disrupted the economic status quo of the creative industries due to copyright infringement by AI due to failure to trace who is liable⁸⁹However the Ugandan Copyright and Neighboring rights act under S.45 is a statutory defensive harbor of the copyrighted artistic works from copyright infringement by AI. The fact that AI can't be liable for infringement defeats the argument that AI is a creator, you cannot own economic rights when you can't compensate for infringement. *John Rawls` Rawlsian*⁹⁰ theory of fairness justice requires equitable distribution of benefits AI benefiting from humans using its works should be equal to creator compensation after infringement.

John Rawl`s theory of equity poses questions whether AI labor in processing data deserves protection, or only human-added value, as humans as well infringe on AI generated works as they aren't protected. Basing on *Immanuel Kant`s theory the Kantian autonomy*⁹¹ defined as the capacity to govern one's own actions based on reason and the universal moral law, rather than

⁸⁶ IBID 8

⁸⁷ HIGH COURT COMMERCIAL DIVISION CIVIL SUIT 373/2010

⁸⁸ NEW YORK TIMES CO. V OPEN AI AND MICROSOFT CORPORATION us 1:23-cv-11195 2023

⁸⁹ https://cipesa.org/wp-content/files/briefs/An_Artificial_Intelligence_Eco-System_for_Uganda__Policy_Brief.pdf

⁹⁰ <https://plato.stanford.edu/entries/rawls/>

⁹¹ <https://plato.stanford.edu/entries/kant-moral/>

being dictated by external forces or internal inclinations. On a basis of Kantian ethics, the question comes whether AI has the ability of the will to be a law to itself, having moral action motivated by reason and not by external influences to preserve intellectual property laws and avoid infringement.

AI as a nascent to creativity directs the research work's consideration of the *Jeremy Bentham's Benthamite Utilization* Philosophy raising questions whether AI's societal benefit such as creativity justify overriding copyright? Globally Various jurisdictions are considering the acculturation of AI as a new model hence enacting regulatory laws. The European Union AI Act, 2024 that requires AI developers to document training data of the AI systems to avoid copyright infringement giving protection to copyright holders. The proposed U.S. Generative AI Copyright Disclosure Act 2024 for transparency and ensuring accountability while balancing innovation and rights-holder interests.

2.2.4 THE FAIR USE ISSUE.

"If you're obliterating the market for authors' work by creating infinite competing products without paying a license, i don't understand how that's fair use." Judge Vince Chhabria⁹²

AI system developers and users allege that what courts and copyright are holders define as copyright infringement is fair use as portrayed in almost all the AI copyright civil actions in US.

The potential for AI to disrupt copyright law can already be seen in early battles over what constitutes "fair use" when training AI models.⁹³ Fair use is a principle under copyright law that enables use of copyrighted work without permission. David Bainbridge asserts that the notion of permitting some use of a copyright work is considered to be fair⁹⁴. Section 14 of the Copyright and Neighboring rights act⁹⁵ portrays the statutory provision of fair use under the Ugandan copyright laws. Justice Madrama expounded that fair use of protected work in its original language shall not be an infringement of the author's property right if there is acknowledgement of use of

⁹² Kadrey v. Meta Platforms, Inc. California Northern District November 20, 2023

⁹³<https://harvardlawreview.org/print/vol-138/artificial-intelligence-and-the-creative-double-bind/>

⁹⁴ DAVID BAINBRIDGE INTELLECTUAL PROPERTY AT PAGE 212

⁹⁵ CAP 222

the author's work, use justified for the purpose of the current events, private educational purposes and public interest⁹⁶This is in opposite of how AI systems are using copyrighted works.

David Bainbridge comprehends that it might be fair dealing to take a copy of an entire work, such as a journal article, for the purposes of non-commercial research or private study but it will not normally be fair dealing to take a large amount of another's work for the purpose of criticism or review. In *Thomson Reuters Enterprise Center v. Ross Intelligence*⁹⁷, the court rejected Ross intelligence defence of fair use defense as Ross Intelligence used Westlaw's headnotes to train their AI, which a process creating a direct tool of competition to Thomson Reuters enterprise. The court emphasized the commercial use and lack of transformative use hence declaring that this was copyright infringement not fair use as the defendants claimed.

Commercial use is acceptable for some forms of fair dealing criticism or review and reporting current events but not for research. AI research bots are however commercial tools. Judge Chhabria expressed concern about fair use claim by AI system developers because AI could flood the market with competing works to copyrighted works such as education textbooks and encyclopedias hence undermining the original creator's economic rights⁹⁸. The judge specifically expounded that AI using copyrighted works will affect the market for copyrighted works, suggesting that generative AI derivative works might not be fair if they compete with copyrighted products. David Bainbridge at page 215 educates that proportion might be important in fair use. It may be fair dealing for the purposes of criticism or review to take percentage of a work, but not to take 40 per cent. courts seem to weigh the commercial aspect heavily. In the *Ross Intelligence* precedent, the use was commercial and non-transformative, which went against fair use. The court decision in *Ross Intelligence* case is similar to *Kadrey v. Meta Platforms* as the commercial aspect was heavily considered by the court.

The motive and extent of the use of the copyrighted works by AI systems has been considered courts in rejecting the defence of fair use. David Bainbridge comprehends that if the motive for the act was to compete with the other work, this is unlikely to be fair dealing. Status of other work, that is whether confidential or published. It is unlikely to be fair dealing if the work taken has not

⁹⁶ ANGELLA KATATUMBA V ANTI CORRUPTION COALITION CIVIL SUIT 307 OF 2011

⁹⁷ INC., 694 F. SUPP. 3D 617 (D. DEL. 2023).

⁹⁸ IBID 38

been published. In Thomson Reuters precedent, Ross Intelligence's product was a direct competitor, so the court found that it affected the market for the original works and potential licensing as this was more of market substitution. The extent of use, if the work is used to an excessive extent, that might take it out of the fair dealing provisions relating to criticism or review. is the use of entire works versus portions? Even though Ross Intelligence AI systems used the works internally, the court considered the impact on the market for training data itself.

Prejudice to the copyright owner, David Bainbridge depicts that Article 9(2) of the Berne Convention for the Protection of Literary and Artistic works allows countries of the Union to permit the reproduction of works in special cases provided it does not conflict with the normal exploitation of the work or unreasonably prejudice the legitimate interests of the author. AI systems owners argue that copyright courts diverge from previous fair use precedents affirming rulings out of favor for generative AI as they allege that their use is transformative and fair⁹⁹. They hope for an appeal, which shows that this area is still contentious. indicate a push for transparency, which could affect future fair use assessments by requiring disclosure of training data.

Conclusively, in Uganda, there are no litigations or judicial precedents portraying fair use as a defence to copyright law infringement by AI, however in the UK, Us and China, courts are rejecting fair use due to commercial intent of AI systems developers and users as well as lack of transformation where at least court would consider a new work that incorporates a copyrighted work in a way that changes its meaning, purpose and character. The Copyright and Neighboring rights act cap 222 under Section 14 provides for fair use in Uganda.

2.2.5 THE DERIVATIVE WORKS ISSUE

'Art is imitation of reality and the artists are imitators of reality'¹⁰⁰ PLATO.

Justice Kagan explained the imitation of art referring to the recycling of artistic elements. Justice Kagan's opinion fielded an expressionistic understanding of transformative use, art is expression¹⁰¹. AI has posed a conflict between copyright law and generative AI works, and AI system developers allege that AI generated works should be registered as derivative works. David

⁹⁹ [https://www.dwt.com/blogs/artificial-intelligence-law-advisor/2025/02/reuters-ross-court-ruling-ai-copyright-fair-use#:~:text=This%20month%2C%20a%20federal%20judge,%2D613%2DSB%20\(D](https://www.dwt.com/blogs/artificial-intelligence-law-advisor/2025/02/reuters-ross-court-ruling-ai-copyright-fair-use#:~:text=This%20month%2C%20a%20federal%20judge,%2D613%2DSB%20(D)

¹⁰⁰ <https://www.acjol.org/index.php/ajap/article/view/2204>

¹⁰¹ <https://harvardlawreview.org/print/vol-137/andy-warhol-foundation-for-visual-arts-inc-v-goldsmith/>

Bainbridge¹⁰² at educates that the creation of the derivative work must itself require skill and judgment, independent from that of the first work. In *Bookmakers Afternoon Greyhound Services Ltd v Wilf Gilbert (Staffordshire) Ltd*¹⁰³ the court held that a person who takes a work, whether it be a formula, a book or a poem, and uses it to produce another work, will only obtain copyright in that other work, if the skill, labour and judgment used to produce that other work are sufficient

Derivative works are works resulting from adaptation, translation or other transformation of an original work but which constitutes an independent creation in itself.¹⁰⁴In the matter of *Mwambusya and another v Museveni*¹⁰⁵copyright application registration objection, the court emphasized that copyright protection extends only to the creative additions of the creator. AI generates its works by improving already existing works. This research work comprehends the reason for regarding AI generated works as derivative works which is improving copyrighted works and coming up with independently new artist works although it is defeated by the human authorship requirement, hence they can't be regarded as derivative works as AI developers argue.

In conclusion, its trite law that non-humans are not authors.¹⁰⁶The arguments that AI generated works are derivative works can only succeed if AI authorship is proved by copyright statutory bodies and the world Intellectual property organisations. The courts have rejected issues of fair use depicting that AI works are not transformative but the main issue is authorship.

2.3 LEGAL CHALLENGES OF ARTIFICIAL INTELLIGENCE IN DATA PROTECTION

This chapter comprehends and analyses data protection laws in correspondence to AI infringement of data privacy. The study explains the AI challenges, highlighting how these challenges influence data protection laws. which then affect compliance.

2.3.1 INTRODUCTION

The central challenge that AI has imposed towards data protection is data privacy infringement. AI systems owners have admitted that AI trains using large masses of data for AI machine learning. The massive data collection required for AI systems training and functioning is a justification to privacy risks. AI penetrates protected websites storing large volumes of sensitive data without

¹⁰²IBID 40 Page 307

¹⁰³ 1994] FSR 723 at 735.

¹⁰⁴ S.2 OF THE COPYRIGHT AND NEIGHBORING RIGHTS ACT CAP 22

¹⁰⁵ Application 25 of 2010) [2013] UGRSB 1 14 February 2013

¹⁰⁶ IBID 4

permission from the owners. There is no transparency as to the black box effect in deep learning models. The research work affirms that generative AI systems are infringing data privacy laws.

The International Covenant on Civil and Political Rights under General Comment 16¹⁰⁷ paragraph 10 states that the gathering and holding of personal information on computers, data banks and other devices, whether by public authorities or private individuals or bodies, must be regulated by law. The European Union AI Act¹⁰⁸ imposes strict transparency and risk assessment rules to AI systems. The Uganda Data Protection and Privacy Act 2019 and African Union Convention on Cyber Security and Personal Data Protection which is the main guiding instrument on privacy and personal data protection. According to S.10 of the Data protection and privacy act 2019, unauthorized data collection and is an offence. AI collecting personal data is used without consent, such as photos in training datasets is an offence in the according to the statutory laws of data protection in Uganda. The law enforcement agencies find it difficult to trace the person infringing on the data leading to wrongful arrests. AI can help in data protection, although it lacks of transparency, and there are security vulnerabilities in AI models, this is justified by the unauthorized data incorporation, biometric data misuse, and lack of regulatory safeguards.

2.3.2 DATAPRIVACY INFRINGEMENT

According to Isaac Christopher Lubogo¹⁰⁹ in his book Cyber Law in Uganda at page 194 through the R v Brown, Lord Hoffman defined privacy as a right to keep one self to our self, to tell other people that certain things are none of their business is under technological threat due to the different and various types of surveillance e.g. surveillance cameras. Article 27 of the Ugandan constitution¹¹⁰ depicts that unlawful search of someone`s property is illegal. Article 17 of the International Covenant on civil and political rights and Article 12 of the Universal Declaration of Human Rights¹¹¹ state inter alia, that no one shall be subjected to arbitrary or unlawful interference with his privacy, that everyone has the right to the protection of the law against such interference or attacks.

¹⁰⁷ UN GENERAL ASSEMBLY 16 DECEMBER 1966

¹⁰⁸ EUROPEAN UNION ARTIFICIAL INTELLIGENCE ACT 2014

¹⁰⁹ CYBER LAW IN UGANDA AT PAGE 194 1ST EDITION

¹¹⁰ 1995 CONSTITUTION OF UGANDA AS AMENDED

¹¹¹ UN GENERAL ASSEMBLY 10 DECEMBER 1948

The strict privacy laws are of essence in giving AI system users and developers direction in shaping AI development and governance. This is visible through the enforcement actions by Data Processing Agreements by European Union against companies like Clearview AI and OpenAI.¹¹² The challenge is whether AI system developers observe compliance varying regulations and the guiding policies. In the US, especially around health data, children`s privacy and national security, AI system developers are forcefully sanctioned to preserve the data privacy laws although it lacks an independent federal law regulating AI in regards to privacy. The question posed by AI system developers and users is to what extent should data be collected and repurposed without the owner`s consent in line with neural data privacy and aggressive state enforcement.

AI collects data with lack consent from protected data owners, in improving accuracy and training AI models. AI systems developers and companies s have faced lawsuits for using copyrighted or personal data including medical records without proper authorization. In *Getty Images v. Stability AI*,¹¹³ the court held that stability AI was infringing data privacy and image rights of the owners of the copyrighted photos that were being scrapped off Getty Images websites. Online users` interactions, browsing history and biometric data such as facial recognition is harvested without transparency and retained by AI models leading to privacy violations. Information collected through user input is no accounted for and there are questions about how AI stores this data. AI is vulnerable in terms of protecting data. AI systems themselves become targets for cyberattacks, exacerbating data protection risks. Hackers manipulate AI models to bypass security controls or extract sensitive training data through techniques like prompt injection. Data leakage by generative AI tools, such as ChatGPT, have inadvertently exposed user conversation histories or proprietary information.

In conclusion, In Uganda with the strict laws such the Computer Misuse act and the Data Protection and Privacy Act 2019, it`s still a challenge in Compliance as there is a struggle to align AI deployment with regulatory demands. GROKAI on Social media platform is used to change user`s images infringing the image rights and data privacy although no one is held accountable. Data minimization requires limiting data collection to specific purposes, but AI collects large datasets. Demonstrating compliance with laws like the European Union AI Act 2024 and the Data

¹¹² <https://www.eylaw.be/insights/the-impact-of-the-gdpr-on-ai>

¹¹³ [2025] EWHC 38 (Ch).

Protection and Privacy Act 2019 requires rigorous documentation of training data sources, model logic, and risk assessments processes many companies lack which is not accounted for. As AI continues to evolve, proactive governance and transparency will be critical to balancing innovation with privacy rights.

2.4 CONCLUSION

This chapter has educated the challenges of AI in Copyright and data protection law, reviewing and analyzing the related literature to the study, analyzing ideas, opinions, from authors, expert and philosophers as well as judicial precedents related to the research work.

CHAPTER 3

3.1 THE LEGAL FRAMEWORKS AND POLICIES REGULATING ARTIFICIAL INTELLIGENCE.

3.2 INTRODUCTION

This chapter maps the statutory and regulatory authorities regulating AI in Uganda and across the globe. This chapter is a revelation of the conundrums, gaps and adaptations between Copyright, data protection and artificial Intelligence. This chapter is a comprehension of the research work's discovery of the statutory definitions of AI, AI regulatory instruments and the ethical guiding policies towards the use of Artificial Intelligence in Uganda and other jurisdictions.

3.3 COPYRIGHT LAW REGULATORY FRAMEWORKS IN REGARDS TO AI.

The Copyright and Neighboring Act Chapter 222 is the legislative statute that governs Copyright law in Uganda. The development of AI as a technology tool and its 'use to create artistic works in Uganda is in infancy, this is justified with the absence of a parliamentary Hansard transcriptions of AI grievances. The Ugandan copyright statute does not address AI as it sticks to the traditional human centered principle of protecting only humans. The Copyright and Neighboring rights act justifies that AI generated works and AI assisted works are uncertainly not copyrightable.

The Uganda Registration Service Bureau under the Uganda Registration Service Bureau act cap 210 is the autonomous body established as a key player in intellectual property rights registration including copyright registration under Section 40 and 41 of the Copyright and Neighboring rights act where the registrar is authorized to register copyright of artistic works. According to Section

42¹¹⁴ Registration of rights, the owner of a copyright or a neighboring right may register the right with the Registrar for the purpose of keeping evidence of ownership of the right, identification of works and author and maintenance of record of the rights. Section 3 of the Copyright act depicts that the work is original if it is the product of an independent author. It is trite law it is only human recognized as authors under the copyright act¹¹⁵This submits the legal fact that AI generated artistic works are ineligible for registration under Ugandan Copyright law.

Infringement of copyright, Section 45 of the Copyright act expounds that where, without a valid transfer, license, assignment or other authorization under this Act a person deals with any work or performance contrary to the permitted free use and in particular where that person does or causes or permits another person to reproduce, fix, duplicate, extract, imitate or import into Uganda otherwise than for his or her own private use, distribute in Uganda by way of sale, hire, rental; or exhibit to the public for commercial purposes by way of broadcast, public performance or otherwise. The use of a piece of work in a manner prejudicial to the honour or reputation of the author shall be deemed an infringement of the right of the owner of the right. Generative AI system owners admit that AI systems are trained before launching them, generative AI systems are trained using vast amounts of data, often taken from sources in the public domain that may be protected by copyright or other intellectual property rights.¹¹⁶ The training of AI systems is an infringement as per S.45 of the Ugandan copyright and Neighboring rights act.

The Ugandan statutory Copyright law protects copyrighted works from infringement by AI a due to the strict provision of infringement under Section 45 of the act. The Copyright act doesn't define Artificial Intelligence, therefore AI is rejected and abandoned by the Ugandan copyright statute.

3.4 THE INTERNATIONAL COPYRIGHT STATUTORY FRAMEWORKS.

The global intellectual property protection is the harbor of intellectual property rights from infringement grievances such as piracy and unauthorised use. The Global intellectual property protection is a network of national copyright law and international treaties that aim to protect creator's rights across borders.

¹¹⁴ Copyright and neighboring rights act cap 222

¹¹⁵ University of London Press v University Tutorial [1916] 2 Ch 601

¹¹⁶ <https://www.nortonrosefulbright.com/en/knowledge/publications/ef8d8cce/infringement-risk-relating-to-training-a-generative-ai-system>

The Berne Convention¹¹⁷. This the international intellectual property law agreement adopted in 1886 that sets the minimum standards of protection of the works and rights of their authors. The Berne convention determines the means to control how copyrighted works are used, by whom, and on what terms. It is based on three basic principles and contains a series of provisions determining the minimum protection to be granted, as well as special provisions available to developing countries that want to make use of them. According to the Berne notification no 289, through the director general of the World Intellectual Property Organization (WIPO) Uganda formally acceded to the Berne Convention on January 28, 2022.¹¹⁸ This means that works created in Uganda are protected under the Berne Convention in all member countries.

The Berne convention is relevant in AI copyright infringement issues, as it represents the provisions of the Ugandan Copyright and Neighboring Rights act¹¹⁹ such human authorship, as it only recognizes human authors as creators of artistic works hence they are the only beneficiaries of the copyright law. The Berne Convention does not recognize AI generated works as it empowers only human authors. It encourages the inclusion of clear indications of the author's name or pseudonym, thereby eliminating any ambiguity surrounding the author's identity. The journal published by the Cambridge University on 23rd January 2024¹²⁰ comprehends that the Berne Convention plays a pivotal role in promoting the protection, recognition, and preservation of the contributions made by authors in the realm of literature and art. Berne Convention therefore protects the rights of creators from AI infringement and also dissolves the confusion of authorship issues.

The Universal Copyright Convention¹²¹. Uganda acceding to the Berne Convention in 2022 reveals that Uganda is implicitly bound by the Universal Copyright Convention as the two conventions often operate in conjunction according to Article 17 of this treaty. The convention was signed at Geneva, on 6 September 1952. Article 5 the Universal Copyright Convention comprehends that Copyright shall include the exclusive right of the author to make, publish, and authorize the making and publication of translations of works protected under this Convention. This depicts that it's a

¹¹⁷ the Berne Convention for the Protection of Literary and Artistic Works, 9 September 1886,

¹¹⁸ https://www.wipo.int/wipolex/en/treaties/notifications/details/treaty_berne_289

¹¹⁹ CAP222

¹²⁰ Copyright Protection for AI-Generated Works: Exploring Originality and Ownership in a Digital Landscape
Published online by Cambridge University Press: 23 January 2024

¹²¹ Universal Copyright Convention Geneva, on 6 September 1952

protection of copyrighted works from AI infringements such as scrapping off copyrighted data from websites.

The World Intellectual Property Organization Copyright Treaty. Article 20 of the Berne Convention recognizes the world intellectual Property Organization treaty¹²². The treaty deals with the protection of works and the rights of their authors in the technology spaces. The treaty is of essence as through Article three asks for copyright protection by the World Intellectual Property Organization. The World Intellectual Property Organization has declared that AI generated works are ineligible for copyright registration through world Intellectual Property conversation on intellectual property and Artificial Intelligence Session July 7 to 9, 2020.

The Trade-Related Aspects of Intellectual Property Rights Agreement, which came into effect on 1 January 1995, is to date the most comprehensive multilateral agreement on intellectual property¹²³. The agreement indirectly recognizes the consideration of Artificial intelligence as t Article 7 comprehends that the protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations. However, the interpretation of Article 7 of the treaty does not justify AI transformation and use of copyrighted works. Article 11 of the TRIPs agreements as it provides that, in respect of at least computer programs and cinematographic works, a Member shall provide authors and their successors in title the right to authorize or to prohibit the commercial rental to the public of originals or copies of their copyright works, the article comprehends that consent from owners should be appreciated before use of their works which collides with what generative AI does.

The European Union Artificial Intelligence Act 2024. This is first regulatory statute of Artificial Intelligence in the world, regarded as the first world`s comprehensive AI law published on 12 July 2024. Lamentably, the act does not specifically address copyright although it points out the issues of transparency by the Generative AI systems owners on the use of data, which includes copyrighted works.

¹²² IBID 5

¹²³ https://www.wto.org/english/tratop_e/trips_e/intel2_e.htm

The international laws as of essence for reason as the Uganda law reform Commission based on these international Intellectual property treaties to revise the 2006 Uganda Copyright and Neighboring Rights Act¹²⁴ to ratify the international intellectual property developments. This research work comprehends that in the near future the Uganda Law Reform Commission has a duty to ratify and define artificial intelligence in regards to copyright law.

3.5 DATA PROTECTION REGULATORY FRAMEWORKS IN REGARDS TO AI

The 1995 Ugandan constitution through Article 27 depicts person data protection through the right to privacy where unlawful interference to someone's property is illegal, this constitutional provision is crucial in safeguarding online information and data.

The Data Protection and Privacy Act 2019, this is the primary act in Uganda that indirectly comprehends data protection from AI abuse. AI relies on protected data to perform tasks and interpret user inputs. This data is collected through finger prints, facial recognition as well as users providing their personal information to generative AI, however users are unaware of what happens to this data. Section 10 of the Data Protection and Privacy act depicts that data shall not be collected in a manner which may infringe privacy of a data subject, this provision portrays the that AI data collection methods are illegal. The Data Protection and privacy act through Section 19 provides that where data is processed from outside Uganda, that collector has an obligation to protect the data collected, this justifies that AI systems owners have mandate to enhance user data protection.

The Computer Misuse Act¹²⁵ commenced on 15th April 2011, this act provides for the security of the electronic information systems transactions. The computer misuse act prevents unlawful access, misuse and abuse of the information systems to ensure a trustworthy electronic environment. AI users are infringing image rights with the use of Deep fakes which are AI-generated images or videos that use deep learning techniques to manipulate or superimpose an existing image or video onto another, creating hyper-realistic but fabricated content¹²⁶. This is prohibited by the computer misuse act through Section 11 which asserts that its unlawful to illegally access a person's online data without his or her consent. The computer misuse act through

¹²⁴https://ulrc.go.ug/documents/7/REVIEW_OF_THE_COPYRIGHTS_AND_NEIGHBORING_RIGHTS_ACT_ISSUES_PAPER_ddzcvG2.pdf

¹²⁵ Cap 96

¹²⁶ <https://www.nationalsecuritylawfirm.com/understanding-the-laws-surrounding-ai-generated-images>

section 12 prohibits AI facilitation of unauthorised modification of the computer contents, this is done by the AI users through creating deep fake images and sounds.

Unauthorised disclosure of information by AI systems such GROKAI on the X social media platform has been admitted by the users of the X platform¹²⁷. This is prohibited by section 17 of the computer misuse act which states that a person who has access to personal information of an individual shall not disclose it without their consent. Although AI has illegal access to people`s information it is prohibited to disclose it although it acts otherwise. The computer misuse act enhances the protection of data from AI unlawful use although, this research work affirms that the act has no capacity to sanction AI use due to the technology development differences between Uganda and countries owning these AI systems.

3.6 THE INTERNATIONAL DATA PROTECTION STATUTORY FRAMEWORKS.

The study finds that there are no specific global data protection statutes. AI`s challenge towards the data protection is data privacy infringement. Uganda accedes to International treaties that prohibit data privacy infringement. Article 17 of the International Covenant on civil and political rights ICCPR and Article 12 of the Universal Declaration of Human Rights UDHR which state inter alia, that no one shall be subjected to arbitrary or unlawful interference with his privacy, nor to lawful attacks upon his honour and reputation and that everyone has the right to the protection of the law against such interference or attacks, AI system owners adhere to these laws.

3.7 CONCLUSION

This chapter analyzed the Ugandan and International statutory and regulatory frameworks of copyright and data protection in regards to Artificial Intelligence.

CHAPTER FOUR

4.1 FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter discusses, comments and analyses the findings, conclusions and recommendations on the legal challenges of Artificial Intelligence in copyright and data protection laws in Uganda. The study involved 20 respondents of whom were intellectual property intellects. The questionnaire and review of existing documents were used to derive the findings of the study.

¹²⁷ <https://www.eurekalert.org/news-releases/988098>

4.2 FINDINGS

The study found out that Intellectual property lawyers and students are puzzled with the evolution of Artificial Intelligence due to lack of a literature definition of Artificial Intelligence and statutory wordings defining AI in regards to copyright and data protection. The study discovered the primary challenge that AI has posed to Copyright law which is the issue of human authorship a traditional core principle of copyright law. The study found that data privacy infringement is the central challenge that AI has posed to data collection law in the electronic environment.

To evaluate Uganda's Copyright and Data Protection laws in defining ownership rights for AI-generated works. The study reviewed, analyzed the Copyright and Neighboring Rights act cap 222 as the primary statute that indirectly regulates artificial intelligence in regards to copyrighted works protection. To examine the ways how AI has infringed copyright and violated protected data. The study has mined and discussed the AI copyright law infringement litigations as well as the portraying the various ways of infringement of the data protection laws.

To identify gaps in Uganda's Copyright and Data Protection laws concerning the attribution and liability of AI-generated works. The study finds that there is no law that regulates artificial intelligence in Uganda, this justifies the bridge between Uganda's Copyright and data protection law. To analyze the roles and responsibilities of the Artificial Intelligence system owners and companies towards protection of already existing copyrighted works. The study found that the international treaties such as the Berne Convention sanction the AI systems owners to ensure transparency and appreciating national laws of copyright protection.

To explore and assess the various legal actions that depict the challenges of artificial intelligence in Copyright law in data protection. The study discovered and exhaustively analyzed the defenses fair use and derivative works raised by the Artificial Intelligence systems owners. To analyze the extent to which AI has recognized the copyright and data protection principles. The study found that AI has abused the copyright law principles, regardless of the judicial precedents and the statutory provisions in place.

4.3 CONCLUSION

This research work answered the main study research question, what are the legal challenges of Artificial Intelligence in Copyright and Data Protection law. The researcher achieved the objective of the study as portrayed in the findings of the study. This study is a reference to the Uganda Law

Reform Commission if considered, while revising the Ugandan Copyright and Data protection laws in regards to Artificial Intelligence. With all the challenges encountered in conducting this study, the researcher asserts that the study achieved its main goal and objective.

The study examined authorship as a central challenge hindering the determining whether AI-generated works qualify for copyright protection and who owns the rights is it the developer, user, or AI itself by AI. Furthermore, the study addressed cases where AI systems reproduce or adapt copyrighted works in the name of fair Use. The study also addressed the data privacy as the central challenge AI has posed to data protection.

The fate of AI generated works is in the hands of the copyright office specifically the URSB, courts of law and the parliament of Uganda to determine whether a revision to the statutory literal meaning of authorship can be achieved. In line with data protection, the mandate lies to AI systems should obtain valid consent and provide clear explanations for data processing activities.

4.4 RECOMMENDATIONS

The researcher provides recommendations for both policy and legal improvements to preserve the Copyright law and protect copyrighted works in the era of Artificial Intelligence reliance by creators. As assessed the we were created by God, we create and we protect what we create, why is it difficult for us to acknowledge creations of our creations yet we are acknowledged by God. The researcher affirms it that the AI challenges can only be addressed with one solution as examined below the researcher recommends the enactment a new law sanctioning AI.

Enacting a sui generis Intellectual Property Rights act about Generative AI works.

The Artificial Intelligence Intellectual Property Rights Act if enacted would outline the procedure and processes registration of generative AI works. It would define the definition of AI and differentiate between AI assisted works and AI generated works. The study highlighted infringement issues in the previous chapters, it explained consequences of literal construction ambiguities of interpreting fair use and derivative work, such a conundrum would be solved by a new law that strictly ratifies and sanctions generative AI works. The International precedent demonstrated how the judicially has been posed with a challenge of Copyright statutory interpretation, this addresses a concern of statutory amendment of the Copyright statutes to address the AI creativity

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6 APPENDICES

6.1 APPENDIX NUMBER 1: INTERVIEW GUIDE TO THE RESPONDENTS

- I. What is your age, tribe, place of residence?
- II. How did you first learn about the Artificial Intelligence?
- III. What works have you created, are they copyrighted?
- IV. How are your works being affected by artificial Intelligence?
- V. Did you face any financial losses as a result of AI infringement on your work?
- VI. Did take any legal action for any infringement on your work by AI?
- VII. How have you been helped by URSB and UCC?
- VIII. Do you think Artificial intelligence is affecting copyright in a positive way or negative way?
- IX. Do you think AI effect can be prevented by the current Copyright and data protection policy?
- X. What should be done to solve the wrestle between Artificial Intelligence and Copyright?
- XI. What do you think the Intellectual property protection bodies should have done?
- XII. Would you ever wish AI wasn't existing?

6.2 APPENDIX 2: A QUESTIONARE TO INTELLECTUAL PROPERTY STUDENTS AND INTELLECTS

Dear Sir/Madam.....,

I am **KASUMBA JOHN DAVIS**, a fourth-year student at Uganda Christian University Mukono. I am carrying out a study about the legal Challenges of Artificial Intelligence in Copyright and Data Protection laws. The information provided is for academic purposes won't be disclosed to any source irrelevant to academics.

NAME..... AGE.....

To your knowledge and exposure toward the challenges of AI in Copyright and Data Protection law, please tick the most applicable answer.

INSTRUMENT	AGREE	DISAGREE	NEUTRAL
AI has negatively affected Copyright			
AI is a threat to electronic data privacy			
There are no laws regulating AI in Uganda			
AI is useful in creation of artistic works			
AI is not established in Uganda			
AI works should be copyrightable			

Thanks for your response

