Prompting protection: Copyright eligibility of human-AI collaborative works under Section 22(3) of Kenya's Copyright legislation

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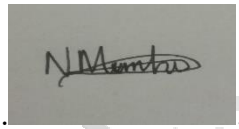
DECLARATION

I, **NATALIE MUMBI WAMBUI GITAU**, do hereby declare that this research is my original work and that to the best of my knowledge and belief, it has not been previously, in its entirety or in part, been submitted to any other university for a degree or diploma. Other works cited or referred to are accordingly acknowledged.



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This dissertation has been submitted for examination with my approval as University Supervisor.

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Cecil Abungu

Date: .....March 17 2025.....

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LIST OF LEGAL INSTRUMENTS

Constitution of Kenya, 2010

Copyright Act, 2001

Copyright and Neighbouring Rights Act, 1999

Industrial Property Act, 2001

United Kingdom Copyright, Designs and Patent Act, 1988

LIST OF CASES

Burrow-Giles Lithographic Co. v Sarony (1884), The Supreme Court of the United States.

Feist Publications Inc. v Rural Telephone Service Company, Inc. (1991), The Supreme Court of the United States.

Infopaq International A/S v Danske Dagblades Forening (2009), The European Court of Justice.

J.W. Seagon & Co. Insurance Brokers (Kenya) Ltd. v Liaison Group (I.B) Limited, Jubilee Insurance Company and Satib Insurance Brokers (2021) eKLR.

Nevin Jiwani v Going Out Magazine and Another (2002) eKLR.

Simon Otieno Omondi v Safaricom (K) Limited (2011) eKLR.

University of London Press Ltd v University Tutorial Press Ltd (1916), The Supreme Court of Judicature.

LIST OF ABBREVIATIONS

AI – Artificial Intelligence

UK – United Kingdom

AIGC - Artificial intelligence Generated Content

ABSTRACT

This study explores whether works created through human-AI collaboration—particularly when humans guide AI through prompts—qualify for copyright protection under Section 22(3) of Kenya's Copyright Act. It examines the legal criteria of originality and sufficient effort in the context of AI-assisted creativity, analyzing both local and international perspectives. The research focuses on Kenya's copyright framework and incorporates comparative legal analysis to assess how other jurisdictions address AI-generated works. Using doctrinal legal research, the study reviews statutory provisions, case law, and scholarly debates to determine how AI-assisted works fit within existing copyright laws.

Findings reveal that human-AI collaboration represents a novel form of creative expression, challenging traditional copyright interpretations. The study demonstrates that users' contributions—through structured prompt engineering and refinement—often constitute substantial creative effort, potentially meeting copyright eligibility requirements and protection.

To address these challenges, the study recommends establishing clearer legal frameworks to define copyright eligibility for AI-assisted works. It also suggests implementing licensing mechanisms for AI training data to prevent copyright disputes and providing specialized training for policymakers and legal professionals on AI and copyright matters. Furthermore, fostering AI research and development in Kenya is essential to encourage innovation and economic growth. These measures will help modernize Kenya's copyright laws, ensuring they remain relevant in the evolving digital landscape while protecting both human creators and AI-assisted works.

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CHAPTER 1: INTRODUCTION

1.1 Background

Gleb Tsipursky's analogy of Generative Artificial Intelligence (AI) as a superhero with a humble beginning mirrors its impactful growth in programming's future.[1] This form of artificial intelligence acts as a universal translator, converting abstract ideas into tangible applications.[2] Its nature is seen to be akin to human thought with the way it operates.[3]

Although generative AI has grown at an unparalleled rate, its evolution was predicted, even though creative industries and regulatory bodies seem to struggle to keep up with its actualisation.[4] This has caused a gap to deepen in the current legal domains, with copyright–a form of intellectual property–becoming the main topic of discussion among scholars.

Intellectual property rights can be defined as a safeguard of intangible property of innovations and rewarding innovative efforts.[5] Article 40(5) of the Constitution of Kenya highlights the government's task in enforcing the protection of intellectual property.[6] Copyright, a form of intellectual property, can be understood as an exclusive right to original works for a period of time.[7] To safeguard these original works, Kenya drafted the Copyright Act which established the Kenya Copyright Board under Section 3 of the Act which is mandated to uphold the significance of intellectual property in Kenya to an immeasurable degree.[8]

[1] Tsipursky G, 'The future of programming in a generative ai world' Forbes, 7th August 2023 https://www.forbes.com/sites/glebtsipursky/2023/08/07/the-future-of-programming-in-a-generative-ai-world/?sh=52abfa8d56c0 on 26th November 2023.
[2] Giles M, 'The GAN father: The man who's given machines the gift of imagination' MIT Technology Review, 21st February 2018 https://www.technologyreview.com/2018/02/21/145289/the-ganfather-the-man-whos-given-machines-the-gift-of-imagination/ on 26th November 2023.
[3] Calo R, 'Artificial intelligence policy: A primer and a roadmap' Social Science Research Network, 2017, 4.
[4] Duval J, 'AI is my copilot: The promise of ai code generation' InfoWorld, 26th June 2023 https://www.infoworld.com/article/2338690/ai-is-my-copilot-the-promise-of-ai-code-generation.html on 6th November 2024.
[5] Kameri-Mbote Dr P, 'Intellectual property protection in Africa: An assessment of the status of laws, research and policy analysis on intellectual property rights in Africa' International Environmental Law Research Centre, Working Paper Number 2, 2005, 1 https://africaportal.org/publication/intellectual-property-protection-in-africa-status-of-laws-research-and-policy-analysis-in-ghana-kenya-nigeria-south-africa-and-uganda/ on 19th December 2023.
[6] Article 40(5), *Constitution of Kenya* (2010).
[7] Merriam Webster Dictionary, 11 ed.
[8] Section 6, *Copyright Act* (Act No 12 of 2001).

The primary aim of copyright protection is inherently utilitarian, as it endeavours to promote the production of artistic and scientific works for the benefit of society at large.[9] This goal incentivises innovation by providing creators with exclusive rights, thereby facilitating societal advancement through their contributions.[10] Nevertheless, generative AI has presented a novel perspective regarding this goal.

For artistic works to be considered eligible for copyright protection, the Kenyan Copyright Act requires that '*sufficient effort has been expended on making the work to give it an original character*' and be reduced to material form.[11] The terms "originality" and "sufficient effort," as referenced in Section 22(3) of the Kenyan Copyright Act, have been the subject of considerable debate due to the lack of clear definitions.[12] This ambiguity, as noted by judicial officers, has led to varying interpretations among scholars and has necessitated a case-by-case application.[13]

While the terms lack explicit definitions, international scholars have, nevertheless, constructed their meanings. "Sufficient effort" and "Originality", have been understood to entail key elements including an intelligent process,[14] which has been characterised by independent skill, labour and a modicum of creativity required in the creation process.[15]

The interpretation of these ideas has been made even more complex by generative AI emergence because in most cases, its results seem to be lacking in adequate effort as well as originality.

To understand how this might be the assumption, one needs to understand how the use of generative AI works. It starts with the user providing a prompt or multiple prompts—a set of instructions used to guide the AI tool in the generation of an image or text, providing the style and features involved.[16] The AI then uses its training data to conceptualise the image based on the

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[9] Zipper T, 'Mind over matter: Addressing challenges of computer-generated works under copyright law' 22 *Journal of Business and Intellectual Property Law* 2, 2022, 137.
[10] Section 2(1), *Copyright Act* (Act No 12 of 2001).
[11] Section 22(3), *Copyright Act* (Act No 12 of 2001).
[12] Otike J and Kwenda R, 'The major weakness of the copyright act, 2001' Academia, 2012, 3.
[13] *J.W. Seagon & Co. Insurance Brokers (Kenya) Ltd. v Liaison Group (I.B) Limited, Jubilee Insurance Company and Satib Insurance Brokers* (2021) eKLR.
[14] Zipper T, 'Mind over matter: Addressing challenges of computer-generated works under copyright law' 140.
[15] Drassinower A, 'Sweat of the brow, creativity and authorship: On originality in Canadian copyright law' 1 *University of Ottawa Law & Technology Journal* 105, 2003-2004, 108.
[16] Henderson P, Li X, Jurafsky D, Hashimoto T, Lemley M and Liang P, 'Foundation models and fair use' Stanford Law School, Stanford Law and Economics Olin Working Paper Number 584, 2023, 4 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4404340 on 6th November 2024.

given inputs.[17] Once the initial image has been generated, the user checks whether it is what he or she has in mind and if not, the prompts are changed until the desired result is achieved.[18] The user then accepts the finished picture and discards the rest of the options.[19] This back-and-forth interaction ensures that the human remains somewhat in control over the creative process, guiding the AI's output to reflect a vision that seems to originate from the human mind.[20]

Additionally, copyright protection is granted to an "author,"[21] who is defined as the individual responsible for the original creation of the works created above, as outlined in Section 22 of the Kenyan Copyright Act.[22] This definition adds complexity to the ongoing debate about generative AI, as the arguments often lead to either recognising the AI system or the human as the author of created works.[23]

Generative AI seems to invite new questions around conventional notions of authorship and originality, particularly in the context of copyright protection. These questions have prompted even the Kenya Copyright Board to address rising concerns relating to copyright protection of AI generated work.[24] As AI increasingly blurs the lines between human and machine contributions, the rise of AI in creative fields may necessitate further examination of how copyright laws could evolve to address these developments.

1.2 Problem Statement

The Kenyan legal framework has struggled to keep pace with technological innovation, leading to gaps in protection for works created by both humans and generative AI. This discrepancy underscores the need for a re-evaluation of the law, particularly Section 22(3) of the Copyright Act. The core issue lies in whether works created through prompts that involve the creative

[17] Murray M, 'Tools do not create: Human authorship in the use of generative ai' 15 *Journal of Law, Technology and the Internet* 1, 2013, 89.
[18] Lee E, 'Prompting progress: Authorship in the age of ai' 76 *Florida Law Review* 1, 2023, 17.
[19] Murray M, 'Tools do not create: Human authorship in the use of generative AI' 89.
[20] Joyce C and Ochoa T, 'Reach out and touch someone: Reflections on the 25th Anniversary of Feist Publications, Inc. v Rural Telephone Service Co' 54 *Houston Law Review* 257, 2017, 287.
[21] Section 31, *The Copyright Act* (Act no 12 of 2001).
[22] Section 22, *The Copyright Act* (Act no 12 of 2001).
[23] Hals T and Brittain B, 'Insight: Humans vs Machines: The fight to copyright ai work' Reuters, 1st April 2023 https://www.reuters.com/default/humans-vs-machines-fight-copyright-ai-art-2023-04-01/ on 17th September 2024.
[24] Kang'ethe M, 'Me, myself and ai: Should Kenya's patent law be amended to recognize machine learning systems as inventors?' 8 *Strathmore Law Review* 1, 2023, 78.

selection, coordination, or arrangement of uncopyrightable facts—collaborating with generative AI—should be eligible for copyright protection under Section 22(3) of the Kenyan Copyright Act.

1.3 Research Questions

1. What is generative AI and how is it applied in the creative process?
2. How does generative AI impact the interpretation and application of copyright law, specifically;
    a) What are the legal requirements under Section 22(3) of the Kenyan Copyright Act, and how are the terms 'sufficient effort' and 'original character' understood in the context of copyright law and generative AI from both an African and international perspective
    b) What challenges and consequences do generative AI pose to the conventional understanding of copyright eligibility and protection?
3. Should works generated through prompts that creatively select, coordinate, or arrange uncopyrightable facts—collaborating with generative AI—be eligible for copyright protection under Section 22(3) of the Kenyan Copyright Act.

1.4 Research Objectives

1. To examine Generative AI nature and its applications in creative processes in different areas.
2. To analyse the legal requirements of Section 22(3) of the Kenyan Copyright Act, with a particular focus on the interpretation of 'sufficient effort' and 'original character,' and to evaluate the challenges and implications that generative AI presents to traditional copyright protection from both African and international perspectives.
3. To determine whether works generated through prompts that creatively select, coordinate, or arrange uncopyrightable facts—collaborating with generative AI—should be eligible for copyright protection under Section 22(3) of the Kenyan Copyright Act.

1.5 Hypothesis

Works created through prompts that involve the creative selection, coordination, and arrangement of uncopyrightable facts, in collaboration with generative artificial intelligence, should qualify for

copyright protection under Section 22(3) of the Copyright Act. These prompts represent a significant human contribution to the creative process, crucial for shaping the final work.

1.6 Justification of Study

This study would be useful to the Kenya Copyright Board as they evaluate their eligibility standards for copyright protection due to the rise of generative AI, which has changed how digital content is created. To stay relevant, the Board may need to reassess its approach to AI-assisted works which in turn may encourage lawmakers to update copyright laws, ensuring proper protection for creators and fostering innovation in Kenya's evolving digital economy. It will provide valuable insights for adapting copyright regulations to address the evolving challenges and opportunities in digital environments.

In addition to the Kenya Copyright Board, various stakeholders ranging from digital content creators to AI developers, policy makers and copyright scholars and researchers in the generative AI field, this study would provide a new perspective that would help inform their understanding of how to navigate the emerging intersection of AI and copyright law.

1.7 Conceptual Framework

This study will be premised on the perspective of the relationship between humans and artificial intelligence throughout the cycle of the creative process. The study will rely on two main concepts: the Symbiotic Creativity Framework and AI as a tool in the creative process.

1.7.1 Symbiotic Creativity Framework

The intersection of human creativity and artificial intelligence lies at the centre of a growing debate over copyrightable works. Contrary to popular belief, generative AI is not an entirely autonomous entity; it heavily relies on human input, whether minimal or substantial, during the creative process.[25] Therefore, the notion of attributing authorship under the umbrella of a human creator is not far-fetched.

[25] Ezema A and Ibekwe C, 'Ownership of copyright in works of ai: Need for a legal framework' 10 *Journal of Public and Private law* 1, 2020, 115.

To grasp this concept, it is crucial to revisit the foundational theories of copyright law—Locke's Labour Theory,[26] Hegel's Personality Theory,[27] and the Utilitarian Theory.[28] These theories were originally designed to allocate legal personhood to humans, thereby protecting their creative works. However, they did not foresee the digitised nature of modern creativity, which challenges these rigid perspectives.[29] Artificial intelligence, with its ability to generate content, disrupts traditional notions of authorship.

A key pillar of authorship is originality; the two are inextricably linked.[30] Originality is the defining concept that establishes the relationship between an author and their work.[31] While national legislations often reference originality as a criterion for authorship, they seldom provide a concrete definition. Originality can be understood from two perspectives: the objective test, which aligns with the "sweat of the brow" doctrine,[32] and the subjective test,[33] which requires the imprint of the author's personality on the work. In Kenyan jurisdiction, these two perspectives are considered in tandem.

The discourse surrounding generative AI often overlooks the element of originality, frequently dismissing AI as merely copying existing copyrightable works.[34] However, this view oversimplifies the issue as it has been proved that the human prompts used to guide AI in creating works have demonstrated a unique form of creativity that could arguably qualify for authorship.[35]

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[26] Section 27 of the Second Treatise of Government John Locke states that 'every man has property in his own person' and goes further on to explain that whatever man has mixed with his own labour becomes his own resource. This is the foundation for granting exclusive rights to an author of copyright.

[27] Priya K, 'Intellectual property and the Hegelian justification' 1 *National University of Juridical Sciences* 2, 2008, 362. Hegel's personality theory, in comparison to Locke places protection on the basis that the personality of person was imbued on the creation making it a clear individualistic work.

[28] Though the Utilitarian theory is concerned with the benefit and welfare of the society, copyright is seen as an incentive for the society to keep creating creative works.

[29] Ezema A and Ibekwe C, 'Ownership of copyright in works of ai: Need for a legal framework' 114.

[30] Oriakhogba D, 'The scope and standard of originality and fixation in Nigeria and South African copyright law' 2 *African Journal of Intellectual Property* 2, 2018, 9.

[31] Craig C, 'The evolution of originality in Canadian copyright law: Authorship, reward and the public interest' 2 *University of Ottawa Law and Technology Journal* 2, 2005, 427.

[32] https://www.indialaw.in/blog/law/analysis-of-doctrines-sweat-of-brow-modicum-of-creativity-originality-in-copyright/ on 29th August 2024.

[33] Gervais D, 'Feist goes global: A comparative analysis of the notion of originality in copyright law' 49 *Journal of the Copyright Society of the United States of America* 4, 2002, 968-969.

[34] Hayes C, 'Generative artificial intelligence and copyright: Both sides of the black box' Social Science Research Network, 2023, 9.

[35] Hayes C, 'Generative artificial intelligence and copyright: Both sides of the black box' Social Science Research Network, 2023, 10.

1.7.2 AI as a Creative Tool

This concept stems from a landmark photography case that laid the groundwork for copyright protection of photographs.[36] Critics of photography once argued that it merely involved pointing a camera at an already existing subject, a process they considered fundamentally different from the artistry involved in creating a painting from scratch.[37] However, the court determined that photography required more than just capturing an image—it also involved skill, creativity, and an artistic eye.[38] This ruling established that the creative decisions made by a photographer, such as framing, lighting, and composition, were enough to warrant copyright protection. This argument has since evolved and is now being applied by scholars to recognize AI as a creative tool, much like Microsoft Word or Excel which is now serving as an active participant in the creative process.[39]

Art, fundamentally, is a shared cultural language, and nearly all creative works build upon pre-existing ideas.[40] Human creativity draws from imagination, past experiences, and emotions to generate new concepts.[41] Generative AI operates similarly, albeit on a much larger scale, processing vast amounts of data. However, it lacks the emotional depth that characterises human creativity.[42] This process of mimicking human creativity raises an intriguing possibility: that all human creativity may stem from a shared pool of ideas, akin to Carl Jung's concept of the "collective unconscious."[43] This notion parallels Locke's theory that, in the beginning, all things were held in common.[44] The key distinction between human creativity and AI lies in AI's training

[36] *Burrow-Giles Lithographic Co. v Sarony* (1884) The Supreme Court of the United States.
[37] *Burrow-Giles Lithographic Co. v Sarony* (1884) The Supreme Court of the United States.
[38] Kogan T, 'The enigma of photography, depiction, and copyright originality' 25 *Fordham Intellectual Property, Media and Entertainment Law Journal* 4, 2015, 886.
[39] Burk D, 'Thirty-Six views of copyright authorship, by Jackson Pollock' 58 *Houston Law Review* 2, 2020, 266.
[40] Hayes C, 'Generative artificial intelligence and copyright: Both sides of the black box' Social Science Research Network, 2023, 6.
[41] Marr B, 'The intersection of ai and human creativity: Can machines really be creative?' Forbes, 27th March 2023 https://www.forbes.com/sites/bernardmarr/2023/03/27/the-intersection-of-ai-and-human-creativity-can-machines-really-be-creative/ on 29th August 2024.
[42] Schwanke A, 'Generative ai-Never truly creative?' Medium, 19th July 2024 https://medium.com/@axel.schwanke/generative-ai-never-truly-creative-68a0189d98e8 on 6th November 2024.
[43] Dr Sultana R, 'Jung's collective unconscious and individuation theory in Paulo Coelho's the Zahir' 6 *Journal for Research Scholars and Professionals of English Language Teaching* 34, 2022, 1.
[44] Judge R, 'Restoring the commons: Toward a new interpretation of Locke's theory of property' 78 *Land Economics* 3, 2022, 331.

set, which serves as a digitised version of this shared pool of information.[45] This relationship between AI and collective human knowledge warrants further exploration.

The legal debates surrounding AI-driven apps like Midjourney reveal that a new, niche form of creativity is at play.[46] The act of crafting writing prompts to guide these AI tools demonstrates a level of creative involvement. According to the subjective test referenced earlier, even minimal creativity can satisfy the threshold for copyright protection of an original work.[47] This emerging form of creativity, rooted in the interaction between human input and AI output, challenges traditional notions of authorship and creativity in profound ways.

1.8 Literature Review

The relationship between generative AI and copyright law is a complex and significant topic, attracting global attention from scholars and legal experts. This literature review aims to simplify and explore the key themes and approaches within this field. Although there is limited scholarly work on this subject within Kenya, insights from foreign scholars provide valuable evidence that contributes to the ongoing debate about creativity in the realm of Artificial Intelligence, with implications for the Kenyan jurisdiction.

1.8.1 On reimagining creativity in the world of artificial intelligence

It would be accurate to state that generative AI has thrust the global sphere into a pre-matrix world before powerful machines take over.[48] This has rapidly advanced over time, bringing with it profound implications for our understanding of creativity and copyright law. As these machines evolve from tools to creators, they challenge traditional notions of what constitutes 'original' work

[45] Hayes C, 'Generative artificial intelligence and copyright: Both sides of the black box' Social Science Research Network, 2023, 9.
[46] Roose K, 'An ai-generated picture won an art prize. Artists aren't happy' The New York Times, 2nd September 2022 https://www.nytimes.com/2022/09/02/technology/ai-artificial-intelligence-artists.html on 20th February 2025.
[47] *J.W. Seagon & Co. Insurance Brokers (Kenya) Ltd. v Liaison Group (I.B) Limited, Jubilee Insurance Company and Satib Insurance Brokers* (2021) eKLR.
[48] Foy N, 'Does copyright protection extend beyond original works in ai world' New York City Bar Association, 8th April 2024 https://nysba.org/does-copyright-protection-extend-beyond-original-works-in-an-ai-world/ on 17th August 2024.

under copyright standards.[49] Creativity, which has been referred to as the use of imagination or original ideas to create something, is at the heart of this debate. [50]

The introduction of generative AI more importantly presents a pivotal challenge to the foundational principles of copyright law.[51] How these principles are applied will determine whether the law can effectively adapt and evolve or if it will fall into a recurring pattern where technological advancements continually outpace legal frameworks. This dynamic will be crucial in shaping the future of copyright protection in the face of rapidly evolving AI technologies.

Two influential principles are the idea-expression dichotomy which governs the protectability of works and substantial similarity for copyright infringement.[52] While the former is complicated by the expression of creativity as a result of prompt based system,[53] the latter is blurred as detecting infringement of copyrightable works becomes even more challenging as the output could be generated from the independent creation of the Artificial Intelligence's training data.[54] Given these challenges, applying current legal frameworks to generative AI may prove impractical, highlighting the need for a re-evaluation of these principles to ensure the law keeps pace with technological advancements.

1.8.2 On the relativity of the novel understanding of authorship

"Who should be recognized as the author when AI generates a work—the person who operates the machine, or the one who developed the AI?" This question lies at the heart of one of the most influential debates in copyright law: the issue of authorship. Traditionally, authorship has been defined as the 'person involved in the initial creation of the work,' a concept that becomes increasingly complex with the advent of AI.[55] Historically, authorship has been reserved exclusively for human creators, with legal frameworks remaining silent on the inclusion of non-

[49] Guadamuz A, 'Artificial intelligence and copyright' World Intellectual Property Organization, 1st October 2017 https://www.wipo.int/web/wipo-magazine/articles/artificial-intelligence-and-copyright-40141 on 18th August 2024.
[50] Marr B, 'The intersection of ai and human creativity: Can machines really be creative' Forbes, 27th March 2023 https://www.forbes.com/sites/bernardmarr/2023/03/27/the-intersection-of-ai-and-human-creativity-can-machines-really-be-creative/ on 19th August 2024.
[51] Lemley M, 'How generative ai turns copyright upside down' Social Science Research Network, 2023, 1.
[52] Lemley M, 'How generative ai turns copyright upside down' Social Science Research Network, 2023, 26.
[53] Congressional Research Service, *Generative Artificial Intelligence and Copyright Law,* 2023, 3.
[54] Lemley M, 'How generative ai turns copyright upside down' Social Science Research Network, 2023, 34.
[55] Orland Y, 'Artificial intelligence and copyright protection' 5 *International Journal of Business Research* 1, 2024, 7.

human entities.[56] This silence is largely due to the challenge of assigning liability to an entity that lacks legal personhood.

The advent of AI has prompted a re-examination of the concept of authorship. Some argue that AI, due to its ability to generate independent outputs without direct human intervention, should be recognized as an author.[57] The perception that the generative AI systems independently create art could be based on the fact that their impressive capabilities liken them to seem 'intelligent' or 'talented'.[58] Although, this may be a result of personification of objects that exhibit such traits and attributing to them creative or artistic abilities.[59] This perspective however, conflicts with current legal definitions, which emphasise the necessity of human creativity and intention. In some jurisdictions, such as the UK, the law has evolved to recognize the individual utilising the AI as the author, aligning with the principle that human intervention is necessary for copyright protection.[60]

Another perspective suggests applying the employer-employee doctrine typically used in 'work-for-hire' scenarios.[61] Under this approach, authorship would be transferred from the AI, viewed metaphorically as an 'employee,' to the AI's programmers or the company owning the technology. This modification aims to address the legal complications that arise from AI's lack of legal personhood, ensuring that responsibility can be appropriately assigned under copyright law.[62] As AI continues to evolve, the question of authorship will remain a pivotal issue, likely requiring further adaptation of copyright laws to address the complexities introduced by non-human creators.

While I align with the conclusions drawn by established scholarly research, my contribution to the field will be to introduce a novel methodological approach. I plan to apply a deductive framework that integrates various concepts and theories to support the extension of copyright protection to specific works created through collaboration between artificial intelligence and humans. This approach aims to offer a creative and innovative perspective on copyright eligibility.

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[56] Orland Y, 'Artificial intelligence and copyright protection' 7.
[57] Burk D 'Thirty-six views of copyright authorship, by Jackson Pollock' 266.
[58] Mitchell M, 'How do we know how smart ai systems are' 381 *Science* 6654, 2023, 1.
[59] https://www.wired.com/story/when-ai-makes-art/ on 16th September 2024.
[60] Lemley M, 'How generative ai turns copyright upside down' Social Science Research Network, 2023, 34.
[61] Denicola R, 'Ex Machina: Copyright protection for computer-generated works' 69 *Rutgers University Law Review* 251, 2016, 283.
[62] Hristov K, 'Artificial intelligence and the copyright dilemma' 47 *The Journal of the Franklin Pierce Center for Intellectual Property* 3, 2017, 443.

1.9 Methodology

For this study, I will utilise both primary and secondary sources.

In Chapter 2, I will focus on primary sources while conducting a qualitative literature review to understand the basic concept of Generative AI, how it has evolved through time, and what its current applications are within the creative fields of art, music, and writing. specifically, how it interacts with the Copyright Act.

The first part of chapter 3 will use a doctrinal legal research approach. This method will involve analysing legal texts, including case law, statutes, and judicial interpretations, to understand the specific legal requirements of Section 22(3) of the Copyright Act. Focus will be placed on understanding the terms 'sufficient effort' and 'original character,' which are central to copyright protection. Various arguments from both African and International perspectives will be analysed. The second section will involve analysing the consequences and challenges which works created with generative AI have caused.

In Chapter 4, a doctrinal analysis will be conducted to examine whether works generated through prompts that creatively select, coordinate, or arrange uncopyrightable facts in collaboration with generative AI are eligible for copyright protection under Section 22(3) of the Kenyan Copyright Act.

1.10 Chapter Breakdown

Chapter 1 will provide the background as well as the conceptual framework which serves as the foundation of the study.

Chapter 2 will discuss Generative AI and assess how this phenomenon has developed and what it does in the current creative activities.

Chapter 3 will look at Section 22(3) of the Copyright Act and will focus on the meaning of 'sufficient effort' and 'original character.' The study will examine copyright law standards and assess whether the collaboration between generative AI and human creators meets the established criteria. Various perspectives will be examined to build an argument for recognizing works created through human-AI collaboration. It will also discuss the challenges and consequences posed by generative AI to copyright law, particularly around originality and authorship.

Chapter 4 will present a synthesised analysis that examines whether works generated through prompts that creatively select, coordinate, or arrange uncopyrightable facts in collaboration with generative AI are eligible for copyright protection under Section 22(3) of the Kenyan Copyright Act.

CHAPTER 2: THE DEVELOPMENT AND FUNCTIONALITY OF GENERATIVE AI

2.1 Introduction

Scientific revolutions have characterized all human history, bringing about technological changes that impact social structures and legal frameworks in society. Suffice it to say today AI capabilities are not lagging in this revolution.[63] This has been referred to as the Fourth Industrial Revolution, driven by technological advancements, with one of the key innovations being generative AI.[64] This key technology is coursing through the world, taking over and swiftly changing society in ways that affect every core of their lives.[65] Andrew Ng went as far to label it as 'new electricity' that challenges every industry and has the potential to challenge short and long term legal assumptions.[66]

AI has been defined as a computer system that carries out tasks that would normally require human intelligence,[67] and is expected to revolutionize how certain tasks are performed and spur innovation.[68] The growing demand in society for higher productivity—and potentially greater creativity—has driven the need to integrate human intelligence into machines, which was the original driving force behind the AI system creation.[69] Numerous organizations have already established AI indexes to track development and countries' readiness to integrate AI into their society.[70]

AI technology has introduced capabilities that go beyond gathering information to text-to-image creation through a process known as prompt engineering which has sparked an explosion of creativity which has shown no promise of stopping anytime soon.[71] Despite the fact the AI field

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[63] Jiang Y, Li X, Yin S and Kaynak O, 'Quo vadis artificial intelligence' 2 *Discover Artificial Intelligence* 4, 2022, 15.
[64] Masters L, 'Africa, the fourth industrial revolution and digital diplomacy: (Re)Negotiating the international knowledge structure' 28 *South African Journal of International Affairs* 3, 2021, 369.
[65] Lee E, 'Prompting progress: Authorship in the age of artificial intelligence' 80.
[66] Lynch S, 'Andrew Ng: Why artificial intelligence is the new electricity' Stanford Graduate School of Business, 11th March 2017 https://www.gsb.stanford.edu/insights/andrew-ng-why-ai-new-electricity on 10th November 2024.
[67] White C and Matulionyte R, 'Artificial intelligence painting the bigger picture for copyright protection' Social Science Research Network, 2019, 1.
[68] Eloundou T, Manning S, Mishkin P and Rock D, 'GPTs are gpts: An early look at the labour market impact potential of large language models' ResearchGate, 2023, 4.
[69] Jiang Y, Li X, Yin S and Kaynak O, 'Quo vadis artificial intelligence' 1.
[70] Stanford University, 'The artificial intelligence index 2024 annual report,' 2024, 14.
[71] Popli N, 'The artificial intelligence job that pays up to $355k–and you don't need a computer engineering background' Time, 14th April 2024 https://time.com/6272103/ai-prompt-engineer-job/ on 10th November 2024.

has been operating under the assumption that the more advanced the better, this exponential growth has not been without concern and has had two major questions being asked: Whether the works created by these systems are protected by copyright and more importantly who is to own these works.[72]

To make sense of this growth, one would first have to understand the inner workings of how generative AI systems operate

2.2 Inner workings of AI

This section explores the fundamental structure of generative AI and its operational mechanisms.

2.2.1 Types of AI

AI systems are categorised into three categories namely weak AI, strong AI and super-intelligence systems.[73] Weak AI is designed for specific tasks like answering questions or playing games. Strong AI, which we are moving toward, can think and reason like a human. Super-intelligence, still theoretical, refers to AI surpassing human intelligence in all cognitive domains.

One of the key elements of these AI systems is their ability to learn through the training data and adjust their internal parameters through weights–in this case a set of numerical values that aid the AI in improving predictions– to produce the desired outputs.[74]

2.2.2 Learning of AI systems

Understanding how these systems can learn from data and generate content highlights the core of artificial intelligence: machine learning. Machine Learning (ML) is a branch of AI which involves developing algorithms in such a way that they can automatically learn and improve with experience.[75] In Machine Learning and AI training, algorithms—systematic processes that guide

[72] Lee E, 'Prompting progress: Authorship in the age of artificial intelligence' 2.
[73] Pearlman R, 'Recognizing artificial intelligence (ai) as authors and inventors under U.S. intellectual property law' 24 *Richmond Journal of Law and Technology* 2, 2024, 10.
[74] Rothman E and Abbott R, 'Disrupting creativity: Copyright law in the age of generative artificial intelligence' 75 *Florida Law Review* 6, 2023, 1147.
[75] Denicola R, 'Ex machina: Copyright protection for computer generated works' 254.

computers—rely on vast amounts of data to label, analyse, or identify patterns and as a result generate entirely new works.[76]

To achieve this machine learning systems, use neural networks.[77] A neural network employs a divide-and-conquer strategy to learn functions: each neuron in the network learns a simple function, and the overall, more complex function—defined by the network to map inputs to outputs—is constructed by combining these simpler functions.[78]

How the AI system is able to achieve this 'learning' is in 3 ways: Supervised learning, which involves algorithm learning to use the input variable to achieve the desired output variable.[79] In addition there is unsupervised learning which involves the algorithm identifying patterns on its own without prior training.[80] In this case the algorithm relies on the input data without a desired output variable by trying to identify functions that map similar examples into clusters.[81] Lastly, Reinforcement learning which is an experience based system when an agent is placed in an environment, and through trial and error and an embedded reward system in place, it is able to come to the best possible outcome.[82]

Furthermore, a more advanced subset of machine learning known as deep learning has surfaced. Deep learning owes its uniqueness to artificial neural networks that are capable of making accurate data-driven decisions especially where the data relied on is complex and there are large datasets.[83] These neural networks, a replica of neurons found in the human brain, transmit signals to send information to each other in order to translate words and phrases into a language that the model understands, processes and identifies patterns.[84] This replica of the human brain is arguably due to

[76] Guadamuz A, 'A scanner darkly: Copyright liability and exceptions in artificial intelligence inputs and outputs' Social Science Research Network, 2023, 1.
[77] Kang'ethe M, 'Me, myself and ai: Should Kenya's patent law be amended to recognize machine learning systems as inventors?' 81.
[78] Kelleher J, *Deep learning*, Gildan Audio and Blackstone Publishing, New York, 2021, 10.
[79] Bahn L and Strobel G, 'Generative artificial intelligence' ResearchGate, 2023, 63.
[80] Kang'ethe M, 'Me, myself and ai: Should Kenya's patent law be amended to recognize machine learning systems as inventors?' 73.
[81] Kelleher J, *Deep learning*, Gildan Audio and Blackstone Publishing, New York, 2021, 27.
[82] Naeem M, Rizvi S and Coronato A, 'A gentle introduction to reinforcement learning and its application in different fields' 8 *Institute of Electrical and Electronics Engineers* 2020, 1.
[83] Kelleher J, *Deep learning*, Gildan Audio and Blackstone Publishing, New York, 2021, 1.
[84] https://www.ibm.com/topics/neural-networks#:~:text=A%20neural%20network%20is%20a,options%20and%20arrive%20at%20conclusions on 10th November 2024. See also Matsuo Y, Reid M, Gu S and Kojima T, 'Large language models are zero-shot reasoners' ResearchGate, 2022, 3.

the philosophy of Anthropocentrism–or more specifically human exceptionalism–which positions humans as uniquely distinct by asserting the notion that there are certain traits in humans such as intelligence and rationality that distinguish us from non-humans.[85]

Driven by the developments in deep learning, deep generative models have been able to generate new content from existing data through learning the underlying structure and generation processes of the data generation of high-quality content. This has given rise to what is termed today as generative AI, which has proven capable of producing realistic and diverse content.[86]

Deep learning relies on two main models to operate, which form the foundation of its functionality. The first model is known as large language models(LLMs) which consist of neural networks, which transmit signals to send information to each other in order to translate words and phrases into a language that the model understands, processes and identifies patterns.[87] The uniqueness of LLMs are the large amounts of text data that they are trained on to make billions of word predictions, helping them learn detailed patterns in language.[88]

The alternative model, diffusion models involve generation of visual works through the random noise being introduced into the data using a Markov Chain, and then learn to reverse this process to recreate the desired data from the noise.[89] Through a random seed it ensures that the images created are unique even though they may appear similar from the same text prompt.[90] These models are largely trained on vast amounts of data, both copyrighted and non-copyrightable data, which is acquired through a process known as web scraping. [91]

Prompting, which is a key feature of generative AI systems, is a unique technique that enables end users to use natural language.[92] In particular, prompts serve as inputs to guide the AI system to

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[85] Villamarin A, 'Artificial intelligence and its implications for human consciousness: A philosophical exploration' ResearchGate, 2023, 3.
[86] Bahn L and Strobel G, 'Generative artificial intelligence' ResearchGate, 2023, 63.
[87] https://www.ibm.com/topics/neural-networks#:~:text=A%20neural%20network%20is%20a,options%20and%20arrive%20at%20conclusions on 10th November 2024. See also Matsuo Y, Reid M, Gu S and Kojima T, 'Large language models are zero-shot reasoners' ResearchGate, 2022, 3.
[88] Kunz J 'Understanding large language models: Towards rigorous and targeted interpretability using probing classifiers and self-rationalisation' Published LLM Thesis, Linköping University, Linköping, 2024, 3.
[89] Ghodsi A, 'Diffusion models: Tutorial and survey' ResearchGate, 2024, 1.
[90] Sag M, 'Copyright safety for generative ai systems' 61 *Houston Law Review* 2, 2023, 324.
[91] Lucchi N, 'ChatGPT: A case study on copyright challenges for generative artificial intelligence systems' 15 *European Journal of Risk Regulation* 3, 2023, 9.
[92] World Intellectual Property Organization, *Generative Artificial Intelligence,* 2024, 19.

create a desired output which could fall in the realm of either text, images or any other type of output.[93]

2.3 The five essential stages in the generative AI process

The generative AI process involves five key stages that highlight a new form of creation at play. The first step is the conceptual stage where the author, referred to as the creator of the work, envisions an idea of what he seeks to create.[94]

This is followed by the prompting stage which relies on external human input—provided through text prompts—to guide AI operations.[95] These prompts act as catalysts for AI-generated output, significantly influencing its thematic elements, style choices, and narrative structures.[96] Text prompts in AI systems often involve a creative element on the part of the user as they guide the AI's artistic expression.[97]

The generation stage, while often perceived as complex in the context of AI, is not a new phenomenon. This is the stage that is referred to as AI as a black box as it has proved difficult, in human-intelligible terms, how a specific neural network input within it can generate results to a specific output.[98]

Once the generation stage is passed, it undergoes refining which involves going back to the steps of prompting and generation.[99] The final result of the refining stage is what we consider as output.

2.4 Conclusion

By understanding how these generative AI systems operate through the novel and unique innovation involved in training these AI systems to in the end time generating output it sets the stage for further exploration of AI's applications, limitations, and ethical considerations in subsequent chapters.

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[93] Torres I, 'Copyright implications of the use of generative ai' Published LLM Thesis, Universität Pompeu Fabra, Barcelona, 2023, 42.
[94] *Burrow-Giles Lithographic Company v Sarony* (1884), The Supreme Court of the United States.
[95] https://huit.harvard.edu/news/ai-prompts on 1st December 2024.
[96] https://docs.midjourney.com/docs/prompts on 29th November 2024.
[97] Ginsburg J and Budiardjo L, 'Authors and machines' 34 *Berkeley Technology Law Journal* 2019, 417.
[98] Rudin C and Radin J, 'Why are we using black box models in ai when we don't need to? A lesson from an explainable ai competition' Harvard Data Science Review, 22nd November 2019, https://hdsr.mitpress.mit.edu/pub/f9kuryi8/release/8 on 12th November 2024.
[99] Murray M, 'Tools do not create: Human authorship in the use of generative AI' 89.

CHAPTER 3: THE PHILOSOPHICAL AND LEGAL DIMENSIONS OF COPYRIGHT IN THE AGE OF AI

3.1 Introduction

'To be, or not to be "original", ' is a question Hamlet would have had to contend with if he were a poet in the age of AI.[100] The presence of AI in the creative sphere marks the 3A Era of Advanced, Automated and Autonomous digital tools.[101] It has enabled the creation of creative outputs, either in collaboration with humans or independently.[102] This historically has been regarded as an action attributable to humans only viewing them as the only beings capable of reflecting their soul and intellect through their creations.[103] Even the laws and economics associated with such, reflect that they focused on incentives based on the human trait alone.[104]

Nonetheless, artificial intelligence-generated content(AIGC) persists, with reports predicting that by the end of the decade, the majority of artistic, musical, and literary works—traditionally considered copyrightable—will be AI-generated.[105] AI creations and traditional human creations are currently operating parallel to each other in today's society with the prediction that the former may dominate the society in the foreseeable future.

The technological advances brought about by AI challenge the foundational concepts of copyright law.[106] Thus, we must be prepared to reconsider the meanings of some of these concepts, which have become even more uncertain and address the important question of whether AI-generated output should be eligible for protection under copyright law.

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[100] Iaia V, 'To be or not to be…Original under copyright law, that is (one of) the main questions concerning ai-produced works' 71 *Journal of European and International Intellectual Property Law* 9, 2022, 1.
[101] Hernandez L and Ravid S, 'Copyrightability of artworks produced by creative robots driven by artificial intelligence systems and the concept of originality: The formality-objective model' Social Science Research Network, 2017, 6.
[102] Denicola R, 'Ex machina: Copyright protection for computer-generated works' 257.
[103] Atilla S, 'Dealing with ai-generated works: Lessons from the copyright, designs and patent act section 9(3)' 19 *Journal of Intellectual Property Law and Practice* 1, 2024, 45.
[104] Mocan N and Gittings R, 'The impact of incentives on human behaviour: Can we make it disappear? The case of the death penalty' National Bureau of Economic Research, National Bureau of Economic Research Working Paper 12631, 2006, 1 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=938957 on 2nd December 2024.
[105] Bilton N, 'The new generation of ai apps could make writers and artists obsolete' Vanity Fair, 2nd June 2022 The New Generation of A.I. Apps Could Make Writers and Artists Obsolete | Vanity Fair on 4th December 2024.
[106] Hernandez L and Ravid S, 'Copyrightability of artworks produced by creative robots driven by artificial intelligence systems and the concept of originality: The formality - objective model' Social Science Research Network, 2017, 7.

3.2 Philosophical foundations of Copyright

3.2.1 Idea-expression dichotomy

The idea-expression dichotomy essentially states that original ideas in line with copyright protection are not protected and only the expression of such ideas in tangible form can be protected.[107] In this context, ideas are considered 'free as air'.[108] The main reasoning for this twofold being that firstly protecting ideas solely is difficult as how do we determine who, what and when a person came up with such an idea and additionally providing protection for ideas would stifle creativity, an action contrary to the goal of copyright protection.[109] By maintaining this distinction, the law is able to create a framework that is capable of determining if a work is considered intellectual property.

3.2.2 Utilitarianism and natural rights theories

Utilitarianism theory, which originated in the UK, has been widely adopted in common law countries, which gives emphasis on public interest.[110] This theory is considered the foundation of intellectual property which frames copyright as a utilitarian device to encourage the creation of artistic or useful works that will prove beneficial to society.[111] As copyright aims to protect the fruits of intellectual labour, it requires an incentive—namely, the protection of copyrightable works—to promote continued creation and innovation.[112]

The natural rights justification for copyright is divided into two key theories: the labour theory and the personality theory.

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[107] *Simon Otieno Omondi v Safaricom (K) Limited* (2011) eKLR.
[108] Cruz A, 'What's the big idea behind the idea-expression dichotomy? - Modern ramifications of the tree of porphyry in copyright law' 18 *Florida State University Law Review* 1, 1990, 222.
[109] Fenwick M and Jurcys P, 'Originality and the future of copyright in an age of generative ai' Social Science Research Network, 2023, 19.
[110] Zhe D and JIN B, 'The copyright protection of ai generated works under Chinese law' 13 *Juridical Tribune* 2, 2023, 254.
[111] Khoury A, 'Intellectual property rights for "hubots" on the legal implications of human-like robots as innovators and creators' 35 *Cardozo Arts and Entertainment Law Journal* 3, 2017, 635.
[112] Mossoff A, 'Saving Locke and Marx: The labour theory of value in intellectual property theory' George Mason University, George Mason University Law and Economics Research Paper Series and Paper Number 12-02, 2012, 7 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1983614 on 8th November 2024.

The labour theory, as expounded by John Locke, argues that when a person applies labour to something from the commons, it rightfully becomes their private property.[113] While Locke did not explicitly mention intellectual property, this idea extends to it—once intellectual effort is applied to an idea, it justifies ownership over the resulting work.[114] This theory functions as a reward system, differing from utilitarianism, which primarily aims to incentivize further creation.

The personality theory, rooted in the philosophies of Kant and Hegel, suggests that intellectual works reflect the creator's personality and will.[115] Since these works are an extension of the creator, they deserve protection. Unlike the utilitarian approach, which focuses on societal benefits, natural rights theories emphasize the relationship between the creator and their work.[116] Both perspectives are essential in justifying copyright protection.

3.3 Legal requirements for copyright protection in Kenya

3.3.1 Authorship

The term 'authorship' denotes the reasoning that for work to be considered copyrightable it must be attributable to a human being.[117] While the Kenyan Copyright Act does not explicitly state that an author has to be a human being it has been drafted with human centric terms.[118] The definition of an 'author' includes 'a person' responsible for a literary, dramatic, musical or artistic work or computer program.[119] Specifically, for computer generated works it refers to the person who undertakes the necessary arrangements for the creation of the work.[120]

It is essential to differentiate between authorship—the person who created the work—and ownership—the entity who holds the rights to the work. Under Kenyan law, authorship is generally attributed to the creator of the work, who is typically presumed to own the work as well.[121]

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[113] Oxenberg R, 'Locke and the right to (acquire) property' 26 *Social Philosophy Today* 2010, 3.
[114] Chatterjee M, 'Lockean copyright versus Lockean property' 12 *Journal of Legal Analysis* 2020, 137.
[115] Drahos P, *A philosophy of intellectual property*, 1st ed, Australian National University Press, Canberra, 2016, 96.
[116] Ramalho A, 'Will robots rule the (artistic) world? A proposed model for the legal status of creations by artificial intelligence systems' Social Science Research Network, 2017, 14.
[117] Lee E, 'Prompting progress: Authorship in the age of artificial intelligence' 12.
[118] Rothman E and Abbott R, 'Disrupting creativity: Copyright law in the age of generative artificial intelligence' 1144.
[119] Section 2, *Copyright Act* (Act No 12 of 2001).
[120] Section 2, *Copyright Act* (Act No 12 of 2001).
[121] Section 2, *Copyright Act* (Act No 12 of 2001).

However, ownership may diverge from authorship in specific circumstances, particularly in cases of commissioned works or works created within employment relationships.

Section 31(1) of the Kenyan Copyright Act stipulates that when a work is commissioned by a person who is not the author's employer under a contract of service, or when a work is created during the author's employment, the copyright shall be deemed to transfer to the commissioning party or the author's employer, respectively.[122]

While authorship and ownership are distinct concepts in copyright law, for the purposes of this research, the focus will be on cases where the original author retains ownership of their work. In other words, this research specifically examines situations where the creator of the work and the holder of copyright are the same entity.

3.3.2 Sufficient effort

One can surmise that while there is a lack of standard definition on 'sufficient effort' it can be agreed that it constitutes- labour, skill, energy and time involved in creating a work.[123] From a historical perspective, one can adduce that that when this requirement was drafted there was reliance on the doctrine termed as 'sweat of the brow' which was highly regarded at the time to constitute originality[124] Under this doctrine sufficient skill, time and energy labour–which equate to the sufficient effort–employed in creating a copyrightable work would deem the expression of that work as original.[125]

3.3.3 Original Character

While the term "original", "originality" or "original character" have not been explicitly defined in the context of copyright, either nationally or internationally, nor has there been a consensus on its application, it is understood to refer not to the standard dictionary definition, which requires novelty, but to the originality in the expression of thought.[126]

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[122] Section 31, *Copyright Act* (Act No 12 of 2001).
[123] *J. W. Seagon & Co. Insurance Brokers (Kenya) Ltd. v Liaison Group (I.B) Limited, Jubilee Insurance Company Limited & Satib Insurance Brokers (PTY) Limited* (2021) eKLR.
[124] *University of London Press Ltd v University Tutorial Press Ltd* (1916), The Supreme Court of Judicature.
[125] *Nevin Jiwani v Going Out Magazine and Another* (2002) eKLR.
[126] Iaia V, 'To be or not to be…Original under copyright law, that is (one of) the main questions concerning ai-produced works' 7.

Common law countries, however, have since taken steps further when trying to make sense of 'originality' by requiring more than mere effort, by relying on landmark cases such as *Feist Publications*[127] and *Infopaq*[128] which have introduced more enhanced standards to look for when determining originality in works.

In the former, originality was stressed as the bedrock of copyright protection, going as far as to term it as the 'sine qua non of copyright' by requiring that for a work to be coined as original it means that the work was created independently by the author and a modicum level of creativity present.[129] In the latter, a work is considered original if it emanates from the intellectual creation of the author and as a result reflects the personality of the author and their freedom of choice in its creative expression.[130]

By applying both influential precedents, additional concepts have emerged to clarify what defines originality. Independent creation, a cornerstone of copyright doctrine, helps distinguish works eligible for copyright protection from those that infringe.[131] Creativity, often seen as the foundation of human expression, is not without ambiguity when examined as a legal concept.[132]

Kenyan copyright law, as contained in the Copyright Act, implies a relatively low threshold for originality, emphasizing sufficient skill and effort rather than a strict requirement for creativity. However, in light of modern legal trends, it is likely that Kenyan courts would interpret originality to require some creative input, even if minimal. This aligns with international standards, where courts have increasingly recognized the necessity of an intellectual contribution beyond mere effort.

To add clarity or complexity to the issue there are two main theoretical approaches used to further gain insight on what one relies on to determine originality.

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[127] *Feist Publications Inc. v Rural Telephone Service Company, Inc.* (1991), The Supreme Court of the United States.
[128] *Infopaq International A/S v Danske Dagblades Forening* (2009), The European Court of Justice.
[129] *Feist Publications Inc. v Rural Telephone Service Company, Inc.* (1991), The Supreme Court of the United States.
[130] Albarashdi S and Gaffar H, 'Copyright protection for ai-generated works: Exploring originality and ownership in a digital landscape' Semantic Scholar, 2024, 20.
[131] Buccafusco C, 'There's no such thing as independent creation, and it's a good thing too' 64 *William and Mary Law Review* 6, 2023, 1633.
[132] Ramalho A, 'Will robots rule the (artistic) world? A proposed model for the legal status of creations by artificial intelligence systems' Social Science Research Network, 2017, 3.

To begin with, there is the subjectivism standard, a theory that supposes that there is a subjective spiritual realm that is independent of the objective realm.[133] It bears its foundations from Hegel's philosophy which requires a reflection of the author's personality in a work.[134] It draws parallels between originality in a work and novelty in a patent.[135] Originality is subjective, as it reflects the intellectual effort of an author whereas novelty, which is the focus of patent law, is objective and measurable, and is defined by absence of prior art.[136]

In addition there is the objectivism standard which requires that for work to be eligible for copyright protection the only factor that should be taken into account is the independent and ultimate work and not the subject and process of the work.[137] The main focus under this theory is on the final result of the creation process or final expression of the work itself.[138] This theory is buttressed by the idea-expression dichotomy mentioned above in which the expression or final output rather is the focus when determining originality.

One should bear in mind however that these theories are ineffective as a sole benchmark to determine originality in works.[139]

Kenyan copyright law, while primarily effort-based, is likely to evolve toward incorporating a small but meaningful creative input requirement in line with global standards. Courts may adopt a balanced approach, ensuring that originality is not reduced to mere effort while also avoiding an overly strict creativity threshold that could unduly limit copyright protection.

[133] Zhao Y, Wang T and Lu J, 'From the perspective of originality: Analysis of legal nature of artificial intelligence products' 39 *Highlights in Business Economic Management* 2024, 266.
[134] Gervais D, 'Feist goes global: A comparative analysis of the notion of originality in copyright law' 974.
[135] Hariani K and Hariani A, 'Analysing "originality" in copyright law: Transcending jurisdictional disparity' 51 *The Law Review of the Franklin Pierce Center for Intellectual Property* 3, 2011, 510.
[136] Section 22, *Industrial Property Act* (Act No. 3 of 2001).
[137] Zhao Y et al, 'From the perspective of originality: Analysis of legal nature of artificial intelligence products' 267.
[138] Hernandez L and Ravid S, 'Copyrightability of artworks produced by creative robots driven by artificial intelligence systems and the concept of originality: The formality - objective model' Social Science Research Network, 2017, 33.
[139] Albarashdi S and Gaffar H, 'Copyright protection for ai-generated works: Exploring originality and ownership in a digital landscape' 17.

3.4 Arguments for AI protection

3.4.1 African perspective

The rapid advancement of AI is transforming the global creative economy, and Africa is no exception.[140] However, many African countries are struggling to enforce copyright laws that can effectively address AI-generated content. A major challenge is the absence of comprehensive legal frameworks that regulate ownership and protection of such works. Most existing copyright laws in Africa are outdated and fail to account for the complexities introduced by AI. Without urgent reforms, African nations risk falling behind more developed economies, particularly those in the Global North, where legal systems are already evolving to accommodate AI-driven innovations.

One of the key reasons for strengthening copyright protection in Africa is to ensure that the continent remains competitive in the global digital economy.[141] Countries that fail to modernize their copyright laws may become passive consumers of AI-generated content rather than active innovators.[142] This could stifle local creativity and limit economic opportunities for African businesses and content creators.

The uncertainty surrounding copyright protection for AI-generated works also raises concerns about legal clarity. In many common law countries, copyright laws historically followed the "sweat of the brow" doctrine, linking originality to human effort and skill.[143] However, courts have since adopted a broader interpretation of originality. This evolving approach as mentioned above, has become even more complex when determining how AI-generated works should be protected.

While Kenya's copyright board has offered some guidance on AI-generated content, the lack of explicit legal provisions creates ambiguity for creators and businesses relying on AI technologies.[144] Similarly, in Tanzania, despite AI being recognized under the term "Akili Mnemba," the country's Copyright and Neighbouring Rights Act of 1999 does not account for AI-

[140] Azaroual F, *Artificial intelligence in Africa: Challenges and opportunities*, 2024, 2.
[141] Sibanda M and Ogada T, 'Boosting business competitiveness in Africa with IP and innovation' World Intellectual Property Organization, 1st October 2019 https://www.wipo.int/web/wipo-magazine/articles/boosting-business-competitiveness-in-africa-with-ip-and-innovation-40975#:~:text=An%20effective%20IP%20system%20is,justify%20and%20sustain%20R%26D%20investments on 26th February 2025.
[142] Kenya Copyright Board, *Copyright in the age of artificial intelligence*, December 2021, 4.
[143] Fisher W, 'Recalibrating originality' 54 *Houston Law Review* 2, 2016, 440.
[144] Kenya Copyright Board, *Copyright in the age of artificial intelligence*, December 2021, 5.

generated works, meaning such content is likely to be excluded from protection.[145] Legal scholars have suggested that African nations could draw inspiration from jurisdictions like the UK, where copyright can be assigned to developers or owners of generative AI technologies.[146]

Beyond legal clarity, strengthening copyright protection is also crucial for attracting investment and fostering economic growth.[147] Investors and businesses are more likely to engage with markets that provide strong intellectual property protection.[148] Without robust copyright frameworks, African countries may struggle to build confidence among international and local investors in the creative and digital sectors.[149] Several African nations, including Rwanda, Egypt and Morocco have already developed national AI strategies.[150] While these strategies provide a roadmap for AI integration, they often lack explicit copyright provisions for AI-generated works, leaving a significant gap in the protection of digital intellectual property.

Ultimately, Africa must establish comprehensive copyright laws that balance innovation with legal certainty. As AI continues to evolve, clear regulations will be essential to protect the rights of creators, encourage investment, and ensure Africa's active participation in the global digital economy. Without these reforms, the continent risks being left behind in the rapidly changing technological landscape.

3.4.2 Global perspectives

The emergence of artificial intelligence as a creative force has left legal frameworks struggling to adapt, particularly in regions like Africa where specific guidelines regarding AI-generated content remain underdeveloped. In Kenya, for instance, the absence of clear legal precedent or scholarly

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[145] Mukoji C, 'Copyright protection for ai-generated works in Tanzania: The need for legal reforms' 7 *East African Journal of Law and Ethics* 1, 2024, 4.
[146] Section 9(3), *Copyright, Designs and Patent Act* 1988 (UK).
[147] Montanari L, 'IP rights promote innovation and prosperity' Forbes, 26th April 2017 https://www.forbes.com/sites/lorenzomontanari/2017/04/26/ip-rights-promote-innovation-and-prosperity/ on 15th February 2025.
[148] Prakarsh P, Raj U, Kamble S and Nand K, 'The role of intellectual property in fostering innovation and economic growth' 6 *International Journal for Multidisciplinary Research* 5, 2024, 2.
[149] Gana R, 'Has creativity died in the third world - Some implications of the internationalization of intellectual property' 24 *Denver Journal of International Law and Policy* 1, 1995, 112.
[150] https://intellectual-property-helpdesk.ec.europa.eu/news-events/news/artificial-intelligence-and-ip-africa-2024-12-05_en#:~:text=For%20AI%20and%20intellectual%20property,a%20secure%20environment%20for%20innovation on 20th February 2025.

work on this matter necessitates looking beyond borders to understand how global jurisdictions are approaching this novel challenge.

Throughout various legal systems, two fundamental requirements consistently emerge at the centre of copyright deliberations: authorship and originality.

When examining global approaches to AI authorship, a notable divide becomes apparent. Some jurisdictions, such as the United States, adopt a narrower interpretation that demands comprehensive human control throughout the creative process.[151] This approach requires creators to predict specific outcomes before production, dictate those results precisely, and minimize reliance on random elements.[152] In contrast, other jurisdictions embrace a broader perspective that prioritizes human influence rather than complete control—a stance that countries like Kenya might find more adaptable to their developing frameworks.[153]

The question of who should hold copyright for AI-generated content sparks considerable debate. AI programmers present a compelling case as potential copyright holders, as they develop the software that enables creation.[154] They might reasonably be considered "the person by whom the arrangements necessary for the creation of the work were undertaken," particularly when programming AI with the specific intention of producing certain types of works.[155] However, some critics argue that the programmer's connection to the final output may be too tenuous, as they aren't directly involved in creating the resulting work.[156] Additionally, programmers already enjoy protection through ownership of their software, potentially making additional copyright unnecessary from a utilitarian perspective.[157]

End-users represent another category of potential copyright holders.[158] Through the emerging practice of prompt engineering, detailed instructions to elicit specific outputs from AI models—

[151] One of the arguments used to reject works created by generative AI systems. See also Brittain B and Hals T, 'Insight: Humans vs. machines: The fight to copyright ai art' Reuters, 1st April 2023 https://www.reuters.com/default/humans-vs-machines-fight-copyright-ai-art-2023-04-01/ on 12th November 2024.
[152] Lee E, 'Prompting progress: Authorship in the age of artificial intelligence' 13.
[153] Zhe D and JIN B, 'The copyright protection of ai generated works under Chinese law' 254.
[154] Kenya Copyright Board, *Copyright in the age of artificial intelligence*, December 2021, 4-5.
[155] Section 2, *Copyright Act* (Act No 12 of 2001).
[156] White C and Matulionyte R, 'Artificial intelligence painting the bigger picture for copyright protection' 23.
[157] Section 2, *Copyright Act* (Act No 12 of 2001).
[158] Kenya Copyright Board, *Copyright in the age of artificial intelligence*, December 2021, 5.

users actively shape the creative process.[159] This iterative approach involves constantly making revisions to the prompts fed into the AI system by using the arrangement, selection or coordination of uncopyrightable facts that they prefer in order to achieve the desired output, suggesting that when users apply significant effort to give output original character, they might reasonably claim authorship.[160] However, the level of creative input varies dramatically between users. Someone who merely presses a button or inputs a minimal prompt likely may not be considered to have contributed enough to merit copyright protection.[161] This distinction creates a sliding scale where copyright protection becomes reasonable only when sufficient creative effort has been applied.

The concept of originality in AI-generated works further complicates legal considerations. Independent creation—traditionally understood as work created without copying existing materials—takes on new dimensions when applied to AI.[162] Critics argue that AI fundamentally lacks the subjective intellectual experience and intentionality that defines true independence, with its "decisions" predetermined by programming and training data.[163] They caution that equating AI's processes with human choice risks diminishing the value of human authorship.

Yet this perspective overlooks the reality that even human creators are influenced by prior works and rarely create in complete isolation. [164] AI systems generate unique recombination of existing inputs, identify new patterns, and produce increasingly innovative results, demonstrating capabilities that challenge traditional definitions of what we term as independent creation.[165]

Currently, a parallel is emerging between human creativity and "artificial creativity," as AI increasingly mimics human creative processes.[166] Some scholars argue that an author's creativity is inherently tied to their humanity, asserting that a machine alone cannot be a true source of creativity, as its output ultimately stems from programmer-written code, training data, or user

[159] Popli N, 'The artificial intelligence job that pays up to $355k–and you don't need a computer engineering background' Time, 14th April 2024 https://time.com/6272103/ai-prompt-engineer-job/ on 10th November 2024.
[160] Lee E, 'Prompting progress: Authorship in the age of artificial intelligence' 38.
[161] White C and Matulionyte R, 'Artificial intelligence painting the bigger picture for copyright protection' 25.
[162] Buccafusco C, 'There's no such thing as independent creation, and it's a good thing too' 1617.
[163] Albarashdi S and Gaffar H, 'Copyright protection for ai-generated works: Exploring originality and ownership in a digital landscape' Semantic Scholar, 2024, 17.
[164] Buccafusco C, 'There's no such thing as independent creation, and it's a good thing too' 1633.
[165] Dwivedi Y, Sharma A, Rana N, Giannakis M, Goel P and Dutot V, 'Evolution of artificial intelligence research in technological forecasting and social change: Research topics, trends, and future directions' 192 *Technological Forecasting & Social Change* 2023, 2.
[166] Ramalho A, 'Will robots rule the (artistic) world? A proposed model for the legal status of creations by artificial intelligence systems' Social Science Research Network, 2017, 3.

instructions.[167] While machines can perform tasks that resemble creativity, they lack intentionality and subjective experience, which are often considered prerequisites for genuine creativity.[168]

However, the creative process in AI contexts often emerges from human-machine collaboration challenging traditional notions of what is considered 'creative'. The prompts serve as catalysts for AI-generated output, shaping its themes, style, and narrative structure, ultimately reflecting the end user's influence in the final expression of the work.[169] Text prompts in AI systems often involve a creative element on the part of the user.[170] For instance, through the 'selection, arrangement, and coordination' of uncopyrightable facts, detailed prompts can transcend basic instructions.[171] Simple conversely, specific and detailed prompts—such as those describing an art style or content in depth—demonstrate the user's intellectual contribution.[172]

These inputs guide the AI's artistic expression, making them akin to scripts that shape the direction of a screenplay. While granting copyright protection to prompts alone might stifle creativity, the creative outputs they generate could meet the threshold for copyright.[173] This collaborative dynamic echo historical precedents like photography, where technology enables rather than replaces human creativity.[174]

Various originality theories further inform how we might approach AI-generated content. The subjective standard, which emphasizes human intellectual creation as the core basis of originality, leads some scholars to reject AI-generated works outright.[175] In contrast, the objectivist standard, following the idea/expression dichotomy, offers a more accommodating framework that could feasibly categorize AI-generated works for protection, especially when applying quantifiable approaches to originality.[176] France has developed yet another approach called "Unité de l'Art,"

[167] Ginsburg J and Budiardjo L, 'Authors and machines' 401.
[168] Anciaux A, 'Pull a robot out of the hat: Should works created by artificial intelligence be protected by copyright law?' Social Science Research Network, 2021, 7.
[169] https://docs.midjourney.com/docs/prompts on 29th November 2024.
[170] Ginsburg J and Budiardjo L, 'Authors and machines' 417.
[171] *Feist Publications, Inc. v Rural Telephone Service Co.* (1991), The Supreme Court of the United States.
[172] Lemley M, 'How generative ai turns copyright upside down' Social Science Research Network, 2023, 26.
[173] Mazzi F, 'Authorship in artificial intelligence-generated works: Exploring originality in text prompts and artificial intelligence outputs through philosophical foundations of copyright and collage protection' 27 *The Journal of World Intellectual Property* 3, 2024, 17.
[174] *Burrow-Giles Lithographic Company v Sarony* (1884), The Supreme Court of the United States.
[175] Zhe D and JIN B, 'The copyright protection of ai generated works under Chinese law' 253.
[176] Zhao Y et al, 'From the perspective of originality: Analysis of legal nature of artificial intelligence products' 267.

which requires only that intellectual efforts be reflected in a work, rejecting a possible different legal standard for different art categories.[177]

Ultimately, the protection of AI-generated work finds its strongest justification in utilitarian considerations. Users will invest in developing AI systems to create valuable works for society only if proper incentives exist.[178] Without copyright protection, certain works might never be created, as they require substantial time and investment similar to purely human-generated content. The lack of protection could deter creators by failing to ensure the necessary incentives that copyright law was designed to provide.[179]

While some jurisdictions argue that AI-generated content lacks human originality, this perspective underestimates the significant role of the user in shaping the output. Unlike a random, fully automated process, AI-generated works are a product of iterative human input. This aligns with copyright's purpose: to protect the labour and intellectual effort of creators, whether assisted by traditional tools or AI

3.4.3 Challenges and consequences of protecting AI-generated content

Promoting creativity with AI and driving innovation in the context of copyright protection comes with distinct dangers. While AI has the potential to revolutionize creative industries, it raises concerns about originality, authorship, and ownership. Questions arise about whether AI-generated works can truly be considered creative or if they merely mimic existing patterns from the data they are trained on.[180] This blurring of lines challenges traditional copyright frameworks, potentially undermining the protection and incentives provided to human creators.

One clear challenge is redefining what constitutes "sufficient effort," as AI automates much of the labour traditionally required by creators using simpler tools like a paintbrush.[181] The substantial

[177] Tréguier L and Caenegem W, 'Copyright, art and originality: Comparative and policy issues' 8 *Global Journal of Comparative Law* 2, 2019, 3.
[178] In contrast failing to do so would have people falsely representing the works created with generative AI systems as solely human created works.
[179] Rothman E and Abbott R, 'Disrupting creativity: Copyright law in the age of generative artificial intelligence' 1183.
[180] Ramalho A, 'Will robots rule the (artistic) world? A proposed model for the legal status of creations by ai systems' Social Science Research Network, 2017, 3.
[181] Fenwick M and Jurcys P, 'Originality and the future of copyright in an age of generative ai' Social Science Research Network, 2023, 15.

effort involved in the creation of a work, which traditionally requires contributions from multiple individuals, is often managed by the AI itself.[182] This shift has the potential to diminish the perceived value of human input in the creative process. In this view, prompts could be seen as mere instructions or ideas, with the resulting expression being a transformation carried out by the AI, rather than a direct creation of the human creator.[183] This could challenge the foundational idea-expression dichotomy of copyright law.

Additionally, the risk of infringing upon existing works through unintentional replication or derivative outputs complicates the enforcement of intellectual property rights, creating uncertainty for both creators and regulators.[184] This issue is already evident, as AI training tools rely on vast amounts of data scraped from the web, which includes both copyrighted and non-copyrighted material.[185] From this diverse data pool, AI generates new creative outputs that are often claimed to be original and now people are seeking protection for these creative works under copyright laws.[186] It raises significant concerns about the legitimacy of such claims, as well as the ethical implications of using copyrighted material without permission to train AI systems.

The international dimension further complicates this issue. While copyright protections are harmonized to a degree through international agreements, these frameworks do not explicitly address AI-generated works.[187] Proving infringement nationally is made even more perplexing when Section 22(4) of the Kenyan Copyright Act, states that even when infringement is proved this does not automatically disqualify a copyrightable work from being protected.[188]

[182] Graham M, 'AI saves ad agencies a lot of time. Should they still charge by the hour?' The Wall Street Journal, 8th November 2024-<https://www.wsj.com/articles/ai-saves-ad-agencies-a-lot-of-time-should-they-still-charge-by-the-hour-822ce520>- on 21st December 2024.
[183] Lemley M, 'How generative ai turns copyright upside down' Social Science Research Network, 2023, 27.
[184] Lee E, 'Prompting progress: Authorship in the age of artificial intelligence' 84.
[185] Fenwick M and Jurcys P, 'Originality and the future of copyright in an age of generative ai' Social Science Research Network, 2023, 15.
[186] Appel G, Neelbauer J and Schweidel D 'Generative AI has an intellectual property problem' Harvard Business Review, 7th April 2023 https://hbr.org/2023/04/generative-ai-has-an-intellectual-property-problem on 22nd January 2025.
[187] Abbott R, 'Artificial intelligence, big data and intellectual property: Protecting computer-generated works in the United Kingdom' Social Science Research Network, 2017, 8.
[188] Section 22(4), *Copyright Act* (Act No 12 of 2001).

Data confidentiality is another pressing concern, as AI technologies are evolving at a pace that far outstrips existing legislation, making it challenging for legal frameworks to keep up.[189] Although Kenya has a Data Protection Act that ensures protection of data and privacy, it makes no specific reference to AI.[190] This regulatory gap presents significant challenges when confronting the opaque nature of AI systems—commonly known as the "black box" problem—where the inner workings and decision-making processes remain largely hidden from scrutiny. [191] This lack of transparency in how AI tools process and utilize data leaves these laws struggling to address the complexities of AI, creating a gap in effective regulation and raising concerns about data misuse and accountability.

While the potential of AI innovation to contribute to development in Africa is evident with its importance highlighted, we must be aware of the potential risks involved and mitigate them before they occur by putting in place measures that will protect the people.

3.5 Conclusion

While this chapter examined how AI-generated works might fit within Kenya's copyright framework—analysing authorship, sufficient effort, and originality—it also highlighted the significant challenges that arise in this context.

[189] Cerda J, Bejaui R and Bonyo L, 'AI innovation in Africa: An overview of opportunities, risks and the legal context' ResearchGate, 2022, 4-5.
[190] Ministry of Information, Communication and the Digital Economy, *Kenya national artificial intelligence (ai) strategy 2025 – 2030(Draft)* January 2025, 23.
[191] Rothman E and Abbott R, 'Disrupting creativity: Copyright law in the age of generative artificial intelligence' 1164.

CHAPTER 4: THE COPYRIGHTABILITY OF AI WORKS IN KENYA

The emergence of generative artificial intelligence has introduced novel questions regarding copyright protection, particularly concerning works created through human-AI collaboration. This analysis examines whether works generated through prompts that creatively select, coordinate, or arrange uncopyrightable facts—in collaboration with generative AI—should be eligible for copyright protection under Section 22(3) of the Kenyan Copyright Act. The Act establishes two primary requirements for copyright protection: sufficient effort that gives a work original character and fixation. While these requirements were traditionally interpreted in the context of human creativity, the emergence of AI technologies necessitates a fresh examination of these criteria.

The question of authorship serves as a crucial starting point for this analysis. Current legal frameworks maintain an anthropocentric view of authorship, limiting it to natural people. This immediately eliminates the possibility of direct AI authorship, as AI systems, being machines rather than natural or legal persons, cannot hold authorship rights or bear associated liabilities.[192] Similarly, while AI programmers and developers already receive copyright protection for their

[192] Section 2, *Copyright Act* (Act No 12 of 2001).

software, attributing authorship of all AI-generated outputs to them would be problematic, as they typically neither contribute sufficient effort to specific outputs nor imbue them with original character.

A more compelling case can be made for the end user—often referred to as the prompt engineer—as the rightful author. This argument relies on a broad interpretation of authorship that prioritizes meaningful creative contribution over absolute control. The user's involvement in generative AI spans several key stages that parallel traditional authorship. First, in the conceptualization phase, the user originates the idea, determining the creative vision, intent, and thematic direction of the work. Then, during the prompting and refinement stages, the user engages in an iterative process of crafting, modifying, and fine-tuning prompts to shape the final output. This process is akin to an artist directing a commissioned work or an author revising multiple drafts. Finally, the user exercises judgment in selecting which AI-generated outputs to keep, modify, or discard, a role that reflects curatorial authorship.

A central challenge to this argument is the prevailing legal standard, which often emphasizes direct creative acts in determining authorship. Critics argue that because AI, rather than the user, generates the actual content, it is the AI performing the creative act, not the human. However, this perspective overlooks the indispensable role of human guidance in shaping the creative process. AI does not generate content independently; it operates in response to human input, making the user's choices fundamental to the final work. Without the user's conceptual direction, iterative refinements, and selective judgment, the AI's output would lack meaningful human authorship.

To determine when a user's contribution qualifies as authorship, a reasonable standard should focus on the degree of influence they exert over the output. If a user's input through prompts is sufficiently detailed and directive—shaping not just the theme but also the structure, tone, and composition—then their role should be recognized as authorship.

Ultimately, while AI serves as the tool that generates content, it lacks independent creative intent. The user, through their conceptual choices, prompt design, and iterative refinements, remains the driving creative force behind the final product. Recognizing prompt engineers as authors ensures that copyright law remains adaptable to emerging creative paradigms while upholding its fundamental principle: protecting meaningful human creativity.

The originality requirement as well can be examined through both subjective and objective standards. The subjective standard, which emphasizes human spiritual and intellectual contribution, remains partially satisfied through the end user's creative input. However, its qualitative emphasis conflicts with Kenyan law's explicit statement that copyright protection applies "irrespective of quality." The objective standard, which focuses on the final expression rather than the creative process, provides a more suitable framework for evaluating AI-assisted works. This approach examines whether the final output meets copyright eligibility requirements, regardless of the specific tools used in its creation. When combined with a broad approach to authorship, this standard offers a practical basis for establishing copyrightability.

The sufficient effort requirement is demonstrated through several key elements in the creative process. Users must craft detailed prompts, engage in ongoing prompt engineering, and participate in an iterative refinement process. This creative approach challenges traditional Romantic notions of isolated genius, as articulated by René Descartes, and instead reflects a networked creativity that emerges from the interaction between human input and technological capabilities. [193]

Following the Feist publications precedent, which established a notably low threshold for creativity, most works created through meaningful collaboration with AI would likely meet the requirements for copyright protection under Section 22(3).[194] The creative spark necessary for originality is present when users engage thoughtfully with AI systems through careful prompt engineering and iterative refinement.[195] However, minimal interactions such as basic commands to "draw a picture" or "write text" would likely fall short of the sufficient effort and original character requirements, as they lack the intellectual effort and creative coordination necessary for copyright protection.[196]

The copyright protection of AI-generated works could also significantly boost Kenya's creative economy through innovation and growth. Recognizing human-AI collaborative creations would encourage Kenyan creators to adopt AI tools in their processes. This approach balances utilitarian concerns by incentivizing creation while maintaining public access, while also acknowledging

[193] Rothman E and Abbott R, 'Disrupting creativity: Copyright law in the age of generative artificial intelligence' 1184.
[194] *Feist Publications, Inc. v Rural Telephone Service Co.* (1991), The Supreme Court of the United States.
[195] Lee E, 'Prompting progress: Authorship in the age of ai' 30.
[196] Atilla S, 'Dealing with ai-generated works: Lessons from the copyright, designs and patent act section 9(3)' 53.

personality theory by valuing human creative choices in prompt engineering and output refinement. Such protection would foster an ecosystem where AI enhances rather than replaces human creativity, strengthening Kenya's global creative position.

In conclusion, while not all AI-assisted works deserve copyright protection, those involving meaningful human creative input in the selection, coordination, and arrangement of elements should be eligible under Section 22(3) of the Kenyan Copyright Act. The key lies in the user's substantial creative contribution through thoughtful prompt engineering and iterative refinement, which satisfies both the originality and sufficient effort requirements of the Act.

CHAPTER 5: CONCLUSION AND RECOMMENDATION

5.1 Conclusion

In conclusion, works created through human-AI collaboration, involving creative selection, coordination and arrangement of uncopyrightable facts, should qualify for copyright protection under Section 22(3) of the Kenyan Copyright Act. Granting such protection would provide legal certainty for creators and encourage further innovation in Kenya’s creative industries. However, unresolved questions regarding authorship, ownership, and originality must be addressed through clearer legal frameworks to ensure balanced and effective protection.

5.2 Recommendations

a) The Kenya Copyright Board should develop clear guidelines for determining copyright eligibility based on the degree of human creativity involved in AI-assisted works. Additionally, they should require disclosure during registration for any commercial works that relied on AI. These measures would provide content creators with transparent rules while encouraging lawmakers to update copyright laws to address AI-generated content.
b) The Kenya Copyright Board and collective management organizations should collaborate with AI developers and content creators to establish standardized licensing agreements, including fair fees and defined usage limits. This balanced approach would protect creators’ rights while fostering AI-driven innovation in Kenya’s digital economy.
c) Copyright experts and scholars should work together to develop specialized guidelines for handling AI-related copyright disputes. They should also create educational resources and training programs for policymakers and legal professionals, incorporating real examples

from Kenya's digital economy. This would promote consistent decision-making in AI copyright cases and enhance understanding of how traditional copyright principles apply to emerging AI-generated works.

d) Policymakers should implement policies that encourage AI development while ensuring strong protections for digital content creators. The Kenya Copyright Board can facilitate collaboration between these groups to promote innovation that respects intellectual property rights as the digital landscape evolves.

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