BLURRING BOUNDARIES: PIRACY, ALGORITHMIC AUTHORSHIP AND CREATIVITY AMONG DESIGNERS IN KENYA

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> *...what happens when a new work of art is created is something that happens simultaneously to all the works of art which preceded it. The existing monuments form an ideal order, which is modified by introducing a new work of art(..), and this is conformity between the old and the new.*[1]

ABSTRACT

The traditional notions of authorship and copyright in the Kenyan design industry have been significantly disrupted by the proliferation of artificial intelligence (AI) technologies. There is an exponential increase in visual data, such as photographs and typefaces, on digital platforms. This has been enabled by the click, like, and share culture, providing fertile ground for AI developers to mine and train generative models. Designers generate creative outputs from this data.[2] Adapting these innovations has raised difficult questions on authorship and originality. Consequently, this study explores AI's impact on the design process through the lens of copyright law. Interrogating whether AI-generated photographs and typefaces can qualify for protection under existing legal structures. The analysis is situated in the lived experiences of designers who frequently use AI tools in their daily crafts and the challenges they face. The research method is two-pronged, with an empirical analysis and qualitative data from interviews with practising designers. Two questions guide the study: 1) Is AI capable of independent creativity? 2) Who is considered an algorithmic author? The paper proposes considerations for reforming legal standards to address the significance of algorithmic authorship.

1. INTRODUCTION

Artificial intelligence is reshaping the design industry, redefining the boundaries of creativity and authorship.[3] AI, defined as the capacity to perform tasks that traditionally require human intelligence, now plays a pivotal role in the creative process.[4] It leverages data processing and machine learning to solve design problems, which creates new challenges and opportunities.[5] Designers are using models trained primarily on unregulated datasets.[6] The datasets

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1 TS Eliot 'Tradition and the Individual Talent' (1919) 72.

2 J Jin, M Yang & H Hu 'Empowering design innovation using AI-generated content' (2025) 36 *Journal of Engineering Design* 1–18 1.

3 JC Ginsburg & L Budiardjo 'Authors and machines' (2019) 343 *Berkeley Technology Law Journal* 343.

4 N Anantrasirichai & D Bull 'Artificial intelligence in the creative industries: A review' (2022) 55 *Artificial Intelligence Review* 589–656 590–1.

5 Anantrasirichai & Bull (n4) 591.

6 R Marrone, D Cropley & K Medeiros 'How does narrow AI impact human creativity?' (2024) 36 *Creativity Research Journal* 66.

used encompass images, typefaces, and illustrations, and are scraped from the internet, providing no attribution. Therefore, as designers continue to lean on these systems to generate new works, the boundary between human and machine creativity becomes blurry.[7] Therefore, AI is equally an innovation engine and a probable source for intellectual property disputes.[8] This reignites old debates on piracy and authorship in the digital era.

The design process depends on a client's brief; it can be visionary, iterative, or analytical.[9] It follows the same arc across the different disciplines, such as product, interactive media, environmental, or communication design. Clarify the problem and users, explore ideas, prototype, test, refine, and deliver the solution. Therefore, design, from the Latin word *disignare,* means to draw and designate[10] is defined as the intentional shaping of a product's look and feel to meet human needs within certain constraints.[11]

Startup firms and technology giants are racing to monetise AI-driven visuals and creative tools, by seeking to extract value from these technological advancements and offering subscription-based access to generative tools.[12] According to McKinsey, 65% of organisations now lean on generative AI regularly, which has doubled since 2023.[13] This rapid uptake and adoption of AI make it urgent to clarify the legal protections for AI-assisted works. Therefore, this study explores how AI-generated outputs intersect copyright foundations, using qualitative insights from designers' lived experiences and doctrinal analysis. The focus is on technological innovation and legal protection. By synthesising statutory interpretation, case law, and lived experiences, the paper argues for a targeted reform of the Kenyan Copyright Act to recognise a new form of algorithmic authorship.

The paper begins by exploring the literature to conceptualise piracy in section 2.1, tracing the rise of AI in Kenya's design industry in section 2.2, and demonstrating how human oversight is key in creative workflows in section 2.3. It then maps Kenya's legal context and core copyright doctrines in sections 3 and 4, probing the line between innovation and infringement in section 4.1, how AI unsettles authorship, and how to classify AI-related photographic works in section 4.3. Finally, the paper outlines the methodology

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7   D Lim 'AI & IP: Innovation & creativity in an age of accelerated change' (2019) 52 *Akron Law Review* 856.

8   Jin, Yang & Hu (n3) 10.

9   R Pidaparti *Capstone Engineering Design: Project Process and Reviews (Student Engineering Design Workbook)* (2021) 10.

10   R Glanville 'The Sometimes uncomfortable marriage of design and research' in PA Rodgers & J Yee (eds) *The Routledge Companion to Design Research (Routledge Art History and Visual Studies Companions)* 2 ed (2023) 52.

11   M Press & R Cooper *The Design Experience: The Role of Design and Designers in the Twenty-First Century* (2017) 3.

12   McKinsey & Company 'The economic potential of generative AI: The next productivity frontier' (June 2023) 15.

13   A Singla et al 'The state of AI in early 2024: Gen AI adoption spikes and starts to generate value' *McKinsey* (30 May 2024), available at: https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai.

in section 5 and the data analysis in section 5.1, while presenting the findings in section 6. It then closes with conclusions and implications in section 7.

2. Literature Review

2.1 *Conceptualising piracy*

Piracy has long eluded a singular, universally acceptable definition,[14] reflecting its status as a multifaceted and persistently evolving phenomenon. Scholars such as Mueller contend that piracy is not a specific behaviour, but a product of enforcement regimes struggling to keep pace with technological and cultural shifts.[15] From this point emerges the interplay between legal frameworks, market incentives, and social practices, persisting long after the original economic conditions that birthed it have changed. Indeed, piracy predates even barter trade.

The modern intellectual property laws continue to evolve to curb their spread. No industry is immune:[16] while early infringers focused on high-value markets such as luxury goods,[17] music and software, piracy has since permeated virtually all creative sectors from digital art to video streaming.[18] At its core, piracy can be considered unauthorised copying or redistribution of copyrighted works as defined by Harvey[19] and supported by other scholars, who refer to it as a violation of someone else's copyright.[20] Piracy is further characterised as the illicit duplication of intellectual assets, such as films, music recordings, software, and print materials, without permission from rights holders. This framing aligns with legal analogies to physical counterfeiting.[21] Yet, digitisation demands fresh analysis: when technological barriers of copying fall away, enforcement often intensifies, sometimes at the expense of legitimate creative use.[22]

Technological affordances are crucial to understanding the persistence and reach of piracy. As Baumgartel observes in his study, affordable computers, scanners, and recording devices transformed media duplication into a decentralised cottage industry.[23] VHS and VCR technologies accelerated film

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14 N Kariithi 'Is the devil in the data? A literature review of piracy around the world' (201AD) *The Journal of World Intellectual Property* 133.

15 G Mueller *Media Piracy in the Cultural Economy: Intellectual Property and Labor under Neoliberal Restructuring* (2019) 45.

16 L Cesareo *Counterfeiting and Piracy: A Comprehensive Literature Review* (2015) 8.

17 OECD & EUIPO 'Trade in Counterfeit and pirated goods: Mapping the economic impact' 386.

18 B Danaher, MD Smith & R Telang 'Piracy landscape study: Analysis of existing and emerging research relevant to intellectual property rights (IPR)' U.S. Patent and Trademark Office (2020) 19.

19 M Harvey 'A new way to combat product counterfeiting' (1988) 31 *Business Horizons* 19–28.

20 V Cordell, N Wongtada & R Kieschnick 'Counterfeit purchase intentions: Role, lawfulness, attitudes and product traits as determinants' (1996) 35 *Journal of Business Research* 41.

21 Cesareo (n16) 8.

22 M Klang & J Nolin 'Tolerance is law: Remixing homage, parodying plagiarism' (2012) *Scripted A Journal of Law, Technology & Society* 84.

23 T Baumgärtel 'The culture of piracy in the Philippines' (2005) *Global Media Journal* 31.

piracy in the 1980s, and today's peer-to-peer networks and illicit streaming platforms have multiplied opportunities for unauthorised sharing.[24]

The Nigerian film industry, known as Nollywood, loses an estimated US$2 million annually to piracy.[25] This is likely a constraint to investing in local productions because it diverts revenue from professionals in the creative industry.[26] Hence, piracy, which is shaped by cultural norms and local contexts, is not just an outcome of technology but a social practice as well. Piracy can be framed as globalisation from below, where small-scale actors leverage digital networks to distribute content across borders outside formal distribution channels.[27] This conceptualisation highlights how piracy can facilitate cultural access in underserved regions, providing films, music, and e-books to audiences otherwise excluded by high prices or restrictive licensing.[28] Similarly, as foregrounded by Liang and Ravi, piracy's role as an informal distribution mechanism is reflected in the daily forms of consumption that coexist within legal markets.[29] However, economic concerns tamper with these positive aspects. Indeed, there is a consensus among rights-holders that piracy can erode market revenues; therefore, copying should not remain unchecked. The incentive structures created by copyright law are essential for fostering a creative environment.[30]

Legal efforts to combat piracy go beyond defining infringement.[31] They also need to address the complexities of enforcement in digital environments.[32] Traditional lawsuits and criminal penalties are slow-moving and expensive simultaneously, and they target the end users rather than the suppliers of pirated content.[33] When technological barriers to copying fall, the law's tolerance narrows, rendering even marginal forms of duplication impermissible.[34] Klan and Nolin taxonomy distinguishes non-tolerated illegal copying, actual piracy, from derivative or transformative works that courts might tolerate.[35]

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24   E Van der Sar 'Sharing is caring and piracy is theft' in H Briel, M High & Heidingsfelder (eds) *The Piracy Years: Internet File Sharing in a Global Context* (2023) 250.

25   S Samiai Andrews 'Reforming copyright law for a developing Africa' (2018) 66 *Journal of the Copyright Society of the USA* 13.

26   N Itanyi 'The concept of piracy in the film industry in Nigeria: Taking a cue from other countries' (2022) 13 10.

27   R Lobato 'The six faces of piracy: Global media distribution from below' *Globalization From Below: The World's Other Economy* (2012) 16.

28   J Karaganis 'Rethinking piracy' in J Karaganis (ed) *Media Piracy in Emerging Economies* (2011) 440 9–11.

29   T Tran 'Piracy on the ground: How Informal media distribution and access influences the film experience in contemporary Hanoi, Vietnam' in T Baumgärtel (ed) *A Reader on International Media Piracy: Pirate Essays* (2015) 344.

30   S Benvenuti, F Macmillan & S Zolea *Intellectual Property in the Digital Age* (2024) 215.

31   JP Quintais & J Poort 'The Decline of online piracy: How markets - not enforcement - drive down copyright infringement' (01) 34 *American University International Law Review* 823.

32   A Yadav, A & N Kumar 'Digital piracy: Enforcement challenges under cyber and IPR Laws' *IOSR Journal of Business and Management* 51–5 52.

33   Klang & Nolin (n22) 177.

34   F Calvino, J Reijerink & L Samek 'The effects of generative AI on productivity, innovation and entrepreneurship, OCED Publishing (2025) 26.

35   Klang & Nolin (n22) 78.

Rights-holders stress the economic harm[36] of piracy, while critics of expansive intellectual property enforcement argue that overly broad protections stifle creativity and remix practices.

From a design perspective, piracy lies at the crossroads of artistic process and legal doctrine. Designers borrow from established visual motifs and typographic styles, constantly navigating the fine line between drawing inspiration and infringing on others' works. Since much of this decision-making occurs intuitively, it becomes challenging to distinguish between original work and unauthorised copying. Conceptualising piracy means acknowledging its technological foundation, uncertain legal status, and social dimensions.[37] Rooted in social practices, piracy acclimatises alongside changing distribution channels and enforcement measures.[38] Piracy is constantly redefining acceptable creative expression.[39] Updated policies that reflect the realities of algorithmic production, safeguard creators' economic interests, and foster a vibrant culture of legitimate reuse and innovation.[40] We can only navigate the contested space where piracy, inspiration, and AI-driven creativity converge through such a calibrated legal framework.

2.2 Growth of AI in the design industry

The digital ecosystem has radically transformed how designers create, consume, and circulate visual content. Social media platforms like Facebook, Instagram, Behance, and Pinterest have fostered a culture of instant engagement where clicking, liking, and sharing are social behaviours and mechanisms of data generation.[41] This has led to an unprecedented proliferation of images and typefaces online, creating vast, unregulated datasets. These data are routinely scraped and repurposed by AI engineers. These datasets often lack clear attribution or consent from the backbone of generative models used in design workflows.

AI is integral to the designer's toolkit, enabling prototyping, stylistic experimentation, and innovative typography. Designers rely on AI tools trained to generate typefaces and compositions that would otherwise require extensive manual labour. Designers use AI to create custom typefaces and typographical compositions by inputting prompts into tools such as Midjourney, ImageFX, DALL.E, Firefly, Runway ML, or bespoke Font Generator. While these tools accelerate creativity, they also raise critical questions about copyright law regarding originality, authorship, and infringement.[42] Even with automated

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36 J Hughes & MD Smith 'Do copyright professors pay attention to economists?: How empirical evidence on Copyright piracy appears (or not) in law literature' (2024) 47 *Columbia J.L & Arts* 166.

37 Karaganis (n28) 30.

38 Karaganis (n28) 50.

39 K Raustiala & C Sprigman 'The piracy paradox: Innovation and intellectual property in fashion design' (2012) 92 *Virginia Law Review* 1687–2006 1716.

40 S Jacques 'Platforms and copyright in creative industries: A tool for inclusivity?' in C Sappa (ed) *Research Handbook on IP and Inclusivity* (2023) 381.

41 J van Dijck *The Culture of Connectivity: A Critical History of Social Media* (2013) 160.

42 D Lim 'Generative AI and copyright: principles, priorities and practicalities' (2023) 18 *Journal of Intellectual Property Law & Practice* 841–2 841.

tools handling parts of the process, human oversight remains essential. Designers select and organise source material, refine outputs, and apply aesthetic judgement that machines cannot match. This cyclical nature, the design pattern of inspiration, adjustment, and context-driven decision-making, ensures that people ultimately shape the finished work. Figures 1 and 2 illustrate that designers utilise prompt engineering to generate diverse outputs. This demonstrates how conceptual input guides algorithmic processes in creating design products.
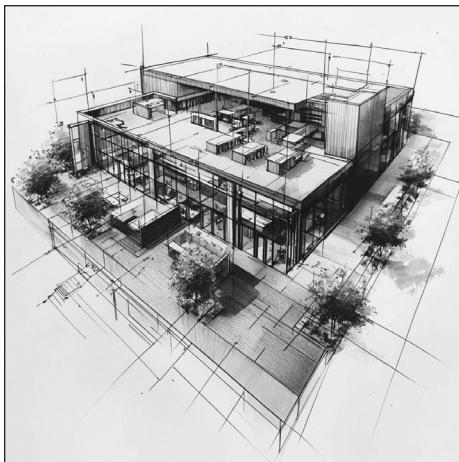

Figure 1 Restaurant ideas by Simeon   *Figure 2 Sleeping pods by Elvin*

2.3 Creative/design process displaying human oversight

Creation *ex nihilo* does not exist.[43] The creative design process involves a hybrid authorship model: designers who provide conceptual development, prompt engineering, and post-processing, and the AI systems that execute generative tasks based on learned patterns. Yet the balance of creative control varies widely. In some workflows, designers are the curators of the output; in others, they merely select from pre-generated options.[44]

AI-driven typeface design fosters efficiency by automating repetitive tasks and enhances creativity by suggesting combinations that may not emerge through manual processes alone. Designers use platforms such as DeepFont, FontRNN, Prototypo, or Fontjoy to generate custom typefaces by adjusting parameters for weight, curvature, and contrast. Tools like Midjourney enable designers to input prompts that yield complex typographic layouts. The outputs may incorporate stylistic elements from historical typefaces or contemporary design trends embedded in training data, demonstrating how algorithmic

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43 G Walter *Art and Copyright Law* (2025) 3.
44 H Gaffar & S Albarashdi 'Copyright protection for AI-generated works: Exploring originality and ownership in a digital landscape' (2025) 15 *Asian Journal of International Law* 24.

processes re-contextualise existing cultural materials.[45] This raises questions on authorship and originality since what is produced combines prior creative labour.[46] Examples of typeface design are shown in Figures 3, 4, and 5; examples of generated designs embody inherited motifs and the designer's input through prompt engineering.

Figure 3 Typography by Elvin

Figure 4 Typeface by Elvin

Figure 5 Typeface using African-based fabrics as inspiration by Simeon

The opacity of the underlying algorithms makes it difficult to determine whether the final product is a transformative reinterpretation or a replication of the copyrighted material. Nevertheless, ongoing advancements continue to improve the integration of AI into creative workflows, aiming to democratize access to high-quality pictorial and typeface generation and broaden horizons for visual communications.

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45   S Moldovan, I Moldovan & T Rice 'Speculative memory and machine augmentation: A polyvocal rendering of brutalist architecture through AI and photogrammetry' (2025) 8 *Heritage* 4.
46   F Mazzi 'Authorship in artificial intelligence-generated works: Exploring originality in text prompts and artificial intelligence outputs through philosophical foundations of copyright and collage protection' (2024) 27 *The Journal of World Intellectual Property* 410–27 415.

3. The Legal Landscape and Challenges in Kenya

The introduction of the intellectual property regime in Kenya originated during the colonial period, when British authorities imposed laws to protect their commercial interests. Based on British statutes, such as the 1842 Copyright Act, these laws overlooked local innovation and controlled the narrative in native publications.[47] They were not introduced in response to the absence of innovation but reflected a colonial perception that indigenous societies lacked technological sophistication.

Precolonial societies demonstrated adaptive ingenuity through context-specific practices with localised knowledge systems. Indigenous communities, such as the Agikuyu, demonstrated significant creativity as seen in their architectural evolution circa 1902, whereby traditional windowless circular dwellings were transformed into ventilated structures following cross-cultural exchange, revealing their responsiveness to new ideas.[48]

Innovation occurred through epistemological frameworks; knowledge was preserved and transmitted orally across generations, embedding technical and cultural wisdom within community practices rather than codified systems.[49] The incentive to shift toward formalised structures arose through figures like Wangu wa Makeri, whose 1903 establishment of Western-style education at Weithaga (Muranga) initiated institutional knowledge transfer that expanded Kirinyaga.[50] This historical trajectory underscores that the absence of IP frameworks did not equate to the lack of innovation; instead, it reflected alternative methods of communal knowledge stewardship disrupted by colonial systems.

Over the years, Kenya has made significant progress in developing its intellectual property framework, evolving from inherited colonial legal frameworks to the development of national legislation such as the Industrial Property Act (2001)[51] and the Copyright Act (2001).[52] This progression reflects active engagement in shaping global and regional governance through participation in treaties like the Berne Convention, TRIPS Agreement, and ARIPO protocols. However, there is a need for a national strategy or policy that addresses legislative gaps and keeps pace with emerging technologies, such as AI. The absence of proactive policy frameworks leaves significant legal gaps, particularly regarding AI-generated content, data ownership rights, and platform accountability. Kenya risks hindering technological progress by failing to establish explicit protections for creators in evolving digital markets, thereby creating regulatory uncertainty. This situation underscores the need for modernised intellectual property laws that encourage innovation and guarantee fair access.

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47 B Sihanya 'Copyright law, teaching and research in Kenya' (2005) *East African Law Journal* 21.
48 Mary W Wanyoike *Wangu Wa Makeri* (2002) 20.
49 J Kenyatta *Facing Mount Kenya: The Tribal Life of The Gikuyu* (1965) 52.
50 Wanyoike (n48).
51 KIPI 'Protecting industrial property rights', Kenya Industrial Property Institute 1, available at: http://www.kipi.go.ke/ (accessed on 2 December 2020).
52 Government of Kenya Copyright (Amendment) Act 20 of 2019 ('Copyright (Amendment) Act') 1.

Kenya's technology roadmap reflects its goal of becoming a regional hub for innovation. This vision is embodied in the National Artificial Intelligence Strategy 2025–2030[53] and the National Digital Master Plan (2022–2032). The strategy outlines a framework whose key objectives include establishing a robust AI governance framework, enhancing AI adoption in critical sectors such as healthcare, education, public service delivery, and agriculture, and fostering local AI ecosystems. The strategy has three pillars: AI Digital Infrastructure, Data and AI research, and Innovation. Kenya aims to harness AI's potential while ensuring an ethical, inclusive, and equitable deployment, thereby improving the quality of life for its citizens and positioning itself as a regional leader in AI and research.[54]

Kenya's approach to AI development has a temporal and conceptual disparity between the national strategy and existing legal frameworks. The KN-AIS is a forward-thinking policy framework that elevates the creative sector as a core development priority. However, the Kenyan Copyright Amendment Act does not explicitly have any provisions to tackle infringement or liability issues arising from modern automated creative technologies.

This creates a significant gap; while the AIS articulates a clear direction for innovation, the legal infrastructure for managing associated copyright infringement in generative outputs and inputs remains underdeveloped. Hence, creating uncertainty for creatives and rightsholders who need effective recourse for infringement.

4. FOUNDATIONS OF COPYRIGHT LAW

Copyright history is widely known,[55] and the law is justified by several philosophical theories.[56] The most controversial and critiqued theory was fronted by philosopher John Locke, also known as the father of modern copyright law.[57] His ideologies, which rely on his transposed remarks on property rights found in the Second Treatise of Government, are still cited in modern copyright opinions.[58] This paper is rooted in Lockean notions of mixing one's labour with raw materials, positing that whoever invests the requisite skill and sustained effort in crafting an original expression merits authorship rights. Therefore, creative ownership follows from intellectual effort and toil

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53   Ministry of Information, Communication and the Digital Economy Kenya National AI Strategy, 2025.

54   Kenya National AI Strategy (n53) 9.

55   N Lucchi, E Bonadio & G Mazziotti 'Will technology-aided creativity force us to rethink copyright's fundamentals? Highlights from the platform economy and artificial intelligence' (2022) *Springer* 1180.

56   M Longan 'A system out of balance: A critical analysis of philosophical justifications for copyright law through the lenz of users' rights' (2023) *Journal of Law Reform* 782.

57   L Zemer 'The making of a new copyright Lockean' (2006) 29 *Harvard Journal of Law & Public Policy* 891–947 892.

58   J Locke & L Peter *Two Treatises of Government* (1988).

expended in producing a work; hence, the user can benefit from works if it doesn't harm the original creators' rights.

Traditional copyright law is grounded in human authorship, referring to an individual who exercises creative control and intellectual effort over a work.[59] However, the emergence of generative AI systems complicates this paradigm. A human creator types the prompt, but the intricate details of texture, composition, and brushstrokes are the algorithm's work. Who then becomes the actual author of this creation? The user, the AI, or the programmer? Copyright law was first codified in Britain to fight copying when printing technology evolved.[60] As time advanced, so did the law, which currently gives copyright owners control over use and access. Locke's framework provides an important lens. Since authorship arises from labour, human input such as conceptual development, curation, prompt engineering, and post-processing can be understood as intellectual labour. Because these acts involve intentionality, judgement, and skill, which align with property rights arising from exerting effort.

The foundational principle of originality in Kenya is in s 22(3) of the Copyright Act.[61] It says that to qualify for copyright protection, works must exhibit a level of originality achieved through substantial effort, labour, or skill. An example is the case between *J.W. Seagon & Co. Insurance brokers (Kenya) Ltd and Liaison Group (I.B.) Limited & 2 others*.[62] To assess the aspect of originality,[63] the case looks at two perspectives: the sweat of the brow doctrine and the modicum of creativity. Under the sweat of the brow doctrine, copyright subsists in a work by virtue of the labour, skill, and effort, a view that could validate prompt engineering and post-processing as protectable labour. Works are protected simply because their authors invested substantial time and resources in organising the data.[64] Under the second aspect, the modicum of creativity[65] test requires that the work display a minimal spark of personal expression that goes beyond industrious effort. Originality demands that the creator exercise creative judgment in selecting, coordinating, and arranging content, no matter how modest, to produce an expression. Hence, by insisting on a low but meaningful contribution, the modicum of creativity doctrine strikes a balance between encouraging cultural production and preserving the public domain. Locke's emphasis on intentionality and judgment resonates with the idea that humans must exercise creative discretion in selecting, arranging, or refining AI outputs.

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59   *Burrow-Giles Lithographic Co v Sarony*.
60   E Eisenstein *The Printing Press as an Agent of Change: Communications and Cultural Transformations in Early-Modern Europe* (1979); G Davies *Copyright and the Public Interest* (2002) 68.
61   Government of Kenya Copyright (Amendment) Act 20 of 2019 16.
62   *JW Seagon & Co Insurance Brokers (Kenya) Ltd v Liaison Group (IB) Limited & 2 others* High Court at Nairobi KEHC 9364 (29 January 2021) 1.
63   *Feist Publications, Inc v Rural Tel Serv Co* U S Supreme Court 340 (1991) 348.
64   *JW Seagon & Co Insurance Brokers (Kenya) Ltd v Liaison Group (IB) Limited & 2 others* High Court at Nairobi KEHC 9364 (29 January 2021) 6.
65   *Feist Publications, Inc v Rural Tel Serv Co* U S Supreme Court 340 (1991) 362.

While the foundations of copyright law still hold, they must be reinterpreted in Kenya's digital age. Locke's labour theory provides a framework for distinguishing between sheer mechanical prompting and genuine human authorship. Hence, situating Kenya within global debates, showing how historical labour principles remain relevant but require nuanced application to AI-assisted creativity.

4.1 The blurred line between innovation and infringement

Copyright law is meant to incentivise human creativity through exclusive rights; however, its heightened protection can sometimes inhibit the technological progress it seeks to encourage.[66] Innovation, particularly in GenAI, depends on access, remixing, and building upon cultural and technological building blocks.[67] When creators face restrictions on accessing or transforming existing materials, creating new transformative work, algorithmic experimentation, or derivative creation can be constrained.[68] Conversely, weak protection undermines the economic foundation that rewards creators, potentially disincentivising future artistic investment. This dichotomy necessitates a dynamic equilibrium, a legal framework that safeguards creator rights while permitting sufficient flexibility for transformative use.[69] Such a balance must evolve alongside emerging technologies, ensuring copyright does not become a barrier and promoting progress.

Scholars propose a multi-faceted legal approach. One is the flexible application of fair use doctrines,[70] which permits limited transformative uses, eg, research, non-expressive training, and commentary, which fuels innovation without unduly harming rights-holders' markets. The second approach uses robust licensing frameworks, ensuring AI developers obtain legal access to data while compensating creators.[71] Reliance on fair use also has risks, especially where AI outputs have similarities or directly compete with the original works in the marketplace, potentially undermining copyright's core economic function. Therefore, in achieving an equilibrium, context-specific calibration between mechanisms ensures that copyright supports creativity without undermining its protective function in an evolving technological space.

4.2 The impact of AI on the traditional concept of authorship

Photography, recognised as a visual art category under copyright law,[72] hinges on two fundamental pillars. First is the photographer's creative input, including

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66   Z Catanzaro 'Beyond incentives: Copyright in the age of algorithmic production' (2023) 13 *Journal of Intellectual Property and Entertainment Law* 6.
67   Catanzaro (n66) 8.
68   J Liu 'An empirical study of transformative use in copyright law' (2019) 22 *Stanford Technology Law Review* 164.
69   P DiCola 'Centering creators: The new economics of copyright and alternative policies for creative labor' (2025) *University of Illinois Law Review* 256.
70   Liu (n68).
71   C Reed 'How should we regulate artificial intelligence?' (2018) 36 *The Royal Society* 3.
72   Government of Kenya Copyright (Amendment) Act 20 of 2019.

deliberate compositional choices, timing, and precise technical execution.[73] Second is the economic component, which transforms photographic works into income streams through licensing, sales and commissions.[74] When algorithmic systems emulate these creative decisions and detach image generation from manual expertise, they unlock the capacity to produce vast quantities of visual content at virtually zero marginal cost per unit.[75] This newfound efficiency introduces an ambiguous economic conflict: businesses that embrace algorithmic content generation can undercut that market for images created by professional photographers who depend on copyright laws for their income.[76] This shift demands a critical reassessment of intellectual property systems when algorithmic imagery challenges the traditional model of human authorship as the primary and most viable means of getting artistic output.[77] In Kenya, where digital innovation is championed as a catalyst for sustainable growth, these tools should be heralded for streamlining tasks and fostering economic growth. Yet this promise also forces policymakers, creators, and stakeholders to address how rights, remuneration, and recognition should adapt to an environment where the cost of producing design work has dropped to nearly zero.

4.3   Classification of photographic AI work

At the intersection of art and technology lies the science of photography.[78] From the camera obscura to today's digital revolution, each technological advancement has reshaped how we capture and interpret images.[79] Today, the rise of artificial intelligence (AI) emerges as the latest transformative force in this evolution. AI empowers creatives to capture, edit, and share images in ways previously unimaginable.[80] As AI tools become integral to the design process, photographers must understand the complexities surrounding copyright ownership for images created or modified with AI assistance.[81] This is important because copyright laws and service agreements vary across

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73   J Serafin & SJ Dollinger 'Photography and creativity' in JC Kaufman, VP Glăveanu & J Baer (eds) *The Cambridge Handbook of Creativity across Domains* (2017) 123–44 140, available at: https://www.cambridge.org/core/product/BD745EAA87A6D42C9FD853A64F897BDF.

74   Serafin & Dollinger (n73) 141.

75   SKK Tadikonda 'The dual edge of algorithmic creativity: A critical analysis of AI-generated media in digital society' (2025) 13 *European Journal of Computer Science and Information Technology* 38.

76   VA Le 'Copyright of photography and artificial intelligence: A tale of two technologies' (2025) *Journal of Intellectual Property Law & Practice* jpaf039 at 6.

77   Le (n76) 9.

78   D Keep 'Artist with a camera-phone: A decade of mobile photography' in M Berry & M Schleser (eds) *Mobile Media Making in an Age of Smartphones* (2014) 14–24 14, available at: https://doi.org/10.1057/9781137469816_2.

79   P Palanimurugan et al 'The evolution of photography: Technological advancements, artistic trends, and Societal impact' (2024) 11 *International Research Journal of Engineering and Technology* 9–11.

80   E Zhou & D Lee 'Generative artificial intelligence, human creativity, and art' (2024) 3 *PNAS Nexus* 52.

81   C Watiktinnakorn, J Seesai & C Kerdvibulvech 'Blurring the lines: How AI is redefining artistic ownership and copyright' (2023) 3 *Discover Artificial Intelligence* 37 3.

jurisdictions. In this day and age, photography involves people of all ages. People use digital cameras on mobile devices to take pictures and distribute the images online.[82] The days of developing negatives and purchasing expensive camera equipment have been eliminated with the introduction of smartphones, drones, and digital cameras.[83] The advent of new-age photography, where cameras are also found on mobile devices, has signalled the downfall of outdated copyright laws.[84]

In 2024, smartphone users were 4.88 billion, 60.42% of the world's population. The number of active smartphone subscriptions is 7.21 billion.[85] Smartphone users refer to internet users of any age with cameras at their fingertips. According to Bull,[86] in the 21st century, more photographs are being created, distributed, and viewed than at any other time in history. On the global front, people appear in pictures, talk about photographs, or look at photos due to the click, like, and share social media culture. Social media platforms have high monthly active users (MAUs) globally, such as TikTok with 1.04 billion[87] and Instagram with over 2 billion.[88] Hence, 37% of the world's internet users, including Facebook, have 3.07 billion.[89] These platforms encourage their users to post images as frequently as possible. This has led to the easy accumulation of large amounts of images that LLMs can mine to generate images.

The term photographic AI work refers to any image that AI has either generated from scratch to resemble a photograph or has significantly enhanced.[90] Examples include AI-driven improvements like boosting photo resolution, colour correction, background swapping, removing unwanted elements, or restoring old and damaged photographs.[91] Hence, AI is a creative assistant, enabling photographers to achieve results more effectively and efficiently.

82   Keep (n78) 15.
83   L Kellan *Conceptual Photography: Turn Ideas into Art* (2024) 9.
84   TB Maddrey 'Photography, creators, and the changing needs of copyright law' (2013) 16 *Science and Technology Law Review* 501–33 503–4.
85   A Turner 'How many smartphones are in the world?' (2024) *bankmycell*, available at: https://www.bankmycell.com/blog/how-many-phones-are-in-the-world.
86   S Bull 'Photography in the twenty first century' *A Companion to Photography* (2020) 20.
87   S Singh 'How many people use TikTok (2024 Statistics)' (20 April 2024), available at: https://www.demandsage.com/tiktok-user statistics/#:~:text=TikTok%20has%201.04%20billion%20 monthly%20active%20users%20globally%20as%20of%202024.
88   N Kumar 'How many people use Instagram 2024 [New Data]' *Demandsage* (30 September 2024), available at: https://www.demandsage.com/instagramstatistics/#:~:text=Top%20Instagram%20 Users%20Statistics%202024,are%20male%20as%20of%202024 (accessed on 4 November 2024).
89   N Kumar 'Facebook users statistics (2024) — Worldwide Data' *Demandsage* (14 October 2024), available at: https://www.demandsage.com/facebookstatistics/#:~:text=Facebook%20has%20 3.07%20billion%20monthly%20active%20users%20(MAUs)%20worldwide%20in,the%20 total%20social%20media%20population (accessed on 4 November 2024).
90   Z Tang 'The transformation of photography by artificial intelligence generative AI technology' (2023) 6 *Journal of Artificial Intelligence Practice* 57–62 57.
91   Tang (n90) 58.

DeepFakes are highly realistic images or videos in which a person's face is digitally swapped with another, or entirely new faces are generated.[92] AI has made photo manipulation more effortless and accessible, producing results that closely mimic traditional portraits. Accordingly, deep fake initially referred to videos created by replacing one person's face with another's using AI algorithms.[93] However, with the advancement of generative AI, the word deepfake describes many other forms of fake or manipulated images made using AI.[94]

Designers also use photorealistic 3D Renders, which use AI models to apply life-like textures and lighting effects, resulting in indistinguishable images from real photographs. These photographs are increasingly popular in advertising, virtual staging, product photography, and architectural simulations, as they allow designers to explore new visual concepts and present realistic previews to clients.[95] They also expand creativity by offering designers new perspectives. AI facilitates high-quality visualisations and helps clients better understand proposed designs and make more informed decisions.[96]

5.   METHODOLOGY

This paper adopted a qualitative phenomenological approach to explore how designers interpret the integration of AI into their creative workflows. Since creativity is subjective and context-specific, a phenomenological lens allows a deeper understanding of how designers create meaning around AI tools, authorship, and originality. The methodology is proposed to foreground lived experiences,[97] emphasising cognitive and professional dimensions of working with AI. The analysis employed Moustakas' phenomenological processes,[98] which include suspending judgments, treating all experiences equally, and exploring different meanings. The purpose was to focus on describing the detailed qualities and structures of designers' experiences with AI rather than measuring results. This view is supported by Van Manen, who discusses a phenomenology of practice, which situates phenomenological inquiry within professional contexts.[99] Together, the approaches enabled interpreting how designers articulate shifts in their creative processes and professional identities.

92   S Waseem et al 'DeepFake on face and expression swap: A review' (2023) 11 *IEEE Access* at 117866.
93   M Stamm et al 'Beyond Deepfake images: Detecting AI-generated videos' 4397–8.
94   Waseem et al (n92) 117867.
95   H Jo et al 'Generative artificial intelligence and building design: Early photorealistic render visualization of façades using local identity-trained models' (2024) 11 *Journal of Computational Design and Engineering* 85–105 86.
96   J Hartmann, Y Exner & S Domdey 'The power of generative marketing: Can generative AI create superhuman visual marketing content?' (2025) 42 *International Journal of Research in Marketing* 13–31 14.
97   MD Vagle *Crafting Phenomenological Research* Second (2018) 59.
98   C Moustakas *Phenomenological Research Methods* (1994) 76.
99   M Van Manen *Phenomenology of Practice: Meaning-Giving Methods in Phenomenological Research and Writing* 1 ed (2014) 30, 31.

Participants were selected through purposive sampling,[100] a widely used technique in phenomenological research for intentionally targeting individuals with rich, relevant experience with the phenomenon being studied.[101] To be eligible for inclusion, the participants had to be professional designers in graphic design, photography, interactive media design, and environmental design. The sample also considered active use of AI tools in their creative practice for at least one year. Actively engaged in generative design software or AI-assisted image editing in commercial or client-based workflows. This deliberate selection ensures that insights are grounded in substantive, practical knowledge and contextual relevance, aligning with phenomenological inquiry to capture distinct lived experiences.

The sample included eight graphic designers, photographers, digital artists, and interactive media designers. This number is consistent with best practices in qualitative studies where depth in engagement is prioritised over generalisation.[102] Data for the study were collected through semi-structured interviews with eight professional designers. The semi-structured format strikes a balance between flexibility and focused inquiry, enabling the researcher to explore participants' experiences.[103] Each interview lasted between 45 and 60 minutes and was conducted via video conferencing through Google Meet.

Selected AI-generated outputs, such as photographs and typefaces, were reviewed alongside interview data to contextualise creative choices and demonstrate how AI has been integrated into professional workflows. The study's small sample size may not capture the full diversity of global design practices, particularly across cultural and disciplinary contexts. Also, the evolving nature of AI tools may shift designer perspectives over time. Despite these limitations,[104] the methodology provided a robust foundation for understanding how designers navigate the blurred boundaries between inspiration, transformation, and potential infringement in AI-mediated creative practice.

5.1 Data analysis

The interview transcripts were analysed through a deep immersion in the data, achieved through repeated readings of the transcripts to gain a holistic understanding of the participants' experiences.[105] Initial coding identified significant statements about creativity, authorship, professional identity,

100 JW Creswell & VL Plano Clark *Designing and Conducting Mixed Methods Research* 3 ed (2018) 158.

101 S Hossain, K Alam & S Ali 'Phenomenological approach in the qualitative study: Data collection and saturation' (2024) 5 *ICRRD Journal* 147–72 152.

102 A Wutich, M Beresford & HR Bernard 'Sample sizes for 10 types of qualitative data analysis: An integrative review, empirical guidance, and next steps' (2024) 24 *International Journal of Qualitative Methods* 6–8.

103 S Mashuri et al 'Semi-structured interview: A methodological reflection on the development of a qualitative research instrument in educational studies' (2022) 12 *Journal of Research & Method in Education* 22–9 22.

104 Creswell & Plano Clark (n100) 158.

105 Van Manen (n99) 314.

and originality. These were then clustered into themes. The researcher ensured rigour by bracketing assumptions and maintaining an audit trail of coding decisions. This was done by hand and the use of Excel. Themes were synthesised into textural and structural descriptions that capture the essence of the lived experience. This also linked empirical insights into broader theoretical discussions on creativity and intellectual property.[106]

6. FINDINGS

The study reveals that designers utilise tools like Midjourney, Vertex AI, and DALL-E for inspiration and executing tasks traditionally regarded as core to human creativity, such as mood boarding, form-finding, and visual storytelling. One participant explained, '*I use Midjourney in the same way I use a physical sketchbook; it provides me with dozens of insights, but I still decide which ones are worth refining.*' This shows how designers integrate AI into the creative process as a lived practice.

These findings highlight how client expectations and design professional norms shape disclosure practice. Portfolio analysis further revealed instances where AI-generated outputs were presented as part of the designer's composition, often without attributing the tool's role, raising questions about originality and disclosure. As one designer reflected, '*I don't usually tell my clientele that I used AI; they just see the final work as mine.*'

These interpretations illustrate that authorship in AI-mediated contexts cannot be understood merely through legal or technical definitions but must be grounded in the situated practices and effective designers' labour.[107] The findings also underscore the tension between traditional copyright doctrines, which privilege human originality, and emerging hybrid workflows where the boundary between operator and originator becomes increasingly blurred.

6.1 How AI tools have influenced creative workflow

I sought to explore which tools designers use and the impact that these tools have had on their creative processes and works. Using the themes of efficiency and flexibility, participants reported that integrating AI tools into creative workflows has evolved from a unique approach to a necessity, offering both efficiency and inspiration. For example, one participant noted, '*AI tools help me brainstorm, draft, and iterate more efficiently, making my creative process faster and more flexible.*' This theme reflects substantial productivity gains, as AI has accelerated idea generation, visual prototyping, and the iterative processes designers use, making workflows faster and more adaptable.

Another theme, encompassing attribution, authorship, and the risk of infringement, was drawn from participants' responses. An example is the '*for image generation, I have primarily used Google's Image to create*

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106 Moustakas (n98) 143.
107 JE Cohen 'Creativity and culture in copyright theory' (2007) 40 *UC Davies Law Review* 1151, 1152.

placeholder visuals for websites and prototypes. I have limited my use of this tool partly because it appears to have fewer legal concerns related to copyright infringement. These are just another addition to my tools.' This highlights the legal copyright concerns and indicates an evolving awareness of the legal landscape surrounding AI-generated content, as well as perhaps the need for ethical guidelines in such practices. These findings suggest that authorship in AI-mediated design needs to be situated in designers' practices where attribution, disclosure, and originality remain contested.

More technically oriented designers have incorporated advanced platforms, such as Google's Vertex AI, Microsoft Copilot, and ChatGPT, to automate creative processes. From this, the theme of ambiguity in authorship is derived, showing that while these tools enhance productivity, they also come with challenges, such as generating code or abstract output. '*One of the key challenges I have encountered is that AI-generated code is sometimes overly optimized or abstracted, making it difficult to modify or interpret.*' This experience was shaped by the opacity of AI systems and the difficulty of tracing creative contributions.

Another theme deduced is conceptual provocation and professional imperative. Beyond efficiency, participants describe AI as a source of creative aid and a conceptual provocation; it pushes them to refine their human-driven ideas in ways that AI cannot achieve independently. One participant noted, '*If you don't use AI in your design work, AI will replace you. Be wise.*' This experience was shaped by the evolving professional landscape of designers, where adoption is seen as essential for competitiveness. Reflecting a growing perception that AI is a tool and a professional necessity, it reshapes how designers position themselves within the industry.

In all these cases, it is evident that AI is becoming less of a novelty and more of a fundamental extension of a creative's toolkit.

6.2   Should AI-generated art forms qualify for copyright protection?

The debate surrounding copyright protection for AI-generated work has sparked diverse opinions, primarily revolving around the necessity of human involvement in the creative process. This is evident in the responses received from some of the respondents. Complete copyright protection for AI-generated pictures or typefaces is unwarranted unless there is clear and substantial human input that guides the design process. This view aligns with copyright's fundamental principle of protecting human expression.[108] This perspective was shaped by copyright's doctrinal emphasis on human originality and professional norms that equate authorship with intentionally human-driven labour.

Another perspective was that copyright should be granted if someone substantially modifies an artificially generated output. From this, the theme of transformation and collaborative authorship was developed. The opinion was

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108   Anonymously 'Recovering personality in copyright's originality inquiry' (2025) 138 *Harvard Law Review* 1123–75 1123.

that meaningful human contribution can transform machine-assisted creation into protectable work. This view was structured by hybrid creative workflows, where designers act as curators and co-authors. This emphasises the need to protect collaborative works between humans and machines, echoing the debates on joint authorship and derivative works.

A more traditional viewpoint, derived from some respondents, argues that the essence of an art form or work is not just about the final product but also about the intention, emotion, and execution embedded by the designer. These are qualities inherently absent in algorithms: '*Design is not only in the final product but also in the execution of the piece, the human touch and emotions. That is what makes design a creative endeavour, and AI on its own doesn't have it.*' Consequently, AI should not have the same legal protection, which aligns with the traditional justification of copyright law. This experience was shaped by the cultural and philosophical underpinnings of creativity as being inherently human.

6.3   Rights as a visual creator when it comes to copyright

I sought to discover the rights visual creators have regarding copyright. The responses showed a thoughtful understanding of copyright law, amidst the challenges posed by the digital environment and AI-assisted creative works. There was an acknowledgement that original visual works are inherently protected by copyright law, granting designers exclusive rights over their creations. Hence, the theme here was inherent protection of original works. This understanding was shaped by the foundational principle of copyright and reinforced by professional norms that equate originality with ownership.

The complexity of AI-assisted creation is evident from the data collected. It becomes complicated when AI tools are involved, as their terms of service often affect ownership and control of the generated content. This experience is structured by the contractual frameworks imposed by AI platforms, which shift traditional notions of authorship and ownership, creating uncertainty for designers.

Participants rightly emphasised the distinction between independent creation and work for hire. This demonstrates an understanding that copyrights for commissioned works generally belong to the client, unless otherwise agreed upon, highlighting the importance of contracts. This awareness was shaped by legal doctrine that highlights the structural conditions of commissioning relationships, which often occur away from the creator.

While copyright protection exists automatically upon creation, participants highlight the importance of formal registration as proof of ownership for legal benefits. This also enables claims for statutory damages in case of infringement. Collectively, the views from designers underscore a sophisticated awareness that copyright encompasses not only creative control but also legal strategy, the navigation of modern technologies like AI in the design process, and ethical considerations. This finding aligns with broader intellectual property interests in adapting copyright frameworks in digital transformations.

7.   Conclusion

By focusing on designers' lived experiences, this study has shown that AI is reconfiguring Kenya's design sector, offering a practical basis for rethinking copyright, authorship, and originality. Examining lived experiences alongside doctrinal analysis reveals a twofold evidence: AI expands the field of possibility and collapses the boundary between influence and infringement, fuelling perceptions of a new digital form of piracy. Adequate protection needs to mirror the day-to-day realities of the design field and foster environments where innovation can flourish rather than impose unnecessary constraints. The dependence of generative systems on largely unregulated training data intensifies this tension: that designers draw value from open access even as they fear the unconsented uptake of their own work.

Doctrinally, the Kenya Copyright Act (Cap 130) and decisions such as *J.W. Seagon & Co. Insurance Brokers v. Liaison Group Ltd* anchor originality in human creative effort. The sources expose a misalignment between existing frameworks and contemporary creative practice.

Clearly, Kenya requires calibrated reforms that recognise the conceptual and directive role of the designer in shaping AI input, while addressing piracy risks and unauthorised use in digital environments. A balanced approach would protect creators' economic interests, preserve innovation incentives, and provide a legal framework for AI-assisted works. Hence, authorship in this age of LLMs needs to be redefined to accommodate human-machine collaboration, proposing an algorithmic author. Further research needs to address the philosophical foundations of ownership and creativity in the AI era.

INTERVIEW SCHEDULE

I'm Grace Njeri Gatere, a PhD researcher studying how AI and copyright affect designers in Kenya. This interview explores your experience and thoughts about copyright and AI tools in your creative work. Your insights will be kept confidential and used solely for academic research purposes.

1.   Can you describe how AI tools (if any) have influenced your creative workflow?
2.   Have you ever intentionally collaborated with AI to produce works? What was your role?

Copyright Awareness
3.   What do you understand about your rights as a visual creator regarding copyright?
4.   Have you taken steps to register or protect your work, either in Kenya or globally?

Infringement and Experience
5.   Have you seen or experienced AI tools reproducing your artwork without permission?

6. If yes, what actions did you take, or what would you do differently next time?

Legal and Ethical Views

7. Do you think your country's copyright law protects artists adequately in the digital/AI space?
8. Should AI-generated art qualify for copyright protection? Why or why not?

Reform and Future Tools

9. What systems or platforms would help you feel more secure about posting and selling your work online?
10. What role should institutions like KECOBO (Kenya) play in the future protection of creatives?
11. Please share any experience you've had with your work being copied, scraped, or used by AI systems without your knowledge.
12. What advice would you give other artists trying to protect their work in a digital, AI-driven world?